CHAPTER 774

An Act to amend and reenact §§ 45.1-161.8, 45.1-161.10, 45.1-161.31, 45.1-161.49, 45.1-161.55, 45.1-161.57, 45.1-161.59, 45.1-161.62, 45.1-161.63, 45.1-161.64, 45.1-161.68, 45.1-161.73, 45.1-161.80, 45.1-161.88, 45.1-161.89, 45.1-161.91, 45.1-161.108, 45.1-161.115, 45.1-161.116, 45.1-161.122, 45.1-161.123, 45.1-161.128, 45.1-161.133, 45.1-161.135, 45.1-161.139, 45.1-161.141, 45.1-161.142, 45.1-161.144, 45.1-161.145, 45.1-161.147, 45.1-161.150, 45.1-161.151, 45.1-161.152, 45.1-161.156, 45.1-161.160, 45.1-161.162, 45.1-161.164, 45.1-161.166, 45.1-161.167, 45.1-161.168, 45.1-161.169, 45.1-161.181, 45.1-161.186, 45.1-161.187, 45.1-161.191, 45.1-161.195, 45.1-161.196, 45.1-161.200, 45.1-161.202, 45.1-161.205, 45.1-161.206, 45.1-161.208, 45.1-161.209, 45.1-161.210, 45.1-161.213, 45.1-161.214, 45.1-161.216, 45.1-161.219 through 45.1-161.229, 45.1-161.231, 45.1-161.234, 45.1-161.245, 45.1-161.249, 45.1-161.256, 45.1-161.257, 45.1-161.258, 45.1-161.270, 45.1-161.276, 45.1-161.279, 45.1-161.280, 45.1-161.286, 45.1-161.294, and 45.1-161.305 of the Code of Virginia, and to repeal §§ 45.1-161.112, 45.1-161.113 and 45.1-161.190 of the Code of Virginia, relating to the Mine Safety Act.

[H 1372]

Approved April 6, 1996

Be it enacted by the General Assembly of Virginia:

1. That §§ 45.1-161.8, 45.1-161.10, 45.1-161.31, 45.1-161.49, 45.1-161.55, 45.1-161.57, 45.1-161.59, 45.1-161.62, 45.1-161.63, 45.1-161.64, 45.1-161.68, 45.1-161.73, 45.1-161.80, 45.1-161.88, 45.1-161.89, 45.1-161.91, 45.1-161.108, 45.1-161.115, 45.1-161.116, 45.1-161.122, 45.1-161.123, 45.1-161.128, 45.1-161.133, 45.1-161.135, 45.1-161.139, 45.1-161.141, 45.1-161.142, 45.1-161.144, 45.1-161.145, 45.1-161.147, 45.1-161.150, 45.1-161.151, 45.1-161.152, 45.1-161.156, 45.1-161.160, 45.1-161.162, 45.1-161.164, 45.1-161.166, 45.1-161.167, 45.1-161.168, 45.1-161.169, 45.1-161.181, 45.1-161.186, 45.1-161.187, 45.1-161.191, 45.1-161.195, 45.1-161.196, 45.1-161.200, 45.1-161.202, 45.1-161.205, 45.1-161.206, 45.1-161.208, 45.1-161.209, 45.1-161.210, 45.1-161.213, 45.1-161.214, 45.1-161.216, 45.1-161.219 through 45.1-161.229, 45.1-161.231, 45.1-161.234, 45.1-161.245, 45.1-161.249, 45.1-161.256, 45.1-161.257, 45.1-161.258, 45.1-161.270, 45.1-161.276, 45.1-161.279, 45.1-161.280, 45.1-161.286, 45.1-161.294, and 45.1-161.305 of the Code of Virginia are amended and reenacted as follows:

§ 45.1-161.8. Definitions.

As used in this chapter and in Chapters 14.3 (§ 45.1-161.105 et seq.) through 14.6 (§ 45.1-161.304 et seq.) of this title, unless the context requires a different meaning:

"Abandoned ~~areas~~ *area*" means ~~areas which are not ventilated, if underground, and are not examined regularly~~ *the inaccessible area of an underground mine that is sealed or ventilated and in which further mining is not intended*.

"Accident" means (i) a death of an individual at a mine; (ii) a serious personal injury; (iii) an entrapment of an individual for more than thirty minutes; (iv) an unplanned inundation of a mine by liquid or gas; (v) an unplanned ignition or explosion of gas or dust; (vi) an unplanned fire not extinguished within thirty minutes of discovery; (vii) an unplanned ignition or explosion of a blasting agent or an explosive; (viii) an unplanned roof fall at or above the anchorage zone in active workings where roof bolts are in use; or an unplanned roof or rib fall in active workings that impairs ventilation or impedes passage; (ix) a coal or rock outburst that causes withdrawal of miners or which disrupts regular mining activity for more than one hour; (x) an unstable condition at an impoundment, refuse pile, or culm bank which requires emergency action in order to prevent failure, or which causes individuals to evacuate an area; or, failure of an impoundment, refuse pile or culm bank; (xi) damage to hoisting equipment in a shaft or slope which endangers an individual or which interferes with use of the equipment for more than thirty minutes; and (xii) an event at a mine which causes death or bodily injury to an individual not at a mine at the time the event occurs.

"Active areas" means all places in a mine that are ventilated, if underground, and examined regularly.

"Active workings" means any place in a mine where miners are normally required to work or travel.

"Agent" means any person charged by the operator with responsibility for the operation of all or a part of a mine or the supervision of the miners in a mine.

"Approved" means a device, apparatus, equipment, condition, method, course or practice approved in writing by the Chief or Director.

"Armored cable" means a cable provided with a wrapping of metal, plastic or other approved material.

"Authorized person" means a person assigned by the operator or agent to perform a specific type of duty or duties or to be at a specific location or locations in the mine who is task trained in accordance

with requirements of the federal mine safety law.

"Blower fan" means a fan with tubing used to direct part of a particular circuit of air to a working place.

"Booster fan" means an underground fan installed in conjunction with a main fan to increase the volume of air in one or more circuits.

"Cable" means a stranded conductor (single-conductor cable) or a combination of conductors insulated from one another (multiple-conductor cable).

"Certified person" means a person holding a valid certificate from the Board of Coal Mining Examiners or the Board of Mineral Mining Examiners authorizing him to perform the task to which he is assigned.

"Circuit" means a conducting part or a system of conducting parts through which an electric current is intended to flow.

"Circuit breaker" means a device for interrupting a circuit between separable contacts under normal or abnormal conditions.

"Coal mine" means a surface coal mine or an underground coal mine.

"Competent person" means a person designated by the Department as having abilities and experience that fully qualify him to perform the duty to which he is assigned.

"Cross entry" means any entry or set of entries, turned from main entries, from which room entries are turned.

"Experienced surface miner" means a person with more than six months of experience working at a surface mine or the surface area of an underground mine.

"Experienced underground miner" means a person with more than six months of underground mining experience.

"Federal mine safety law" means the Federal Mine Safety and Health Act of 1977 (P.L. 95-164), and regulations promulgated thereunder.

"Fuse" means an overcurrent protective device with a circuit-opening fusible member directly heated and destroyed by the passage of overcurrent through it.

"Ground" means a conducting connection between an electric circuit or equipment and earth or to some conducting body which serves in place of earth.

"Grounded" means connected to earth or to some connecting body which serves in place of the earth.

"Hazardous condition" means conditions that are likely to cause death or serious personal injury to persons exposed to such conditions.

"Imminent danger" means the existence of any condition or practice in a mine which could reasonably be expected to cause death or serious personal injury before such condition or practice can be abated.

"Inactive mine" means a mine (i) at which coal or minerals have not been excavated or processed, or work, other than examinations by a certified person or emergency work to preserve the mine, has not been performed at an underground mine for a period of thirty days, or at a surface mine for a period of sixty days, (ii) for which a valid license is in effect, and (iii) at which reclamation activities have not been completed.

"Inexperienced underground miner" means a person with less than six months of underground mining experience.

"Intake air" means air that has not passed through the last active working place of the split or by the unsealed entrances to abandoned areas and by analysis contains not less than nineteen and one-half percent oxygen nor more than one-half of one percent of carbon dioxide, nor any ~~dangerous~~ *hazardous* quantities of flammable gas nor any harmful amounts of poisonous gas.

"Interested persons" means members of the Mine Safety Committee and other duly authorized representatives of the employees at a mine; federal Mine Safety and Health Administration employees; mine inspectors; and, to the extent required by this Act, any other person.

"Main entry" means the principal entry or set of entries driven through the coal bed or mineral deposit from which cross entries, room entries, or rooms are turned.

"Mine" means any underground coal mine, surface coal mine, underground mineral mine, or surface mineral mine. Mines that are adjacent to each other and under the same management and which are administered as distinct units shall be considered as separate mines. A site shall not be a mine unless the coal or mineral extracted or excavated therefrom is offered for sale or exchange, or used for any other commercial purposes.

"Mine fire" means an unplanned fire not extinguished within thirty minutes of discovery.

"Mine foreman" means a person holding a valid certificate of qualification as a foreman duly issued by action of the Board of Coal Mining Examiners or as a foreman duly issued by action of the Board of Mineral Mining Examiners.

"Mine inspector" means a public employee assigned by the Chief or the Director to make mine inspections as required by this Act, and other applicable laws.

"Mine Safety Act" or "Act" shall mean this chapter and Chapters 14.2 (§ 45.1-161.105 et seq.) through 14.6 (§ 45.1-161.304 et seq.) of this title, and shall include any regulations promulgated

thereunder, where applicable.

"Miner" means any individual working in a mine.

"Mineral" means clay, stone, sand, gravel, metalliferous and non-metalliferous ores, and any other solid material or substance of commercial value excavated in solid form from natural deposits on or in the earth, exclusive of coal and those minerals which occur naturally in liquid or gaseous form.

"Mineral mine" means a surface mineral mine or an underground mineral mine.

"Operator" means any person who operates, controls or supervises a mine or any independent contractor performing services or construction at such mine.

"Panel entry" means a room entry.

"Permissible" means a device, process, or equipment or method heretofore or hereafter classified by such term by the Mine Safety and Health Administration, when such classification is adopted by the Chief or the Director, and includes, unless otherwise herein expressly stated, all requirements, restrictions, exceptions, limitations, and conditions attached to such classification by the Administration.

"Return air" means air that has passed through the last active working place on each split, or air that has passed through ~~abandoned, inaccessible or pillared areas~~ *abandoned or worked-out areas*. Area within a panel shall not be deemed abandoned until ~~such panel is abandoned~~ *inaccessible or sealed*.

"Room entry" means any entry or set of entries from which rooms are turned.

"Serious personal injury" means any injury requiring at least one day of hospital confinement *for other than strains and sprains*.

"Substation" means an electrical installation containing generating or power-conversion equipment and associated electric equipment and parts, such as switchboards, switches, wiring, fuses, circuit breakers, compensators and transformers.

"Surface coal mine" means (i) the pit and other active and inactive areas of surface extraction of coal; (ii) on-site preparation plants, shops, tipples and related facilities appurtenant to the extraction and processing of coal; (iii) surface areas for the transportation and storage of coal extracted at the site; (iv) impoundments, retention dams, tailing ponds, and refuse disposal areas appurtenant to the extraction of coal from the site; (v) equipment, machinery, tools, and other property used in, or to be used in, the extraction of coal from the site; (vi) private ways and roads appurtenant to such area; and (vii) the areas used to prepare a site for surface coal extraction activities. A site shall commence being a surface coal mine upon the beginning of any site preparation activity other than exploratory drilling or other exploration activity that does not disturb the surface, and shall cease to be a surface coal mine upon completion of initial reclamation activities.

"Surface mineral mine" means (i) the pit and other active and inactive areas of surface extraction of minerals; (ii) on-site mills, shops, loadout facilities, and related structures appurtenant to the excavation and processing of minerals; (iii) impoundments, retention dams, tailing ponds, and other areas appurtenant to the extraction of minerals from the site; (iv) on-site surface areas for the transportation and storage of minerals excavated at the site; (v) equipment, machinery, tools and other property used in, or to be used in, the work of extracting minerals from the site; (vi) private ways and roads appurtenant to such area; and (vii) the areas used for surface-disturbing exploration (other than by drilling or seismic testing) or preparation of a site for surface mineral extraction activities. A site shall commence being a surface mineral mine upon the beginning of any surface-disturbing exploration activities other than exploratory drilling or seismic testing, and shall cease to be a surface mineral mine upon completion of initial reclamation activities. The surface extraction of a mineral shall not constitute surface mineral mining unless (i) the mineral is extracted for its unique or intrinsic characteristics, or (ii) the mineral requires processing prior to its intended use.

"Travel way" means a passage, walk or way regularly used and designated for persons to go from one place to another.

"Underground coal mine" means (i) the working face and other active and inactive areas of underground excavation of coal; (ii) underground ~~passageways~~ *travel ways*, shafts, slopes, drifts, inclines, and tunnels connected to such areas; (iii) on-site preparation plants, shops, tipples and related facilities appurtenant to the excavation and processing of coal; (iv) on-site surface areas for the transportation and storage of coal excavated at the site; (v) impoundments, retention dams, and tailing ponds appurtenant to the excavation of coal from the site; (vi) equipment, machinery, tools, and other property, on the surface and underground, used in, or to be used in, the excavation of coal from the site; (vii) private ways and roads appurtenant to such area; (viii) the areas used to prepare a site for underground coal excavation activities; and (ix) areas used for the drilling of vertical ventilation holes. A site shall commence being an underground coal mine upon the beginning of any site preparation activity other than exploratory drilling or other exploration activity, and shall cease to be an underground coal mine upon completion of initial reclamation activities.

"Underground mineral mine" means (i) the working face and other active and inactive areas of underground excavation of minerals; (ii) underground ~~passageways~~ *travel ways*, shafts, slopes, drifts, inclines and tunnels connected to such areas; (iii) on-site mills, loadout areas, shops, and related facilities appurtenant to the excavation and processing of minerals; (iv) on-site surface areas for the transportation and storage of minerals excavated at the site; (v) impoundments, retention dams, tailing

ponds and waste areas appurtenant to the excavation of minerals from the site; (vi) equipment, machinery, tools, and other property, on the surface or underground, used in, or to be used in, the excavation of minerals from the site; (vii) private ways and roads appurtenant to such area; and (viii) the areas used to prepare a site for underground mineral excavation activities. A site shall commence being an underground mineral mine upon the beginning of any site preparation activity other than exploratory drilling or other exploration activity, and shall cease to be an underground mineral mine upon completion of initial reclamation activities.

"Work area," as used in Chapter 14.4 (§ 45.1-161.253 et seq.) of this title, means those areas of a surface coal mine in production or being prepared for production and those areas of the mine which may pose a danger to miners at such areas.

"Worked-out area" means an area where underground coal mining has been completed, whether pillared or nonpillared, excluding developing entries, return air courses and intake air courses.

"Working face" means any place in a mine in which work of extracting coal or minerals from its natural deposit in the earth is performed during the mining cycle.

"Working place" means the area of an underground mine inby the last open crosscut.

"Working section" means all areas from the loading point of a section to and including the working faces.

§ 45.1-161.10. Special safety rules.

The operator of every mine shall have the right to adopt special safety rules for the safety and operation of his mine or mines, covering the work pertaining thereto inside and outside of the same, which, however, shall not be in conflict with the provisions of this Act. Such rules, when established, ~~shall be printed in the languages spoken by ten or more miners, and~~ shall be posted at some conspicuous place about the mines, where the rules may be seen by all miners at such mines, or in lieu thereof the operator shall furnish a printed copy of such rules to each of his miners.

§ 45.1-161.31. Examination fees; Coal Mining Examiners' Fund.

A. A fee of ten dollars~~, in the form of cash, money order or certified check,~~ shall be paid to the Chief by each person examined before the commencement of examination. All such fees collected, together with moneys collected pursuant to §§ 45.1-161.32 and 45.1-161.34, shall be retained by the Department and shall be promptly paid by the Chief into the state treasury and shall constitute the Coal Mining Examiners' Fund. The fund shall be administered by the Chief for the payment of the compensation and expenses of the Board of Coal Mining Examiners and its members, for which purposes such moneys are hereby appropriated.

B. The cost of printing certificates and other necessary forms and the incidental expenses incurred by the Board in conducting examinations, reviewing examination papers and conducting its other duties pursuant to this article shall also be paid out of the Coal Mining Examiners' Fund. The Chief shall keep accounts and records concerning the receipts and expenditures of the fund as required by the Auditor of Public Accounts.

§ 45.1-161.49. Examination fees; Mineral Mining Examiners' Fund.

A. A fee of ten dollars~~, in the form of cash, money order or certified check,~~ shall be paid to the Director by each person examined, before the commencement of the examination. All such fees collected, together with moneys collected pursuant to §§ 45.1-161.50 and 45.1-161.52, shall be retained by the Department and shall be promptly paid by the Director into the state treasury and shall constitute the Mineral Mining Examiners' Fund. The fund shall be administered by the Director for the payment of the compensation and expenses of the Board of Mineral Mining Examiners and its members for which purpose such moneys are hereby appropriated.

B. The cost of printing certificates and other necessary forms and the incidental expenses incurred by the Board in conducting examinations, reviewing examination papers, and conducting its other duties pursuant to this article shall also be paid out of the Mineral Mining Examiners' Fund. The Director shall keep accounts and records concerning the receipts and expenditures of the fund as required by the Auditor of Public Accounts.

§ 45.1-161.55. General mineral miner certification.

A. Every person commencing work in a mineral mine subsequent to January 1, ~~1996~~ *1997*, shall hold a general mineral miner certificate issued by the Board of Mineral Mining Examiners. Any person who has been employed to work in a mineral mine in Virginia prior to that date may, but shall not be required to, hold a general mineral miner certificate.

B. Each applicant for a general mineral miner certificate shall prove to the Board that he has knowledge of first aid practices and has a general working knowledge of the provisions of this Act and applicable regulations, pertaining to mineral mining health and safety.

§ 45.1-161.57. License required for operation of mines; term.

A. No person shall engage in the operation of any mine within this Commonwealth without first obtaining a license from the Department. A license shall be required prior to commencement of the operation of a mine. A separate license shall be secured for each mine operated. Licenses shall be in such form as the Director may prescribe. The license shall be posted in a conspicuous place near the main entrance to the mine. The license shall not be transferable and every change in ownership of a

mine shall be reported to the Department as provided in subsection B of § 45.1-161.62.

B. Licenses for coal mines shall be valid for a period of no more than one year following the date of issuance ~~;~~ ~~however, all licenses shall be renewed each year during the forty-five-day period following each January 1~~ *and shall be renewed annually within fifteen days following the anniversary of the date the mine began operations*. Licenses for mineral mines shall be valid for a period of one year following the date of issuance and shall be renewed on their anniversary date.

§ 45.1-161.59. Application for license.

A. An application for a license shall be submitted by the person who will be the operator of the mine. No application for a license or a renewal thereof shall be complete unless it contains the following:

1. Identity regarding the operator of the mine. If the operator is a sole proprietorship, the operator shall state: (i) his full name and address; (ii) the name and address of the mine and its federal mine identification number; (iii) the name and address of the person ~~at the mine~~ with overall responsibility for operating decisions *at the mine*; (iv) the name and address of the person with overall responsibility for health and safety at the mine; (v) the federal mine identification numbers of all other mines in which the sole proprietor has a twenty percent or greater ownership interest; and (vi) the trade name, if any, and the full name, address of record and telephone number of the proprietorship. If the operator is a partnership, the operator shall state: (i) the name and address of the mine and its federal mine identification number; (ii) the name and address of the person ~~at the mine~~ with overall responsibility for operating decisions *at the mine*; (iii) the name and address of the person with overall responsibility for health and safety at the mine; (iv) the federal mine identification numbers of all other mines in which the partnership has a twenty percent or greater ownership interest; (v) the full name and address of all partners; (vi) the trade name, if any, and the full name and address of record and telephone number of the partnership; and (vii) the federal mine identification numbers of all other mines in which any partner has a twenty percent or greater ownership interest. If the operator is a corporation, the operator shall state: (i) the name and address of the mine and its federal mine identification number; (ii) the name and address of the person ~~at the mine~~ with overall responsibility for operating decisions *at the mine*; (iii) the name and address of the person with overall responsibility for health and safety at the mine; (iv) the federal mine identification numbers of all other mines in which the corporation has a twenty percent or greater ownership interest; (v) the full name, address of record and telephone number of the corporation and the state of incorporation; (vi) the full name and address of each officer and director of the corporation; (vii) if the corporation is a subsidiary corporation, the operator shall state the full name, address, and state of incorporation of the parent corporation; and (viii) the federal mine identification numbers of all other mines in which any corporate officer has a twenty percent or greater ownership interest. If the operator is any organization other than a sole proprietorship, partnership, or corporation, the operator shall state: (i) the nature and type, or legal identity of the organization; (ii) the name and address of the mine and its federal mine identification number; (iii) the name and address of the person ~~at the mine~~ with overall responsibility for operating decisions *at the mine*; (iv) the name and address of the person with overall responsibility for health and safety at the mine; (v) the federal mine identification numbers of all other mines in which the organization has a twenty percent or greater ownership interest; (vi) the full name, address of record and telephone number of the organization; (vii) the name and address of each individual who has an ownership interest in the organization; (viii) the name and address of the principal organization officials or members; and (ix) the federal mine identification numbers of all other mines in which any official or member has a twenty percent or greater ownership interest;

2. The names and addresses of any agent of the operator with responsibility for the business operation of the mine, and any person with an ownership or leasehold interest in the coal or minerals to be mined;

3. The names and addresses of persons to be contacted in the event of an accident or other emergency at the mine;

4. Such information required by the Department that is relevant to an assessment of the safety and health risks likely to be associated with the operation of the mine; *and*

5. ~~For any coal mine license renewal, (i) an affidavit, certified by the commissioner of revenue of the locality in which the coal mining operations are conducted, stating that all local coal severance taxes enacted pursuant to §§ 58.1-3703, 58.1-3712 and 58.1-3713 due with respect to the coal mining operations have been paid, and (ii) an affidavit, certified by the treasurer of the locality in which the coal mining operations are conducted, stating that all personal property, real estate and mineral land taxes due with respect to the coal mining operations have been paid;~~

6. ~~The mine map required pursuant to § 45.1-161.64, provided that the Chief or Director may issue or renew the license without the submission of the mine map, if in his opinion, an extension of time for submitting such map should be granted; and~~

7. For any license renewal, the annual report required pursuant to § 45.1-161.62.

B. The application shall be certified as being complete and accurate by the applicant, if an individual, by the agent of a corporate applicant, or by a general partner of an applicant that is a

partnership. The application shall be submitted on forms furnished or approved by the Department.

C. Within thirty days after the occurrence of any change in the information required by subsection A, the operator shall notify the Department, in writing, of such change.

§ 45.1-161.62. Annual reports; condition to issuance of license following transfer of ownership.

A. The operator or his agent of every mine shall annually, by February 15, mail or deliver to the Department a report for the preceding twelve months, ending with December 31. Such report shall state: (i) the names of the operator, any agent, and their officers, of the mine; (ii) the quantity of coal or minerals mined; and (iii) such other information, not of a private nature, as may from time to time be required by the Department on blank forms furnished or approved by the Department.

B. Whenever the owner of a mine shall transfer the ownership of such mine to another person, the person transferring such ownership shall submit a report to the Department of such change and a statement of the tons of coal or minerals produced since the January 1 previous to the date of such sale or transfer of such mine. A license will not be issued covering such transfer of ownership until the report is furnished.

C. The operator or his agent of every coal mine shall annually, by February 15, mail or deliver to the Department (i) an affidavit, certified by the Commissioner of Revenue of the locality in which the coal mining operations are conducted, stating that all local coal severance taxes enacted pursuant to §§ 58.1-3703, 58.1-3712, and 58.1-3713 due with respect to the coal mining operations have been paid; and (ii) an affidavit, certified by the Treasurer of the locality in which the coal mining operations are conducted, stating that all personal property, real estate and mineral land taxes due with respect to coal mining operations have been paid.

§ 45.1-161.63. Notices to Department; resumption of mining following discontinuance.

A. The operator or his agent shall send notice of intent to abandon or discontinue the working of an underground mine for a period of thirty days or a surface mine for a period of sixty days to the Department at least ten days prior to discontinuing the working of a mine with such intent, or at any time a mine becomes an inactive mine.

B. The operator, or his agent, shall send to the Department ten days' prior notice of intent to resume the working of an inactive mine. Except for a surface mineral mine which is inspected by the Mine Safety and Health Administration, the working of such mine shall not resume until a mine inspector has inspected the mine and approved it.

C. Emergency actions necessary to preserve a mine may be undertaken without the prior notice of intent and advance inspection required by subsection B. In such event, a mine foreman shall examine a mine for ~~dangerous~~ *hazardous* conditions immediately before miners are permitted to work. The operator, or his agent, shall notify the Department as soon as possible after commencing emergency action necessary to preserve the mine.

D. The operator, or his agent, shall send to the Department ten days' prior notice of any change in the name of a mine or in the name of the operation of a mine.

E. The operator, or his agent, shall send to the Department ten days' prior notice of the opening of a new mine.

F. Any notice required by this section shall be in writing and shall include the name of the mine, the location of the mine, the name of the operator, and the operator's mailing address.

§ 45.1-161.64. Maps of mines required to be made; contents; extension and preservation; use by Department; release; posting of map.

A. *Prior to commencing mining activity,* the operator of a *mineral* mine, or his agent, shall make, or cause to be made, unless already made and filed, an accurate map of such mine, on a scale to be stated thereon of 100 to 400 feet to the inch. Such map shall show the openings or excavations, the shafts, slopes, entries and airways, with darts or arrows showing direction of air currents, headings, rooms, pillars, permanent explosive magazines, permanent fuel storage facilities, and such portions of such mine or mines as may have been abandoned, and so much of the property lines and the outcrop of the ~~coal or~~ mineral of the tract of land on which the mine is located, as may be within 1,000 feet of any part of the workings of such mine, and for underground mines only, the general inclination of the ~~coal or~~ mineral strata. *The operator shall annually, beginning on the anniversary date of the mine permit issued pursuant to Chapter 16 (§ 45.1-180 et seq.), while the mine is in operation, cause the map thereof to be extended so as to accurately show the progress of the workings, and the property lines and outcrop as described above, and shall forward the same to the Department to be kept on record, subject to the conditions stated in subsection C. If there are no changes in the information required by this section, an updated map shall not be required to be submitted to the Department.*

B. Prior to commencing mining activity, the operator of a coal mine, or his agent, shall make, or cause to be made, unless already made and filed, an accurate map of such mine, on a scale to be stated thereon of 100 to 400 feet to the inch. At intervals not to exceed twelve months, the operator shall submit to the Chief three copies of an up-to-date map of the entire mine. A registered engineer or registered surveyor shall certify that the map of the mine workings is accurate. Such map shall show the mine name, company name, mine index number, legend identifying the scale of the map, symbols used and the name of the person responsible for the information on the map. The map shall contain

information related to active and worked-out areas of the mine, projections for at least twelve months of anticipated development, location of gas wells and all known drill holes, the location of all known mine workings underlying, overlying, and adjacent to the mine property, the direction and quantity of air current, ventilation controls, escapeways, so much of the property lines and the outcrop of the coal or mineral of the tract of land on which the mine located as may be within 1000 feet of any part of the workings of such mine, and such other information related to underground and surface activities as deemed necessary by the Chief. If there are no changes in the information required by this section, an updated map shall not be required to be submitted to the Department.

~~B.~~ *C*. The operator of any surface coal or surface mineral mine, or his agent, shall not be required to submit a map of such mine to the Department ~~as a condition for obtaining a mine license~~ unless the mine may intersect (i) underground workings or (ii) workings ~~of~~ *from* auger, thin seam, or highwall ~~miners~~ *mining operations*. The map shall be filed and preserved among the records of the Department and made available at a reasonable cost to all persons owning, leasing, or residing on or having an equitable interest in surface areas or coal or mineral interests within 1,000 feet of such mining operation upon written proof satisfactory to the Director and upon sworn affidavit that such person requesting a map has a proper legal or equitable interest; however, the Director shall provide to the person requesting a map only that portion of the map which abuts or is contiguous to the property in which such requesting party has a legal or equitable interest. In no case shall any copy of the same be made for any other person without the consent of the operator or his agent. The Director shall promptly deliver notice of such request to the operator of such mining operation.

~~C.~~ *D*. The original map, or a true copy thereof, shall be kept by such operator at the active mine, open at all reasonable times for the examination and use of the mine inspector. *For coal mines, such map shall be kept up to date by temporary notations and such map shall be revised and supplemented at intervals not to exceed six months.* ~~The Department shall assign a Mine Index number to the mine. The operator of an underground mine shall show such Mine Index number on the map at or near the portal.~~

~~D. The operator of a coal mine shall, twice within every twelve months, between December 1 and February 1 and between June 1 and August 1 of each year, while the mine is in operation, cause such mine to be surveyed and the map thereof extended so as to accurately show the progress of the workings, and the property lines and outcrop as described in subsection A, and shall forward the same to the Department to be kept on record, subject to the conditions stated in subsection B. If there are no changes in the information required by this section, an updated map shall not be required to be submitted to the Department.~~

~~E. The operator of an underground mineral mine shall, beginning on the anniversary date of the mine permit issued pursuant to Chapter 16 (§ 45.1-180 et seq.) of Title 45.1 and every six months thereafter, while the mine is in operation, cause such mine to be surveyed and the map thereof extended so as to accurately show the progress of the workings, and the property lines and outcrop as described in subsection A, and shall forward the same to the Department to be kept on record, subject to the conditions stated in subsection B. If there are no changes in the information required by this section, an updated map shall not be required to be submitted to the Department.~~

~~F. The operator of a surface mineral mine shall annually, beginning on the anniversary date of the mine permit issued pursuant to Chapter 16 (§ 45.1-180 et seq.) of Title 45.1, while the mine is still in operation, cause such mine to be surveyed and the map thereof extended so as to accurately show the progress of the workings, and the property lines and outcrop as described in subsection A, and shall forward the same to the Department to be kept on record, subject to the conditions stated in subsection B. If there are no changes in the information required by this section, an updated map shall not be required to be submitted to the Department.~~

~~G.~~ *E*. Such maps may be used by the Department for the evaluation of the coal resources of the Commonwealth.

~~H.~~ *F*. Copies of such maps shall be made available at a reasonable cost to the governing body of any county, city or town in which the mine is located upon written request; however, such copies shall be provided on the condition that they not be released to any person who does not have a legal or equitable interest in surface areas or mineral interests within 1,000 feet of the mining operation without the written consent of the operator or his agent. The governing body shall promptly deliver notice of any request for a copy of such a map to the operator or his agent.

~~I.~~ *G*. At underground coal mines, an accurate map of the mine showing clearly all avenues of ingress and egress in case of fire shall be posted in a place accessible to all miners.

§ 45.1-161.68. Mine rescue crews.

The Director is hereby authorized to have trained and employed at the mine rescue and first aid stations operated by the Department within the Commonwealth mine rescue crews as he may determine necessary. Each member of a mine rescue crew shall devote four hours each month for training purposes and shall be available at all times to assist in rescue work. ~~Regular crew members shall receive for such services the sum of thirty-two dollars per month and captains of such crews shall receive for such services the sum of thirty-six dollars per month.~~ *Members shall receive compensation for services at a*

rate set by the Director, to be determined annually based on prevailing wage rates within the industry. For the purposes of workers' compensation coverage during training periods, such crew members shall be deemed to be within the scope of their regular employment. The Director shall certify to the Comptroller of the Commonwealth that such crew members have performed the required service. Upon such certification the Comptroller shall issue a warrant upon the state treasury for their compensation. The Director may remove any crew member at any time.

§ 45.1-161.73. State-designated mine rescue teams.

The Director may, upon the request of an operator or agent who employs a mine rescue team, designate two or more mine rescue teams as "state-designated mine rescue teams." Any team which is certified as a mine rescue team by the Mine Safety and Health Administration under 30 CFR Part 49 shall be eligible to be a state-designated team. Following the designation of any such teams, the Director shall, upon the payment ~~of an annual rescue fee of $1,000 by an operator to the Department~~ *to the Department of an annual fee, set by the Director based on current costs for maintaining mine rescue stations and personnel*, assign two or more state-designated teams to the operator. An operator who has paid the rescue fee shall be entitled to the rescue services of a state-designated rescue team at no additional charge.

§ 45.1-161.80. Duties of mine inspectors.

Each mine inspector shall:

1. Report immediately, and by the quickest available means, any mine fire, mine explosion, and any accident involving serious personal injury or death to his supervisor;

2. Proceed immediately to the scene of any accident at any mine under his jurisdiction that results in loss of life or serious personal injury, and to the scene of any mine fire or explosion regardless of whether there is loss of life or personal injury. He shall make such investigation and suggestions and render such assistance as he deems necessary for the future safety of the employees, and make a complete report to his supervisor as soon as practicable. He shall have the power to compel the attendance of witnesses, and to administer oaths or affirmations~~. The cost of the investigation shall be paid by the county in which the accident occurred~~; and

3. Take charge of mine rescue and recovery operations whenever a mine fire, mine explosion, or other serious accident occurs, and shall supervise the reopening of all mines or sections thereof that have been sealed or abandoned on account of fire or any other cause.

§ 45.1-161.88. Duties of inspectors.

A. During a complete inspection of a mine, other than an inactive mine, the mine inspector shall inspect, where applicable, the surface plant; all active workings; all active ~~haulage ways and~~ travel ways; entrances to abandoned areas; accessible ~~inactive~~ *worked-out* areas; at least one entry of each intake and return airway in its entirety; escapeways and other places where miners work or travel or where ~~dangerous~~ *hazardous* conditions may exist; electric installations and equipment; haulage facilities; first-aid equipment; ventilation facilities; communication installations; roof and rib conditions; roof-support practices; blasting practices; haulage practices and equipment; and any other condition, practice or equipment pertaining to the health and safety of the miners. The mine inspector shall make tests for the quantity of air flows, and for gas and oxygen deficiency, in each place which he is required to inspect in an underground mine. In mines operating more than one shift in a twenty-four-hour period, the mine inspector shall devote sufficient time on the second and third shifts to determine conditions and practices relating to the health and safety of the miners. For an inactive mine, the mine inspector shall inspect all areas of the mine where persons may work or travel during the period the mine is an inactive mine.

B. The inspector shall make a personal examination of the interior of the mine, and of the outside of the mine where any danger may exist to the miners.

§ 45.1-161.89. Certificates of inspection.

A. Upon completing a mine inspection, a mine inspector shall complete a certificate regarding such inspections. The certificate of inspection shall show the date of inspection, the condition in which the mine is found, a statement regarding any violations of this Act discovered during the inspection, the progress made in the improvement of the mine as such progress relates to health and safety, the number of accidents and injuries occurring in and about the mine since the previous inspection, and all other facts and information of public interest concerning the condition of the mine as may be useful and proper.

B. The mine inspector shall deliver one copy of the certificate of inspection to the operator, agent or mine foreman, and one copy to the employees' safety committee where applicable; and shall post one copy at a prominent place on the premises where it can be read conveniently by the miners.

C. With respect to coal mines and underground mineral mines, the ~~mine inspector shall deliver one copy of the certificate of inspection to the appropriate office of~~ *Department shall provide access to certificates of inspection to* the Mine Safety and Health Administration.

§ 45.1-161.91. Closure orders.

A. The Director, the Chief, or a mine inspector shall issue a closure order requiring any mine or section thereof cleared of all persons, or equipment removed from use, and refusing further entry into

the mine of all persons except those necessary to correct or eliminate a ~~dangerous~~ *hazardous* condition, when (i) a violation of this Act has occurred, which creates an imminent danger to the life or health of persons in the mine; (ii) a mine fire, mine explosion, or other serious accident has occurred at the mine, as may be necessary to preserve the scene of such accident during the investigation of the accident; (iii) a mine is operating without a license, as provided by § 45.1-161.57; or (iv) an operator to whom a notice of violation was issued has failed to abate the violation cited therein within the time period provided in such notice for its abatement; however, a closure order shall not be issued for failure to abate a violation during the pendency of an administrative appeal of the issuance of the notice of violation as provided in subsection D of § 45.1-161.90. In addition, a technical specialist may issue a closure order upon discovering a violation creating an imminent danger.

B. One copy of the closure order shall be delivered to the operator of the mine or his agent or the mine foreman.

C. Upon a finding by the mine inspector of abatement of the violation creating the ~~dangerous~~ *hazardous* condition pursuant to which a closure order has been issued as provided in clause (i) of subsection A, or cessation of the need to preserve an accident scene as provided in clause (ii) of subsection A, or the issuance of a license for the mine if the closure order was issued as provided in clause (iii) of subsection A, or abatement of the violation for which the notice of violation was issued as provided in clause (iv) of subsection A, the Director, the Chief, or mine inspector shall issue a notice of correction, copies of which shall be delivered as provided in subsection B.

D. The issuance of a closure order shall constitute a final order of the Department, and the owner or operator of the mine shall not be entitled to administrative review of such decision. The owner or operator of any mine or part thereof for which a closure order has been issued may, within ten days following the issuance of the order, bring a civil action in the circuit court of the city or county in which the mine, or the greater portion thereof, is located for review of the decision. The commencement of such a proceeding shall not, unless specifically ordered by the court, operate as a stay of the closure order. The court shall promptly hear and determine the matters raised by the owner or operator. In any such action the court shall receive the records of the Department with respect to the issuance of the order, and shall receive additional evidence at the request of any party. In any proceeding under this section, the Attorney General or the attorney for the Commonwealth for the jurisdiction where the mine is located, upon the request of the Director, shall represent the Department. The court shall vacate the closure order if the preponderance of the evidence establishes that the order was not issued in accordance with the provisions of this section.

E. If it shall be finally determined that a closure order was not issued in accordance with the provisions of this section, the closure order shall be vacated, and the improperly issued closure order shall not be used to the detriment of the owner or operator of the mine for which it was issued.

§ 45.1-161.108. Roof, ribs and faces to be secure.

A. All underground active workings~~, travelways, and haulageways~~ *and travel ways* shall be secured sufficiently to protect miners from falls of roof, face or ribs. Loose roof and loose or overhanging ribs and faces shall be taken down or supported.

B. The method of mining followed shall not expose miners to unusual ~~dangers~~ *hazards* caused by excessive widths of rooms and entries, faulty pillar-recovery methods, or other ~~dangerous~~ *hazardous* mining methods or working conditions.

§ 45.1-161.115. Supplies of materials for supports.

A. The operator, or his agent, shall provide at or near the working places an ample supply of suitable materials of proper size with which to secure all roofs, ribs and faces of working places in a safe manner. Suitable supply materials shall be provided for variations in seam height. If the operator, or his agent, fails to provide such suitable materials, the mine foreman shall cause the miners to withdraw from the mine, or the portion thereof affected, until such material or supplies are received.

B. Safety posts, jacks or temporary crossbars shall be set close to the face before other operations are begun and as needed thereafter, if miners go in by the last permanent roof support.

C. Unless an automated temporary roof support system is used, safety posts or jacks shall be used to protect the miners when roof material is being taken down, crossbars are being installed, roof bolt holes are being drilled, roof bolts are being installed, or when any other work is being performed that would reasonably require roof support to protect the miners involved.

D. The operator, or his agent, shall make immediately available for emergency use ~~in~~ *at* each mine *site* two 40-ton jacks or equivalent lifting devices.

§ 45.1-161.116. Examination and testing of roof, face and ribs.

A. The operator, or his agent, shall instruct all miners in the proper testing of roof, face and ribs.

B. Miners exposed to danger from falls of roof, face and ribs shall examine and test the roof, face and ribs before starting work or before starting a machine and as frequently thereafter as may be necessary to ensure safety. When ~~dangerous~~ *hazardous* conditions are found, miners discovering them shall correct such conditions immediately by taking down the loose material, by proper timbering, or installation of proper roof support before work is continued or any other work is done, or shall vacate the place.

C. At least once each shift, or more often if necessary, ~~and during each visit,~~ the mine foreman or other certified person shall examine and test the roof, face and ribs of all active ~~workings~~ *working sections where coal is being produced* while miners are working therein, *and shall keep a record of such examination in an official record book at the mine. The record book shall be open for inspection by interested persons*. Any place in which a ~~dangerous~~ *hazardous* condition is found by the mine foreman shall be made safe in his presence or under his direction, or the miners shall be withdrawn from such place.

~~D. At least once each day while the mine is in operation, or more often if necessary, a certified person shall examine the roof and ribs of each passageway where miners work or travel and the supports therein, and shall keep a record of such examination in an official record book of the mine. The record book shall be open for inspection by interested persons. Any dangerous condition found during such an examination shall be corrected promptly or traffic thereunder shall be discontinued until the danger has been removed.~~

§ 45.1-161.122. Mining in proximity to abandoned areas.

A. The mine foreman shall ensure that boreholes are drilled ~~when any active workings in a mine are~~ *in each advancing working place that is* (i) within fifty feet of abandoned areas in the mine as shown by surveys made and certified by a ~~competent~~ *registered* engineer or surveyor ~~or~~ ,(ii) within 200 feet of abandoned areas in the mine which ~~cannot be~~ *have not been certified as* surveyed *or, (iii) within 200 feet of any mine workings of an adjacent mine located in the same coal bed unless the adjacent area of the mine has been pre-shift examined*. The boreholes shall be *at least twenty feet in depth and always* maintained not less than ~~twenty~~ *ten* feet in advance of the face, *and not more than eight feet apart* unless approved by the Chief. One borehole shall also be drilled for each cut on sides of the active workings that are being driven toward, and in ~~dangerous~~ proximity to, an abandoned mine or part of a mine which may contain flammable gas or which is filled with water. ~~Boreholes shall be drilled not more than eight feet apart.~~

B. Sufficient holes shall be drilled through to accurately determine whether hazardous quantities of methane, carbon dioxide and other gases or water are present in the abandoned area. Materials shall be available to plug such holes to prevent an inundation of hazardous quantities of gases or water if detected.

C. All work in the immediate vicinity of a borehole shall cease when a hole drills into abandoned areas. The atmosphere at the back of boreholes drilled into abandoned areas shall be examined, using instruments capable of examining the atmosphere. If the examination detects hazardous quantities of methane, carbon dioxide, or other gases that cannot be removed, an equipped mine rescue team shall be made available in the immediate vicinity prior to mining into the abandoned area. If hazardous quantities of noxious or flammable gases or water are present upon drilling into abandoned areas, constant communication shall be maintained with the surface while mining into the abandoned area.

D. Any operator, his agent, mine foreman or miner engaged in drilling or mining into inaccessible abandoned areas shall have upon his person a self-contained self-rescuer.

§ 45.1-161.123. Face and other equipment.

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

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

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

D. While remote control equipment is in operation or is being trammed, no miner shall *position himself or* be ~~required to position himself~~ *permitted* in a place of danger between such equipment and the face or walls of the mine.

E. All equipment raised for repairs or other work shall be securely blocked prior to persons positioning themselves where the falling of such equipment could create a hazardous condition.

§ 45.1-161.128. Underground storage of explosives.

A. When supplies of explosives and detonators for use in one or more sections are stored underground, they shall be kept in section boxes or magazines of substantial construction with no metal exposed on the inside. Such boxes or magazines shall be located at least twenty-five feet from roadways and power wires, and in a reasonably dry, well rock-dusted location protected from falls of roof. In pitching beds, where it is not possible to comply with the location requirement, such boxes shall be placed in niches cut into the solid coal or rock.

B. When explosives or detonators are stored in the section, they shall be kept in separate boxes or magazines not less than twelve feet apart if feasible; if kept in the same box or magazine, they shall be separated by at least a four-inch substantially fastened hardwood partition or the equivalent. Not more than a forty-eight-hour supply of explosives or detonators shall be stored underground in such boxes or magazines.

C. Explosives and detonators, kept near the face for the use of workmen, shall be kept in separate individual closed containers, in niches in the rib, not less than twelve feet apart, at least fifty feet from

the working place and out of the line of blast. Such containers shall be constructed of substantial material and maintained electrically nonconductive. Where it is physically impracticable to comply with such distance requirements, the explosives and detonator containers shall be stored in the safest available place not less than fifteen feet from any pipe, rail, conveyor, ~~roadway~~ *haulage road*, or power line, not less than twelve feet apart, and at least fifty feet from the working face and out of line of blast.

D. Explosives and detonators shall be kept in their containers until immediately before use at the working faces.

§ 45.1-161.133. Haulage roads.

A. The roadbed, rails, joints, switches, frogs and other elements of the track of all haulage roads shall be constructed, installed and maintained in a manner that ensures their safe operation. In determining their safety, consideration shall be given to the speed of equipment, and type of haulage operations conducted~~,~~ on the haulage roads.

B. Haulage tracks *and other haulage areas* shall be kept free of accumulations of coal spillage and debris.

C. Roadbeds shall be kept well drained.

D. Shuttle car haulage roads shall be maintained reasonably free of bottom irregularities, excess spillage, debris, and wet or muddy conditions that make controlling a shuttle car difficult.

§ 45.1-161.135. Clearance on haulage roads.

A. Track haulage roads in entries, rooms, and ~~breakthroughs~~ *crosscuts* shall have a continuous clearance on one side of at least twenty-four inches from the farthest projection of moving traffic. The clearance shall be kept free of any obstruction to a height of 6 1/2 feet where permitted by the height of the coal seam.

B. Track haulage roads in entries, rooms, and ~~breakthroughs~~ *crosscuts* shall have a continuous clearance, on the side opposite the clearance required by subsection A, of at least six inches from the farthest projection of moving traffic. *When not possible to maintain such clearance, close clearance signs shall be posted inby and outby the affected area.*

C. Haulage roads where trolley lines are used shall have the clearance required by subsection A on the side of the track opposite the trolley lines. This requirement shall not apply where the trolley lines are 6 1/2 feet or more above the rail.

D. The clearance space on all track haulage roads shall be kept free of loose rock, loose coal, supplies, and other loose materials. If the clearance space exceeds twenty-four inches, not more than twenty-four inches of the clearance space shall be required to be kept free of such materials.

E. All parallel tracks shall be installed so as to provide a clearance of at least twenty-four inches between the outermost projections of passing traffic.

F. Ample clearance shall be provided (i) at conveyor loading heads, (ii) at conveyor control panels, and (iii) along conveyor lines.

G. Belt conveyors shall be equipped with control switches to automatically stop the driving motor in the event the belt is stopped by slipping on the driving pulley, by breakage or other accident.

§ 45.1-161.139. Inspection of underground equipment.

Once a week or more often if necessary, the mine foreman or a certified person shall inspect electrical *and diesel* transportation equipment ~~located underground weekly, or more often if necessary,~~ to assure its safe operating condition. Such equipment located on the surface shall be inspected as often as necessary but at least monthly. Such person shall correct any defect found during the inspection. *A record of such examination shall be maintained.*

§ 45.1-161.141. Self-propelled equipment.

A. All ~~track-mounted,~~ self-propelled mobile transportation *and haulage* equipment ~~and shuttle cars~~ for use underground shall be equipped with safe seating facilities for the person operating the equipment *unless equipped for remote control operation*. Where seating facilities are provided on self-propelled mobile equipment, the person operating such equipment shall be seated before the equipment is put into motion.

B. ~~Locomotives~~ *All track-mounted equipment* shall be equipped with proper ~~devices, including~~ lifting ~~jacks~~ *devices*, for the rerailing of ~~locomotives and cars~~ *such equipment*.

C. An audible warning device and headlights shall be provided on each locomotive, shuttle car and any other self-propelled mobile transportation equipment.

D. A permissible trip light shall be used on the rear of trips pulled and on the front of pushed trips and trips lowered in slopes; however, trip lights need not be used (i) on cars being shifted to and from loading machines, (ii) on cars being handled at loading heads, (iii) during gathering operations at working faces, or (iv) where locomotives are used on each end of a trip.

E. Slides, skids, or other adequate means shall be used on descending trips on grades where the locomotive is not adequate to control the trip, and, where practicable, a drag shall be used on ascending trips on steep grades.

F. Where block signals are used, ~~not more than one locomotive, except pushers, shall operate in any signal block at the same time unless specifically authorized by the Chief~~ *procedures shall be established to safely control traffic movement within the system*.

§ 45.1-161.142. Pushing cars.

Pushing cars on main haulage roads shall be prohibited except (i) where necessary to push cars from sidetracks located near the working section to the producing entries and rooms, (ii) where necessary to clear switches and sidetracks, and (iii) on the approach to cages, slopes and surface inclines. *However, where rail transportation systems are utilized and it becomes necessary to routinely push cars, the operator shall develop procedures for coordination and control of rail traffic, such as provisions of effective trip lights or other warning devices, and other safety precautions specific to the mine. These procedures shall be subject to approval of the Chief.*

§ 45.1-161.144. Securing cars.

A. Standing cars on any track, unless held effectively by brakes, shall be properly blocked or spragged.

~~B. Cars shall be secured effectively at working faces.~~

~~C.~~ *B.* Positive-acting stopblocks or derails shall be used where necessary to protect miners from danger of moving or runaway haulage equipment.

§ 45.1-161.145. Riding on cars.

A. No person other than the motorman and trip rider shall ride on a locomotive, unless authorized by the mine foreman.

B. No person shall ride on loaded cars or between cars of any trip~~; however, a trip rider may ride on the safest part of the trip, preferably the first or last car. The mine foreman shall determine which part of the trip is the safest; however, his determination shall be subject to the concurrence of a mine inspector~~.

~~C. When persons are authorized by the mine foreman or a dispatcher to be transported on loaded trips, they shall be transported in an empty car placed (i) between the locomotive and the first loaded car or (ii) at the rear of trips, if the mine foreman determines that physical conditions of haulage require it as a safety measure.~~

~~D. No brakeman or driver shall ride on the front bumper of any car or trip.~~

~~E.~~ *C.* No person shall get on or off moving locomotives or cars being moved by locomotives ~~; however, the brakeman may get on or off the rear end of a slowly moving trip, or the stirrup of a slowly moving locomotive, to throw a switch, align a derail, or open or close a door~~.

~~F.~~ *D.* No person shall be allowed to ride on top of self-propelled mobile equipment.

§ 45.1-161.147. Operation of equipment.

A. Operators of shuttle cars shall face in the direction of travel.

B. All trips and locomotives shall come to a complete stop before cars are coupled or uncoupled by hand.

C. Persons operating self-propelled haulage equipment shall sound a warning before starting such equipment and on approaching curves, sidetracks, doors, curtains, manway crossings, or any other place where persons are or are likely to be.

D. ~~Locomotives following other trips~~ *All rail equipment* shall *be operated at speeds which are safe for the condition of the rail installation, grades and clearances encountered. When rail equipment is being operated at normal safe speeds, a distance of 300 feet shall be maintained from the rear of other rail equipment in operation except trailing locomotives that are an integral part of the trip* ~~maintain a distance of 300 feet from the rear end of the preceding trip or locomotive~~.

E. ~~Brakemen~~ *All persons* shall ~~always~~ stand in the clear during switching operations.

F. No two pieces of self-propelled mobile mining equipment traveling in opposite directions inside a coal mine shall be allowed to pass each other while both are in motion on the same haulage road.

§ 45.1-161.150. Man-trips.

A. Man-trips operated by means of locomotives shall be pulled and at safe speeds consistent with the condition of roads and type of equipment used, and shall be so controlled that they can be stopped within the limits of visibility.

B. Each man-trip shall be under the charge of an authorized person and shall be operated independently of any loaded trip ~~of coal or other material~~.

C. Man-trip cars shall be maintained in safe operating condition, and in sufficient number to prevent becoming overloaded.

D. No person shall ride under a trolley wire other than in suitably covered man-cars. *Covered man-cars shall not be required under trolley wires that are guarded or positioned in accordance with subsection F of § 45.1-161.187.*

E. Other than small hand tools carried on the person, supplies or tools shall not be transported in the same car or cage with miners on any man-trip, except in special compartments in such cars. ~~All persons shall ride inside the cars except the motorman and trip rider.~~

F. Miners shall not board or leave moving man-trip cars. Miners shall remain seated while in moving cars, and shall proceed in an orderly manner to and from man-trips.

§ 45.1-161.151. Man-trip stations.

A. A waiting station with sufficient room, ample clearance from moving equipment, and adequate seating facilities shall be provided where miners are required to wait for man-trips or man-cages. Miners

shall remain in such station until the man-trip or man-cage is ready to load. Miners shall be permitted to unload from man-trips only at man-trip stations, except that miners assigned to special duties along main ~~haulageways~~ *travel ways* may unload at any point if clearance from moving equipment is provided.

B. Trolley and power wires shall be guarded effectively at man-trip stations where there is a possibility of any person coming in contact with energized electric wiring while boarding or leaving the man-trip. De-energizing switches, used in conjunction with signal lights to indicate when such wires have been de-energized, may be used in lieu of guards at man-trip stations.

§ 45.1-161.152. Transporting miners by belts.

A. When belts are used for transporting miners, such belts shall be free of loose materials, and a minimum clearance of at least eighteen inches shall be maintained between the belt and the roof or crossbars, projecting equipment, cap pieces, overhead cables, wiring, and other objects. ~~Control switches shall be provided at all places where miners board or leave belts regularly.~~ *Belts used for transporting miners shall be equipped with emergency stop cords for their entire length.*

B. The belt speed shall not exceed (i) 250 feet per minute while miners are being transported where the clearance between the belt and overhead roof or projections is between eighteen inches and twenty-four inches and (ii) 300 feet per minute where the overhead clearance is twenty-four inches or more. The use of conveyor belts to transport miners shall be prohibited if the clearance between the belt and overhead is less than eighteen inches. Such belt shall be stopped while miners are boarding or leaving.

C. The space between miners riding on a belt line shall be not less than five feet.

D. Adequate clearance and proper illumination shall be provided where miners board or leave conveyor belts.

E. A mine foreman or authorized person shall be in attendance while miners are boarding or leaving belts.

§ 45.1-161.156. Slope and shaft conditions.

A. All shafts shall be equipped with safety gates at the top and at each landing. Where possible, such gates shall be self-closing and shall be kept closed except when the cage is being loaded or unloaded.

B. Positive-acting stopblocks or derails shall be installed near the top and at intermediate landings of slopes and surface inclines and at the approaches to all shaft landings.

C. Positive-acting stopblocks or derails shall be installed on the haulage track in the ~~scope~~ *slope* near the top of the slope. The stopblocks or derails shall be in a position to hold or stop any load, including heavy mining equipment, to be lowered into the mine until such time as the equipment is to be lowered into the mine by the hoist.

D. At the bottom of each hoisting shaft and at intermediate landings, a runaround shall be provided for safe passage from one side of the shaft to the other. This passageway shall be not less than five feet in height and three feet in width.

E. Ice shall not be permitted to accumulate excessively in any shaft where miners are hoisted or lowered.

§ 45.1-161.160. Operations of hoisting equipment.

A. The speed of the cage, car, or trip in shafts, slopes, or on surface inclines shall not exceed 1,000 feet per minute when miners are being hoisted or lowered.

B. When moving the platform or work deck, all miners traveling thereon shall have safety belts secured.

C. No person shall ride on a loaded cage.

D. The number of persons riding in any cage or car at one time shall not exceed the maximum prescribed by the ~~Chief~~ *manufacturer. The Chief may prescribe a lesser number when necessary to ensure the safety of miners being transported.*

E. Conveyances being lowered into a shaft in which miners are working shall be stopped at least twenty feet above the area where such miners are working.

F. Whenever miners are working at the bottom of a shaft, there shall be an adjustable ladder or chain ladder attached to the work deck to provide an additional means of escape. Such ladder shall be at least twenty feet in length.

G. All chokers and slings used to transport materials within a shaft or slope shall meet specifications established by the United States of America Standards Institute.

§ 45.1-161.162. Mine openings.

A. Except as provided in § 45.1-161.164, there shall be at least two ~~travelable passageways~~ *travel ways*, entries, or openings to the surface from each section of a mine worked. All longwall panels shall be developed with at least three entries; however, if new technology becomes available pursuant to which two-entry systems may be safely developed, such technology may be used, with the approval of the Chief.

B. One of the required ~~passageways~~ *travel ways* may be the haulage road.

C. The first opening shall not be made through an adjoining mine. The second opening may be made through an adjoining mine.

D. One of the required ~~passageways~~ *travel ways* shall be designated as the primary designated

escapeway.

§ 45.1-161.164. Number of miners in openings.

Until the two ~~passageways~~ *travel ways* are made as required by § 45.1-161.162, not more than twenty miners shall work underground in the mine at one time. No additional development shall be permitted until the connection is made to the second opening. In mines where final pillar removal operations necessitate closing the second opening, not more than twenty miners shall be permitted to work in the mine.

§ 45.1-161.166. Signs, life lines, and equipment.

A. Direction signs shall be posted conspicuously at all points where the ~~passageway~~ *travel way* to the mine opening, escapeway, or escapement shaft is intercepted by ~~roadways, entries, or~~ other ~~passageways~~ *travel ways*. The signs shall indicate the direction of the place of exit, manways, and escapeways.

B. On and after January 1, 1995, a continuous life line shall be installed and maintained in each primary designated escapeway from the bottom of the shaft or the surface up to the section loading point, or such other point that may be approved by the Chief.

C. Escapeways shall be equipped with all necessary stairways, ladders, cleated walkways, or other equipment approved by the Chief. All equipment shall be installed in such manner that persons using it in emergencies may do so quickly and without undue hazard.

§ 45.1-161.167. Examination of escapeways.

The mine foreman shall examine all escapeways for ~~dangerous~~ *hazardous* conditions at least once per week. The mine foreman shall mark his initials and the date at the places examined, and if ~~dangerous~~ *hazardous* conditions are found they shall be reported promptly. A record of these examinations and tests shall be kept at the mine.

§ 45.1-161.168. Longwall escape routes and plan.

A. The operator of any mine which uses longwalls as a method of mining shall maintain an accessible travel route off the tailgate end of the longwall working face. He shall familiarize all miners working on the longwall section with the procedures to follow for escape from the section, and shall also inform these miners at any time during which the travel route is impassable.

B. The operator shall develop a plan for use if the travel route becomes impassable. The plan shall address (i) notification of miners that the ~~travelway~~ *travel way* is blocked and of the method and timetable for reestablishment of the ~~travelway~~ *travel way*, (ii) re-instruction of miners regarding escapeways and escape procedures in the event of an emergency, (iii) re-instruction of miners on the availability and use of self-contained self-rescue devices, (iv) monitoring and evaluation of the air entering the longwall section, (v) location and effectiveness of the two-way communication systems, and (vi) a means of transportation from the longwall section to the main line. The plan provisions shall remain in effect until a ~~travelway~~ *travel way* is reestablished on the tailgate side of a longwall section. Such an operation shall include provisions for such protective devices as fire extinguishers and respirators for miners working on the longwall section.

§ 45.1-161.169. Fire protection.

A. Shafts and partitions therein shall be as nearly fireproof as is practicable.

B. Where there is danger of fire entering the mine, openings shall have adequate protection against surface fires or ~~dangerous~~ *hazardous* volumes of smoke entering the mine.

§ 45.1-161.181. Surface electrical installations.

A. Overhead high-potential power lines shall be placed at least fifteen feet above the ground and twenty feet above driveways ~~and haulageways~~, shall be installed on insulators, and shall be supported and guarded to prevent contact with other circuits.

B. Surface transmission lines including trolley circuits shall be protected against short circuits and lightning. Each exposed power circuit that leads underground shall be equipped with approved lightning arrestors at the point where the circuit enters the mine.

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

§ 45.1-161.186. Power circuits.

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

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

C. Power wires and cables installed in ~~rope and~~ belt-haulage slopes shall be insulated adequately and buried in a trench not less than twelve inches below combustible material, unless encased in armor or otherwise fully protected against mechanical injury.

D. Splices in power cables shall be made in accordance with the following:

1. Mechanically strong with adequate electrical conductivity;

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

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

E. All underground transmission cables shall be:

1. Installed only in regularly inspected airways;

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

3. Guarded where miners regularly work or pass under them unless they are 6 1/2 feet or more above the floor or rail, or are well insulated;

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

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

F. All power wires and cables shall be insulated adequately where they pass into or out of electrical compartments, where they pass through doors and stoppings, and where they cross bare power wires.

G. 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 secondary track-haulage roads shall be welded or bonded at every joint, and cross bonds shall be installed at intervals of not more than 200 feet;

3. Track switches on entries shall be well bonded; and

4. Rails shall not be used as power conductors in rooms underground.

§ 45.1-161.187. 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 shelter holes, except where the wires are guarded or 6 1/2 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 branch lines.

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

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

G. Trolley wires and trolley feeder wires shall not be installed in rooms.

H. Trolley wires and trolley feeder wires shall not extend beyond any open ~~breakthrough~~ *crosscut* between intake and return airways, and shall be kept at least 150 feet from any active, open pillar workings.

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

J. Trolley wires and trolley feeder wires shall be installed only in intake air.

K. Trolley wires or other exposed conductors shall not carry more than 300 volts.

§ 45.1-161.191. Communication systems.

A. Telephone service or equivalent two-way communication facilities shall be provided between the top and each landing of main shafts and slopes. A telephone or equivalent two-way communication facility shall be located on the surface within 500 feet of all main portals, and shall be installed either in a building or in a box-like structure designed to protect the facilities from damage by inclement weather. At least one of these communication facilities shall be at a location where a competent 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 where they cross power or trolley wires, they shall be insulated adequately.

C. Lightning arrestors shall be provided at the points where telephone circuits enter the mine and at each telephone on the surface.

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

E. Communication systems ~~providing both~~ *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 ~~permitted~~ *provided*. ~~Any system installed pursuant to the provisions of this subsection shall be approved by the Chief.~~

F. The Chief shall promulgate regulations governing any disruption of communication in mines.

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

A. Electric equipment and wiring shall be inspected by a certified person at least weekly if located

underground, and at least monthly if located on the surface, and more often if necessary to assure safe operating conditions, and any defect found shall be corrected. Records of such examination shall be maintained at the mine for a period of one year.

B. ~~The Chief may require the operator to functionally~~ *A functional* check ~~on a daily basis~~ *of* methane monitors on electrical face equipment *shall be conducted* to determine that such monitors are de-energizing the electrical face equipment properly. Such check shall be made on each production shift and shall be conducted by the equipment operator in the presence of a mine foreman, and shall be recorded in the on-shift report of the mine foreman pursuant to § 45.1-161.213.

C. ~~The Chief may require the operator to perform~~ Weekly calibration tests on methane monitors on electrical face equipment to determine the accuracy and operation of such monitors *shall be conducted and a record of the results maintained*.

§ 45.1-161.196. Repairs to circuits and electric equipment.

~~All power circuits and electric equipment shall be de-energized before repairs are made, and shall also be tagged and locked out by each miner exposed to risk should the electric circuit or equipment be energized; however,~~ *No electrical work shall be performed on low-voltage, medium-voltage, or high-voltage distribution circuits or equipment, except by a certified person or by a person trained to perform electrical work and to maintain electrical equipment under the direct supervision of a certified person. Disconnecting devices shall be locked out and suitably tagged by the persons who perform such work, except that in cases where locking out is not possible, such devices shall be opened and suitable tagged by such persons. Locks and tags shall be removed only by the persons who installed them or, if such persons are unavailable, by certified persons authorized by the operator or his agent. However,* miners may, where necessary, repair energized trolley wires if they wear insulated shoes and lineman's gloves. This shall not prohibit qualified repairmen from having power on equipment for making checks on such equipment.

§ 45.1-161.200. Fire-fighting equipment.

A. Each mine shall be provided with suitable fire-fighting equipment, 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 twenty-pound dry chemical fire extinguishers;

3. Ten fifty-pound bags of rock dust, available at doors or other strategic places;

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

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

6. Two sledge hammers; and

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

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

D. Suitable fire extinguishers shall be provided on all self-propelled mobile equipment, at belt heads, and at the inby end of belts.

E. All fire-fighting equipment shall be maintained in a useable and operative condition. Chemical extinguishers shall be examined every six months and the date of the examination shall be indicated on a tag attached to the extinguishers.

~~E.~~ *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 of off-track mining equipment.

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

A. Operators shall develop an emergency response plan for each mine. The plan shall include (i) a fire communication plan, (ii) an evacuation procedure, (iii) the identification of waterlines, (iv) the number system of brattice, (v) the location of escapeways, and (vi) such other information relating to fire evacuation planning 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 emergency response plan shall be subject to approval by the Chief or mine inspector.

D. The emergency response plan shall be posted in a conspicuous manner and place, readily accessible to all miners, 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 to enter the mine by the operator shall have available a self-rescue device or devices which provide one hour or longer protection and are approved by Mine Safety and Health Administration. The training related to self-rescue devices shall be included in the emergency response plan approved by the Chief.

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

A. Underground storage places for oil, grease and flammable hydraulic fluid shall be of fireproof construction.

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

C. Provisions shall be made to prevent accumulation of spilled oil or grease at the storage places or at the locations where such materials are used.

D. Oily rags, oily waste, and wastepaper shall be kept in closed metal containers until removed for disposal.

E. No gasoline, benzene, kerosene or other flammable oils shall be used underground in powering machinery ~~without the written approval of the Chief~~.

F. All oxygen and acetylene bottles used underground shall be secured while in use. When stored underground, oxygen and acetylene bottles shall be placed in a safe location, protected from physical damage, with caps in place where provided for on the tank, and secured upright or elevated, whichever mine heights allow.

§ 45.1-161.206. Diesel powered equipment.

Diesel powered equipment may be utilized underground with the written approval of the Chief. The Chief shall promulgate regulations necessary to carry out the provisions of this section. The regulations shall require that the air in each ~~haulageway~~ *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 be supplied for a permissible diesel machine in a given time shall conform to that shown on the approval plate attached to the machine. All diesel machines and equipment shall be maintained in such manner that the exhaust emissions meet the same standards to which the machine or equipment was manufactured.

§ 45.1-161.208. Pre-shift examinations.

A. Within three hours preceding the beginning of any shift and before anyone on the oncoming shift, other than a mine foreman conducting examinations required by this section, enters any underground area of a mine, a mine foreman shall make a pre-shift examination.

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 locations which are underground:

1. ~~Roadways, track haulageways,~~ *Track entries* and other areas where persons are scheduled to work or travel during the oncoming shift;

2. Belt conveyors that will be used to transport persons during the oncoming shift and the entries in which these belt conveyors are located;

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

4. Approaches to worked-out areas along intake air courses if intake air passes by the worked-out area to ventilate working sections where anyone is scheduled to work during the oncoming shift;

5. Seals along intake air courses where intake air passes by a seal to ventilate working sections where anyone is scheduled to work during the oncoming shift;

6. Entries and rooms driven more than twenty feet off an intake air course without a crosscut or 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 to operate or areas where 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 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 mechanized mining equipment is being installed or removed;

2. On each longwall or shortwall in the intake entry or entries at the intake end of the longwall or shortwall face immediately outby the face and 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, or (ii) if a split system is used, in the intake entries of each split immediately inby the split point.

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

§ 45.1-161.256.

E. The Chief may require the mine foreman to examine other areas of the mine or 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 where anyone entering the area would pass. Only persons designated by the operator, or his agent, to correct or evaluate the condition may enter this 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 to be examined outby a working section, the mine foreman shall certify by initials, date, and time at enough locations to show that the entire area has been examined.

H. Idle and ~~abandoned~~ *worked-out* areas underground shall be inspected for gas and other ~~dangerous~~ *hazardous* conditions by a mine foreman, immediately before miners are permitted to enter or work in such places. A certified person shall supervise the correction of conditions that create an imminent ~~or serious~~ danger. The mine operator, or his agent, may pass beyond the danger signal only in cases of necessity.

I. The mine foreman shall place a danger signal or light at the mine entrance upon commencing his pre-shift examination. No miner shall pass this danger signal until the examination has been completed and the mine foreman reports the mine to be clear of danger; however, miners may enter under the direction of the mine foreman for the purpose of making the mine safe. The Chief shall have the authority in certain mines, in his discretion, to authorize man-trips to proceed to a designated station underground, from which they may not pass until the mine foreman reports the remainder of the areas of the mine to be clear of danger.

J. Miners 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, certified persons may be used to make the pre-shift examination for the next or succeeding shift.

L. Areas of inactive underground coal mines shall be examined for gas and other ~~dangerous~~ *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 shall be subordinate to him.

§ 45.1-161.209. 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 ~~moved~~ *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 shall be corrected immediately or the miners shall be withdrawn and the affected area plainly marked with "danger" signs.

B. During each shift that coal is produced, a certified person shall examine for hazardous conditions along each underground belt conveyor ~~haulageway~~ *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 ~~haulageways~~ *entries*, if the examination is conducted within three hours before the oncoming shift.

C. Persons conducting the on-shift examination shall determine at the following 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 mechanized mining equipment is being installed or removed;

2. The volume of air on a longwall or shortwall, including areas 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 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, or (ii) if a split system is used, in the intake entries of each split immediately inby the split point.

D. Where intake air is coursed by seals of abandoned areas, such seals shall be leakproof and shall be inspected by a certified person at least once per shift.

E. Inspections for methane shall be made before any electrically driven equipment is taken or operated inby the last open ~~breakthrough~~ *crosscut*. Tests shall be made for methane at least once every twenty minutes while such equipment is in operation, or more often if necessary.

F. Idle or ~~abandoned~~ *worked-out* areas underground, including section belts that have been idle for a

period of twenty-four hours, shall be examined by a certified person immediately before miners are permitted to enter or work in such areas.

G. Examination for gas shall be made by a certified person or competent person (i) before taking loading or cutting machines inby the open ~~breakthrough~~ *crosscut* nearest the face; (ii) before applying power to machinery that remains at or near the face at not more than twenty-minute intervals during cutting, drilling, or mechanical loading; (iii) before drilling with electric drills; (iv) before blasting; (v) after blasting, before other work is resumed; and (vi) at such other times as may be necessary or designated by the operator or mine inspector for adequate safety.

H. Examination for ~~dangerous~~ *hazardous* conditions shall be made by an authorized person (i) before taking loading or cutting machines inby the open ~~breakthrough~~ *crosscut* nearest the face; (ii) before applying power to machinery that remains at or near the face; (iii) before drilling with electric drills; (iv) before blasting; (v) after blasting, before other work is resumed; and (vi) at such other times as may be necessary or designated by the operator or mine inspector for adequate safety.

I. Pillar workings shall be examined by a certified person for methane and other ~~dangers~~ *hazardous conditions* before a fall is made purposely. If methane can be detected at a level of one percent or greater with a permissible methane detection device, it shall be removed, if possible before the fall is made. Where it is not practicable to remove the gas before such fall is made, all electric power shall be cut off that portion of the mine that might be affected, and all miners except those necessary to complete the fall shall be removed from such area.

J. 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.

§ 45.1-161.210. Weekly examinations.

A. ~~A mine foreman shall, at least once each week, travel and examine all the air courses, roads, and openings that give access to abandoned areas or falls~~. Any ~~dangerous~~ *hazardous* condition that cannot be removed within a reasonable time shall be reported to the Chief by the quickest available means. *At least every seven days, a mine foreman shall examine unsealed worked-out areas where no pillars have been recovered.*

B. ~~At least once each week, a certified person shall measure the volume of air entering the main intakes and leaving the main returns, the volume passing through the last open crosscut in each active entry, the volume being delivered to the intake end of each pillar line, and the volume at the intake and return of each split. A record of such measurements shall be kept in a book on the surface, and the record shall be open for inspection by interested persons.~~ *At least every seven days, a mine foreman shall evaluate the effectiveness of bleeder systems used under § 45.1-161.220.*

C. ~~Examinations for dangerous conditions, including tests for methane with a permissible methane detector, or by other permissible device shall be made at least once each week, or more frequently as required by the bleeder system plan pursuant to § 45.1-161.220, by the mine foreman or other certified person designated by him. Such examinations and tests shall be made in the return of each split where it enters the main return, or pillar falls, at seals, in the main return, at least one entry of each intake and return airway in its entirety, idle workings, and, insofar as conditions permit, abandoned areas. The person making such examinations and tests shall mark his initials and the date at the places examined, and if dangerous conditions are found, they shall be reported promptly. A record of these examinations and tests shall be kept at the mine.~~ *At least every seven days, a mine foreman shall examine the following locations for hazardous conditions:*

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

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

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

4. At each seal along return and bleeder air courses and at each seal along intake air courses not examined under § 45.1-161.208.

5. In each escapeway so that the entire escapeway is traveled.

6. On each working section not examined under § 45.1-161.208 during the previous seven days.

D. ~~The weekly examination is not required during any seven-day period in which no person enters any underground area of the mine.~~ *At least every seven days, a certified person shall:*

1. Determine the volume of air entering the main intakes 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, 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. ~~Except for certified persons required to make examinations, no person shall enter any underground area of a coal mine if the 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.~~ *Hazardous*

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

F. Weekly examination is not required during any seven-day period in which no person enters any underground area of the mine.

G. Except for certified persons required to make examinations, no person shall enter any underground area of a coal mine if the 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 person making the weekly examinations shall certify 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. At the completion of any shift during which a portion of a weekly examination is made, a record of hazardous conditions, their locations, and the corrective action taken, and the results and location of air and methane measurements shall be made. The record shall be made by the person making the examination or by a person designated by the operator and shall be countersigned by the mine foreman. If the record is made by a person other than the examiner, the examiner shall verify the record by initials and date. Records shall be retained for at least one year at a surface location at the mine and made available for inspection by department personnel and representatives of miners.

~~F.~~ *J.* Examinations 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 § 45.1-161.256.

§ 45.1-161.213. Record of other examinations.

A. The mine foreman shall read and countersign promptly the daily reports of certified persons, and he shall read and countersign promptly the weekly report covering the examinations for ~~dangerous~~ *hazardous* conditions. Where such reports disclose ~~dangerous~~ *hazardous* conditions, the mine foreman shall take prompt action to have such conditions corrected. The operator, or his agent, shall also read and countersign promptly the daily and weekly reports of the certified persons.

B. Each day, the mine foreman shall enter a report of the condition of the mine or portion thereof under his supervision, which report shall state clearly the location and nature of any ~~danger~~ *hazardous condition* observed by him during an on-shift examination or otherwise reported to him during the day, and the report shall state what action, if any, was taken to remedy such ~~danger~~ *hazardous condition*.

C. All records of daily and weekly reports shall be open for inspection by interested persons.

D. A mine foreman or other certified person conducting an examination shall record the results of his examination in ink or indelible pencil in a book kept on the surface for that purpose. The level of methane detected in any examination shall be recorded in the book. If the methane level detected is less than one-tenth of one percent, the entry shall state "less than 0.1 percent detected." Similar records may be kept at designated stations or offices underground. Any entries made in this book by a certified person other than the mine foreman shall be countersigned daily by the mine foreman.

§ 45.1-161.214. Notice of hazardous conditions.

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

§ 45.1-161.216. Main fans.

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

B. Main fans shall be (i) provided with pressure-recording gauges, (ii) installed on the surface in fireproof housings, and (iii) equipped with fireproof air ducts.

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

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

2. Be directly in front of, or over, the mine opening; however, the opening shall not be in direct line with possible forces coming out of the mine should an explosion occur, and there shall be another opening having a weak-wall stopping or explosion doors that would be in direct line with the forces coming out of the mine should an explosion occur, such opening to be not less than fifteen feet nor more than 100 feet from the fan opening.

3. In mines 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 mine fans ~~shall be installed to permit the reversal of airflow. Unless such fan is attended constantly, it~~ shall be provided with an automatic device to give alarm when the fan slows down or stops. This device shall be placed so that it will be seen or heard by an authorized person.

E. Main fans shall be on separate power circuits, independent of the mine circuit.

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

G. Except for repairs, main fans shall be operated continuously day and night unless written

permission is granted by the Chief for planned stoppages. If the main fan is stopped after all miners are out of the mine, the fan shall be operated for a period of at least two hours before any miner is allowed underground.

H. Where electric power is available, main mine fans shall not be powered by means of internal combustion engines; however, where electric power is not available or for emergency use, main mine fans may be powered with internal combustion engines, if (i) the fan shall be operated exhausting, unless otherwise permitted by the Chief, and (ii) the engine operating the fan shall be offset at least ten feet from the fan and housed in a separate fireproof structure.

§ 45.1-161.219. Volume of air.

A. The quantity of air passing through the last open crosscut ~~in any pair or set of active entries, and through the last crosscut between the intake and return in any set of entries,~~ shall be not less than 9,000 cubic feet per minute; provided, however, that the quantity of air reaching the last *open* crosscut ~~in any pair or set of entries~~ in pillar-recovery sections 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 working faces 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.

§ 45.1-161.220. Bleeder systems.

A. All mines 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 abandoned or ~~caved~~ *worked-out* areas which is sufficient to prevent a ~~dangerous~~ *hazardous* accumulation of gas in such areas and to minimize the effect of variations in atmospheric pressure. Operators shall submit bleeder system plans which comply with requirements developed by the Chief. 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, (vii) ventilation controls. The Chief shall not approve a plan which provides for a methane content exceeding four and one-half percent in bleeder air courses. Failure to comply with an approved plan will be a violation of this section. This section shall not prohibit the sealing of abandoned areas in accordance with § 45.1-161.228.

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

§ 45.1-161.221. Coursing of air.

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

B. All entries driven in coal shall be in sets of two or more.

C. Permanently installed underground battery-charging stations, substations, transformer stations, and stations for electrically operated pumps and compressors shall be ventilated by separate splits of air conducted directly to the main return air courses. Portable substations and battery-charging stations shall be in well ventilated places.

D. Changes in ventilation that materially affect 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. ~~No more than seventy miners shall be on the same air current or split.~~

~~F.~~ Each section in a mine shall be ventilated by a separate split of air~~, unless permission is granted by the Chief to ventilate two or more sections with the same split of air~~.

§ 45.1-161.222. Actions for excessive methane.

A. ~~Mine air in which miners work or travel shall contain at least 19 5/10 percent oxygen, not more than five-tenths percent carbon dioxide, and shall not be contaminated with noxious or poisonous gases.~~ *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 is properly maintained and calibrated. Tests shall be made at least twelve inches from the roof, face, ribs, and floor.*

B. ~~If the air immediately returning from a split that ventilates any group of active areas contains more than one percent methane, as determined by a permissible methane detector, or other suitable permissible device, the ventilation shall be improved.~~ *When 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 shall be de-energized in the affected working place at the equipment except intrinsically safe atmospheric monitoring systems (AMS). Changes or adjustments shall be made to the ventilation system to reduce the concentration to below one percent. Only work to reduce the concentration of methane below one percent shall be permitted. This does not apply to other faces in the entry or slope in which work can be safely continued.*

C. ~~Unless otherwise provided in subsection D, if a split of air returning from areas where coal is being extracted or is capable of being extracted, haulageways, and beltways contains one and five-tenths percent of methane, as determined by a permissible methane detector or other suitable permissible device, the miners shall be withdrawn from the portion of the mine endangered thereby, and all power~~

~~shall be cut off from such portion of the mine, until the quantity of methane in such split shall be less than 1 5/10 percent.~~ *When one and one-half 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 percent will be permitted and all other personnel shall be withdrawn from the affected area. Electrically powered equipment in the affected area shall be de-energized and other mechanized equipment shall be shut off except for intrinsically safe atmospheric monitoring systems (AMS).*

D. ~~In virgin territory in mines ventilated by exhaust fans where methane is liberated in large amounts, it shall be necessary to withdraw the miners and cut off all power from the portion of the mine endangered by such methane when the air returning from such workings contains more than two percent methane, as determined by a permissible methane detector, or other suitable permissible device, if (i) the quantity of air in a split ventilating the workings in such territory equals or exceeds 18,000 cubic feet per minute; (ii) only permissible electric equipment is used in such workings; (iii) the air in the split returning from such workings does not pass over trolley or other bare power wires; and (iv) a certified person designated by the operator is continually testing the gas content of the air in such split during mining operations in such workings.~~ *When one percent or more methane is present in a return or split between the last working place on a working section and where that split of air meets another split of air, or the location at which the split is used to ventilate seals or worked-out areas, changes or adjustments shall be made to the ventilation system to reduce the concentration of methane in the return air to less than one percent.*

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

F. An alternative methane level up to one and one-half percent may be allowed in the return air split where the following precautions 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 in the split is continuously monitored during mining operations by an intrinsically safe atmospheric monitoring system (AMS) that gives a visual and audible signal on the working section when the methane in the return air reaches one and one-half 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 immediately outby the most inby monitoring point. When one and one-half percent or more methane is present where 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 concentration of methane in the return air to below one and one-half percent as set forth in subsection E.

G. The concentration of methane in a bleeder split of air immediately before the air in the 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.

§ 45.1-161.223. Crosscuts.

A. ~~Breakthroughs~~ *Crosscuts* shall be made between entries and between rooms ~~at intervals not to exceed eighty feet without the prior approval of the Chief~~ *as provided in the approved roof control plan.*

B. ~~Breakthroughs~~ *Crosscuts* between intake and return air courses shall be closed, except the one nearest the face. ~~Breakthroughs~~ *Crosscuts* between rooms shall be closed where necessary to provide adequate ventilation at the working face.

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

D. Entries or rooms shall not be started off an entry beyond the last open ~~breakthrough~~ *crosscut.*

§ 45.1-161.224. Permanent stoppings.

~~A. Permanent stoppings between intake and return air courses shall be built of substantial, incombustible material such as concrete, concrete blocks, 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. The use of a temporary stopping in the second breakthrough outby the face shall be permitted.~~

~~B. Stoppings shall be reasonably airtight.~~

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

A. Permanent stoppings shall be built and maintained:

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

2. To separate belt conveyor haulageways from return air courses except where belt entries are used as return air courses.

3. To separate the primary escapeway from belt and trolley haulage entries unless otherwise approved by the Chief.

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

B. Permanent stoppings shall be built of substantial, incombustible material such as concrete, concrete blocks, 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 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.

§ 45.1-161.225. Ventilation controls.

A. Ventilation shall be so arranged by means of air locks, overcasts, or undercasts that the passage of haulage trips or persons along the entries will not cause interruption of the air current~~; however, in mines or in developing sections where air locks are not practical, single doors shall be used to course the air. Unless operating mechanically, the doors shall be attended constantly while the mine is in operation~~. Air locks shall be ventilated sufficiently to prevent accumulations 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 material or coated on all accessible surfaces with flame-retardant material having a flame spread index of twenty-five or less as tested under ASTM E 162-187 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 properly marked so as to be readily detected shall be installed in at least every fifth crosscut in the stopping lines separating such entries.

~~B.~~ *D.* Doors shall be kept closed except when miners or equipment is passing through the doorways. Motor crews and other miners who open doors shall see that the doors are closed before leaving them.

~~C.~~ *E.* Overcasts and undercasts shall be constructed tightly of incombustible material, such as masonry, concrete, concrete blocks, or prefabricated metal. They shall (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.

§ 45.1-161.226. Line brattice.

A. Substantially constructed line brattice shall be used from the last open ~~breakthrough~~ *crosscut* of an entry or room when necessary to provide adequate ventilation for the miners and to remove gases. Any line brattice damaged by falls 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 used underground shall be of flame-resistant material.

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

§ 45.1-161.227. Ventilation with air from certain areas.

Active face workings shall not be ventilated with air that has (i) passed through abandoned *and worked-out* areas ~~and pillared out and caved areas~~, (ii) passed by the unsealed entrances to abandoned areas, or (iii) been used to ventilate pillar lines. For purposes of this section, areas within a panel shall not be deemed abandoned until ~~the panel is abandoned~~ *they are inaccessible or sealed*. This section shall not apply to air which is being used to ventilate an active pillar line and rooms which are necessary to establish and maintain the pillar line.

§ 45.1-161.228. Abandoned areas.

A. The openings to abandoned areas shall be fenced off so no person can enter, and danger signs shall be posted upon such fencing.

B. All abandoned areas shall be either sealed or ventilated.

C. Where practice is to seal abandoned areas, the sealing shall be done in ~~an effective manner with incombustible material. In every sealed area, one or more of the seals shall be fitted with a pipe and cap or valve to permit the gases behind the seals to be sampled and also to provide a means of determining any existing hydrostatic pressure~~ *accordance with sealing provisions of the approved bleeder plan.*

§ 45.1-161.229. Air quality.

A. ~~Whenever a methane level of one percent or greater can be detected on a permissible methane detector or other suitable permissible device at any point not less than twelve inches from the roof, face or ribs, face work shall cease, power to face equipment cut off, and miners ordered and required to~~

~~withdraw until ventilation is improved. This does not apply to other faces in the entry or slope in which work can be safely continued.~~ *All active workings shall be ventilated by a current of air containing not less than nineteen and one-half volume percent of oxygen, not more than one-half volume percent of carbon dioxide, and no harmful quantities of other noxious or poisonous gases.*

B. ~~When gas accumulations cause work at entries or faces to cease until ventilation improves, only miners designated to work on improving the ventilation under the direction of a certified person shall be permitted in the affected area. Power shall not be restored until ventilation is improved.~~ *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.*

§ 45.1-161.231. Examination of mines for explosive gas and other hazardous conditions.

A. Certified persons whose regular duties require them to inspect working places in any mine for ~~dangers~~ *hazardous conditions* shall have in their 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 shall be trained in the operation of the device. Any miners working inby the last open crosscut shall be qualified by the Chief in the operation of the device, or certified by the Board of Coal Mining Examiners to conduct gas testing. Methane detectors or indicators shall be maintained in permissible condition.

C. Methane detectors or indicators shall be calibrated at least monthly in accordance with manufacturers recommendations.

§ 45.1-161.234. Control of coal dust.

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

B. Where mining operations create or raise an excessive amount of coal dust into the air, water or water with an added wetting agent, or other 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 to reduce dispersibility and to minimize the hazard of explosion, within forty feet from all active workings or such other areas as the Chief or his authorized representative shall require.

§ 45.1-161.245. Travel ways, loading and haulage areas.

The provisions of Article 7 (§ 45.1-161.275 et seq.) of Chapter 14.4 of this title shall apply with respect to ~~travelways~~ *travel ways*, loading, and haulage areas at the surface of underground coal mines.

§ 45.1-161.249. Duties of mine foreman.

A. The mine foreman shall see that the requirements of this Act that pertain to his duties and to the health and safety of the miners are fully complied with at all times. Where it is necessary that the mine foreman be temporarily absent from the mine, he shall have permission from the Chief to use a competent person.

B. The mine foreman shall see that every miner employed to work in such mine before beginning work therein, is aware of all ~~dangers~~ *hazardous conditions* incident to his work in such mine. The mine foreman shall also see that every miner employed in such mine shall be furnished with copies of this Act and the printed rules pertaining to such mine. *Any imminent danger that cannot be removed within a reasonable time shall be reported to the Chief by the quickest available means.*

§ 45.1-161.256. Safety examinations.

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

B. On-shift examinations of all mobile equipment shall be conducted by an authorized or a competent person.

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

D. Silt retaining dams and mine refuse piles shall be examined daily by an authorized person.

E. The location of all natural gas pipelines on permitted surface mine areas shall be identified and conspicuously marked. Pre-shift examinations shall be conducted of the location of pipelines whenever active workings are approaching within 500 feet unless otherwise approved by the Chief.

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

~~F.~~ *G.* Examinations for methane shall be conducted in surface installations, enclosures or other facilities in which coal is handled or stored once each production shift. Such areas shall also be tested for methane before any activity involving welding, cutting or an open flame. Examinations pursuant to this subsection shall be made by a competent person.

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

~~H.~~ *I.* Fire extinguishers shall be examined at least once every six months.

~~I.~~ *J.* Areas of inactive surface coal mines shall be examined for ~~dangerous~~ *hazardous* conditions by a

mine foreman immediately before miners are permitted to enter into such areas to take emergency actions to preserve a mine.

§ 45.1-161.257. Records of examinations.

A. Documentation of examinations and testing conducted pursuant to § 45.1-161.256 shall be recorded in a mine record book by the certified person performing the examination. Documentation shall include ~~dangerous~~ *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 extinguisher.

B. The actual methane readings taken during on-shift examinations shall be recorded in the mine record book. If the methane level detected is less than one tenth of one percent, the entry shall state "less than 0.1 percent detected."

C. The surface foreman shall maintain and sign a daily record book. The reports entered into the book shall be read and signed by the operator, or his agent. All records of inspections shall be open for inspection by interested persons and maintained at the mine site for a minimum of one year.

§ 45.1-161.258. Notification and reporting of certain conditions and events.

A. The following shall be reported by the operator, or his agent, immediately to the Chief or his designated representative:

1. ~~Dangerous~~ *Imminent danger* conditions which cannot be removed *within reasonable time*.
2. Accidents involving serious personal injury or death.
3. Serious fires.
4. Unplanned explosions.
5. The unintentional fall of highwall that affects equipment or personnel.

B. Areas containing safety or health hazards that are not immediately obvious to personnel shall be barricaded or posted with warning signs specifying the hazard and proper safety procedures.

§ 45.1-161.270. Safety measures on equipment.

A. Rubber tired or crawler mounted equipment shall have rollover protective structures to the extent required by 30 CFR 77.403a.

B. Seat belts shall be maintained in all mobile equipment that are required to have rollover protective structures under subsection A. Operators of such equipment shall wear seat belts 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 design, kept in good condition and clean for adequate visibility.

E. Tires shall be deflated before repairs on them are started and adequate means shall be provided to prevent wheel locking rims from creating a hazard during tire inflation.

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

G. An automatic backup alarm, that is audible above surrounding noise levels, shall be provided on all mobile equipment.

H. All equipment raised for repairs or other work shall be securely blocked prior to persons positioning themselves where the falling of such equipment could create a hazardous condition.

§ 45.1-161.276. Loading and haulage work area requirements.

A. Ramps and dumps shall be of solid construction, ample width, ample clearance and head room and shall be kept reasonably free of spillage.

B. Berms or guards shall be provided on the outer bank of elevated ~~roadways~~ *haulage roads*.

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

D. Dumping locations and haulage roads shall be kept reasonably free of water, debris and spillage. Water, debris or spilled material which create hazards to moving equipment shall be removed.

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

A. Overhead high-potential power lines shall be placed at least fifteen feet above the ground and twenty feet above driveways and ~~haulageways~~ *haulage roads*, shall be installed on insulators, and shall be 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.

§ 45.1-161.280. Transformers.

A. Unless surface transformers are isolated by elevation (eight feet or more above the ground), they 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 gate or door to the enclosure shall be kept locked at all times, unless authorized persons are present.

B. Surface transformers containing flammable oil and installed where they present a fire hazard shall be provided with means to drain or to confine the oil in the event of rupture of the transformer casing.

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

D. All transformer stations on the surface shall be kept free of nonessential combustible materials

and refuse.

E. ~~All power circuits and electric equipment shall be de-energized, tagged and locked out by each person exposed to risk should the electric circuit or equipment be energized before repairs are made; provided, however, that~~ *No electrical work shall be performed on low-voltage, medium-voltage, or high-voltage distribution circuits or equipment, except by a certified person or by a person trained to perform electrical work and to maintain electrical equipment under the direct supervision of a certified person. Disconnecting devices shall be locked out and suitably tagged by the persons who perform such work, except that in cases where locking out is not possible, such devices shall be opened and suitably tagged by such persons. Locks and tags shall be removed only by the persons who installed them or, if such persons are unavailable, by certified persons authorized by the operator or his agent. However,* employees may, where necessary, repair energized trolley wires if they wear insulated shoes and lineman's gloves. This does not prohibit qualified repairmen from having power on equipment for making checks on such equipment.

§ 45.1-161.286. Minimum blasting practices.

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

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

~~1. Separation of ammonium nitrate fuel blasting agent and other explosives.~~

~~2. Maximum ground vibration valves.~~

~~3. For seismic instrumentation, use of seismic instruments, use of seismograph measurements by qualified seismologist and the formula for seismograph determination.~~

~~4. Establishing a charge weight formula.~~

~~5. Requiring a permit for use of greater than 40,000 pounds of explosives and for night-time blasting.~~

~~6. Requiring records of each blast including, but not limited to, blast site location, material, explosives and name of company or contractor performing tests.~~

~~7. Requiring safety standards governing, but not limited to, areas where blasting is allowed, blasting practices and blasting signals.~~

~~8. Requiring tests of and setting limits on blasting noise and ground vibration.~~

~~9. Requiring operation to identify the location of the nearest inhabited building to blasting operation and notification to the Department when blasting approaches within 2,000 feet of an inhabited building.~~

~~10. Air blast limits at dwellings.~~

~~11. Requiring modification of blasting practices to meet ground and air blast limits set by the Department.~~

§ 45.1-161.294. Regulations governing conditions and practices at underground mineral mines.

A. The Director shall promulgate rules and regulations, in accordance with the provisions of Article 2 (§ 9-6.14:7.1 et seq.) of the Administrative Process Act, necessary to ensure the safety and health of miners and other persons and property at underground mineral mines in the Commonwealth. Nothing in this section shall restrict the Director from promulgating regulations more stringent than regulations promulgated pursuant to the federal mine safety law. Such rules and regulations applicable to underground mineral mines shall establish requirements:

1. For protecting miners from general risks found at underground mineral mines and mining;

2. For the provisions and use of personal protection equipment and devices for the head, feet, hands, and body;

3. For the maintenance, operation, storage, and transportation of mechanical or electrical equipment, devices, and machinery used in the underground mining of minerals;

4. For controlling unstable roof, rib, wall and other ground conditions;

5. For the handling and storage of combustible materials, including requirements for emergency plans, fire fighting and emergency rescue, fire prevention and safety features on mine equipment, fire safety in mine structures and other areas, and other flame and spark ~~dangers~~ *hazards*;

6. For the control of exposure to airborne contaminants and excessive noise levels;

7. For adequate air quality through ventilation and other appropriate measures;

8. For the safe storage, transportation, and use of explosive and blasting devices;

9. For the safe design, operation, maintenance, and inspection of drilling equipment;

10. For the construction, installation, maintenance, use and inspection of boilers, air compressors, and compressed gas systems;

11. For the safe design, use, maintenance, and inspection of passageways, walkways, ladders, and other ~~travelways~~ *travel ways*;

12. For the safe design, operation, maintenance, and inspection of electrical equipment and systems;

13. For the storage, transportation, and handling of materials, including corrosive and hazardous substances;

14. For the safe design, use, maintenance, and inspection of guards on moving parts of equipment

and machinery;

15. For the safe design and operation of chutes;

16. For the inspection, maintenance, safe design, and operation of hoisting equipment and cables;

17. For the inspection, maintenance, and construction of mine shafts; and

18. For the safe design, operation, maintenance, and inspection of, and the conduct of mining activities at, surface areas of underground mineral mines.

B. The Director shall not promulgate any regulations relating to underground mineral mines which are inconsistent with requirements established by the Act, or which, when an operator takes action to comply with the provisions of such regulation, would place the operator in violation of the federal mine safety law.

§ 45.1-161.305. Regulations governing conditions and practices at surface mineral mines.

A. The Director shall promulgate rules and regulations, in accordance with Article 2 (§ 9-6.14:7.1 et seq.) of the Administrative Process Act, necessary to ensure safe working conditions and practices at surface mineral mines in the Commonwealth. Nothing in this section shall restrict the Director from promulgating regulations more stringent than regulations promulgated pursuant to the federal mine safety law. Such rules and regulations applicable to surface mineral mines shall establish requirements:

1. For protecting miners from general risks found at surface mineral mines;

2. For the provision and use of personal protection equipment;

3. For controlling unstable ground conditions;

4. For the handling and storage of combustible materials, including requirements for emergency plans, fire-fighting and emergency rescue, fire prevention and safety features on mine equipment, and fire prevention and safety in mine structures and buildings;

5. For controlling exposure to airborne toxic contaminants;

6. For safe storage, transportation, and use of explosives and blasting devices;

7. For the safe design, operation, maintenance, and inspection of drilling equipment;

8. For the construction, use, maintenance, and inspection of boilers, air compressors, and compressed gas systems;

9. For the safe design, operation, maintenance, and inspection of mobile equipment;

10. For the safe design, use, maintenance, and inspection of ladders, walkways, and ~~travelways~~ *travel ways*;

11. For the safe design, operation, maintenance, and inspection of electrical equipment and systems;

12. For the safe design, use, maintenance, and inspection of guards on moving parts of equipment and machinery;

13. For the storage, transportation and handling of materials, including corrosive and hazardous substances;

14. For the safe design, operation, maintenance, and inspection of hoisting equipment and cables; and

15. For the design, construction, maintenance, inspection of refuse piles, and water and silt retaining dams, including emergency response plans.

B. The Director shall not promulgate any regulation relating to surface mineral mines which is inconsistent with requirements established by the Act, or which, when an operator takes action to comply with the provisions of such regulation, would place the operator in violation of the federal mine safety law.

2. That §§ 45.1-161.112, 45.1-161.113 and 45.1-161.190 of the Code of Virginia are repealed.

3. That an emergency exists and this act is in force from its passage.