CHAPTER 8.

REQUIREMENTS APPLICABLE TO UNDERGROUND COAL MINES; ELECTRICITY, SAFETY, ETC.

Drafting note: Articles 4, 10, 11, 12, 13, and 14 of existing Chapter 14.3 are retained as Articles 1 through 6 of proposed Chapter 8, Requirements Applicable to Underground Coal Mines; Electricity, Safety, Etc. The remainder of existing Chapter 14.3 is organized as proposed Chapter 7. The six articles in this proposed chapter are as follows: Article 1, Mechanical Equipment; Article 2, Electricity; Article 3, Fire Prevention and Fire Control; Article 4, Ventilation, Mine Gases, and Other Hazardous Conditions; Article 5, Personal Safety; Smoking; and Article 6, First Aid Equipment; Medical Care; Emergency Medical Services Providers.

Article ~~4~~ 1.

Mechanical Equipment.

Drafting note: Existing Article 4 of Chapter 14.3, concerning mechanical equipment, is retained as proposed Article 1.

§ ~~45.1-161.123~~ 45.2-xxx. Face and other equipment.

A. The cutter chains of any mining ~~machines~~ machine shall be locked securely by mechanical means or an electrical ~~interlocks,~~ interlock while such ~~machines are~~ machine is parked or being trammed.

B. Drilling in rock shall be conducted wet or ~~by~~ other means of dust control shall be used.

C. ~~Electric drills~~ Each electric drill or other electrically operated rotating ~~tools~~ tool intended to be held in the ~~hands~~ hand shall have the electric switch constructed so as to break the circuit when the hand releases the switch~~,~~ or shall be equipped with a properly adjusted friction or safety ~~clutches~~ clutch.

D. While equipment is in operation or is being trammed, no miner shall position himself or be placed in a pinch point between such equipment and the face or ~~ribs~~ any rib of the mine or another piece of equipment in the mine.

E. ~~All~~ Each piece of equipment that is raised for repairs or other work shall be securely blocked prior to ~~persons~~ any person positioning ~~themselves~~ himself where the falling of such equipment could create a hazardous condition.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Language is updated for modern usage.

§ ~~45.1-161.124~~ 45.2-xxx. Shop and other equipment.

A. The following items of shop and other equipment shall be guarded and maintained adequately:

1. ~~Gears, sprockets, pulleys~~ Any gear, sprocket, pulley, fan ~~blades~~ blade or ~~propellers,~~ propeller, or friction ~~devices and couplings with~~ device or coupling that has a protruding ~~bolts~~ bolt or ~~nuts~~ nut;

2. Shafting ~~and~~ or any projecting shaft ~~ends~~ end that ~~are~~ is within seven feet of the floor or platform level;

3. ~~Belt~~ Any belt, chain, or rope ~~drives~~ drive that ~~are~~ is within seven feet of the floor or platform;

4. ~~Fly wheels~~ Any fly wheel, provided that a fly ~~wheels~~ wheel extending more than seven feet above the floor shall be guarded to a height of at least seven feet;

5. ~~Circular and~~ Any circular or band ~~saws and planers~~ saw or planer;

6. ~~Repair pits~~ Any repair pit, ~~provided that guards shall be kept in place~~ including when the ~~pits are~~ pit is not in use;

7. ~~Counterweights; and~~ Any counterweight; and

8. ~~The~~ Any mine fan, including the approach to any mine ~~fans shall be guarded~~ fan.

B. ~~Machinery~~ No machinery shall ~~not~~ be repaired or serviced while the machinery is in motion; however, this prohibition shall not apply where a safe remote ~~devices are~~ device is used.

C. A guard or safety device that has been removed from any machine shall be replaced before the machine is put in operation.

D. ~~Mechanically~~ A mechanically operated grinding ~~wheels~~ wheel shall be equipped with (i) safety washers and tool rests; (ii) substantial retaining hoods, the hood opening of which shall not expose more than a 90 degree sector of the wheel; and (iii) eyeshields, unless goggles are worn by the miners. ~~Retaining hoods~~ Each retaining hood shall include either a device to control and collect excess rock, metal, or dust particles~~,~~ or a device providing equivalent protection to the ~~miners~~ miner operating such machinery.

E. The operator or his agent shall develop procedures for examining for potential hazards, completing proper maintenance, and properly operating each type of centrifugal pump. The procedures shall, at a minimum, address the manufacturer's recommendations for start-up and shutdown of the ~~pumps~~ pump, proper actions to be taken when a pump is suspected of overheating, the safe location of start and stop switches, and actions to be taken when signs of structural metal fatigue, such as ~~cracks~~ a crack in the frame, a damaged cover mounting ~~brackets~~ bracket, or a missing ~~bolts~~ bolt or other ~~components are~~ component is detected. ~~All miners~~ Every miner who ~~repair, maintain~~ repairs, maintains, or ~~operate such pumps~~ operates any type of centrifugal pump shall be trained in these procedures.

Drafting note: Language is updated for clarity and technical changes are made, including changes pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa.

§ ~~45.1-161.125~~ 45.2-xxx. Hydraulic hoses.

~~All~~ Every hydraulic ~~hoses~~ hose used on equipment ~~purchased after January 1, 1986,~~ shall ~~be clearly stamped or labeled by the hydraulic hose manufacturer to indicate~~ have the manufacturer's rated pressure in pounds per square inch (psi). ~~For hoses purchased after January 1, 1989, the rated pressure shall be~~ permanently affixed on the outer surface of the hose and repeated at least every two feet. ~~Hoses~~ Every hose purchased and installed on an automatic displacement hydraulic ~~systems~~ system shall either (i) have a four-to-one safety factor based on the ratio between minimum burst pressure and the setting of the hydraulic unloading system ~~(~~, such as a relief valve~~)~~, or ~~shall~~ (ii) meet the minimum hose pressure requirements set by the hydraulic equipment manufacturer per the applicable hose standards for each type of

equipment. No hydraulic hose shall be used in an application where the hydraulic unloading system is set higher than the hose's rated pressure.

Drafting note: Obsolete dates for the manufacture of hydraulic hoses are removed and language is amended accordingly. Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Other technical changes are made and language is updated for modern usage.

Article ~~11~~ 2.

Electricity.

Drafting note: Existing Article 11 of Chapter 14.3, concerning electricity, is retained as proposed Article 2. Two sections, §§ 45.1-161.172 and 45.1-161.173, in existing Article 9, Illumination, are relocated to this article.

§ ~~45.1-161.181~~ 45.2-xxx. Surface electrical installations.

A. ~~Overhead~~ Any overhead high-potential power ~~lines~~ line shall be (i) placed at least ~~fifteen~~ 15 feet above the ground and ~~twenty~~ 20 feet above ~~driveways~~ any driveway, ~~shall be~~ (ii) installed on insulators, and ~~shall be~~ (iii) supported and guarded to prevent contact with other circuits.

B. ~~Surface~~ Any surface transmission ~~lines~~ line, including trolley circuits, shall be protected against short circuits and lightning. Each power circuit that leads underground shall be equipped with lightning arrestors within 100 feet of ~~where~~ the location at which the circuit enters the mine.

C. Electric wiring in any surface ~~buildings~~ building shall be installed so as to prevent fire and contact hazards.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.182~~ 45.2-xxx. Surface transformers.

A. ~~Surface transformers which are~~ Any surface transformer that is not isolated by ~~elevation of~~ being elevated at least eight feet ~~or more~~ above the ground shall be enclosed in a transformer house or surrounded by a suitable fence at least six feet high. If the enclosure or fence is of metal, it shall be grounded effectively. The door to the enclosure or the gate to the fence shall be kept locked at all times unless ~~persons~~ a person who is authorized to enter the gate or enclosure ~~are~~ is present.

B. ~~Surface transformers containing~~ Any surface transformer that contains flammable oil and is installed near a mine ~~openings~~ opening, in or near a combustible ~~buildings~~ building, or at any other ~~places~~ place where ~~they present~~ such transformer presents a fire hazard shall be provided with a means to drain or to confine the oil in the event of a rupture of the transformer casing.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.183~~ 45.2-xxx. Underground transformers.

~~All transformers~~ Every transformer that is used underground shall be air-cooled or filled with nonflammable liquid or inert gas.

Drafting note: A technical change is made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa.

§ ~~45.1-161.184~~ 45.2-xxx. Stations and substations.

A. Suitable ~~danger~~ warning signs shall be posted conspicuously at ~~all~~ every transformer ~~stations~~ station.

B. ~~All~~ Every transformer ~~stations~~ station, ~~substations~~ substation, battery-charging ~~stations~~ station, pump ~~stations~~ station, and compressor ~~stations~~ station shall be kept free of nonessential combustible ~~materials~~ material and refuse.

C. Reverse-current protection shall be provided at each storage-battery-charging ~~stations~~ station to prevent the storage batteries from energizing ~~the~~ a power ~~circuits~~ circuit in the event of power failure.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

~~§ 45.1-161.185. Repealed.~~

Drafting note: Repealed by Acts 1999, c. 256.

§ ~~45.1-161.186~~ 45.2-xxx. Power circuits.

A. All underground power wires and cables shall (i) have adequate current-carrying capacity, ~~shall~~ (ii) be guarded from mechanical injury, and ~~shall~~ (iii) be installed in a permanent manner.

B. Wires and cables that are not encased in armor shall be supported by ~~well installed~~ well-installed insulators and shall not touch any roof, rib, or combustible ~~materials, roof, or ribs~~ material; however, this prohibition shall not apply to ground wires, grounded power conductors, ~~and~~ or trailing cables.

C. Power wires ~~and~~ or cables that are installed in a belt-haulage ~~slopes~~ slope shall be insulated adequately and buried in a trench ~~not less than 12 inches~~ at least one foot below any combustible material, unless such wires or cables are encased in armor or otherwise fully protected against mechanical injury.

D. ~~Splices and repairs~~ Any splice or repair in a power ~~cables~~ cable shall ~~be made in accordance with the following~~:

1. ~~Mechanically~~ Be mechanically strong ~~with~~ and have adequate electrical conductivity;

2. ~~Effectively~~ Be effectively insulated and sealed so as to exclude moisture;

3. If the cable has metallic armor, possess mechanical protection and electrical conductivity equivalent to that of the original armor; and

4. If the cable has metallic shielding around each conductor, ~~then the~~ possess new shielding ~~shall be~~ that is equivalent to ~~that of~~ the original shielding.

E. ~~All~~ Every underground high-voltage transmission ~~cables~~ cable shall be:

1. Installed only in a regularly inspected ~~airways~~ airway;

2. Covered, buried, or placed on insulators so as to afford protection against damage by derailed equipment if it is installed along ~~the~~ a haulage road;

3. Guarded ~~where~~ if miners regularly work or pass under ~~them~~ such cable, unless ~~they are 6 1/2~~ it is at least 6.5 feet ~~or more~~ above the floor or rail;

4. Securely anchored, properly insulated, and guarded at its ends; and

5. Covered, insulated, or placed to prevent contact with any trolley ~~circuits and~~ circuit or other low-voltage ~~circuits~~ circuit.

F. ~~New~~ Any new high-voltage ~~disconnects~~ disconnect that is installed on ~~all~~ underground electrical equipment shall automatically ground all three power leads when in the open position. ~~All~~ Every high-voltage ~~disconnects~~ disconnect that ~~are~~ is rebuilt or remanufactured ~~after July 1, 2011,~~ shall meet this standard.

G. ~~All~~ Every power ~~wires and cables~~ wire or cable shall be insulated adequately where ~~they pass~~ it passes into or out of an electrical ~~compartments~~ compartment and where ~~they pass~~ it passes through ~~doors and stoppings~~ a door or stopping.

H. Where track is used as a power conductor:

1. Both rails of main-line tracks shall be welded or bonded at every joint, and cross bonds shall be installed at intervals of not more than 200 feet. If the rails are paralleled with a feeder circuit of like polarity, such paralleled feeder shall be bonded to the track rails at intervals of not more than 1,000 feet;

2. At least one rail on any secondary track-haulage ~~roads~~ road shall be welded or bonded at every joint, and cross bonds shall be installed at intervals of not more than 200 feet; and

3. Track switches on entries shall be well bonded.

Drafting note: An obsolete date in subsection F regarding high voltage discconnects is removed. Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.187~~ 45.2-xxx. Trolley wires and feeder wires.

A. Trolley wires and trolley feeder wires shall be installed on the side of the entry opposite the clearance space and any shelter ~~holes~~ hole, except where the wires are guarded or ~~6 1/2~~ are installed at least 6.5 feet ~~or more~~ above the top of the rail.

B. Trolley-wire hangers shall be so spaced that the wire may become detached from any one hanger without creating a shock hazard.

C. Trolley wires shall be aligned properly and installed on insulated hangers at least six inches outside the rail.

D. Trolley wires and trolley feeder wires shall be provided with cut-out switches at intervals of not more than 1,500 feet and near the beginning of ~~all~~ each branch ~~lines~~ line.

E. Trolley wires and trolley feeder wires shall be kept taut and shall not be permitted to touch the roof~~, ribs, timbers~~ or any rib, timber, or combustible material.

F. Trolley wires and trolley feeder wires shall be guarded adequately at both sides of ~~doors~~ any door and at ~~all places~~ every place where ~~it is necessary to~~ miners work or pass under them, unless they are ~~more than six and one-half~~ at least 6.5 feet above the top of the rail.

G. ~~Trolley~~ No trolley wires ~~and~~ or trolley feeder wires shall ~~not~~ extend beyond any open crosscut between an intake and a return ~~airways, and~~ airway. All such wires shall be kept at least 150 feet from any active, open pillar workings.

H. Trolley wires and trolley feeder wires shall be guarded, anchored securely, and insulated properly at the ends.

I. Trolley wires and trolley feeder wires shall be installed only in an intake ~~air~~ airway.

J. ~~Trolley~~ No trolley wires or other exposed conductors shall ~~not~~ carry more than 300 volts.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage. The minimum separation of "more than" six and one-half feet in subsection F is reduced to "at least" 6.5 feet for consistency with subsection A.

§ ~~45.1-161.188~~ 45.2-xxx. Grounding.

A. ~~All~~ Every metallic ~~sheaths, armors, and conduits enclosing~~ sheath, armor, or conduit that encloses a power ~~conductors~~ conductor shall be electrically continuous throughout and shall be grounded effectively.

B. ~~Metallic frames~~ Every metallic frame, casing, ~~and~~ or other ~~enclosures~~ enclosure of stationary ~~electric~~ electrical equipment that can become ~~"alive"~~ electrified through failure of insulation or by contact with energized parts shall be grounded effectively, or equivalent protection shall be provided.

C. ~~Three-phase~~ Any three-phase alternating current ~~circuits~~ circuit that is used underground shall contain either a direct or derived neutral ~~which~~ that shall be grounded through a suitable resistor at the power center~~, and a~~. A grounding circuit~~, originating~~ that originates at the grounded side of the grounding resistor~~,~~ shall extend with the power conductors and serve as the grounding conductor for the ~~frames~~ frame of ~~all the~~ every piece of electrical equipment that is supplied with power from that circuit. ~~Grounding resistors~~ A grounding resistor that ~~are~~ is manufactured to meet the extended time rating as set forth in American National standard IEEE ~~Standard 32-1972, formerly AIEE Standard 32, are~~ C57.32-2015 is deemed to meet the requirements of this section. High-voltage circuits extending underground shall be supplied with a grounding resistor of a proper Ohmic value located on the surface to limit the voltage drop in the grounding circuit external to the resistor to not more than 100 volts under fault conditions. ~~The~~ Such grounding resistor shall be rated for maximum fault current continuously and insulated from ground for a voltage equal to the phase-to-phase voltage of the system. ~~All~~ Every resistance-grounded alternating ~~circuits~~ circuit used underground shall include a fail-safe ground check circuit to monitor continuously the grounding circuit to ~~assure~~ ensure the continuity of the ground conductor.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. An obsolete citation to the former name of the IEEE standard is removed and the current standard is added.

§ ~~45.1-161.189~~ 45.2-xxx. Circuit breakers and switches.

A. Automatic circuit breaking devices or fuses of the correct type and capacity shall be installed so as to protect ~~all electric~~ each piece of electrical equipment and each power ~~circuits~~ circuit against excessive overload; however, this requirement shall not apply to ~~locomotives~~ any locomotive that is operated regularly on ~~grades exceeding~~ a grade that exceeds five percent. ~~Wires~~ Wire or other conducting ~~materials~~ material shall not be used as a substitute for a properly designed ~~fuses~~ fuse, and every circuit breaking ~~devices~~ device shall be maintained in safe operating condition.

B. An automatic circuit breaker of the correct type and capacity shall be installed on each resistance grounded circuit used underground. Such circuit breaker shall be located at the power source and equipped with devices to provide protection against under-voltage, grounded phase, short circuit, and overcurrent.

C. Operating controls~~,~~ such as switches, starters, and switch buttons~~,~~ shall be so installed that they are readily accessible and can be operated without danger of contact with moving or ~~live~~ electrified parts.

D. ~~Disconnecting switches~~ A disconnecting switch shall be installed underground in ~~all~~ each main power ~~circuits~~ circuit within approximately 500 feet of the ~~bottoms~~ bottom of ~~shafts and boreholes,~~ each shaft or borehole and at any other ~~places where~~ place at which a main power ~~circuits enter~~ circuit enters the mine.

E. ~~Electric~~ Each piece of electrical equipment and ~~circuits~~ each circuit shall be provided with switches or other controls of safe design, construction, and installation.

F. Insulating mats or other electrically nonconductive material shall be kept in place at each power-control switch and at any piece of stationary machinery ~~where~~ at which a shock ~~hazards exist~~ hazard exists.

G. ~~Circuit breakers~~ Each circuit breaker, disconnecting ~~devices~~ device, and ~~switches~~ switch shall be marked for identification.

Drafting note: Technical changes are made, including changes pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Language is updated for modern usage and clarity.

~~§ 45.1-161.190. Repealed.~~

Drafting note: Repealed by Acts 1996, c. 774, effective April 6, 1996.

§ ~~45.1-161.191~~ 45.2-xxx. Communication systems.

A. Telephone service or equivalent two-way communication facilities shall be provided between the top and each landing of each main ~~shafts and slopes~~ shaft or slope. A telephone or equivalent two-way communication facility shall be located on the surface within 500 feet of ~~all~~ each main ~~portals, and shall be~~ portal and installed in either ~~in~~ a building or ~~in~~ a box-like structure that is designed to protect the ~~facilities~~ facility from damage by inclement weather. At least one of these communication facilities shall be at a location where an authorized person who is always on duty when miners are underground can see or hear the facility and respond immediately in the event of an emergency.

B. Telephone lines, other than cables, shall be carried on insulators, installed on the opposite side from power or trolley wires, and insulated adequately where they cross power or trolley wires~~, they shall be insulated adequately~~.

C. Lightning arrestors shall be provided at ~~the points~~ each point where a telephone ~~circuits enter~~ circuit enters the mine and at each telephone on the surface. Where the telephone circuit enters a building or structure, ~~the~~ a lightning arrestor is ~~only~~ required ~~where~~ only at the point at which the circuit enters such building or structure.

D. If a communication system other than telephones is used and its operation depends entirely upon power from the mine electric system, a means shall be provided to permit continued communication in the event the mine electric power fails or is cut off.

E. Communication systems equipped with audible and visual signals that become operative when telephone communication is being established between the phones of the communication station on the surface and the underground working sections shall be provided.

F. The Chief shall ~~promulgate~~ adopt regulations governing any disruption of communication in ~~mines~~ a mine.

Drafting note: The term "promulgate regulations" is changed to "adopt regulations" in keeping with recent title revisions because "adopt" is more widely used

and includes the promulgation process. Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

~~§ 45.1-161.192. Repealed.~~

Drafting note: Repealed by Acts 1999, c. 256.

§ ~~45.1-161.193~~ 45.2-xxx. ~~Electric~~ Electrical equipment.

A. ~~Electric~~ Electrical equipment that is taken into or used inby the last open crosscut or in other than an intake ~~air shall be~~ airway constitutes permissible equipment.

B. Permissible equipment that is used in ~~areas~~ an area specified in subsection A shall be maintained in permissible condition.

C. ~~Electric~~ No electrical equipment shall ~~not~~ be taken into or operated in any place where a methane level of one percent or more is detected.

D. Voltage limitations for underground installations of ~~electric~~ electrical equipment using direct or alternating current shall conform to the voltages provided in 30 C.F.R. § 18.47.

E. ~~Electric~~ Electrical equipment ~~must~~ shall be classified as permissible and shall be maintained in a permissible condition when such equipment is located within 150 feet of any pillar workings or longwall ~~faces~~ face.

F. ~~Electric~~ Any electrical conductors and cables installed in or ~~by~~ inby the last open crosscut, or within 150 feet of any pillar workings or longwall ~~faces~~ face, shall be:

1. Shielded high-voltage cables supplying power to permissible longwall ~~and~~ equipment or other equipment;

2. Interconnecting conductors and cables of permissible longwall equipment;

3. Conductors and cables of intrinsically safe circuits; or

4. Cables and conductors supplying power to ~~low and medium voltage~~ low-voltage or medium-voltage permissible equipment.

G. ~~Electric~~ Electrical equipment shall be maintained in safe operating condition at all times while it is being used, and any unsafe condition shall be corrected promptly or the equipment shall be removed from service.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage and clarity.

§ ~~45.1-161.194~~ 45.2-xxx. Trailing cables.

A. Trailing cables that are used underground shall be flame-resistant ~~cables~~.

B. Trailing cables shall be provided with suitable short-circuit protection and some means of disconnecting power from the cable. ~~Power connections~~ Any power connection that is made in other than an intake ~~air~~ airway shall be by means of a permissible ~~connectors~~ connector.

C. ~~Temporary splices~~ Any temporary splice in a trailing ~~cables~~ cable shall be made in a workmanlike manner~~,~~ and shall be mechanically strong~~,~~ and well insulated.

D. No more than one temporary, unvulcanized splice shall be allowed in ~~a~~ any trailing cable.

E. ~~Permanent splices~~ Any permanent splice or ~~repairs~~ repair in a trailing ~~cables~~ cable shall ~~be made as follows~~:

1. ~~They shall be~~ Be mechanically strong, with adequate electrical conductivity and flexibility;

2. ~~They shall be~~ Be effectively insulated and sealed so as to exclude moisture;

3. ~~The finished splice or repair shall be~~ Be vulcanized or otherwise treated with suitable materials to provide flame-resistant properties and good bonding to the outer jacket; and

4. If the cable has metallic shielding around each conductor, ~~then the~~ possess new shielding ~~shall be~~ that is equivalent to ~~that of~~ the original shielding.

F. Trailing cables shall be protected against mechanical damage. ~~Trailing cables~~ A trailing cable that is damaged in a manner that exposes the insulated inner power conductors shall be repaired promptly or removed from service.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for clarity.

§ ~~45.1-161.195~~ 45.2-xxx. Inspection of ~~electric~~ electrical equipment and wiring; checking and testing methane monitors.

A. ~~Electric~~ Electrical equipment and wiring shall be inspected by a certified person at least weekly if it is located underground~~,~~ and at least monthly if it is located on the surface~~, and~~. Such equipment and wiring shall be inspected more often if doing so is necessary to ~~assure~~ ensure safe operating conditions~~, and any~~. Any hazardous condition that is found shall be promptly corrected or the equipment or wiring shall be removed from service. Records of such ~~examination~~ inspections shall be maintained at the mine for a period of one year.

B. A functional check of methane monitors on electrical face equipment shall be conducted to determine ~~that~~ whether such monitors are de-energizing the electrical face equipment properly. Such check shall be (i) made on each production shift ~~and shall be~~, (ii) conducted by the equipment operator in the presence of a mine foreman, and ~~shall be~~ (iii) recorded in the on-shift report of the mine foreman.

C. ~~Weekly calibration tests on~~ To determine the accuracy and operation of methane monitors on electrical face equipment ~~to determine the accuracy and operation of~~, weekly calibration tests of such monitors shall be conducted with a known mixture of methane at the flow rate recommended by the methane monitor manufacturer. A record of the results shall be maintained.

D. Required methane monitors shall be maintained in permissible and proper operating condition.

Drafting note: Language is updated for modern usage and clarity.

§ ~~45.1-161.196~~ 45.2-xxx. Repairs to circuits and electric equipment.

A. No electrical work shall be performed on any low-voltage, medium-voltage, or high-voltage distribution ~~circuits~~ circuit or equipment~~,~~ except by a certified person or ~~by~~ a person who is trained to perform electrical work and to maintain electrical equipment and is working under the direct supervision of a certified person. ~~All~~ Every high-voltage ~~circuits~~ circuit shall be grounded before repair work is performed. Disconnecting devices shall be locked out and suitably tagged by ~~the persons~~ the person who ~~perform~~ performs electrical or mechanical work

on such ~~circuits~~ a circuit or piece of equipment connected to ~~the circuits~~ such a circuit, except that ~~in cases~~ where locking out is not possible, such devices shall be opened and suitably tagged by such ~~persons~~ person. Locks and tags shall be removed only by the ~~persons~~ person who installed them or, if such ~~persons are~~ person is unavailable, by a certified ~~persons~~ person authorized by the operator or his agent.

~~However, miners~~ B. A miner may, where necessary, repair energized trolley wires if ~~they wear~~ he wears insulated shoes and lineman's gloves.

C. This section does not prohibit a certified electrical ~~repairmen~~ repairman from making checks on or troubleshooting energized circuits or ~~the performance of~~ an authorized person from performing repairs or maintenance on equipment ~~by authorized persons~~ once the power is off and the equipment is blocked against motion, except where motion is necessary to make adjustments.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage. The section is divided into subsections for clarity.

§ ~~45.1-161.172~~ 45.2-xxx. Underground illumination.

A. Electric-light wires shall be supported by suitable insulators or installed in conduit, shall be fastened securely to the power conductors, and shall not contact any combustible ~~materials~~ material.

B. ~~Electric lights~~ Every electric light shall be guarded and installed so that ~~they do~~ it does not contact any combustible ~~materials~~ material.

Drafting note: This section is relocated from existing Article 9 of Chapter 14.3. Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.173~~ 45.2-xxx. Inspection of electric illumination equipment.

~~All lamps,~~ Every lamp, extension ~~lights~~ light, and permissible form of portable illumination, such as a cap ~~lamps and flashlights~~ lamp or flashlight, that ~~are~~ is used for personal

illumination underground shall be inspected by an authorized person at least once per week, and more often if necessary, to ensure safe operating conditions. ~~Such~~ When such equipment is located at the surface, it shall be inspected by an authorized person at least once per month, and more often if necessary, to ensure safe operating conditions. Any defect found shall be corrected.

Drafting note: This section is relocated from existing Article 9 of Chapter 14.3. Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

Article ~~13~~ 3.

Fire Prevention and Fire Control.

Drafting note: Existing Article 13 of Chapter 14.3, concerning fire prevention and fire control, is retained as proposed Article 3.

§ ~~45.1-161.200~~ 45.2-xxx. Firefighting equipment; fire prevention.

A. Each mine shall be provided with suitable firefighting equipment~~,~~ that is adequate for the size of the mine.

B. The following equipment, at a minimum, shall be immediately available at each mine:

1. A water car filled with water and provided with hose and pump, or waterlines and necessary hoses;

2. At least three 20-pound dry chemical fire extinguishers;

3. Ten 50-pound bags of rock dust, which shall be made available at doors or other strategic places;

4. Bolt cutters ~~which may~~ that can be used to cut trolley wire in an emergency;

5. One pair of rubber gloves ~~to~~ that shall be used with each pair of bolt cutters when cutting trolley wire;

6. Two sledge hammers; and

7. Five hundred square feet of brattice cloth, nails, and a hammer.

C. Clean, dry sand, rock dust, or fire extinguishers~~,~~ that are suitable from a toxic and shock standpoint~~,~~ shall be ~~provided and~~ placed at each electrical station, ~~such as substations~~ including each substation, transformer ~~stations~~ station, and permanent pump ~~stations~~ station, so as to be out of the smoke in case of a fire in the station.

D. Suitable fire extinguishers shall be provided at ~~all~~ each (i) electrical ~~stations~~ station, ~~such as substations~~ including each substation, transformer ~~stations~~ station, and permanent pump ~~stations~~ station; (ii) piece of self-propelled mobile equipment; (iii) belt ~~heads~~ head and at the inby end of ~~belts~~ each belt; (iv) ~~areas~~ area used for the storage of flammable materials; (v) fueling ~~stations~~ station; and (vi) any other ~~areas~~ area that may constitute a fire hazard, so as to be on the fresh air side in case of a fire.

E. All firefighting equipment and each fire sensor ~~systems~~ system shall be maintained in a useable and operative condition. ~~Chemical extinguishers~~ Each chemical extinguisher shall be examined every six months and the date of the examination shall be indicated on a tag attached to ~~the extinguishers~~ each extinguisher.

F. A sufficient number of approved one-hour, self-contained, self-rescuers shall be readily available, not more than 100 feet away, for the persons involved in the moving or transporting of any ~~unit~~ piece of off-track mining equipment.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage and consistency.

§ ~~45.1-161.201~~ 45.2-xxx. Duties in case of fire.

A. In case of a fire, the next inby permanent stopping into the return air course shall be opened~~,~~ as soon as possible~~,~~ in order to short circuit the air and permit close access to the fire for extinguishment.

B. When a fire that ~~may~~ could endanger persons underground cannot be extinguished immediately, ~~the~~ such persons shall be withdrawn promptly from the mine.

C. ~~Should~~ If a fire ~~occur~~ occurs, the person discovering it and any other person in the vicinity of the fire shall make a prompt effort to extinguish it.

Drafting note: Technical changes.

§ ~~45.1-161.202~~ 45.2-xxx. Emergency response plans; list of next of kin.

A. ~~Operators~~ Each operator shall develop an emergency response plan for each mine. The plan shall include (i) a mine emergency communication plan, (ii) an evacuation procedure, (iii) the identification of waterlines, (iv) the number system of brattice, (v) the location of ~~escapeways~~ each escapeway, and (vi) such other information as the Chief may reasonably require.

B. The operator shall maintain a list of the next of kin of all miners employed at the mine. The list shall be kept at the mine site or at a central facility readily accessible to the mine.

C. ~~An~~ Such emergency response plan shall be subject to approval by the Chief or mine inspector. The Chief may require periodic updates to an operator's emergency response plan. ~~Operators~~ Such operator shall comply with the requirements of the approved plan.

D. The emergency response plan shall be posted in a conspicuous manner and ~~place,~~ location readily accessible to all miners, both underground and at the surface of the mine.

E. The operator shall train miners in the implementation of the emergency response plan and shall conduct practice drills. Records of dates and times of practice drills shall be maintained in the emergency response plan.

F. Each miner employed by the operator who goes underground, and each visitor authorized by the operator to enter the mine ~~by the operator~~, shall have available an adequate supply of self-rescue devices, each of which provides at least one hour ~~or longer~~ of protection and is approved by the federal Mine Safety and Health Administration. The training related to self-rescue devices shall be included in the emergency response plan approved by the Chief.

Drafting note: Language is updated for modern usage and clarity. Technical changes are made.

§ ~~45.1-161.203~~ 45.2-xxx. Reporting fires; response.

In case of any unplanned fire at a mine that is not extinguished within ~~thirty~~ 30 minutes of discovery, the operator shall report the fire to the Chief~~,~~ by the quickest available means, giving all information known to ~~him~~ the operator. The Chief, based on ~~the~~ such information,

shall promptly go in person or dispatch a mine inspector to the scene of the fire for consultation~~,~~ and ~~assist~~ assistance in the ~~extinguishing~~ extinguishment of the fire and the protection of exposed persons. In the event of a difference of opinion as to measures required, the decision of the Chief or the mine inspector shall be final. The decision of the Chief regarding measures to extinguish the fire and protect persons shall have the force of an order issued pursuant to § ~~45.1-161.91~~ 45.2-xxx if it is delivered to the operator in writing.

Drafting note: Technical changes are made.

§ ~~45.1-161.204~~ 45.2-xxx. Fire prevention in transportation of mining equipment.

A. Prior to moving or transporting any ~~unit~~ piece of off-track mining equipment in ~~areas~~ any area of the active workings where energized trolley wires or trolley feeder wires are present~~:~~, (i) the ~~unit~~ piece of equipment shall be examined by a certified person to ensure that accumulations of coal dust, float coal dust, loose coal, oil, grease, and other combustible materials have been removed from such ~~unit~~ piece of equipment~~;~~ and (ii) a qualified person shall examine the trolley wires, trolley feeder wires, and the associated automatic circuit interrupting devices to ensure that proper short circuit protection exists.

B. A record shall be kept of the examinations required pursuant to subsection A and shall be made available, upon request, to the Chief or his authorized representative.

C. Off-track mining equipment shall not be moved or transported in ~~areas~~ any area of the active workings where energized trolley wires or trolley feeder wires are present ~~only~~ unless under the direct supervision of a certified person who ~~shall be~~ is physically present at all times during the moving or transporting of such equipment.

D. The ~~frames~~ frame of any unit of off-track mining equipment that is being moved or transported shall be covered on the top and on the trolley wire side with fire-resistant material.

E. Electrical contact shall be maintained between the mine track and the ~~frames~~ frame of any piece of off-track mining equipment that is being moved ~~in track~~ in a track and trolley ~~entries, except that~~ entry. However, rubber-tired equipment need not be grounded to a transporting vehicle if no metal part of such rubber-tired equipment can come into contact with the transporting vehicle.

F. To avoid accidental contact with power lines, the equipment being transported or trammed shall be insulated or, if necessary, the assemblage shall be removed~~, if necessary,~~ if the clearance to the power lines is six inches or less.

G. Sufficient prior notice shall be given to the Department so that a mine inspector, if he deems it necessary, may travel the route of the move before the actual move is made~~, if he deems it necessary~~.

H. A minimum vertical clearance of ~~twelve inches~~ one foot shall be maintained between the farthest projection of the ~~unit~~ piece of equipment ~~which~~ that is being moved and the energized trolley wires or trolley feeder wires at all times during the movement or transportation of such equipment. If the height of the coal seam does not permit ~~twelve inches~~ one foot of vertical clearance to be so maintained, the following additional precautions shall be taken:

1. Electric power shall be supplied to the trolley wires or trolley feeder wires only from outby the ~~unit~~ piece of equipment being moved or transported. Where direct current electric power is used and such electric power can be supplied only from inby the equipment being moved or transported, such power may be supplied from inby such equipment if a miner ~~with~~ who has the means to cut off the power~~, and~~ is in direct communication with the persons actually engaged in the moving or transporting operation~~,~~ and is stationed outby the equipment being moved;

2. The settings of automatic circuit interrupting devices used to provide short circuit protection for the trolley circuit shall be reduced to not more than one-half of the maximum current that could flow if the equipment being moved or transported were to come into contact with the trolley wire or trolley feeder wire;

3. At all times when the ~~unit~~ piece of equipment is being moved or transported, a miner shall be stationed at the first automatic circuit breaker outby the equipment being moved. Such miner shall be (i) in direct communication with the persons actually engaged in the moving or transporting operation and (ii) capable of communicating with the authorized person on the surface who is required to be on duty;

4. Where trolley phones are utilized to satisfy the requirements of subdivision 3 ~~of this subsection~~, telephones or other equivalent two-way communication devices that can readily be connected with the mine communication system shall be carried by (i) the miner who is stationed at the first automatic circuit breaker outby the equipment being moved and (ii) by a miner who is actually engaged in the moving or transporting operation; and

5. No person shall be permitted to be inby the ~~unit~~ piece of equipment being moved or transported, or in the ventilating current of air that is passing over such equipment, except ~~those persons~~ a person who is directly engaged in moving such equipment.

The provisions of this subsection shall not apply to ~~units~~ a piece of mining equipment that ~~are~~ is transported in a mine ~~cars, provided that~~ car if no part of the equipment extends above or over the sides of the mine car.

Drafting note: Technical changes are made, including pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage and consistency.

§ ~~45.1-161.205~~ 45.2-xxx. Storage and use of flammable fluids and materials.

A. ~~Underground~~ Each underground storage ~~places~~ place for oil, grease ~~and~~, or flammable hydraulic fluid shall be of fireproof construction.

B. Oil, grease, and flammable hydraulic fluid that is kept underground for current use shall be kept in a closed metal ~~containers~~ container.

C. Provisions shall be made to prevent an accumulation of spilled oil or grease at ~~the~~ any such storage ~~places~~ place or at ~~the locations where~~ any location at which such ~~materials are~~ material is used.

D. ~~Oily rags~~ Any oily rag, oily waste, ~~and~~ or wastepaper shall be kept in a closed metal ~~containers~~ container until it is removed for disposal.

E. No gasoline, benzene, kerosene, or other flammable ~~oils~~ oil shall be used underground in powering machinery.

F. ~~All~~ Every oxygen ~~and~~ or acetylene ~~bottles~~ bottle that is used underground shall be secured while in use. When stored underground, an oxygen ~~and~~ or acetylene ~~bottles~~ bottle shall

be placed in a safe location, protected from physical damage, stored with ~~caps~~ its cap in place where such storage is provided for on the tank, and secured upright or elevated, whichever mine heights allow.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Language is updated for modern usage and clarity.

§ ~~45.1-161.206~~ 45.2-xxx. ~~Diesel powered~~ Diesel-powered equipment.

~~Diesel powered~~ Diesel-powered equipment may be utilized underground with the written approval of the Chief. The Chief shall ~~promulgate~~ adopt regulations necessary to carry out the provisions of this section. ~~The~~ Such regulations shall require that the air in each travel way in which diesel equipment is used, and in any active workings connected thereto, be of a quality necessary for a safe, healthful working environment. The minimum quantity of ventilating air that ~~must~~ shall be supplied for a permissible diesel machine in a given time shall conform to ~~that~~ the quantity shown on the approval plate attached to the machine. ~~All~~ Every diesel ~~machines and~~ machine or piece of equipment shall be maintained in such manner that the exhaust emissions meet the ~~same~~ standards to which the machine or equipment was manufactured.

Drafting note: The term "promulgate regulations" is changed to "adopt regulations" in keeping with recent title revisions because "adopt" is more widely used and includes the promulgation process. Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage and clarity.

§ ~~45.1-161.207~~ 45.2-xxx. Arcs, sparks, and flames.

A. The intentional creation of any open arc, open spark, or open flame, except as provided in subsection B, ~~shall be~~ is prohibited.

B. ~~Welding and~~ Underground (i) welding or cutting with arc or flame or (ii) soldering ~~underground in other than~~, unless conducted in a fireproof enclosure that is ventilated with intake air, shall be done by or under the direct instruction of a certified foreman or repairman.

A person certified in gas detection shall test for methane before and during such ~~operations~~ an operation in an underground ~~mines~~ coal mine and shall make a diligent search for fire after such an operation in all ~~mines~~ parts of the mine where such operation occurred. Rock dust or suitable fire extinguishers shall be immediately available during such welding or cutting. ~~Welding operations~~ A welding operation shall be performed only in ~~well ventilated areas~~ a well-ventilated area.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for clarity.

Article ~~14~~ 4.

Ventilation, Mine Gases, and Other Hazardous Conditions.

Drafting note: Existing Article 14 of Chapter 14.3, concerning ventilation, mine gases, and other hazardous conditions, is retained as proposed Article 4.

§ ~~45.1-161.208~~ 45.2-xxx. Pre-shift examinations.

A. The operator or his agent shall establish eight-hour intervals of time, each of which shall be subject to a required pre-shift ~~examinations~~ examination. Within three hours preceding the beginning of any such eight-hour interval during which any person is scheduled to work or travel underground, a mine ~~foremen~~ foreman shall make a pre-shift examination. No person scheduled to enter the mine during the eight-hour interval, other than the mine ~~foremen~~ foreman who is conducting the examination ~~may~~, shall enter any underground area unless a pre-shift examination has been completed for such established eight-hour interval.

B. During the pre-shift examination, the mine foreman shall (i) examine for hazardous conditions, (ii) test for methane and oxygen deficiency with a suitable permissible device, and (iii) determine whether the air is traveling in its regular course and in sufficient volume in each split, at the following underground locations ~~which are underground~~:

1. ~~Track entries and~~ Each track entry or other ~~areas~~ area where persons are scheduled to work or travel during the oncoming shift;

2. ~~Belt conveyors~~ Each belt conveyor that will be used to transport persons during the oncoming shift and the ~~entries~~ entry in which ~~these~~ each such belt ~~conveyors are~~ conveyor is located;

3. ~~Working sections and areas~~ Any working section or area where mechanized mining equipment is being installed or removed~~,~~ if ~~anyone~~ a person is ~~being~~ scheduled to work on the section or in the area during the oncoming shift. ~~This~~ Such a working section or area includes each working ~~places, approaches~~ place and each approach to a worked-out ~~areas~~ area, and ventilation controls on ~~these sections~~ each such section or in ~~these areas~~ each such area;

4. ~~Approaches~~ Each approach to a worked-out ~~areas~~ area along an intake air ~~courses~~ course if intake air passes by ~~the~~ such worked-out area to ventilate any working ~~sections~~ section where ~~anyone~~ a person is scheduled to work during the oncoming shift;

5. ~~Seals~~ Each seal along an intake air ~~courses~~ course where intake air passes by ~~a~~ such seal to ventilate any working ~~sections~~ section where ~~anyone~~ a person is scheduled to work during the oncoming shift;

6. ~~Entries and rooms~~ Where intake air passes through or by an entry or room to any working section where a person is scheduled to work during the oncoming shift, each such entry or room that is driven (i) more than 20 feet off an intake air course without a crosscut ~~and without~~ or permanent ventilation controls~~,~~ or (ii) more than two crosscuts off an intake air course without permanent ventilation controls ~~where intake air passes through or by these entries or rooms to a working section where anyone is scheduled to work during the oncoming shift~~; and

7. Where unattended diesel equipment is expected to operate or ~~areas where~~ an area in which trolley wires or trolley feeder wires are to be or will remain energized during the oncoming shift.

C. During the pre-shift examination, the mine foreman shall determine the volume of air entering each of the following areas if a miner is scheduled to work in ~~the areas~~ such area during the oncoming shift:

1. In the last open crosscut~~, which means the crosscut in the line of pillars containing the permanent stoppings that separate the intake air courses and the return air courses,~~ of each set of entries or rooms on each working section ~~and areas where~~ or any area in which mechanized mining equipment is being installed or removed;

2. On each longwall or shortwall in ~~the~~ each intake entry ~~or entries~~ at the intake end of the longwall or shortwall face immediately outby the face ~~and~~. The mine foreman shall also determine the velocity of air at each end of the face at the locations specified in the approved ventilation plan required by the federal mine safety law; and

3. At the intake end of any pillar line (i) ~~if a single split of air is used,~~ in the intake entry furthest from the return air course, immediately outby the first open crosscut outby the line of pillars being mined, if a single split of air is used or (ii) ~~if a split system is used,~~ in the intake entries of each split, immediately inby the split point, if a split system is used.

D. A mine foreman shall make a pre-shift examination of the surface areas of an underground coal ~~mines~~ mine in accordance with the requirements for pre-shift examinations at surface coal mines as provided in § ~~45.1-161.256~~ 45.2-xxx.

E. The Chief may require the mine foreman to examine other areas of the mine or to examine for other hazards during the pre-shift examination.

F. Any area of the mine where hazardous conditions are found shall be posted with a conspicuous danger sign located where anyone entering the area would pass. Only ~~persons~~ a person designated by the operator~~,~~ or his agent~~,~~ to correct or evaluate the condition ~~may~~ shall enter ~~this~~ such posted area.

G. At each working place examined, the mine foreman shall certify by initials, date, and time~~,~~ that the examination was made. In ~~areas~~ any area to be examined outby a working section, the mine foreman shall certify completion of the examination by initials, date, and time at enough locations to show that the entire area has been examined.

H. ~~Idle and~~ Each idle or worked-out ~~areas~~ area underground shall be inspected for gas and other hazardous conditions by a mine foreman~~,~~ immediately before miners are permitted to enter or work in such ~~places~~ place. A certified person shall supervise the correction of

~~conditions~~ any condition that ~~create~~ creates an imminent danger. The mine operator~~,~~ or his agent~~, may~~ shall not pass beyond the danger ~~signal only~~ sign except in cases of necessity.

I. ~~Where persons have not~~ If no person has been working underground before an established eight-hour interval, no person other than ~~the~~ a mine ~~foremen~~ foreman conducting a pre-shift examination ~~may~~ shall enter the mine until the examination has been completed and the mine ~~foremen report~~ foreman reports that the mine ~~to be~~ is clear of danger; however, miners may enter under the direction of a mine foreman for the purpose of making the mine safe. The Chief ~~shall have the authority~~ may, in certain mines, ~~in his discretion, to~~ authorize ~~man-trips~~ mantrips to proceed to a designated station underground, from which ~~they may not pass~~ no mantrip shall leave until ~~the~~ a mine ~~foremen report~~ foreman reports that the remainder of the areas of the mine ~~to be~~ are clear of danger.

J. Miners who are regularly employed on a shift during which a pre-shift examination is being conducted shall be permitted to leave or enter the mine in the performance of their duties.

K. In ~~multiple shift operations~~ a multiple-shift operation, certified persons may be used to make the pre-shift examination for the next or succeeding shift.

L. ~~Areas~~ Immediately before any miner is permitted to enter an area of an inactive underground coal ~~mines~~ mine in order to take emergency actions to preserve the mine, a mine foreman shall ~~be examined~~ examine such area for gas and other hazardous conditions ~~by a mine foreman immediately before miners are permitted to enter such areas to take emergency actions to preserve a mine~~.

M. In the performance of his duties under this section, the mine foreman shall have no superior officer, and ~~all miners~~ every miner shall be subordinate to him.

Drafting note: Technical changes are made, including changes pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Language is updated for modern usage and clarity. The text defining "last open crosscut" is moved to the definitions section for Subtitle II, in proposed Chapter 5.

§ ~~45.1-161.209~~ 45.2-xxx. On-shift examinations.

A. At least once during each shift, and more often if necessary, a certified person shall examine each underground section where coal is produced and any other area where mechanized mining equipment is being installed or removed during the shift. The certified person shall (i) examine for hazardous conditions, (ii) test for methane and oxygen deficiency with a suitable permissible device, and (iii) determine whether the air is traveling in its regular course and in sufficient volume in each split. ~~Hazardous conditions~~ Any hazardous condition shall be corrected immediately or the miners shall be withdrawn and the affected area plainly marked with ~~"danger"~~ danger signs.

B. During each shift ~~that~~ in which coal is produced, a certified person shall examine for hazardous conditions along each underground belt conveyor entry where a belt conveyor is operated. This examination may be conducted at the same time as the pre-shift examination of the belt conveyors and the belt conveyor entries, if the examination is conducted within three hours before the established eight-hour interval. The person conducting the examination shall certify by initials, date, and time at enough locations to show that the entire area has been examined.

C. ~~Persons~~ A person conducting ~~the~~ an on-shift examination shall determine at the following underground locations ~~which are underground~~:

1. The volume of air in the last open crosscut~~, which means the crosscut in the line of pillars containing the permanent stoppings that separate the intake air courses and the return air courses,~~ of each set of entries or rooms on each working section and ~~areas where~~ in any area in which mechanized mining equipment is being installed or removed;

2. The volume of air on a longwall or shortwall, including ~~areas~~ any area where longwall or shortwall equipment is being installed or removed, in the intake entry or entries at the intake end of the longwall or shortwall;

3. The velocity of air at each end of the longwall or shortwall face at ~~the locations~~ each location specified in the approved ventilation plan required pursuant to the federal mine safety law; and

4. The volume of air at the intake end of any pillar line (i) ~~where a single split of air is used,~~ in the intake entry furthest from the return air course, immediately outby the first open crosscut outby the line of pillars being mined, if a single split of air is used or (ii) ~~if a split system is used,~~ in the intake entries of each split, immediately inby the split point, if a split system is used.

D. A test shall be made for methane before (i) any electrically powered equipment is taken inby the last open crosscut, ~~before~~ (ii) any blasting takes place, and ~~before~~ (iii) work is resumed after blasting. When a longwall or shortwall mining ~~systems are~~ system is used, ~~these~~ such methane ~~tests~~ test shall be made from under permanent roof support at the shearer, the plow, or the cutting head. ~~These~~ Such methane ~~tests~~ test shall be made at least once every 20 minutes or more often as necessary for safety while such equipment is in operation. When mining has been stopped for more than 20 minutes, a methane ~~tests~~ test shall be conducted prior to the ~~start up~~ start-up of equipment.

E. ~~Idle~~ Each idle or worked-out ~~areas~~ area underground, including a section ~~belts~~ belt that ~~have~~ has been idle for a period of 24 hours or more, shall be examined by a certified person immediately before miners are permitted to enter or work in such ~~areas~~ area. The person conducting the examination shall certify completion of the examination by initials, date, and time at enough locations to show that the entire area has been examined.

F. Daily and on-shift examinations of surface areas of underground coal mines shall be made in accordance with the requirements for daily and on-shift examinations at surface coal mines as provided in § ~~45.1-161.256~~ 45.2-xxx.

Drafting note: Technical changes are made, including changes pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Language is updated for modern usage and clarity. The text defining "last open crosscut" is moved to the definitions section for Subtitle II, in proposed Chapter 5.

§ ~~45.1-161.210~~ 45.2-xxx. Weekly examinations.

A. At least once every seven days, a mine foreman shall examine each unsealed worked-out ~~areas~~ area where no pillars have been recovered.

B. At least once every seven days, a mine foreman shall evaluate the effectiveness of each bleeder ~~systems~~ system used ~~under~~ pursuant to § ~~45.1-161.220~~ 45.2-xxx.

C. At least once every seven days, a mine foreman shall examine each of the following locations for hazardous conditions:

1. ~~In at~~ At least one entry of each intake air course, in its entirety, so that the entire air course is traveled.

2. ~~In at~~ At least one entry of each return air course, in its entirety, so that the entire air course is traveled.

3. ~~In each~~ Each longwall or shortwall travel way, in its entirety, so that the entire travel way is traveled.

4. ~~At each~~ Each seal along each return ~~and~~ or bleeder air ~~courses~~ course and ~~at~~ each seal along each intake air ~~courses~~ course not examined ~~under~~ pursuant to § ~~45.1-161.208~~ 45.2-xxx.

5. ~~In each~~ Each escapeway, in its entirety, so that the entire escapeway is traveled.

6. ~~On each~~ Each working section not examined ~~under~~ pursuant to § ~~45.1-161.208~~ 45.2-xxx during the previous seven days.

D. At least once every seven days, a certified person shall:

1. Determine the volume of air entering ~~the~~ each main ~~intakes~~ intake and ~~in~~ each intake split;

2. Determine the volume of air and test for methane in the last open crosscut in any pair or set of developing entries or rooms~~,~~. Such determination and test shall be conducted in the return of each split of air immediately before it enters the main returns and where the air leaves the main returns; and

3. Test for methane in the return entry nearest each set of seals immediately after the air passes the seals.

E. ~~Hazardous conditions~~ Any hazardous condition shall be corrected immediately. If the condition creates an imminent danger, everyone except those persons necessary to correct the hazardous ~~conditions~~ condition shall be withdrawn from the area affected to a safe area until the hazardous condition is corrected.

F. ~~Weekly~~ No weekly examination is ~~not~~ required during any seven-day period in which no person enters any underground area of ~~the~~ a mine. ~~When~~ If a mine is idled or is in a nonproducing status with entry only for maintenance of the mine, weekly examinations may be conducted in accordance with a plan approved by the Chief.

G. Except for certified persons required to make examinations, no person shall enter any underground area of a coal mine if ~~the~~ no weekly examination has ~~not~~ been completed within the preceding seven days. The weekly examination may be conducted at the same time as the pre-shift examination.

H. ~~The~~ A person making ~~the~~ a weekly ~~examinations~~ examination shall certify completion of the examination by initials, date, and ~~the~~ time ~~that the examination was made. Certifications and time shall appear~~ at enough locations to show that the entire area has been examined.

I. ~~Examinations~~ Any examination of surface areas of underground coal mines shall be made in accordance with the requirements for weekly examinations at surface coal mines ~~as provided in~~ pursuant to § ~~45.1-161.256~~ 45.2-xxx.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Language is updated for modern usage and clarity, and the text of subsection H is conformed to similar certification provisions in other sections.

§ ~~45.1-161.211~~ 45.2-xxx. Examinations of fans.

A. ~~A~~ An authorized person shall conduct a daily inspection ~~shall be made~~ of ~~all~~ each main ~~fans~~ fan and of the machinery connected ~~therewith by an authorized person~~ with such fan. The person making the examination shall ~~make a~~ record ~~of the same~~ such examination in a book prescribed for this purpose or by other adequate ~~facilities~~ means provided to permanently record the performance of the main fan and to give warning of an interruption to a fan. No such daily examination is required on any day in which no person goes underground, except that the examination shall be completed prior to any person entering the mine if no examination was made on the previous ~~day's examination has not been made~~ day.

B. ~~Places~~ Any place ventilated by means of a blower ~~fans~~ fan shall be examined for methane by a certified person before the fan is started at the beginning of the shift and after any interruption of fan operation that lasts for five minutes or more during the shift.

C. ~~The~~ Each blower fan and its tubing shall be inspected at least twice during each working shift by a certified person.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage and clarity.

§ ~~45.1-161.212~~ 45.2-xxx. Record of examinations.

A. Any hazardous condition found by the mine foreman or ~~other~~ another certified ~~persons~~ person designated by the operator for the ~~purposes~~ purpose of conducting examinations under ~~Article 14 (§ 45.1-161.208 et seq.) of this chapter~~ this article shall be (i) corrected immediately~~,~~ or ~~the affected area shall be dangered off~~ (ii) posted with conspicuous danger signs until the condition is corrected. If the hazardous condition creates an imminent danger, all persons except those required to perform work to correct the imminent danger shall be withdrawn from the affected area. ~~A record of the~~ The hazardous condition ~~found~~ and the corrective actions taken shall be ~~made~~ recorded in a book maintained for this purpose on the surface at the mine. The record shall be made by the completion of the shift on which the hazardous condition is found.

B. Upon completing the pre-shift examination, the mine foreman shall return to the surface or a designated station underground and report in person to an authorized person before ~~other miners enter~~ any other miner enters the mine. Immediately upon reaching the surface, the mine foreman shall record in ink or indelible pencil the result of his inspection in a book ~~kept~~ maintained for this purpose on the surface ~~for that purpose~~ at the mine.

C. At the completion of any shift during which a portion of a weekly examination is made, a record of each hazardous ~~conditions, their locations~~ condition, its location, the corrective action taken, and the ~~results~~ result and location of each air and methane ~~measurements~~ measurement shall be made. ~~The~~ Such record shall be made by the ~~person~~ mine

foreman making the examination or ~~by a~~ another certified person designated by the operator. If the record is made by a person other than the ~~examiner~~ one making the examination, the ~~examiner~~ person making the examination shall verify the record by initials and date.

D. The actual level of methane detected in any examination shall be recorded in the book.

E. A mine foreman or other certified person conducting a required examination shall record the results of his examination in ink or indelible pencil in a book ~~kept~~ maintained for this purpose on the surface ~~for that purpose~~ at the mine. Similar records may be kept at designated stations or offices underground.

F. Records shall be countersigned by the supervisor of the examiner creating the records. Where such records disclose ~~hazardous conditions~~ a hazardous condition, the countersigning of the records shall be performed no later than the end of the next regularly scheduled working shift following the shift for which the examination records were completed, and the person countersigning shall ensure that actions to eliminate or control ~~the~~ each hazardous ~~conditions~~ condition have been taken. Where such records ~~do not~~ disclose no hazardous ~~conditions~~ condition, the countersigning may be completed within 24 hours following the end of the shift for which the examination records were completed. The operator may authorize another person ~~with equivalent~~ who possesses authority equivalent to that of the supervisor to act in the supervisor's temporary absence to read and countersign the records and ensure that action is taken to eliminate ~~the~~ each hazardous ~~conditions~~ condition disclosed in the records.

G. All records of examination shall be open for inspection by interested persons and maintained at the mine site for a minimum of one year.

Drafting note: Changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Other technical changes are made and language is updated for modern usage and clarity, including by rephrasing the requirement in subsection A that an area "be dangered off."

~~§ 45.1-161.213. Repealed.~~

Drafting note: Repealed by Acts 2005, c. 3, cl. 2, effective February 10, 2005.

§ ~~45.1-161.214~~ 45.2-xxx. Notice of hazardous conditions.

The mine foreman shall give prompt attention to the removal of ~~all~~ each hazardous ~~conditions~~ condition reported to him by any person working in the mine. If it is impracticable to remove ~~the~~ a hazardous condition at once, ~~he~~ the mine foreman shall notify every person whose safety is ~~menaced thereby~~ threatened by such hazardous condition to remain away from the portion of the mine where the hazardous condition exists.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.215~~ 45.2-xxx. Notice of monitor tampering prohibition.

The operator or agent~~,~~ shall display, in bold-faced type, on a sign placed at the mine office, at the ~~bath house~~ bathhouse, and on a bulletin board at the mine site, the following notice:

NOTICE: IT IS UNLAWFUL TO DISTURB, DISCONNECT, BYPASS, IMPAIR, OR OTHERWISE TAMPER WITH METHANE MONITORS OR OTHER DEVICES CAPABLE OF DETECTING THE PRESENCE OF EXPLOSIVE GASES IN AN UNDERGROUND COAL MINE. A VIOLATION IS PUNISHABLE AS A CLASS 6 FELONY.

Drafting note: Technical changes.

§ ~~45.1-161.216~~ 45.2-xxx. Main fans.

A. The active workings of a mine shall be ventilated by means of main fans.

B. Unless otherwise approved by the Chief, ~~fans~~ each fan shall be (i) provided with pressure-recording gauges, (ii) installed on the surface in a fireproof ~~housings~~ housing, and (iii) equipped with fireproof air ducts.

C. In addition to the requirements of subsection B, each main ~~fans~~ fan shall either:

1. Be equipped with ample means of pressure relief~~,~~ and be offset not less than 15 feet from the nearest side of the mine opening; or

2. Be directly in front of, or over, the mine opening; however, ~~the~~ such opening shall not be in direct line with ~~possible~~ forces coming out of the mine ~~should~~ if an explosion were to occur~~, and there~~. There shall be another opening ~~having~~, equipped with a weak-wall stopping

or with explosion doors ~~that would be in direct line with the forces coming out of the mine should an explosion occur, such opening to be~~, that is located not less than 15 feet ~~nor~~ or more than 100 feet from the fan opening and in direct line with the forces coming out of the mine if an explosion were to occur; and

3. In ~~mines~~ a mine ventilated by multiple main mine fans, incombustible doors shall be installed so that if any main mine fan stops and air reversals through the fan are possible, the doors on the affected fan automatically close.

D. ~~Main~~ Each main mine ~~fans~~ fan shall be provided with an automatic device to give alarm when the fan slows down or stops. Unless otherwise approved by the Chief, ~~this~~ such device shall be placed so that it ~~will~~ shall be seen or heard by an authorized person.

E. ~~Main fans~~ Each main fan shall be on a separate power ~~circuits~~ circuit, independent of the mine circuit.

F. The area surrounding a main fan ~~installations~~ installation shall be kept free of combustible material for at least 100 feet in ~~all directions~~ every direction where physical conditions permit.

G. ~~Mine fans~~ Each mine fan shall be operated continuously~~,~~ except when no miner is underground and such mine fan is intentionally stopped for necessary testing, adjustment, maintenance, or repairs ~~while no miners are underground~~, or as otherwise approved by the Chief. If the main fan is intentionally stopped for testing, adjustment, maintenance, or repairs, the mine operator shall comply with the requirements set forth in the approved fan stoppage plan for that mine. If the main fan is stopped after all miners are out of the mine, the fan shall be operated for a period specified in the approved fan stoppage plan for that mine, prepared pursuant to § 45.2-xxx [§ 45.1-161.217], before any miner is allowed underground.

H. Where electric power is available, no main mine ~~fans~~ fan shall ~~not~~ be powered by means of an internal combustion ~~engines; however, where~~ engine. However, if electric power is not available or the fan is employed for emergency use, a main mine ~~fans~~ fan may be powered with an internal combustion ~~engines if, unless~~ engine. Unless otherwise approved by the Chief,

~~(i) the~~ such fan shall be operated exhausting~~,~~ and ~~(ii)~~ the engine operating ~~the~~ such fan shall be offset at least 10 feet from the fan and housed in a separate fireproof structure.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.217~~ 45.2-xxx. Fan stoppage plan.

A fan stoppage plan shall be prepared for each mine~~, which~~. Such plan shall be subject to approval by the Chief or his designated representative. Failure to comply with ~~requirements~~ any requirement set forth in the approved plan ~~will be~~ is a violation of this section. ~~Fan~~ Each fan stoppage ~~plans~~ plan shall require the following:

1. When the main fan fails or stops, the power shall be cut off from the mine and miners shall be withdrawn from ~~the~~ all face areas.

2. Miners shall be withdrawn from the underground areas if the ventilation is not restored within a reasonable time determined by the Chief, ~~which period of time shall~~ not to exceed ~~fifteen~~ 15 minutes. In determining ~~the~~ such reasonable time period, the Chief shall consider, among other ~~things~~ factors, the size and number of fans~~,~~ and the methane liberation rate of the mine.

3. If ventilation is restored within the time period established in the plan, ~~the~~ each face ~~areas~~ area and any other ~~areas where~~ area in which methane is likely to accumulate shall be examined by a certified person, and if ~~the~~ all areas are found to be free of explosive or harmful gases, power may be restored and work resumed.

4. If ventilation is not restored within the time period established in the plan and the miners are evacuated from the mine, the main fan shall be operated for a period of time specified in the plan~~, which~~. Such period of time shall not be less than ~~fifteen~~ 15 minutes. Thereafter, the mine shall be examined by a certified person before ~~miners shall be~~ any miner is permitted underground or ~~energizing~~ any power ~~circuits~~ circuit is energized.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage and clarity.

§ ~~45.1-161.218~~ 45.2-xxx. Auxiliary fans.

A. The installation or use of an auxiliary ~~fans~~ fan in any mine ~~shall be~~ is prohibited~~,~~ without the prior written approval of the Chief.

B. ~~Machine-mounted scrubbers~~ A machine-mounted scrubber and spray fan ~~systems~~ system may be used for control of coal dust and to enhance ventilation. Such ~~installations are~~ an installation is not considered an auxiliary ~~fans~~ fan.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.219~~ 45.2-xxx. ~~Volume~~ Quantity of air.

A. The quantity of air passing through the last open crosscut shall be ~~not less than~~ at least 9,000 cubic feet per minute~~; provided, however, that~~. However, the quantity of air reaching the last open crosscut in a pillar-recovery ~~sections~~ section may be less than 9,000 cubic feet per minute~~,~~ if at least 9,000 cubic feet of air per minute is being delivered to the intake end of the pillar line.

B. The air current at a working ~~faces~~ face shall, under all conditions, have a sufficient volume and velocity to readily dilute and carry away smoke from blasting and any flammable or harmful gases and dust.

C. In a longwall ~~and~~ or shortwall mining ~~systems~~ system:

1. The quantity of air shall be at least 30,000 cubic feet per minute reaching the working face, unless otherwise approved by the Chief; and

2. The velocity of air provided to control dust at designated locations on the longwall or shortwall face shall be maintained in accordance with the provisions of the mine ventilation plan approved by the federal Mine Safety and Health Administration.

D. Ventilation shall be maintained during the installation ~~and~~ or removal of mechanized mining equipment.

Drafting note: Technical changes are made, including changes pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for clarity.

§ ~~45.1-161.220~~ 45.2-xxx. Bleeder systems.

A. ~~All mines~~ Every mine shall have a system, ~~which has been~~ approved by the Chief, of bleeder openings of air courses designed to provide positive movement of air through or around worked-out areas ~~which is~~. Such system shall be sufficient to prevent a hazardous accumulation of gas in such areas and to minimize the effect of variations in atmospheric pressure. ~~Operators~~ Each operator shall submit a bleeder system ~~plans which comply~~ plan that complies with requirements developed by the Chief.

B. The system requirements developed by the Chief shall, at a minimum, address standards for (i) supplemental roof supports, (ii) water accumulation, (iii) continuous movement of gases from gob areas, (iv) methane content, (v) the use and operation of degasification systems, (vi) air flow direction~~,~~ and content, and (vii) ventilation controls. The Chief shall not approve a plan ~~which~~ that provides for a methane content exceeding ~~four and one-half~~ 4.5 percent in bleeder air courses. ~~Failure to comply with an approved plan will be a violation of this section.~~

C. This section shall not prohibit the sealing of worked-out areas in accordance with § ~~45.1-161.228~~ 45.2-xxx.

~~B.~~ The mine map requirements of § ~~45.1-161.64~~ 45.2-xxx may be used to depict bleeder system standards specified in this section.

D. Failure to comply with an approved plan is a violation of this section.

Drafting note: Technical changes are made, including changes pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and organizational changes are made that separate the provisions

addressing the requirements to be developed by the Chief and place the violation provision at the end of the section.

§ ~~45.1-161.221~~ 45.2-xxx. Coursing of air.

A. The main intake and return air currents of ~~drifts~~ a drift or slope ~~mines~~ mine shall not be in a single partitioned opening.

B. ~~All entries~~ Every entry driven in coal shall be in ~~sets~~ a set of two or more entries.

C. ~~Underground~~ Every transformer ~~stations~~ station, battery-charging ~~stations, substations, rectifiers~~ station, substation, rectifier, and water ~~pumps~~ pump shall be housed in ~~noncombustible structures~~ an incombustible structure or ~~areas,~~ area or be equipped with an approved fire suppression system. ~~These installations~~ Each such installation shall be ventilated with intake air that is coursed into a return air course or to the surface~~,~~ and that is not used to ventilate any working ~~places~~ place. This requirement does not apply to~~:~~ any (i) ~~rectifiers,~~ rectifier, battery-charging station, or power ~~centers~~ center with transformers that are ~~either dry-type~~ of the dry type or contain nonflammable liquid, ~~or battery-charging stations,~~ if ~~they are~~ such rectifier, battery-charging station, or power center is located at or near the working section and ~~are~~ is moved as the working section advances or retreats~~,~~; (ii) submersible ~~pumps,~~ pump; (iii) permissible ~~pumps~~ pump and associated permissible switch gear~~,~~; (iv) ~~pumps~~ pump located at or near the working section that ~~are~~ is moved as the working section advances or retreats~~,~~ ~~and~~; or (v) small portable ~~pumps~~ pump. Such equipment shall be installed and operated only in a well-ventilated ~~locations~~ location.

D. ~~Changes~~ Any change in ventilation that materially ~~affect~~ affects the main air current or any split thereof shall be made when the mine is not in operation and there are no miners in the mine other than those engaged in changing the ventilation.

E. Each section in a mine shall be ventilated by a separate split of air.

F. Air used to ventilate a belt haulage ~~entries~~ entry shall not be used to ventilate any working place unless approved by the Chief.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.222~~ 45.2-xxx. Actions for excessive methane.

A. Tests for methane concentration under this section shall be made by certified or qualified persons trained in the use of an approved detecting device ~~which~~ that is properly maintained and calibrated. Tests shall be made at least ~~twelve inches~~ one foot from the roof, face, ribs, and floor.

B. ~~When~~ If a methane concentration of one percent or more ~~methane~~ is present in a working place ~~or~~; an intake air course, including an air course in which a belt conveyor is located~~,~~; or ~~in~~ an area where mining equipment is being installed or removed, work shall cease and ~~electrical power~~ electrically powered equipment shall be de-energized in the affected working place ~~at the equipment~~, except for any intrinsically safe atmospheric monitoring ~~systems~~ system (AMS), which need not be de-energized. Changes or adjustments shall be made to ~~the~~ such ventilation system to reduce the methane concentration to below one percent. Only work to reduce the methane concentration ~~of methane~~ to below one percent ~~shall be~~ is permitted. ~~This~~ Such limitation does not apply to ~~other faces~~ any other face in the entry or slope in which work can be safely continued.

C. ~~When one and one-half~~ If a methane concentration of 1.5 percent or more ~~methane~~ is present in a working place ~~or~~; an intake air course, including an air course in which a belt conveyor is located~~,~~; or an area where mining equipment is being installed or removed, only work necessary to reduce the methane concentration to less than ~~one and one-half~~ 1.5 percent ~~will be~~ is permitted, and all ~~other personnel~~ miners except those required to perform such necessary work shall be withdrawn from the affected area. Electrically powered equipment in the affected area shall be de-energized and other mechanized equipment in the affected area shall be shut off, except for any intrinsically safe ~~atmospheric monitoring systems (AMS)~~ AMS.

D. ~~When~~ If a methane concentration of one percent or more ~~methane~~ is present in a return or split between the last working place on a working section and ~~where that~~ the location

at which such split of air meets another split of air, or the location at which ~~the~~ such split is used to ventilate ~~seals~~ a seal or worked-out ~~areas~~ area, changes or adjustments shall be made to the ventilation system to reduce the methane concentration ~~of methane~~ in the return air to less than one percent.

E. ~~When one and one-half~~ If a methane concentration of 1.5 percent or more ~~methane~~ is present in a return air split between the last working place on a working section and ~~where that~~ the location at which such split of air meets another split of air, or the location ~~where the~~ at which such split is used to ventilate ~~seals~~ a seal or worked-out ~~areas, everyone~~ area, all miners except those ~~persons~~ required to perform necessary work to correct the problem shall be withdrawn from the affected area. Other than an intrinsically safe ~~atmospheric monitoring systems (AMS)~~ AMS, all equipment in the affected area shall be de-energized at the source. No other work ~~shall be~~ is permitted in the affected area until the methane concentration ~~of methane~~ in the return air is less than one percent.

F. An alternative methane ~~level up to one and one-half~~ concentration of as much as 1.5 percent ~~may be~~ is allowed in ~~the~~ a return air split ~~where~~ if the following ~~precautions~~ conditions are met: (i) the quantity of air in the split ventilating the active workings is at least 27,000 cubic feet per minute in the last open crosscut; (ii) the methane ~~content of the air~~ concentration in the split is continuously monitored during mining operations by an intrinsically safe ~~atmospheric monitoring system (AMS)~~ AMS that gives a visual and audible signal on the working section when the methane concentration in the return air reaches ~~one and one-half~~ 1.5 percent; and (iii) rock dust is continuously applied with a mechanical duster to the return air course during coal production at a location in the air course that is immediately outby the most inby monitoring point or inby such point ~~provided~~ if the mechanical duster is maintained in a permissible condition and does not adversely affect the AMS. ~~When one and one-half~~ If a methane concentration of 1.5 percent or more ~~methane~~ is present ~~where~~ at the location at which a return air alternative is applied, all persons shall be withdrawn, except those necessary to improve ventilation, and changes or adjustments shall be made to reduce the methane concentration ~~of methane~~ in the return air to below ~~one and one-half~~ 1.5 percent as set forth in subsection E.

G. The methane concentration ~~of methane~~ in a bleeder split of air immediately before the air in ~~the~~ such split joins another split of air, or in a return air course other than described in subsections D and E, shall not exceed two percent.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage and clarity.

§ ~~45.1-161.223~~ 45.2-xxx. Crosscuts.

A. Crosscuts shall be made between entries and between rooms as provided in the approved roof control plan.

B. ~~Crosscuts~~ Every crosscut between an intake and a return air ~~courses~~ course shall be closed, except the one nearest the face. ~~Crosscuts~~ A crosscut between rooms shall be closed where necessary to provide adequate ventilation at the working face.

C. Where practicable, a crosscut shall be provided at or near the face of each entry or room before the place is abandoned.

D. ~~Entries~~ No entry or ~~rooms~~ room shall ~~not~~ be started off an entry beyond the last open crosscut.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa.

§ ~~45.1-161.224~~ 45.2-xxx. Permanent stoppings.

A. Permanent stoppings shall be built and maintained:

1. Between each intake and return air ~~courses~~ course, except that temporary controls may be used in ~~rooms~~ any room that ~~are~~ is located 600 feet or less from the centerline of the entry from which the room was developed. Unless otherwise approved by the Chief, ~~these~~ such stoppings shall be maintained to and ~~including~~ inclusive of the third connecting crosscut outby the working face.

2. To separate each belt conveyor ~~haulageways~~ haulage entry from any return air ~~courses~~ course, except where a belt ~~entries are~~ entry is used as a return air ~~courses~~ course.

3. To separate the primary escapeway from any belt ~~and~~ or trolley haulage ~~entries~~ entry, unless otherwise approved by the Chief.

4. In each return air ~~courses~~ course to direct air into adjacent worked-out areas.

B. Permanent stoppings shall be built of substantial, incombustible material such as concrete, concrete ~~blocks~~ block, brick, tile, or other approved material; however, where physical conditions prohibit the use of such materials, timbers laid longitudinally "skin to skin" may be used.

C. The use of an air lock in the permanent intake stopping line near the section loading point ~~shall be~~ is permitted to access the belt and transport supplies.

D. Stoppings shall be maintained to serve the purpose for which they were built and shall be reasonably ~~air tight~~ airtight.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.225~~ 45.2-xxx. Ventilation controls.

A. Ventilation shall be so arranged by means of air locks, overcasts, or undercasts that the passage of a haulage ~~trips~~ trip or ~~persons~~ person along the entries will ~~not~~ cause no interruption of the air current. ~~Air locks~~ Each air lock shall be ventilated sufficiently to prevent ~~accumulations~~ an accumulation of methane therein.

B. Air lock doors that are used in lieu of permanent stoppings or to control ventilation within an air course shall be (i) made of ~~noncombustible~~ incombustible material or coated on all accessible surfaces with flame-retardant material having a flame spread index of 25 or less as tested under ASTM ~~E 162-187~~ E162 and (ii) of sufficient strength to serve their intended purpose of maintaining separation and permitting travel between or within air courses or entries.

C. To provide easy access between the return, belt, and intake escapeway entries, substantially constructed man-doors that are properly marked so as to be readily detected shall be installed in at least every fifth crosscut in the stopping ~~lines~~ line separating such entries.

D. Doors shall be kept closed except when ~~miners~~ a miner or piece of equipment is passing through the ~~doorways. Motor crews and~~ doorway. Any motor crew or other ~~miners~~ miner who ~~open~~ opens such doors shall see that ~~the doors~~ they are closed before leaving them.

E. Overcasts, undercasts, and regulators shall be ~~well constructed~~ well-constructed; of incombustible material, such as masonry, concrete, concrete ~~blocks~~ block, or prefabricated metal~~. They shall~~; and (i) ~~be~~ of sufficient strength to withstand possible falls from the roof, (ii) ~~be~~ of ample area to pass the required quantity of air, and (iii) ~~be~~ kept clear of obstructions.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage and clarity. A reference to an ASTM standard is corrected and updated.

§ ~~45.1-161.226~~ 45.2-xxx. Line brattice.

A. Substantially constructed line brattice shall be used from the last open crosscut of an entry or room when necessary to provide adequate ventilation for the miners and to remove gases. Any line brattice that is damaged by ~~falls~~ a fall or otherwise shall be repaired promptly.

B. The space between the line brattice and the rib shall be large enough to permit the flow of a sufficient volume of air to keep the working face clear of flammable and noxious gases.

C. Brattice cloth that is used underground shall be of flame-resistant material.

D. ~~Accumulations~~ An accumulation of methane shall be moved only by means of properly installed line brattice~~,~~ or other approved method.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.227~~ 45.2-xxx. Ventilation with air from certain areas.

Active face workings shall not be ventilated with air that has passed through a worked-out ~~areas~~ area or has been used to ventilate a pillar ~~lines~~ line. This section shall not apply to air

~~which~~ that is being used to ventilate an active pillar line ~~and rooms which are~~ or a room that is necessary to establish and maintain the pillar line.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.228~~ 45.2-xxx. Worked-out areas.

A. ~~All~~ Every worked-out ~~areas~~ area shall be either sealed or ventilated.

B. Where the practice is to seal worked-out areas, the sealing shall be done in accordance with sealing provisions of the approved bleeder plan.

Drafting note: Technical changes are made, including a change pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa.

§ ~~45.1-161.229~~ 45.2-xxx. Air quality.

A. All active workings shall be ventilated by a current of air containing ~~not less than~~ at least 19.5 volume percent of oxygen and no harmful ~~quantities~~ amount of ~~other~~ any noxious or poisonous ~~gases~~ gas.

B. The volume and velocity of the current of air in all active workings shall be sufficient to dilute, render harmless, and carry away flammable, explosive, noxious, and harmful gases ~~and~~, dust, smoke, and explosive fumes.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

~~§ 45.1-161.230. Repealed.~~

Drafting note: Repealed by Acts 1999, c. 256.

§ ~~45.1-161.231~~ 45.2-xxx. Examination of ~~mines~~ mine for explosive gas and other hazardous conditions.

A. ~~Certified persons~~ Every certified person whose regular duties require ~~them~~ him to inspect working places in any mine for hazardous conditions shall have in ~~their~~ his possession~~,~~

and shall use, when underground, a permissible methane detector or other permissible device capable of detecting methane and oxygen deficiency.

B. A sufficient number of permissible methane detectors or other permissible devices capable of detecting methane shall be kept at each mine inby the last open crosscut. ~~All miners~~ Every miner shall be trained in the operation of ~~the~~ such device. ~~Any miners~~ Every miner working inby the last open crosscut shall be certified by the Board of Coal Mining Examiners pursuant to § 45.2-xxx [45.1-161.28] to conduct gas testing. ~~Methane detectors or indicators~~ Every methane detector shall be maintained in permissible condition.

C. ~~Methane detectors or indicators~~ Every methane detector shall be calibrated at least monthly in accordance with ~~manufacturers~~ the manufacturer's recommendations. A record of such calibration shall be made in a book for this purpose kept at a surface location at the mine and maintained for one year.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Outdated references to methane indicators are removed as duplicative of references to methane detectors.

§ ~~45.1-161.232~~ 45.2-xxx. Tampering with methane monitoring devices prohibited; penalty.

A. No person shall intentionally disturb, disconnect, bypass, impair, or otherwise tamper with any methane ~~monitors~~ monitor or other ~~devices~~ device that is capable of detecting the presence of explosive ~~gases~~ gas and is used in an underground coal mine. If ~~the~~ such methane monitor or device is installed on a face cutting machine, a continuous miner, longwall face equipment, a loading machine, or other mechanized equipment used to extract or load coal, as required pursuant to 30 CFR Part 75.342, and ~~the~~ such monitor, device, or ~~the~~ equipment malfunctions, ~~the~~ such monitor or device may be disconnected or bypassed for the ~~purposes~~ purpose of removing ~~the monitor~~ it or the equipment in order to make necessary repairs to ~~the monitor~~ it or the equipment. Any ~~other~~ methane monitor or device not otherwise required by law may be disconnected, bypassed, or removed.

B. ~~Any person convicted of a violation~~ Violation of this section ~~shall be guilty of~~ is a Class 6 felony.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage. The final sentence in subsection A, which allows any other methane monitor to be disconnected, is clarified to refer only to such a monitor when it is not required by law.

§ ~~45.1-161.233~~ 45.2-xxx. Allowing persons to work in mine where methane monitoring equipment disconnected; penalty.

~~An~~ No operator, agent, or mine foreman shall ~~not~~ knowingly permit any miner to work in any area of ~~the~~ an underground coal mine where such operator, agent, or mine foreman has knowledge that a methane monitor or other device capable of detecting the presence of explosive ~~gases~~ gas has been impaired, disturbed, disconnected, or bypassed in violation of § ~~45.1-161.232. Any person convicted of a violation~~ 45.2-xxx. Violation of this section ~~shall be guilty of~~ is a Class 6 felony.

Drafting note: Technical changes are made, including a change pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Language is updated for modern usage and clarity.

§ ~~45.1-161.233:1~~ 45.2-xxx. Intentionally bypassing a safety ~~devices~~ device; prohibition.

A. No person shall intentionally bypass, bridge, or otherwise impair an electrical or hydraulic circuit that affects the safe operation of electrical or mechanical equipment. ~~This~~

B. The provisions of subsection A shall not prohibit (i) a certified electrical ~~repairmen~~ repairman from ~~by-passing~~ bypassing an energized ~~circuits~~ circuit for troubleshooting; (ii) an authorized person from performing repairs or maintenance on equipment once the power is off and the equipment is blocked against motion, except where motion is necessary to make adjustment or to move the equipment to a safe location; (iii) an authorized person from bypassing a hydraulic circuit for the purpose of troubleshooting or moving equipment to a safe location in order to make necessary repairs or ~~be taken~~ take such equipment out of service; or

(iv) an authorized person from activating an override feature that is designed by the machine manufacturer to allow ~~the~~ such machine to be moved to a safe location in order to ~~make~~ undergo necessary repairs or be taken out of service.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Language is updated for modern usage and subsection designations are added for clarity. An erroneous reference to a certified electrical "repairmen" in the second sentence is corrected.

§ ~~45.1-161.234~~ 45.2-xxx. Control of coal dust.

A. Coal dust shall not be permitted to accumulate excessively in any part of the active areas, including any active workings that are soon to be worked-out.

B. Where an underground mining ~~operations create~~ operation creates or ~~raise~~ raises an excessive amount of coal dust into the air, any coal dust on the ribs, roof, or floor shall undergo an application of water or water with ~~an added~~ a wetting agent~~,~~ added to it or ~~other~~ another effective method ~~of controlling dust~~, approved by the Chief~~,~~ or his authorized representative, ~~shall be applied to coal dust on the ribs, roof, and floor~~ of controlling dust to reduce dispersibility and ~~to~~ minimize the ~~hazard~~ risk of explosion~~,~~. Such application or method shall occur within ~~forty~~ 40 feet ~~from all~~ of any active workings or such other ~~areas~~ area as the Chief or his authorized representative ~~shall require~~ requires.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage and clarity.

§ ~~45.1-161.235~~ 45.2-xxx. Rock dusting.

A. ~~All~~ Every underground ~~areas~~ area of a mine, except ~~those areas where~~ an area in which the coal dust is too wet or too high in incombustible content to propagate an explosion, shall be ~~rock dusted~~ rock-dusted to within ~~forty~~ 40 feet of ~~all~~ every working ~~faces~~ face, unless such ~~areas are~~ area is inaccessible or unsafe to enter or unless the Chief~~,~~ or his authorized representative~~,~~ permits an exception upon his finding that such exception ~~will~~ does not pose a

hazard to ~~the miners. All crosscuts~~ any miner. Every crosscut that ~~are~~ is less than ~~forty~~ 40 feet from a working ~~faces~~ face shall also be ~~rock dusted~~ rock-dusted.

B. ~~All~~ Every other ~~areas~~ area of a mine shall be ~~rock dusted~~ rock-dusted if conditions are found by a proper inspection to be so dusty as to constitute a hazard ~~after proper inspection. Should~~. If such conditions ~~be~~ are found to exist, the Chief~~,~~ or his authorized representative~~,~~ shall require the necessary rock dusting to make ~~the areas~~ every such area of the mine safe.

C. Coal dust, including float coal dust deposited on rock-dusted surfaces, loose coal, and other combustible ~~materials~~ material, shall be cleaned up and shall not be permitted to accumulate excessively in active workings~~,~~ or on electric equipment therein.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

Article ~~10~~ 5.

Personal Safety; Smoking.

Drafting note: Existing Article 10 of Chapter 14.3, concerning personal safety and smoking, is retained as proposed Article 5.

§ ~~45.1-161.174~~ 45.2-xxx. Checking system; tracking system.

A. Each mine shall have a personnel checking system ~~containing~~ that includes the following requirements:

1. Every person underground shall have on his person a means of positive identification bearing a number recorded by the operator; and

2. An accurate record of the persons in the mine shall be kept on the surface in a place that will not be affected by an explosion~~;~~.

~~3. The~~ Such record shall consist of a written record, check board, lamp check, or time-clock record~~;~~ and

~~4. The record~~ shall bear a number identical to that carried by the person underground.

B. ~~Mine-wide~~ Any mine-wide tracking ~~systems~~ system shall be maintained in useable and operative ~~conditions~~ condition.

Drafting note: Technical changes are made, including organizational changes in subsection A and changes pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Language is updated for modern usage.

§ ~~45.1-161.175~~ 45.2-xxx. Protective clothing.

A. ~~All miners~~ Every miner shall wear a protective ~~hats~~ hat while underground and while in ~~those areas~~ any area on the surface where there is a danger of injury from falling objects.

B. Every person assigned to or performing duties on the surface of an underground coal mine, or any person entering the underground portion of ~~the~~ such mine, shall wear reflective materials adequate to ~~be~~ make him visible from all sides. ~~The~~ Such reflective material shall be placed on a hard ~~hats~~ hat and at least one other item of outer clothing such as ~~belts~~ a belt, suspenders, ~~jackets, coats~~ jacket, coat, coveralls, ~~shirts~~ shirt, pants, or ~~vests~~ vest.

C. Protective footwear shall be worn by ~~miners~~ each miner while on duty in ~~and~~ or around a mine where falling objects may cause injury.

D. ~~All employees~~ Every employee inside or outside of ~~mines~~ a mine shall wear ~~approved type~~ an approved type of goggles or shields where there is a hazard from flying particles.

E. ~~Welders~~ Every welder and ~~helpers~~ helper shall use proper ~~shields or~~ goggles or shields to protect ~~their~~ his eyes.

F. ~~Miners~~ Any miner engaged in haulage operations ~~and miners~~ or employed around moving equipment on the surface ~~and~~ or underground shall wear snug-fitting clothing.

G. ~~Gloves~~ Every employee shall ~~be worn~~ wear gloves when handling material ~~which~~ that may injure the hands ~~is handled. Gloves~~ or when handling energized cables. No gloves with gauntlet cuffs shall ~~not~~ be worn around moving equipment. ~~Gloves shall be worn when handling energized cables.~~

H. ~~Miners~~ Any miner who may be exposed for short periods to hazards from inhalation of gas, dust, fumes, ~~and~~ or mist shall wear approved respiratory equipment. When the exposure

is for a prolonged ~~periods~~ period, adequate approved measures to protect ~~miners~~ such miner or to reduce the hazard shall be taken.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.176~~ 45.2-xxx. Noise levels and ear protection.

~~Approved~~ Each mine operator shall provide approved hearing protection ~~shall be provided~~ to miners ~~by the mine operator. Miners~~. Every miner shall wear approved hearing protection in ~~areas~~ any area of excess noise levels in accordance with the mine's hearing conservation program approved under 30 CFR Part 62.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.177~~ 45.2-xxx. Smoking materials prohibited; penalty.

A. No miner or other person shall smoke or carry or possess underground any smoker's articles or ~~matches, lighters~~ any match, lighter, or similar ~~materials~~ material generally used for igniting smoker's articles. ~~Any person convicted of a violation~~ Violation of this subsection ~~shall be guilty of~~ is a Class 6 felony.

B. ~~The~~ Each operator shall institute a smoker search program, approved by the Chief, to ensure that ~~any~~ no person entering the underground area of the mine ~~does not carry~~ carries any smoking ~~materials, matches,~~ material, match, or ~~lighters~~ lighter.

C. Any person entering or present in any underground area of a coal mine shall, by his entry into ~~the~~ such underground area of the mine, be subject to a search of his person, ~~such of his~~ including any personal property ~~as may be~~ that is in any underground area of the mine at any time he is underground ~~, or both~~. Such search shall be conducted at the direction of the Chief by employees of the Department. It shall be limited in scope to the person and property of the ~~persons~~ person present underground at the time of the search and shall be for the purpose of enforcing the provisions of this section.

D. This section shall not prohibit the possession of equipment used solely for the operation of a flame safety ~~lamps~~ lamp or for welding or cutting.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.178~~ 45.2-xxx. Allowing persons to work in a mine with smoker's articles; penalty.

A. No operator, agent, or mine foreman shall knowingly permit any person in an underground coal mine to smoke, carry, or possess any smoker's articles or materials used for igniting smoker's articles.

B. ~~Any person convicted of a violation~~ Violation of this section ~~shall be guilty of~~ is a Class 6 felony.

Drafting note: Language is updated for modern usage.

§ ~~45.1-161.179~~ 45.2-xxx. Posting of notice.

The operator~~,~~ or his agent~~,~~ shall display, in bold-faced type, on a sign placed at the mine office, bath house, and on a bulletin board at the mine site, the following notice:

NOTICE:

IT IS UNLAWFUL FOR A MINER OR OTHER PERSON IN AN UNDERGROUND COAL MINE TO SMOKE OR CARRY OR POSSESS UNDERGROUND ANY SMOKER'S ARTICLES OR MATCHES, LIGHTERS, OR SIMILAR MATERIALS GENERALLY USED FOR IGNITING SMOKER'S ARTICLES. A VIOLATION IS PUNISHABLE AS A CLASS 6 FELONY. ANY PERSON ENTERING OR PRESENT IN THE UNDERGROUND AREA OF ANY COAL MINE IS SUBJECT TO A SEARCH OF HIS PERSON AND PROPERTY BY OFFICIALS OF THE DEPARTMENT OF MINES, MINERALS AND ENERGY FOR SUCH PROHIBITED SMOKER MATERIALS AT ANY TIME WHILE UNDERGROUND.

Drafting note: Technical changes.

§ ~~45.1-161.180~~ 45.2-xxx. Smoking in surface and other areas.

A. No miner or other person shall smoke, carry, or possess any smoker's articles, or carry an open flame, in or near any magazine for the storage of explosive materials.

B. No miner or other person shall smoke in or around any oil ~~houses, tipples, and~~ house, tipple, or other surface ~~areas~~ area where such practice may cause a fire or explosion.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa.

~~Article 9.~~

~~Illumination.~~

Drafting note: The first section of existing Article 9 of Chapter 14.3 is relocated to this proposed article, while the remaining two sections of existing Article 9 are relocated to proposed Article 2 of this chapter.

§ ~~45.1-161.171~~ 45.2-xxx. Portable illumination.

A. ~~All miners~~ For portable illumination underground, every miner shall use ~~only~~ a permissible electric cap ~~lamps~~ lamp that ~~are~~ is worn on the person ~~for portable illumination~~.

~~B. Light bulbs on extension cables shall be guarded adequately.~~

~~C. The~~ Such requirement ~~of subsection A~~ shall not preclude the use of any other type of permissible electric ~~lamps~~ lamp, permissible ~~flashlights~~ flashlight, permissible safety ~~lamps~~ lamp, or ~~any~~ other permissible portable illumination device.

B. Any light bulb on an extension cable shall be guarded adequately.

Drafting note: Technical changes are made, including organizational changes that condense subsection A and move subsection B to the end of the section for clarity, and changes pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Language is updated for modern usage and clarity.

Article ~~12~~ 6.

First Aid Equipment; Medical Care; Emergency Medical Services Providers.

Drafting note: Existing Article 12 of Chapter 14.3, concerning first aid equipment, medical care, and emergency medical services providers, is retained as proposed Article 6.

§ ~~45.1-161.197~~ 45.2-xxx. First aid equipment.

Each mine shall have ~~an~~ adequate ~~supply~~ supplies of first aid equipment as determined by the Chief. Such supplies shall be located on the surface, at the bottom of ~~shafts~~ each shaft and ~~slopes~~ slope, and at other strategic locations near the working faces, as shall be prescribed by the Chief. ~~The~~ Such first aid supplies shall be encased in suitable sanitary receptacles designed to be reasonably dust-tight and moisture-proof. ~~The~~ Such supplies shall be available for use of ~~all persons~~ any person employed in the mine. No first aid material shall be removed or diverted without authorization except in case of injury at the mine.

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa, and language is updated for modern usage.

§ ~~45.1-161.198~~ 45.2-xxx. Attention to injured persons.

A. When an injury occurs underground, the injured person shall be brought promptly to the surface. Prompt medical attention shall be provided in the event of injury, and adequate facilities shall be made available for transporting such injured ~~persons~~ person to a hospital if necessary.

B. Safe transportation shall be provided to carry an injured person from the site where the injury occurred to the surface of the mine.

C. The operator of each mine shall post directional signs that are conspicuously located to identify the routes of ingress to and egress from any mine located off of a public road.

Drafting note: A technical change is made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa.

§ ~~45.1-161.199~~ 45.2-xxx. Certified emergency medical services providers.

A. At each mine, the mine operator shall station at least one person who is a working coal miner and who holds a valid certificate as an emergency medical services provider issued

~~by the Commissioner of the Department of Health shall be located~~ pursuant to § 32.1-111.5 so as to ~~be~~ make such person available for duty ~~at each mine~~ during any time when miners are working at ~~that~~ such mine. Such ~~emergency medical services~~ operator shall utilize enough such providers ~~shall be utilized in sufficient numbers~~ to assure that workers in any mine location can be reached by ~~them~~ a provider within ~~such~~ a reasonable time as ~~is~~ determined by the Chief. ~~Emergency medical services providers~~ Each provider shall have available to ~~them~~ him at all times the necessary equipment, as specified by the Chief, for prompt response to emergencies. ~~In the event that at any time there is at any mine~~ Telephone facilities or their equivalent shall be installed to provide two-way voice communication between such provider and medical personnel outside the mine.

B. If an insufficient number of qualified miners ~~volunteering~~ at a particular mine volunteer to serve as ~~emergency medical services~~ providers ~~as provided for in~~ pursuant to this section, the operator may ~~elect to~~ utilize the services of first aid trainees, in such numbers as the Chief determines to be appropriate. ~~Telephone or equivalent facilities shall be installed to provide two-way voice communication between the emergency medical services providers and medical personnel outside the mine.~~

Drafting note: Technical changes are made pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. Language is updated, subsection designations are added, and the provision referring to telephone facilities is moved for clarity. A cross-reference to the emergency medical services provider certification is added.

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