PART C.

SURFACE COAL MINES.

Drafting note: In proposed Subtitle II, proposed Part C (Surface Coal Mines) is created to logically organize provisions relating to surface coal mines and contains two chapters: proposed Chapter 9, Requirements Applicable to Surface Coal Mines, and proposed Chapter 10, Virginia Coal Surface Mining Control and Reclamation Act of 1979.

CHAPTER ~~14.4~~ 9.

REQUIREMENTS APPLICABLE TO SURFACE COAL MINES.

Drafting note: Existing Chapter 14.4, Requirements Applicable to Surface Coal Mines, which is divided into 13 articles, is retained as proposed Chapter 9. Articles 1 through 13 of existing Chapter 14.4 are retained in that order in this proposed chapter.

Article 1.

General Provisions.

Drafting note: Existing Article 1, containing general provisions, is retained as proposed Article 1.

§ ~~45.1-161.253~~ 45.2-xxx. Scope of chapter.

This chapter ~~shall be applicable~~ applies to the operation of any surface coal mine in the Commonwealth~~,~~ and ~~shall supplement~~ supplements the provisions of Chapter ~~14.2~~ 5 (§ ~~45.1-161.7~~ 45.2-xxx et seq.).

Drafting note: Technical changes are made to modernize language.

§ ~~45.1-161.254~~ 45.2-xxx. ~~Regulations~~ Rules and regulations governing conditions and practices at surface coal mines.

A. The Chief ~~shall have authority~~ is authorized, after consultation with the Virginia Coal Mine Safety Board and in accordance with the provisions of the Administrative Process Act (§ 2.2-4000 et seq.), to ~~promulgate~~ adopt rules and regulations necessary to ensure safe and healthy working conditions in surface coal mines in the Commonwealth. Such rules and regulations governing surface coal mines shall relate to:

1. Safety and health standards for the protection of the life, health, and property of, and the prevention of injuries to, persons involved in or likely to be affected by any surface coal mining ~~operations which shall include but not be limited to~~. Such rules and regulations shall include standards for the control of dust concentration levels; the installation, maintenance, and use of electrical devices, equipment, cables, and wires; fire protection; the use and storage of explosives; hoistings; drilling; loading and haulage areas; the training of surface miners; the preparation of responses to emergencies; examinations of conditions at a surface mine site; and reporting requirements;

2. The storage or disposal of any matter or ~~materials~~ material that is (i) extracted or disturbed as the result of a surface coal mining operation ~~or operations~~ or (ii) used in the surface coal mining operation or for the refinement or preparation of the ~~materials~~ material that is extracted from the surface coal mining operation, so that such matter or material does not threaten the health ~~or~~, safety, or property of ~~the~~ miners or the general public; and

3. The operation, inspection, operating condition, and movement of drilling equipment and machines to protect the health, safety, and property of miners and the general public.

B. The Chief shall ~~not promulgate any~~ adopt no rule or regulation establishing ~~requirements~~ a requirement for the operation of, or for conditions at, a surface coal mine ~~which are~~ that is inconsistent with ~~requirements~~ any requirement established by ~~this~~ the Act.

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. In subdivision A 1, the phrase "but not limited to" is removed pursuant to § 1-218, which states that throughout the Code "'Includes' means includes, but not limited to." The word "property" is added to subdivision A 2 for consistency with subdivision A 1. 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 to modernize language.

§ ~~45.1-161.255~~ 45.2-xxx. Standards for regulations.

In ~~promulgating the~~ adopting rules and regulations pursuant to § ~~45.1-161.254~~ 45.2-xxx, the Chief shall consider:

1. Standards utilized and generally recognized by the surface coal mining industry;

2. Standards established by recognized professional coal mining organizations and groups;

3. Standards established by federal mine safety laws;

4. Research, demonstrations, experiments, and such other information that is available regarding the maintenance of the highest degree of safety protection, including the latest available scientific data in the field, the technical feasibility of the standards, and the experience gained under ~~this~~ the Act and other mine safety laws; and

5. Such other criteria as ~~shall be~~ are necessary for the protection of the safety and health of miners and other persons or property likely to be affected by surface coal mines or related operations.

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.

Article 2.

Work Area Examinations, ~~Record Keeping~~ Recordkeeping, and Reporting.

Drafting note: Existing Article 2, concerning work area examinations, recordkeeping, and reporting, is retained as proposed Article 2. Technical changes are made to the name.

§ ~~45.1-161.256~~ 45.2-xxx. Safety examinations.

A. ~~On-shift examinations~~ An on-shift examination of the work area, including any pit, auger, thin seam ~~and~~, or highwall ~~operations~~ operation, shall be conducted by a certified ~~persons once every~~ person for each production shift and at such other times or frequency as the Chief designates as necessary for hazardous conditions.

B. ~~Pre-operational examinations~~ A pre-operational examination of all mobile equipment shall be conducted by an authorized person.

C. ~~Pre-shift examinations~~ A pre-shift examination shall be conducted by a certified person for certain hazardous conditions designated by the Chief.

D. ~~Mine~~ Each mine refuse ~~piles~~ pile, as defined in § 45.2-xxx [§ 45.1-221.1], shall be examined ~~daily~~ by an authorized person on any day on which ~~a~~ any person works at such location.

E. The location of ~~all~~ each natural gas ~~pipelines~~ pipeline on a permitted surface mine ~~areas~~ area shall be identified and conspicuously marked so that equipment operators can readily ~~see~~ identify the location of such ~~lines~~ pipeline. ~~Pre-shift examinations~~ A pre-shift examination shall be conducted of the location of ~~pipelines~~ each pipeline whenever the work area approaches within 500 feet of such pipeline unless otherwise approved by the Chief.

F. ~~Air~~ An air quality ~~examinations~~ examination shall be conducted by a certified person when a surface coal mining operation intersects an underground mine, auger hole, or other underground ~~workings~~ working.

G. ~~Examinations~~ At least one examination for methane shall be conducted for each production shift in each surface ~~installations~~ installation, ~~enclosures~~ enclosure, or other ~~facilities~~ facility in which coal is handled or stored ~~once each production shift. Such areas~~ Each such area shall also be tested for methane before any activity involving welding, cutting, or an open flame. ~~Examinations~~ An examination pursuant to this subsection shall be made by an authorized person certified to make gas tests.

H. Electrical equipment and wiring shall be inspected as often as necessary but at least once ~~a~~ per month.

I. ~~Fire extinguishers~~ Each fire extinguisher shall be examined at least once every six months.

J. ~~Areas~~ Each area of an inactive surface coal ~~mines~~ mine shall be examined for hazardous conditions by a mine foreman immediately before ~~miners are~~ any miner is permitted to enter into such ~~areas~~ an area to take emergency actions to preserve a 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.

Reference to the definition of "mine refuse pile" is made as that term is not defined in this chapter.

§ ~~45.1-161.257~~ 45.2-xxx. Records of examinations.

A. Documentation of examinations and testing conducted pursuant to § ~~45.1-161.256~~ 45.2-xxx shall be recorded in a mine record book provided for that purpose. Documentation shall include records of hazardous conditions found in the work area. However, examinations of fire extinguishers shall be conducted by an authorized person and documentation shall be accomplished by recording the date of the examination on a permanent tag attached to ~~the~~ each extinguisher.

B. The actual methane readings taken during examinations required under ~~this~~ the Act shall be recorded in the mine record book.

C. The surface foreman shall maintain and sign a daily record book. Where any such ~~reports disclose~~ report discloses a hazardous ~~conditions~~ condition, the surface foreman shall take prompt action to have such ~~conditions~~ condition corrected, barricaded, or posted with warning signs.

D. ~~Records~~ Each record shall be countersigned by the supervisor of the examiner creating the ~~records~~ record. Where such ~~records disclose~~ record discloses a hazardous ~~conditions~~ condition, the countersigning of the ~~records~~ record shall be performed no later than the end of the next regularly scheduled working shift following the shift for which the examination ~~records were~~ record was completed, and the person countersigning shall ensure that actions to eliminate or control the hazardous ~~conditions~~ condition have been taken. Where such ~~records do~~ record does not disclose a hazardous ~~conditions~~ condition, the countersigning ~~may~~ shall be completed within 24 hours following the end of the shift for which the examination ~~records were~~ record was completed. The operator may authorize another person ~~with equivalent~~ who has 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~~ any hazardous ~~conditions~~ condition disclosed in ~~the records~~ a record.

E. All records of inspections shall be open for inspection by any interested ~~persons~~ person and maintained at the mine site for a minimum of one year.

Drafting note: Subsection D is clarified so that it does not allow an operator to convey the authority of a supervisor to another person. 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.

§ ~~45.1-161.258~~ 45.2-xxx. Areas with safety or health hazards; duties of surface mine foreman.

A. Any hazardous condition shall be corrected promptly or the affected area shall be barricaded or posted with warning signs specifying the hazard and proper safety procedures. Any imminent danger that cannot be removed within a reasonable time shall be reported to the Chief by the quickest available means.

B. The surface mine foreman shall see that the requirements of ~~this~~ the Act pertaining to his duties and to the health and safety of the miners are fully complied with at all times.

C. The surface mine foreman shall see that every miner employed to work at the mine, before beginning work therein, is aware of ~~all~~ any hazardous ~~conditions~~ condition incident to his work at the mine.

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.

Article 3.

Personal Protection.

Drafting note: Existing Article 3, concerning personal protection, is retained as proposed Article 3.

§ ~~45.1-161.259~~ 45.2-xxx. Personal protection devices and practices.

A. ~~All persons~~ Every person at a surface coal mine shall wear the following protection in the specified conditions:

1. ~~Hard hats~~ A hard hat in and around ~~mines~~ any area of a mine where falling objects ~~may~~ could cause injury.

2. Hard-toed footwear in and around ~~mines~~ a mine.

3. Safety goggles or ~~shields~~ a shield where there is a hazard of flying material.

4. ~~Protective~~ A protective shield or goggles when welding.

5. Snug-fitting clothes when working around moving parts or machinery.

6. Gloves where the hands could be injured. Gauntlet cuffed gloves are prohibited around moving machinery.

B. ~~Ear~~ The operator shall supply ear protection ~~shall be supplied by the operator~~ to ~~all miners~~ any miner upon request.

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

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 Other technical changes are made and language is updated for modern usage.

§ ~~45.1-161.260~~ 45.2-xxx. Housekeeping.

A. Good housekeeping shall be practiced in and around ~~buildings~~ every building, ~~shafts~~ shaft, ~~slopes~~ slope, ~~yards and~~ yard, or other ~~areas~~ area of the mine. Such practices include cleanliness, orderly storage of materials, and the removal of possible sources of injury, such as stumbling hazards, protruding nails, broken glass, and material that ~~may potentially~~ could fall or roll.

B. ~~All~~ Every surface mine ~~structures~~ structure, ~~enclosures~~ enclosure, ~~and~~ or other ~~facilities~~ facility shall be maintained in a safe 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.

§ ~~45.1-161.261~~ 45.2-xxx. Noxious fumes.

Painting or ~~operations creating~~ any operation that creates noxious fumes shall be performed only in a well-ventilated atmosphere.

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.

Article 4.

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

Drafting note: Existing Article 4, concerning first aid equipment, medical care, and emergency medical services providers, is retained as proposed Article 4.

§ ~~45.1-161.262~~ 45.2-xxx. First aid equipment.

~~Each~~ Every surface coal mine shall have ~~an~~ adequate ~~supply~~ supplies of first aid equipment as determined by the Chief. Such supplies shall be located at strategic locations at the mine site so as to be available in a reasonable response time. ~~The first aid~~ Such supplies shall be encased in suitable sanitary receptacles designed to be reasonably dust-tight and moisture proof. In addition to the supplies in the ~~cases~~ receptacles, blankets, splints, and properly constructed stretchers in good ~~conditions~~ condition shall be provided at every mine. ~~The~~ All of the first aid supplies shall be available for use ~~of all persons~~ by any person employed at the mine. No first aid supplies 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.

§ ~~45.1-161.263~~ 45.2-xxx. First aid training.

A. ~~Surface foremen~~ Each surface foreman shall ~~have completed~~ complete and ~~passed~~ pass a first aid course of study as prescribed by the Chief. The Chief is authorized to utilize the Department's educational and training facilities in the conduct of such training programs and may require the cooperation of mine operators in making such programs available to their employees.

B. Each operator of a surface coal mine~~, upon request,~~ shall make first aid training, including refresher training, available upon request to every miner employed ~~in~~ at such mine ~~first aid training, including refresher training~~.

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.

§ ~~45.1-161.264~~ 45.2-xxx. Attention to injured persons.

A. Prompt medical attention shall be provided in the event of an injury, and adequate facilities shall be made available for transporting injured persons to a hospital where necessary.

B. Safe transportation shall be provided to move injured persons from the site where the injury occurred to ~~areas~~ an area that is accessible to emergency transportation.

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

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 5.

Fire Prevention and Fire Control.

Drafting note: Existing Article 5, concerning fire prevention and fire control, is retained as proposed Article 5.

§ ~~45.1-161.265~~ 45.2-xxx. ~~Fire-fighting~~ Firefighting equipment; duties in case of fire; fire precaution in transportation of mining equipment; fire prevention generally.

A. Each mine shall be provided with suitable ~~fire-fighting~~ firefighting equipment~~,~~ that is adequate for the size of the mine and ~~shall include~~ includes at least three 20-pound dry chemical fire extinguishers. Equipment and devices used for the detection, warning, and extinguishing of fires shall be suitable in type, size, and quantity for the type of fire hazard

that ~~may~~ could be encountered. Such equipment and devices shall be strategically located and plainly identified.

B. Suitable fire extinguishers shall be provided at ~~all~~ or on each (i) electrical ~~stations~~ station, such as ~~substations~~ a substation, transformer ~~stations and~~ station, or permanent pump ~~stations,~~ station; (ii) piece of self-propelled mobile equipment~~,~~; (iii) belt ~~heads,~~ head; (iv) ~~areas~~ area used for the storage of flammable materials~~,~~; (v) fueling ~~stations,~~ station; and (vi) other ~~areas~~ area that ~~may~~ could constitute a fire hazard~~,~~. Such fire extinguishers shall be placed so as to be out of the smoke in case of a fire.

Drafting note: Language is updated for modern usage and 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.

§ ~~45.1-161.266~~ 45.2-xxx. Duties in case of fire.

A. ~~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. When a fire that ~~may~~ could endanger persons at the mine cannot be extinguished immediately, all persons shall be withdrawn promptly from the area of the fire.

B. In case of any unplanned fire at or about a mine that is not extinguished within ~~thirty~~ 30 minutes of discovery, the operator or agent shall report the fire to the Chief by the quickest available means ~~to the Chief~~, giving all information known to ~~him~~ the operator or agent regarding the fire. The Chief shall take prompt action~~, based on the information,~~ and decide whether to go in person or dispatch qualified subordinates to the scene of the fire for consultation~~,~~ and ~~assist~~ assistance in the extinguishing 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 his designated subordinate shall be final, but ~~must~~ such decision shall be given to the operator in writing in order to have the force of an order.

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

§ ~~45.1-161.267~~ 45.2-xxx. Fire precautions.

A. An examination for fire shall be made after every blasting operation.

B. No person shall smoke or use an open flame within ~~twenty-five~~ 25 feet of ~~locations~~ any location used to handle or store flammable or combustible liquids or where an arc or flame ~~may~~ could cause a fire or explosion.

C. ~~Areas~~ Any area surrounding a flammable liquid storage ~~tanks,~~ tank or electrical ~~substations and transformers~~ substation or transformer shall be kept free of combustible material for at least ~~twenty-five~~ 25 feet in ~~all directions~~ every direction. ~~Such~~ Each such storage ~~tanks, substations and transformers~~ tank, substation, or transformer shall be posted with readily visible fire hazard warning signs.

D. ~~Structures~~ Any structure or ~~areas~~ area used for storage of flammable materials shall be constructed of fire resistant material~~, well ventilated~~, kept well-ventilated, clean, and orderly, and posted with readily visible fire hazard warning signs.

E. ~~Fuel lines~~ Every fuel line shall be equipped with a shut-off ~~valves~~ valve at ~~the sources~~ its source. Such valves shall be readily accessible and maintained in good operating condition.

F. ~~Battery~~ Every battery charging ~~areas~~ area shall be ~~well ventilated~~ well-ventilated and posted with warning signs prohibiting smoking or open flames within ~~twenty-five~~ 25 feet.

G. Oil, grease, ~~other~~ flammable hydraulic fluid, and other flammable materials shall be kept in closed metal containers and separated from other materials so as to not create a fire hazard.

H. Combustible materials, grease, lubricants, paints, and other flammable materials and liquids shall not be allowed to accumulate where they could create a fire hazard. Provision shall be made to prevent the accumulation of such material on any equipment, at any storage ~~areas~~ area, and at any location where the material is used.

I. Electric motors, switches, lighting fixtures, and controls shall be protected by dust-tight construction.

J. Precautions shall be taken to ensure that ~~sparks~~ no spark or other hot ~~materials do not result~~ material results in a fire when welding or cutting. Welding or cutting with an arc or

flame shall not be done in any excessively dusty ~~atmospheres~~ atmosphere or ~~locations~~ location. ~~Fire-fighting~~ Firefighting apparatus shall be readily available when welding or cutting is performed.

K. Precautions shall be taken before applying heat, cutting, or welding on any pipe or container that has contained a flammable or combustible material.

L. ~~Oxygen and~~ Every oxygen or acetylene ~~bottles~~ bottle shall be (i) stored in ~~racks designated and~~ a rack constructed and designated for the storage of such bottles with their caps in place and (ii) secured when not in use. Such bottles shall not be stored near oil, grease, ~~and~~ or other flammable material.

M. ~~Oxygen~~ Every oxygen and acetylene ~~gauges~~ gauge and ~~regulators~~ regulator shall be kept clean and free of oil, grease, and other combustible materials.

N. ~~Belt conveyors~~ Every belt conveyor shall be equipped with a control ~~switches~~ switch to automatically stop the driving motor of the conveyor in the event that the belt is stopped by slipping on the driving pulley, ~~by~~ as a result of breakage or other accident.

O. ~~Areas~~ The area surrounding every main fan ~~installations and~~ installation or other mine ~~openings~~ opening shall be kept free from grass, weeds, underbrush, and other combustible materials for ~~twenty-five~~ 25 feet in ~~all directions~~ every direction.

P. ~~Internal~~ Every internal combustion ~~engines~~ engine, except a diesel ~~engines~~ engine, shall be shut off prior to fueling.

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. Other technical changes are made and language is updated for modern usage and parallel construction.

Article 6.

Surface Equipment.

Drafting note: Existing Article 6, concerning surface equipment, is retained as proposed Article 6.

§ ~~45.1-161.268~~ 45.2-xxx. Haulage and mobile equipment; operating condition.

A. All mobile equipment shall be maintained in a safe operating condition.

B. Positive-acting stopblocks shall be used where necessary to protect persons from danger of moving or runaway haulage equipment.

C. Where it is necessary for ~~men~~ persons to cross conveyors regularly, suitable crossing facilities shall be provided.

D. ~~Persons~~ No person shall ~~not~~ get on or off moving equipment.

E. When the equipment operator is present, ~~persons shall notify him before~~ any person getting on or off mobile equipment shall notify the operator before doing so.

F. Mobile equipment shall not be left unattended unless the brakes are set. Mobile equipment with wheels or tracks, when parked on a grade, shall either be blocked or turned ~~into~~ in to a bank unless the lowering of the bucket or blade to the ground will prevent movement and such bucket or blade is lowered.

G. ~~Persons~~ No person shall ~~not~~ work on or from a piece of mobile equipment in a raised position unless the equipment is specifically designed to lift ~~persons~~ a person.

H. Water, debris, or spilled materials ~~which may~~ that could create ~~hazards~~ a hazard to moving equipment shall be removed.

I. Where seating facilities are provided on self-propelled mobile equipment, the operator shall be seated before such equipment is moved. No person shall be allowed to ride on top of self-propelled mobile equipment.

J. ~~Operators~~ The operator of a piece of self-propelled haulage equipment shall sound a warning before ~~starting~~ he starts such equipment and as ~~approaching~~ he approaches any place where ~~persons are~~ a person is or ~~are~~ is likely to be.

K. Each ~~man-trip~~ mantrip shall be operated independently under the charge of an authorized person~~, and operated independently~~.

L. ~~Operator provided man-trips~~ Each mantrip shall be maintained in safe operating condition~~, and enough of them~~. Mantrips shall be provided in sufficient number to prevent ~~their being~~ any mantrip from becoming overloaded.

M. ~~Employees~~ No employee shall ~~not~~ board or leave a moving ~~man-trips; they~~ mantrip. Each employee shall remain seated while in a moving ~~cars,~~ car and shall proceed in an orderly manner to and from ~~man-trips~~ a mantrip.

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. The unnecessary phrase "Operator provided" is removed from subsection L to make the subsection parallel to subsection C of § 45.1-161.150 in proposed chapter 7.

§ ~~45.1-161.269~~ 45.2-xxx. Equipment operation.

A. Equipment operating speeds, conditions, and characteristics shall be prudent and consistent with the conditions of the roadway, ~~grades~~ grade, clearance, visibility, and traffic~~,~~ and the type and use of equipment.

B. ~~Vehicles~~ Any vehicle that follows another vehicle shall ~~follow~~ do so at a safe distance; passing shall be limited to areas of adequate clearance and visibility.

C. Mobile equipment shall be operated under power control at all times and each mobile equipment ~~operators~~ operator shall have full control of the equipment while in motion.

D. Before starting or moving equipment, an equipment operator must be certain by signal or other means that all persons are clear.

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.

§ ~~45.1-161.270~~ 45.2-xxx. Safety measures on equipment.

A. ~~Rubber tired~~ Every rubber-tired or ~~crawler mounted~~ crawler-mounted piece of equipment shall have a rollover protective ~~structures~~ structure to the extent required by 30 ~~CFR 77.403a~~ C.F.R. § 77.403-1.

B. ~~Seat belts~~ Each seat belt provided in mobile equipment shall be maintained in safe working condition. ~~Operators~~ Every operator of such equipment shall wear a seat ~~belts~~ belt when the equipment is in motion.

C. Mobile equipment shall be equipped with adequate brakes and parking brakes.

D. Cab windows shall be of ~~safety~~ safe design, kept in good condition, and clean for adequate visibility.

E. ~~Tires~~ Any tire shall be deflated before ~~repairs~~ any repair on ~~them are~~ it is started, and adequate means shall be provided to prevent ~~wheel locking~~ wheel-locking rims from creating a hazard during tire inflation.

F. An audible warning device and headlights shall be provided on ~~all~~ each piece of self-propelled mobile equipment.

G. An automatic backup alarm~~,~~ that is audible above surrounding noise levels~~,~~ shall be provided on ~~all~~ each piece of mobile equipment. An automatic reverse-activated strobe light may be substituted for an audible alarm when mobile equipment is operated at night.

H. ~~All~~ Each piece of equipment that is raised for repairs or other work shall be securely blocked ~~prior to persons positioning themselves~~ before any person positions 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. The cross-reference to the Code of Federal Regulations in subsection A is updated to reflect a redesignation of the section number in 71 Fed. Reg. 16669 (April 3, 2006). Language is updated for modern usage.

§ ~~45.1-161.271~~ 45.2-xxx. Transportation of personnel.

No person shall be permitted to ride or ~~be~~ otherwise be transported (i) on or in: ~~(i) dippers, shovels, buckets, forks and clamshells~~ a dipper, shovel, bucket, fork, or clamshell~~,~~; (ii) on or in the cargo space of a dump ~~trucks,~~ truck; (iii) outside ~~cabs or beds~~ the cab or bed of a piece of heavy equipment~~,~~; or (iv) on or in a chain, belt, or bucket ~~conveyors~~ conveyor, unless such items described in clauses (i) through (iv) are specifically designed to transport persons.

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 added for clarity.

§ ~~45.1-161.272~~ 45.2-xxx. Lighting.

A. Lights shall be provided on or in surface structures as needed~~, in or on surface structures~~.

B. Roads, paths, and walks outside of surface structures shall be kept free from obstructions and shall be ~~well illuminated~~ well-illuminated if used at night.

Drafting note: Language is updated for modern usage.

§ ~~45.1-161.273~~ 45.2-xxx. Shop and other equipment.

A. The following shall be guarded and maintained adequately:

1. Gears, sprockets, pulleys, fan blades or propellers, friction devices, and couplings with protruding bolts or nuts.

2. Shafting and projecting shaft ends that are within seven feet of the floor or the platform level.

3. Belt, chain, or rope drives that are within seven feet of the floor or the platform.

4. Fly wheels. ~~Where a~~ Any fly ~~wheels extend~~ wheel that extends more than seven feet above the floor~~, they~~ shall be guarded to a height of at least seven feet.

5. Circular and band saws and planers.

6. Repair pits. Guards shall be kept in place when ~~the pits are~~ a pit is not in use.

7. Counterweights.

8. Mine fans. The approach to any mine fan shall be guarded.

9. Lighting and other electrical equipment that ~~may cause~~ could create a shock ~~hazards~~ hazard or cause personal injury.

B. ~~Machinery~~ No machinery shall ~~not~~ be repaired or oiled while in motion~~; provided, however, that this shall not apply where~~ unless a safe remote oiling ~~devices are~~ device is used.

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

D. ~~Mechanically operated~~ Every mechanically operated grinding ~~wheels~~ wheel shall be equipped with:

1. Safety washers and tool rests~~.~~;

2. ~~Substantial~~ A substantial retaining ~~hoods~~ hood, the hood opening of which shall not expose more than a 90 degree sector of the wheel. ~~Such hoods~~ Each such hood shall include a device to control and collect excess rock, metal, or dust particles~~, or~~. If no such device is provided, equivalent protection shall be provided to ~~the employees~~ each employee operating such machinery~~.~~; and

3. Eyeshields, unless goggles are worn by the ~~operators~~ operator.

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

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.

§ ~~45.1-161.274~~ 45.2-xxx. Hydraulic hoses.

~~All~~ Every hydraulic ~~hoses used on equipment purchased after January 1, 1986,~~ hose that is used on equipment shall ~~be clearly stamped or labeled by~~ have the hydraulic hose ~~manufacturer to indicate 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 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 7.

~~Travelways,~~ Travel Ways and Loading and Haulage Areas.

Drafting note: Existing Article 7, concerning travel ways and loading and haulage areas, is retained as proposed Article 7. Technical changes are made to the name.

§ ~~45.1-161.275~~ 45.2-xxx. Stairways, platforms, runways, and floor openings.

A. Stairways, platforms, and runways shall be provided where ~~men~~ persons work or travel.

B. Stairways, elevated platforms, ~~floor openings, and~~ elevated runways, and floor openings shall be equipped with suitable handrails or guardrails.

C. ~~Elevated~~ Stairways, elevated platforms, runways, and floor openings~~, stairways, and runways~~ shall be provided with toe boards. ~~Platforms, stairways,~~ Stairways, platforms, and runways shall be kept clear of stumbling and slipping hazards and shall be maintained in good repair.

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

§ ~~45.1-161.276~~ 45.2-xxx. Loading and haulage work area requirements.

A. ~~Ramps and dumps~~ Every ramp or dump shall be of solid construction, ample width, and ample clearance, and ~~head room and~~ headroom shall be kept reasonably free of spillage.

B. Berms or guards shall be provided on the outer bank of every elevated haulage ~~roads~~ road. ~~Berms constructed on or after July 1, 2005,~~ Every berm shall be constructed of substantial material to the mid-axle height of the largest vehicle regularly used on ~~the~~ such haulage road. The width and height of the berm shall be constructed on a two-to-one ratio when it is constructed of unconsolidated material. Other ~~no less~~ equally effective and appropriate methods may be used for berms.

C. Berms, bumper blocks, safety hooks, or similar means shall be provided to prevent overtravel and overturning at ~~dump~~ dumping stations.

D. Dumping locations and haulage roads shall be kept reasonably free of water, debris, and spillage. Water, debris, or spilled material that creates ~~hazards~~ a hazard to moving equipment shall be removed.

E. ~~Haulage roads~~ Every haulage road constructed on or after July 1, 2005, shall be constructed at least one and one-half times the width of the widest equipment in use, and ~~those~~ any haulage ~~roads~~ road that is used for passing shall be constructed at least three times the width of the widest equipment in use. In ~~areas where this may~~ any area in which it is not ~~be~~ possible to construct the haulage road to at least the applicable minimum width, the foreman shall establish procedures for safe travel of haulage vehicles.

F. Traffic rules, signals, and warning signs shall be standardized at each mine and shall be posted. ~~This~~ Such rules, signals, and signs shall include~~, but not be limited to,~~ rules for the travel of on-road vehicles operating near off-road haulers in work areas.

G. ~~Dumping stations where~~ Every dumping station at which material is dumped over an embankment shall be designed to minimize backing and, where conditions permit, to provide for perpendicular travel to allow the equipment operator to observe the dumping station for changing conditions prior to backing. Reflectorized signs, strobe lights, or other available means shall be used to clearly indicate each dumping ~~locations~~ location. This subsection shall not apply to a dumping ~~stations~~ station (i) that ~~are~~ is moved after each dumped load as mining progresses, (ii) where spotters are being used, or (iii) where loads are dumped short and pushed over the embankment. ~~Dump stations~~ Any dumping station that

~~may~~ could interfere with ~~haulroads~~ a haulage road or work ~~areas~~ area below shall be clearly marked with signs to prevent further dumping, unless other effective precautions are taken to protect ~~haulroads~~ such haulage road or work ~~areas~~ area below the dump station.

Drafting note: The berm construction date reference is removed from subsection B because it has been made obsolete by federal law. 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 clarity, consistency, and modern usage. The word "haulroads," which appears only in this section, is replaced with the standard "haulage road."

§ ~~45.1-161.277~~ 45.2-xxx. Equipment operation.

A. If ~~truck spotters are~~ a truck spotter is used, ~~they~~ he shall be well in the clear while ~~trucks are~~ any truck is backing into dumping position and dumping. ~~Truck spotters~~ Every truck spotter shall use lights at night to direct backing and dumping operations.

B. ~~Dippers, buckets, scraper blades, and similar movable parts~~ Every dipper, bucket, scraper blade, or similar movable part shall be secured or lowered to the ground when not in use.

C. Equipment ~~which~~ that is to be hauled shall be loaded and protected so as to prevent sliding or spillage. When moving between work areas, the equipment shall be secured in the travel position.

D. Tow bars shall be used to tow heavy equipment and a safety chain shall be used in conjunction with each tow bar.

E. Dust control measures shall be taken so as to ~~not obstruct~~ prevent the obstruction of visibility of any equipment ~~operators~~ operator.

F. ~~Dippers~~ No dipper, ~~buckets~~ bucket, loading ~~booms~~ boom, or other heavy ~~loads~~ load shall ~~not~~ be swung over ~~cabs~~ the cab of haulage equipment until the driver is out of the cab and ~~is~~ in a safe location, unless the equipment is designed specifically to protect ~~drivers~~ the driver from falling material.

G. Lights, flares, or other warning devices shall be posted when parked equipment creates a hazard for other vehicles.

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.

Article 8.

Dust Control.

Drafting note: Existing Article 8, concerning dust control, is retained as proposed Article 8.

§ ~~45.1-161.278~~ 45.2-xxx. Control of dust and combustible material.

A. Where a surface coal mining ~~operations raise~~ operation raises an excessive amount of dust into the air, such dust shall be allayed at its sources by the use of water ~~or,~~ water with a wetting agent added to it, or ~~other~~ another effective ~~methods shall be used to allay such dust at its sources~~ method.

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

C. Loose coal, coal dust, oil, grease, ~~and~~ or other combustible materials shall not be permitted to accumulate excessively on equipment or surface structures.

Drafting note: Language is updated for clarity and technical changes are made.

Article 9.

Electricity.

Drafting note: Existing Article 9, concerning electricity, is retained as proposed Article 9.

§ ~~45.1-161.279~~ 45.2-xxx. Overhead high-potential power lines; surface transmission lines; electric wiring in surface buildings.

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

B. Surface transmission lines shall be protected against short circuits and lightning.

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

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.

§ ~~45.1-161.280~~ 45.2-xxx. Transformers.

A. Unless a surface ~~transformers are~~ transformer is isolated by elevation ~~(~~ to a height of eight feet or more above the ground~~), they~~, it shall be enclosed in a transformer house or surrounded by a suitable fence at least six feet high. If the enclosure or fence is made of metal, ~~it~~ such enclosure or fence shall be grounded effectively. The gate or door to the enclosure shall be kept locked at all times~~,~~ unless an authorized ~~persons are~~ person is present.

B. ~~Surface transformers containing~~ Any surface transformer that contains flammable oil and is installed where ~~they present~~ it 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.

C. Suitable ~~danger~~ warning signs shall be posted conspicuously at ~~all~~ every transformer ~~stations~~ station on the surface.

D. ~~All~~ Every transformer ~~stations~~ station on the surface shall be kept free of nonessential combustible materials and refuse.

E. No electrical work shall be performed on any low-voltage, medium-voltage, or high-voltage distribution ~~circuits~~ circuit or equipment~~,~~ except by (i) a certified person or ~~by~~ (ii) a person who is trained to perform electrical work and to maintain electrical equipment and who 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~~ person who ~~perform~~ performs electrical or mechanical work on such ~~circuits~~ a circuit or on any equipment connected to the ~~circuits, except that~~ circuit. However, in ~~cases where~~ a case in which such locking out is not possible, such devices shall be opened and suitably tagged by such ~~persons. Locks and tags~~ person.

Each lock and tag shall be removed only by the ~~persons~~ person who installed ~~them~~ it or, if such ~~persons are~~ person is unavailable, by a certified ~~persons~~ person who is authorized by the operator or his agent. However, ~~employees~~ an employee may, where necessary, repair energized trolley wires if ~~they wear~~ he wears insulated shoes and lineman's gloves.

F. This section does not prohibit a certified electrical ~~repairmen~~ repairman from making checks on or troubleshooting an energized ~~circuits~~ circuit 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, including changes pursuant to § 1-227, which states that throughout the Code any word used in the singular includes the plural and vice versa. An organizational change is made in proposed subsection F, and language is updated for modern usage.

§ ~~45.1-161.281~~ 45.2-xxx. Grounding.

A. ~~All~~ Every metallic ~~sheaths, armors, and conduits~~ sheath, armor, or conduit enclosing 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 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. When electric equipment is operated from a three-phase alternating current ~~circuits~~ circuit originating in ~~transformers~~ a transformer that is connected to provide a neutral point, a continuous grounding conductor of adequate size shall be installed and connected to the neutral point and to the ~~frames~~ frame of the power-utilizing equipment. Such grounding ~~conductors~~ conductor shall be grounded at the neutral point and at intervals along the conductor, if feasible. A suitable circuit breaker or switching device shall be provided having

a ground-trip coil connected in series with the grounding conductor to provide effective ground-fault tripping.

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. In subsection B, the phrase "become 'alive' through failure" is changed to "become live through failure."

§ ~~45.1-161.282~~ 45.2-xxx. Circuit breakers and switches.

A. ~~Automatic circuit breaking devices or fuses~~ An automatic circuit breaking device or fuse of the correct type and capacity shall be installed so as to protect ~~all~~ every piece of electric equipment and power ~~circuits~~ circuit against excessive overload. ~~Wires or other~~ Wire or another conducting ~~materials~~ material shall not be used as a substitute for a properly designed ~~fuses~~ fuse, and ~~circuit breaking devices~~ every circuit breaking device shall be maintained in safe operating condition.

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

C. Electric equipment and circuits shall be provided with switches or other controls of safe design, construction, and installation.

D. ~~Insulating mats~~ An insulating mat or other electrically nonconductive ~~material~~ material shall be kept in place at each power-control switch and at stationary machinery where a shock ~~hazards exist~~ hazard exists.

E. Suitable ~~danger~~ warning signs shall be posted conspicuously at ~~all~~ every high-voltage ~~installations~~ installation.

F. ~~All~~ Every power ~~wires and cables~~ wire or cable shall have adequate current-carrying capacity, ~~shall~~ be guarded from mechanical injury, and be installed in a permanent manner.

G. ~~Power circuits~~ Every power circuit shall be labeled to indicate the unit or circuit ~~they control~~ that it controls.

H. ~~Persons~~ All persons shall stay clear of ~~an~~ any electrically powered shovel or other similar heavy equipment during an electrical storm.

I. ~~All devices~~ Every device that is installed on or after July 1, 2005, ~~which provide~~ that provides either short circuit protection or protection against overload~~,~~ shall conform to the minimum requirements for protection of electric circuits and equipment of the National ~~Electric~~ Electrical Code in effect at the time of ~~their~~ its installation.

J. ~~All~~ Every electric ~~conductors~~ conductor installed on or after July 1, 2005, shall be sufficient in size to meet the minimum current-carrying capacity provided for in the National ~~Electric~~ Electrical Code in effect at the time of ~~their~~ its installation.

K. ~~All~~ Every trailing ~~cables~~ cable purchased on or after July 1, 2005, shall meet the minimum requirements for ampacity provided in the standards of the Insulated ~~Power~~ Cable Engineers Association ~~,~~ /National ~~Electric~~ Electrical Manufacturers Association in effect at the time such ~~cables are~~ cable is purchased.

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. The names of the Insulated Cable Engineers Association and the National Electrical Manufacturers Association are updated. Language is updated for modern usage and clarity.

§ ~~45.1-161.283~~ 45.2-xxx. Electrical trailing cables.

A. ~~Trailing cables~~ Every trailing cable shall be provided with suitable short-circuit protection and a means of disconnecting power from the cable.

B. ~~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~~ well-insulated.

C. The number of temporary, unvulcanized splices in a trailing cable shall be limited to one.

D. ~~Permanent splices~~ Every permanent splice in a trailing ~~cables~~ cable shall be made ~~as follows:~~

~~1. Mechanically~~ mechanically strong, with adequate electrical conductivity and flexibility~~.~~

~~2. Effectively~~, and shall be effectively insulated and sealed so as to exclude moisture.

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

E. ~~Trailing cables~~ Every trailing cable shall be protected against mechanical injury.

Drafting note: Technical changes are made, including organizational changes in subsection D 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.

Article 10.

Explosives and Blasting.

Drafting note: Existing Article 10, concerning explosives and blasting, is retained as proposed Article 10.

§ ~~45.1-161.284~~ 45.2-xxx. Surface storage of explosives and detonators.

A. ~~Separate~~ Two or more surface magazines shall be provided for the storage of explosives and the separate storage of detonators.

B. ~~Surface magazines~~ Every surface magazine for storing and distributing explosives in ~~amounts~~ an amount exceeding 150 pounds shall be:

1. Reasonably ~~bulletproof~~ bullet-resistant and constructed of incombustible material or covered with ~~fire-resistive~~ fire-resistant material. The ~~roofs~~ roof of ~~magazines so~~ a magazine that is located ~~that~~ in such a way as to make it ~~is~~ impossible to fire ~~bullets~~ a bullet directly through the roof from the ground~~,~~ need not be ~~bulletproof, but where~~ bullet-resistant. Where it is possible to fire ~~bullets~~ a bullet directly through ~~them, roofs~~ a roof from the ground, such roof shall be made bullet-resistant by material construction, ~~or~~ by the use of a ceiling that forms a tray containing not less than a four-inch thickness of sand, or by ~~other methods~~ another method;

2. Provided with doors that are constructed of ~~three-eighth inch~~ three-eighth-inch steel plate. Such doors shall be lined with a two-inch thickness of wood~~,~~ or the equivalent;

3. Provided with dry floors made of wood or other nonsparking material and have no metal exposed inside the magazine;

4. Provided with suitable warning signs ~~so~~ located so that a bullet passing directly through the face of a sign will not strike the magazine;

5. Provided with properly screened ventilators;

6. Equipped with no openings except for entrance and ventilation openings;

7. Kept locked securely when unattended; and

8. Electrically bonded and grounded~~,~~ if constructed of metal.

C. ~~Surface magazines~~ A surface magazine for storing detonators need not be ~~bulletproof~~ bullet-resistant, but ~~they~~ it shall ~~be in accordance~~ comply with other provisions for storing explosives.

D. Explosives ~~in amounts~~ weighing a total of no more than 150 pounds ~~or less~~, or ~~5,000~~ detonators numbering 5,000 or ~~less~~ fewer, shall be stored either (i) in accordance with the ~~preceding~~ standards set forth in subsection A, B, or C or (ii) in a separate locked box-type ~~magazines~~ magazine. ~~Box-type magazines~~ A box-type magazine may also be used as a distributing ~~magazines~~ magazine when ~~quantities do~~ the weight of the explosives or the number of detonators does not exceed ~~those mentioned. Box-type magazines~~ the limits set forth in this subsection. Every box-type magazine shall be strongly constructed ~~strongly~~ of two-inch hardwood or the equivalent. ~~Metal magazines~~ Every metal magazine shall be lined with nonsparking material. No magazine shall be placed (a) in a building containing oil, grease, gasoline, wastepaper, or other highly flammable material~~; nor shall a magazine be placed~~ or (b) within ~~twenty~~ 20 feet of a stove, furnace, open fire, or flame.

E. ~~The location of magazines~~ No magazine shall be ~~not~~ placed less than 300 feet from any mine opening. However, ~~in the event that~~ if a magazine cannot be practicably located at such a distance, ~~the magazine~~ it may be located less than 300 feet from a mine opening~~,~~ if it is sufficiently barricaded and is approved by the Chief. Unless approved by the Chief,

~~magazines~~ no magazine shall ~~not~~ be located closer to an occupied ~~buildings~~ building, public ~~roads~~ road, or passenger ~~railways~~ railway than ~~allowed~~ the distance recommended in the "American Table of Distances for Storage of Explosive Materials" published by the Institute of Makers of Explosives.

F. The supply kept in a distribution ~~magazines~~ magazine shall be limited to approximately a ~~forty-eight hour~~ 48-hour supply, and ~~such~~ supplies of explosives and detonators may be distributed from the same magazine~~,~~ if they are separated by ~~at least~~ a ~~four-inch~~ substantially fastened hardwood partition at least four inches thick or the equivalent.

G. The area surrounding ~~magazines for not less than twenty-five feet in all directions~~ any magazine shall be kept free of rubbish, dry grass, or other materials of a combustible nature for at least 25 feet in every direction.

H. If ~~the~~ an explosives magazine is illuminated electrically, ~~the lamps~~ each lamp shall be of vapor-proof type~~,~~ and installed and wired so as to present ~~minimum~~ a minimal fire ~~and~~ or contact ~~hazards~~ hazard.

I. Only nonmetallic tools shall be used for opening any wooden ~~containers~~ explosives container. Extraneous materials shall not be stored ~~in an~~ with explosives or ~~detonator~~ detonators in an explosives magazine.

J. Smoking~~,~~ or carrying smokers' articles or open flames ~~shall be~~ is prohibited in or near any magazine.

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 "bulletproof" is replaced by "bullet-resistant" three times in recognition of the fact that bullet-resistant is the correct descriptive term for practical and technical reasons.

§ ~~45.1-161.285~~ 45.2-xxx. Misfires.

A. ~~Misfires~~ Every misfire shall be reported promptly to the mine foreman, and no other work shall be performed in the blasting area until the hazard has been corrected. A waiting period of at least ~~fifteen~~ 15 minutes ~~shall elapse~~ is required before anyone ~~returns~~ is

allowed to ~~the~~ any misfired ~~holes~~ hole. If explosives are suspected of burning in a hole, ~~all persons~~ every person affected shall move to a safe location for ~~the longer of~~ one hour or until the danger has passed, whichever time is longer. When such failure involves an electronic ~~detonators~~ detonator, the blasting cable shall be disconnected from the source of power and the battery ends short-circuited before ~~electric connections are~~ any electrical connection is examined.

B. Explosives shall be removed by (i) firing a separate charge at least two feet away from, and parallel to, the misfired charge ~~or by~~, (ii) washing the stemming and the charge from the borehole with water, or ~~by~~ (iii) inserting and firing a new primer after the stemming has been washed out.

C. A ~~very~~ careful search of the blasting area~~,~~ and, if necessary, of the coal after it reaches the tipple shall be made after blasting a misfired hole to recover any undetonated explosive.

D. The handling of a misfired shot shall ~~be~~ occur under the direct supervision of the foreman or an authorized person designated by 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.

§ ~~45.1-161.286~~ 45.2-xxx. Minimum blasting practices.

A. ~~When~~ If explosives are in use on the surface and an electrical storm approaches, all persons shall be removed from ~~such~~ the blast area until the storm has passed.

B. In accordance with the standards set forth in § ~~45.1-161.255~~ 45.2-xxx, the Chief shall ~~promulgate~~ adopt regulations regarding the safe storage, transportation, handling, and use of blasting agents and other explosives.

Drafting note: Technical changes are made for modern usage. 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.

Article 11.

Ground Control.

Drafting note: Existing Article 11, concerning ground control, is retained as proposed Article 11.

§ ~~45.1-161.287~~ 45.2-xxx. Ground control.

A. ~~All~~ Every surface coal mining ~~operations~~ operation shall establish and follow a ground control plan approved by the Chief to ensure the safety of workers and others affected by the ~~operations~~ operation. The ground control plan shall be consistent with prudent engineering design. Mining methods, including benching, shall ensure wall and bank stability~~,~~ ~~including benching,~~ in order to obtain a safe overall slope. The ground control plan shall also ensure the safety of ~~persons~~ every person who is (i) located in ~~residences~~ a residence or other occupied ~~buildings~~ building, (ii) working or traveling on any roadway, ~~and~~ or (iii) located in any other area where persons congregate, work, or travel that ~~may~~ could be affected by blasting or by the falling, sliding, or other uncontrolled movement of material. The ground control plan shall identify how residents or occupants of other buildings located down the slope from active workings will be notified when ~~ground disturbing~~ ground-disturbing activities will take place above them and what actions will be taken to protect such residents or occupants from ground control failures during the work.

B. Scaling and removal of loose hazardous material from the ~~tops~~ top of ~~pits and highwalls, banks, walls and benches~~ a pit or from a highwall, wall, bank, or bench shall be completed to ~~assure~~ ensure a safe work area.

C. Employees and other persons, except those involved in correction of the condition, shall be restricted from ~~areas~~ any area where hazardous highwall or pit conditions exist.

D. Unless he is required for the purpose of making repairs, ~~all persons~~ no person shall be ~~restricted from areas~~ allowed in any area that is located between equipment and ~~walls, benches, or banks~~ a highwall, wall, bank, or bench if the equipment ~~may~~ could hinder ~~their~~ escape from falling or sliding material. Special precautions shall be taken when ~~persons are~~ any person is required to perform such repairs.

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. References to a highwall, wall, bank, or bench are made consistent.

Article 12.

Auger and Highwall Mining.

Drafting note: Existing Article 12, concerning auger and highwall mining, is retained as proposed Article 12.

§ ~~45.1-161.288~~ 45.2-xxx. Inspection of electric equipment and wiring; checking and testing methane monitors.

Electric equipment and wiring that ~~extend~~ extends to an underground ~~areas~~ area shall be inspected by a certified person at least once a week and more often if necessary to ~~assure~~ ensure safe operating conditions~~, and any~~. Any hazardous condition found shall be corrected or the equipment or wiring shall be removed from service. ~~This~~ Such surface inspection is also required for any trailing ~~cables and~~ cable or circuit ~~breakers~~ breaker used in conjunction with such equipment and wiring.

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. The first sentence in the section is divided into two sentences for clarity and language is updated for clarity.

§ ~~45.1-161.289~~ 45.2-xxx. Highwall inspections.

A. ~~The~~ A mine foreman shall inspect the face of ~~all highwalls~~ each highwall, for a distance of 25 feet in both directions from an auger or highwall miner operation, ~~shall be inspected by a mine foreman~~ before any such operation begins and at least once during each coal producing shift.

B. ~~Mine~~ A mine foreman shall examine the face of ~~all highwalls~~ each highwall, for a distance of 25 feet in both directions from an auger or highwall miner ~~operations~~ operation,

frequently during ~~periods~~ any period of heavy rainfall or intermittent ~~freezing-thawing~~ freezing and thawing.

C. Hazardous conditions shall be corrected and loose material removed from above the mining area before any work is begun.

D. Records shall be kept of the inspection ~~compiled~~ and examination performed pursuant to subsections A and B. Such records shall be maintained for at least 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. Language is updated for modern usage and clarity.

§ ~~45.1-161.290~~ 45.2-xxx. Penetration of underground mines; testing.

A. A qualified person shall test for the presence of methane and for a deficiency of oxygen, using an approved device, at the entrance to an auger hole or at a highwall miner entry when either such entry point penetrates a worked-out area of an underground mine.

B. If one percent or more of methane is detected or 19.5 percent or less of oxygen is found to exist, no further work shall be performed until the atmosphere has been made safe.

Drafting note: Language is updated for clarity.

§ ~~45.1-161.291~~ 45.2-xxx. Safety precautions.

A. No person shall enter an auger hole or highwall miner entry without prior approval from the Chief.

B. ~~Auger holes and~~ Every auger hole or highwall miner ~~entries~~ entry shall be blocked with highwall spoil or other suitable material before it is abandoned.

C. ~~Auger and~~ Every auger or highwall mining ~~machines which are~~ machine that is exposed to any highwall ~~and~~ or explosion ~~hazards~~ hazard shall be provided with worker protection from falling material and a mine ~~explosions~~ explosion.

D. At least one person shall be assigned to observe the highwall for possible movement while ground personnel are working in ~~high risk areas~~ a high-risk area in close proximity to the highwall.

E. ~~Persons~~ All persons shall stay clear of any moving auger or highwall miner train, and no ~~persons~~ person shall pass over or under a moving train unless adequate crossing facilities are provided.

F. The ground control plan shall specify ~~spacing~~ any spacing of holes, any web design, and any use of alignment control devices.

G. The ground control plan shall include other administrative, engineering, and source controls that are to be provided for safe operations.

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.

Article 13.

Proximity of Mining to Gas~~,~~ or Oil Wells ~~and~~ or Vertical Ventilation Holes.

Drafting note: Existing Article 13, concerning proximity of mining to gas or oil wells or vertical ventilation holes, is retained as proposed Article 13. Technical changes are made to the name.

§ ~~45.1-161.292~~ 45.2-xxx. Surface coal mining; distance from wells; requirements.

A. Any mine operator who plans to remove coal or extend any workings in any mine ~~closer~~ to a distance of less than 500 feet ~~to~~ from any gas or oil well that is already drilled or is in the process of being drilled shall file with the Chief a notice that such mining is taking place or will take place, together with ~~a copy~~ copies of parts of the maps and plans required under § ~~45.1-161.64 which~~ 45.2-xxx that show the mine workings and projected mine workings beneath the tract in question and within 500 feet of the well. Such mine operator shall simultaneously mail copies of such notice, maps, and plans by certified mail, return receipt requested, to the well operator and the Gas and Oil Inspector appointed pursuant to the provisions of § 45.2-xxx [§ 45.1-361.4]. ~~Each notice~~ The mine operator shall certify in each notice that ~~the mine operator~~ he has complied with the provisions of this subsection.

B. Subsequent to the filing of the notice required by subsection A ~~of this section~~, the mine operator may proceed with surface coal mining operations in accordance with the maps

and plans~~; however~~. However, without the prior approval of the Chief, ~~he~~ such mine operator shall not remove any coal or extend any workings in any mine ~~closer~~ to a distance of less than 200 feet ~~to~~ from any gas or oil well that is already drilled or is in the process of being drilled.

C. The Chief shall ~~promulgate~~ adopt regulations ~~which~~ that prescribe the procedure to be followed by a mine ~~operators~~ operator in petitioning the Chief for approval to conduct ~~such activities closer~~ surface coal mining operations to a distance of less than 200 feet ~~to~~ from a well. A petition may include a request to mine through a plugged well or a plugged vertical ventilation hole. ~~A~~ Such petition may also include a request to mine through a well or a vertical ventilation hole and to lower the head of such well or vertical ventilation hole. Each mine operator who files a petition to remove coal or extend any workings ~~closer~~ to a distance of less than 200 feet ~~to~~ from any gas or oil well shall mail copies of the petition, maps, and plans by certified mail, return receipt requested, to the well operator and the Gas and Oil Inspector no later than the day of filing. The well operator and the Gas and Oil Inspector ~~and the well operator~~ shall have standing to object to any petition filed under this section. Such ~~objections~~ objection shall be filed within ~~ten~~ 10 days following the date such petition is filed.

Drafting note: Language is updated for modern usage and clarity and technical changes are made. 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. 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. Existing subsection B is divided into two subsections for clarity. A cross-reference to the section addressing the appointment of the Gas and Oil Inspector is added.

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