

**REPORT OF THE
COAL MINE HEALTH
AND SAFETY COMMISSION
TO
THE GOVERNOR
AND THE GENERAL ASSEMBLY OF VIRGINIA**



SENATE DOCUMENT NO. 25

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF PURCHASES AND SUPPLY
RICHMOND
1978**

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Report of the
Coal Mine Health
and Safety Commission

Richmond, Virginia

December, 1977

To: The Honorable Mills E. Godwin, Jr., Governor of Virginia
and
The General Assembly of Virginia

I. INTRODUCTION.

The Coal Mine Health and Safety Commission was established pursuant to Senate Joint Resolution No. 63 of 1976.

SENATE JOINT RESOLUTION NO. 63

Creating a Commission to study coal mine health and safety and to allocate funds therefor.

WHEREAS, although surface and deep mining of coal make significant contributions to the economy and energy production of the State, it is an industry that has unique and serious health and safety problems; and

WHEREAS, over the years, numerous State laws have been enacted to protect the coal miners from the hazards of the mining process; and

WHEREAS, because of the changes and advancements in mining technology and the changing nature of the coal mining industry, there is a need to reassess the health and safety problems of coal miners and the State laws that have been enacted to address such problems; now therefore, be it

RESOLVED by the Senate of Virginia, the House of Delegates concurring, That the Coal Mine Health and Safety Commission is hereby created. The Commission shall study the health and safety problems of coal miners in Virginia. The study shall include an examination of the present conditions under which coal miners work, the new and developing technologies in the field of coal mining and mine safety, and the State coal

mine health and safety laws of Title 45.1 of the Code of Virginia.

The Commission shall consist of ten members, two to be appointed by the Senate Committee on Privileges and Elections from the membership of the Senate, five to be appointed by the Speaker of the House of Delegates from the membership thereof, one ex officio member, with the power to vote, to be the chief of the Division of Mines of the Virginia Department of Labor and Industry, and two to be appointed by the Governor to include one coal miner and one coal mine operator.

The legislative members of the Commission shall receive such compensation as set forth in § 14.1-1 of the Code of Virginia and all members shall be reimbursed for necessary reasonable expenses incurred in the performance of their duties in the work of the Commission. There is hereby allocated from the general appropriation to the General Assembly the sum of ten thousand dollars for the purposes of this study.

All agencies of the State shall assist the Commission in its work upon request.

The Commission shall make an interim report to the Governor and General Assembly no later than December one, nineteen hundred seventy-six and a final report with recommendations no later than September one, nineteen hundred seventy-seven.

John C. Buchanan of Wise, a member of the Senate of Virginia and patron of Senate Joint Resolution No. 63 was elected Chairman. Orby I. Cantrell of Pound, a member of the House of Delegates, was elected Vice Chairman.

In addition to the Chairman and Vice Chairman, Daniel W. Bird, Jr. of Wytheville, a member of the Senate of Virginia, was appointed to the Commission. Also appointed to serve from the House of Delegate were Claude W. Anderson of Buckingham, Charles W. Gunn Jr. of Lexington, Jame B. Murray of Earlysville, and William T. Wilson of Covington.

The following citizens were appointed pursuant to the resolution to serve on the Commission: W. Foster Mullin of Big Stone Gap; James McGlothlin of Grundy; and Lody Salyers of Coeburn. Due to illness Mr. Mullin retired and was replaced on the Commission by Frank A. Linkous of Big Stone Gap who assumed Mr. Mullins function as acting Chief Mine Inspector. Bragdon R. Bowling, Jr., Hugh P. Fisher and Sieglinde F. Nix of the Division of Legislative Services served as staff to the Commission.

The Commission spent its first year of existence generally familiarizing itself with the health and safety problems inherent to the coal mining industry. The Commission thoroughly analyzed both State and Federal coal mine safety laws. The Commission also was briefed by the staff of the Chief Mine Inspector, W. Foster Mullins, on mining techniques and mine operations. The Commission toured both a deep shaft mine and a truck mine in Grundy, Virginia. The Commission presented an interim report, Senate Document No. 8, which discussed Commission activities during 1976.

II. WORK OF THE COMMISSION DURING 1977.

The Commission began its second and final year of existence by conducting a public hearing at Clinch Valley College in Wise, Virginia, on April 25, 1977. At that hearing public testimony was received covering a myriad of safety related topics. The Commission also reviewed sixteen fatal accident reports for 1976 in order to determine whether legislation might have prevented any fatality.

The Commission appointed a Subcommittee consisting of Senator Buchanan, Mr. McGlothlin, and Mr. Salyers to review and develop various legislative proposals which were arrived at by the Commission. The Subcommittee also met with labor and industry official in order to receive input on the bill drafts.

The Subcommittee then presented its work to the full Commission for consideration. A public hearing was held in Lebanon, Virginia, and various changes were arrived at. The Commission also toured the National Mine Health and Safety Academy in Beckley, West Virginia, in conjunction with the Lebanon public hearing.

A final Commission meeting in Roanoke was held to further refine the bill drafts. Copies of the proposed Commission legislation Legislative Services are included as appendices to this report.

III. GENERAL FINDINGS.

A. It was agreed that many technical changes were necessary in order to conform State law with Federal mining requirements. Such changes may be found throughout the proposed Commission legislation.

B. It was agreed that emergency medical treatment at many mines was inadequate and that problems existed in regards to the first aid training of miners. As a result of Commission proposals made during the 1977 Session of the General Assembly, §§ 45.1-101.1 and 45.1-101.2 were enacted into law. Proposals agreed upon by labor and industry are included in Appendix I of this report. It was felt such amendments are necessary in order for the emergency medical treatment and first aid programs to achieve their purposes.

C. It was agreed that the Chief Mine Inspector needed additional powers in order to adequately perform his job. Increased penalties and rule making authority are among the Commissions recommendations.

D. It was agreed that the membership of the Board of Examiners in the Division of Mines needed to be increased and that hoisting personnel and shot-firers should be certified by the Board due to the hazardous nature of such job functions.

E. It was agreed that many general safety rules should be codified in order to promote safety in the mines.

IV. CONCLUSION.

The Commission recommends affirmative action on all legislative proposals included in the appendices to this report.

The Commission sincerely expresses its appreciation to the staff of the acting Chief Mine Inspector, Frank A. Linkous, for their cooperation and assistance. Also, the Commission expresses its thanks to the many citizens, labor and industry representatives who contributed a great deal of input and time to the deliberations of the Commission.

Respectfully submitted,

John C. Buchanan, Chairman

Orby L. Cantrell, Vice Chairman

Daniel W. Bird, Jr.

Claude W. Anderson

Charles W. Gunn, Jr.

James B. Murray

William T. Wilson

James McGlothlin

Frank A. Linkous

Lody Salyers

APPENDIX I

A BILL to amend and reenact §§ 45.1-7, 45.1-12, 45.1-13, 45.1-17, 45.1-26, 45.1-30, 45.1-34, 45.1-36, 45.1-37, 45.1-39, 45.1-40, 45.1-44, 45.1-48, 45.1-68, 45.1-69, 45.1-90 and 45.1-98 of the Code of Virginia, and to amend the Code of Virginia by adding sections numbered 45.1-53.1 and 45.1-99.1, the amended and added sections relating to coal mine health and safety; prohibited acts; penalties.

Be it enacted by the General Assembly of Virginia:

1. That §§ 45.1-7, 45.1-12, 45.1-13, 45.1-17, 45.1-26, 45.1-30, 45.1-34, 45.1-36, 45.1-37, 45.1-39, 45.1-40, 45.1-44, 45.1-48, 45.1-68, 45.1-69, 45.1-90 and 45.1-98 of the Code of Virginia are amended and reenacted and that the Code of Virginia is amended by adding sections numbered 45.1-53.1 and 45.1-99.1 as follows:

§ 45.1-7. Board of Examiners; membership; appointment, terms, qualifications, etc., of appointive members.—(a) The Board of Examiners in the Division of Mines is continued *and shall be a function of the Division* . The Board shall consist of the Chief and ~~two~~ *six* members to be appointed by the Governor. All vacancies occurring on the Board among appointive members shall be filled by the Governor for the unexpired term. One of the appointive members of such Board shall be a miner holding a mine foreman's certificate, first class, who has had at least five years' practical experience in *underground* mining, and who is actually employed in mining coal in a nonsupervisory capacity at the time of appointment; ~~and one of the appointive members shall be a miner who has had at least five years' practical experience in surface mining, and who is actually currently employed in mining coal in a nonsupervisory capacity at the time of appointment; one of the appointive members shall be a miner who has had at least five year practical experience in the mining of minerals other than coal, and who is actually currently employed in a nonsupervisory capacity at the time of appointment; one of the appointive members shall be an operator, who is, at the time of appointment, actually engaged in the operation of a surface coal mine in this State, and holding a mine foreman's certificate, first class; one appointive member shall be an operator, who is, at the time of appointment, actually engaged in the operation of a an underground coal mine in this State, and holding a mine foreman's certificate, first class ; and one of the appointive members shall be an operator, who is, at the time of appointment, actually engaged in the operation of a noncoal mine in this State .~~

(b) The terms of the present appointed members shall continue until their term of office expires. Thereafter as continue until their term of office expires. Hereafter as the terms of office, respectively, of the members expire, the Governor shall appoint, to fill the vacancies so occasioned, qualified persons whose terms shall be for four years from the day on which that of their immediate predecessors expired.

(c) Each appointment on such Board may be made from a list of at least five names from each group submitted to the Governor or to the

Governor-elect by the Commissioner of Labor and Industry, except that each miners' organization in the State, if they so desire shall have the right to nominate ~~one member~~ *two members* of their organization for membership on the Board, to be considered by the Governor for the miner ~~member~~ *members* on the Board. Nominations are to be made to the Governor by June first of the year in which vacancies occur by expiration of term of appointment. In no case shall the Governor be bound to make any appointment from the nominations submitted.

45.1-12. Examination and certification of certain persons employed in mines.—The Board may require certification of persons who work in mines and who are responsible for the operation, inspection or maintenance of machinery or equipment of any kind whatsoever which is used in mines or mining, or the installation, operation, repair or maintenance of electrical systems or equipment, or the use or handling or storage of explosives in connection with mining or mining operations, and such persons whose duties and responsibilities in relation to mining require competency, skill or knowledge in order to perform consistently with the health and safety of persons and property. Certification shall be required for a mine foreman, section foreman, fire boss, surface mine foreman, chief electrician, *hoisting personnel, firers of shot, maintenance foreman or repairman.*

The Board may require examination of applicants for certification, and may require such other information from applicants as may be necessary to ascertain competency and qualifications *for each particular job skill* . The examinations herein provided for shall be conducted under such rules, conditions and regulations as the Board shall deem most efficient for carrying into effect the spirit and intent of chapters 1 to 14 (§§ 45.1-1 to 45.1-161) of this title. Such rules, when formulated, shall be made a part of the permanent record of the Board, and such of them as relate to candidates shall be published for their information and guidance at least ten days prior to each examination, and shall be of uniform application to all candidates. Any person engaged in any activity for which certification is required by the Board before the effective date of the Board's regulations promulgated hereunder may continue such activity without certification. No person taking the examination shall be issued a certificate of competency whose grade on any one subject is less than seventy-five per centum. The Board shall observe the following requirements in conducting the examination:

(a) Each applicant for a mine foreman, assistant or section foreman certificate shall prove to the Board or Chief subject to approval of the Board by written and oral examination and by demonstration where practicable, that he has a thorough knowledge of the theory and practice of coal mining; nature and properties of noxious, poisonous, and explosive gases, and methods for their detection and control; requirements of the coal-mining laws of this State; and responsibilities and duties of a mine foreman under State law; and that he is otherwise qualified by law.

(b) Each applicant for a fire boss certificate shall prove to the Board, or Chief subject to approval of the Board, by written and oral examination and by demonstration where practicable that he has a thorough knowledge

of the nature and properties of noxious, poisonous, and explosive gases and methods for their detection and control; practical aspects of coal mining pertaining especially to ventilation and roof control; responsibilities of a fire boss under the coal-mining laws of this State; and that he is otherwise qualified by law.

(c) Each applicant for a chief electrician, maintenance foreman or repairman certificate shall prove to the Board, or Chief subject to approval of the Board, by written and oral examination, that he has a thorough knowledge of the theory and practice of electricity and maintenance of equipment that pertains to coal mining and that he is otherwise qualified by law.

(d) Each applicant for a surface foreman certificate shall prove to the Board, or Chief, subject to approval of the Board, by written and oral examination that he has a thorough knowledge of the theory and practice of surface coal mining and that he is otherwise qualified by law.

§ 45.1-13. Revocation of certificate; reexamination; filing of certificate at mine office; replacement of lost or destroyed certificates.—Any certificate granted before and subsequent to June twenty-seven, nineteen hundred sixty-six, may be revoked by the Board after hearing, upon due notice to the holder of the certificate, and upon written charges preferred by the Chief, or his designated agent, or ten persons, or in mines employing less than ten employees, a majority of the employees at the mine in which he is employed. Complaint may be filed against the holder of a certificate for intoxication while in duty status, mental disabilities, neglect of duty, violation of the coal-mining laws of this State, *use of any controlled substance without the prescription of a licensed physician*, or other sufficient cause. The holder of a certificate so revoked shall be entitled to examination by the Board after three months have elapsed from the date of revocation thereof; provided he can prove to the satisfaction of the Board that the cause for revocation of his certificate has ceased to exist. The holder of a mine foreman, assistant or section foreman, or fire boss certificate issued before or after June twenty-seven, nineteen hundred sixty-six, shall present same or photostatic copy thereof to the official of the mine where he is employed, who shall file said certificate or photostatic copy thereof in the office at said mine, and such file shall be made available for inspection by interested persons. In case of the loss or destruction of any certificate, the Chief may supply a copy thereof to the person losing the same, upon the payment of one dollar to the Chief; provided, it shall be known to the satisfaction of the Board of Examiners that the loss has actually occurred and that the loser was the holder of such certificate.

§ 45.1-17. Duties of mine foreman, assistant foremen and section foremen.—(a) The mine foreman shall see that the requirements of the mining laws of this State that pertain to his duties and to the health and safety of the employees are fully complied with at all times. Where it is necessary that the mine foreman be temporarily absent from the mine, he shall place the mine in charge of a properly certified assistant, or have permission from the Chief to use a competent person.

(b) It shall be the duty of the mine foreman, assistant mine foreman and section foreman of every coal mine in this State to see that every person employed to work in such mine shall, before beginning work therein, be instructed in all dangers incident to his work in such mine. It shall further be the duty of such mine foreman to see that every person employed in such mine shall be furnished with copies of chapters 1-14 (§§ 45.1-1 to 45.1-161) of this title and the printed rules pertaining to such mines.

(c) Every inexperienced person shall be required to work with or under the direction of an experienced person for a period of at least one year following his *underground* employment. *For the purposes of this law, every person with less than one year's underground mining experience shall be considered an inexperienced person.*

(d) The mine foreman shall give prompt attention to the removal of all dangers reported to him by his assistants, the fire boss, or any other person working in the mine, and in case it is impracticable to remove the danger at once, he shall notify every person whose safety is menaced thereby to remain away from the portion where the dangerous condition exists. He or his assistants shall, at least once each week, travel and examine all the air courses, roads and openings that give access to old workings or falls, and make a record of the condition of all places where safety hazards are found, with ink or indelible pencil, in the book provided for that purpose. *No inexperienced underground mining employec shall be assigned, or allowed, or be required to perform work alone in any area where hazardous conditions exist that would endanger his safety unless he can communicate with others, can be heard, or can be seen.* Any dangerous condition that cannot be removed within a reasonable time must be reported to the Chief by the quickest available means.

45.1-26. Prohibited acts by miners, workmen or other persons; mine employees to comply with law.—(a) No miner workman, or other person shall knowingly damage any shaft, lamp, instrument, air course, or brattice or obstruct airways, or carry therein any intoxicating liquors *or controlled drugs without the prescription of a licensed physician* , or disturb any part of the machinery or appliances, or open a door used for directing ventilation and fail to close it again, or enter any part of a mine against caution, or disobey any order given in carrying out any of the provisions of chapters 1 to 14 (§§ 45.1-1 to 45.1-161) of this title.

(b) The employees at any mine shall comply fully with the provisions of the mining laws of this State that pertain to their duties.

§ 45.1-30. Allowing person to work in mine in violation of instructions.— Any operator, his agent, superintendent or mine foreman, having charge of any mine, who shall knowingly permit any person to work in any part of a mine in violation of written instructions issued by the mine inspector, made in compliance with the requirements of chapters 1 to 14 (§ 45.1-1 to 45.1-161) of this title, shall *upon conviction*, be guilty of a *Class 1 misdemeanor* ; *and upon conviction thereof shall be punished as hereinafter provided*

§ 45.1-34. Control of dust; scaffolding and overhead protection; use of arc or flame in dusty atmosphere; fire-fighting apparatus.—(a) In surface structures at excessively dusty mines or quarries, electric motors, switches, lighting fixtures, and controls shall be protected by dust-tight construction.

(b) Surface structures shall be kept free of coal-dust accumulations.

(c) Where repairs are being made to the plant, or where equipment or material is being used or transported overhead, proper scaffolding or proper overhead protection shall be provided.

(d) Welding or cutting with arc or flame shall not be done in excessively dusty atmospheres or dusty locations, and fire-fighting apparatus shall be readily available.

(e) Painting or operations creating noxious fumes shall be performed only in a well ventilated atmosphere.

§ 45.1-36. Stairways, platforms, runways and floor openings.—(a) Stairways, platforms, and runways shall be provided where men work or travel aboveground.

(b) Stairways, elevated platforms, floor openings and elevated runways shall be equipped with suitable handrails or guardrails.

(c) Elevated platforms, floor openings, stairways and runways shall be provided with toe boards. Platforms, stairways and runways shall be kept clear of stumbling and slipping hazards and maintained in good repair.

(d) A crane operator shall at all times during any hazardous crane operation maintain visual or auditory communication with all persons involved in the crane operation.

§ 45.1-37. Housekeeping.—Good housekeeping shall be practiced in and around mine buildings, shafts, slopes and yards. Such practices include cleanliness, orderly storage of materials, and the removal of possible sources of injury, such as stumbling hazards, protruding nails, broken glass and possible falling and rolling materials.

§ 45.1-39. Flammable or combustible materials; smoking.—(a) Oil, grease, and similar flammable materials shall be kept in closed containers, separate from other materials so as not to create a fire hazard to nearby buildings or mines. If oil or grease is stored in a building, the building or room in which it is stored shall be of fireproof construction and well ventilated.

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

(c) Smoking shall be prohibited in or around oil houses, explosive magazines, tipples and other places where such practice may cause a fire or explosion.

(d) The area within one hundred feet of all mine openings shall be kept free of combustible material; provided, however that this shall not apply to the temporary storage of not more than a one day's supply of such materials.

(e) All oxygen and acetylene bottles shall be stored in racks designated and constructed for the storage of such bottles with caps in place and secured when not in use. An storage place for such materials shall be posted to prohibit smoking.

§ 45.1-40. Standards for supports; roof bolts; recovery of roof supports; method of mining not to expose workmen to unusual dangers.—(a) Where necessary, adequate minimum standards for systematic support suitable to the roof conditions and mining system of each mine shall be prescribed by the Chief and complied with. Such standards shall show the minimum number and the location of supports, such as posts, crossbars or bolts that shall be installed. Irrespective of natural conditions, the plan shall provide for some temporary support at all working places ~~unless self supporting~~.

(b) Such standards shall be posted conspicuously near the main entrance to the mine.

(b1) The operator shall instruct all miners in the removal or installation of temporary and permanent roof supports and furnish a copy upon request of the approved plan required herein to all such persons engaged in removing or installing temporary or permanent roof supports.

(c) Supports additional to those required by the minimum standards shall be installed as needed to afford adequate protection.

(d) Roof bolts shall not be used in lieu of conventional timbering unless a permit has been issued by the Division of Mines. Roof bolts shall not be removed where complete extractions of pillars are attempted, nor shall bolts be removed adjacent to clay veins, nor at the locations of other irregularities that induce abnormal hazards. Where roof bolt recovery is practical, it shall be done only by reasonable methods approved by the Chief. Recovery of roof supports shall not be done except by experienced persons and only where adequate temporary support is provided.

(e) The method of mining followed shall not expose the workmen to unusual dangers caused by excessive widths of rooms and entries, faulty pillar-recovery methods, or other dangerous mining methods or working conditions.

§ 45.1-44. Surface storage of explosives, detonators and Cardox heater elements.—(a) Separate surface magazines shall be provided for the storage of explosives, detonators, and Cardox heater elements.

(b) Surface magazines for storing and distributing explosives in amounts exceeding one hundred fifty pounds shall be:

(1) Reasonably bulletproof and constructed of incombustible material or

covered with fire-resistive material. The roofs of magazines so located that it is impossible to fire bullets directly through the roof from the ground, need not be bulletproof, but where it is possible to fire bullets directly through them, roofs shall be made bullet-resistant by material construction, or by a ceiling that forms a tray containing not less than a four-inch thickness of sand, or by other methods.

(2) Provided with doors constructed of three-eighth inch steel plate lined with a two-inch thickness of wood, or the equivalent.

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

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

(5) Provided with properly screened ventilators.

(6) Equipped with no openings except for entrance and ventilation.

(7) Kept locked securely when unattended.

(c) Surface magazines for storing detonators and Cardox heater elements need not be bulletproof, but they shall be in accordance with other provisions for storing explosives.

(d) Explosives or Cardox heater elements in amounts of one hundred fifty pounds or less or five thousand detonators or less shall be stored in accordance with preceding standards or in separate locked box-type magazines. Box-type magazines may also be used as distributing magazines when quantities do not exceed those mentioned. Box-type magazines shall be constructed strongly of two-inch hardwood or the equivalent. Metal magazines shall be lined with nonsparking material. No magazine shall be placed in a building containing oil, grease, gasoline, wastepaper or other highly flammable material; nor shall a magazine be placed within twenty feet of a stove, furnace, open fire or flame.

(e) The location of magazines shall be not less than three hundred feet from any mine opening, occupied building or public road *or any road which the Chief designates in order to promote safety*. However, *in the event that a magazine cannot be practicably located at such a distance*, if sufficiently barricaded and approved by the Chief, such magazine may be located less than three hundred feet from any mine opening, occupied building or ~~public~~ road.

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

(g) The area surrounding magazines for not less than twenty-five feet

in all directions shall be kept free of rubbish, dry grass or other materials of a combustible nature.

(h) If the explosives magazine is illuminated electrically, the lamps shall be of vapor-proof type, installed and wired so as to present minimum fire and contact hazards.

(i) Only nonmetallic tools shall be used for opening wooden containers. Extraneous materials shall not be stored in an explosives, detonator or Cardox heater element magazine.

(j) Smoking, carrying smokers' articles or open flames shall be prohibited in or near any magazine.

§ 45.1-48. Blasting practices.—(a) Prior to the use of Cardox or air breaking methods, both of which are classed as permissible blasting methods, or any other blasting device or method that may later be classed as permissible, the operator must secure written approval from the Chief. The Chief, in granting approval, will issue instructions as to storage, transportation, handling, charging, tamping, detonating and handling misfires. These instructions will be made conditions of the approval, and violations of any of them shall be considered violations of this section. The Chief may at his discretion approve the use of delay electric detonators, which may be used upon his written permission, and under such rules as he may promulgate.

(b) All explosives used underground in coal mines shall be of the permissible type and shall be used as follows:

(1) Fired only with electric detonators of proper strength, unless permission is obtained from the Chief, to use fuse and caps.

(2) Fired with permissible shot-firing units, unless firing is done from the surface when all men are out of the mine, or a permit is secured to use other appropriate devices.

(3) Boreholes in coal shall not be drilled beyond the limits of the cut where the coal is cut nor into the roof or floor.

(4) Boreholes shall be cleaned, and shall be checked to see that they are placed properly and are of correct depth in relation to the cut, before being charged.

(5) All blasting charges in coal shall have a burden of at least eighteen inches in all directions if the height of the coal permits.

(6) Boreholes shall be stemmed with at least twenty-four inches of incombustible material, or at least one half of the length of the hole shall be stemmed if the hole is less than four feet in depth. The Chief may authorize the use of newly developed stemming devices.

(7) In gassy mines, examinations for gas shall be made immediately

before firing each shot or group of multiple shots, and after blasting is completed.

(8) Shots shall not be fired in any place where methane can be detected with a flame safety lamp.

(9) Without permit, charges exceeding one and one-half pounds, but not exceeding three pounds, shall be used only if boreholes are six feet or more in depth; the explosives are charged in a continuous train, with no cartridges deliberately deformed or crushed; with all cartridges in contact with each other, with the end cartridges touching the back of the hole and the stemming, respectively; and Class A or Class B permissible explosives are used; provided, however, that the three-pound limit shall not apply to solid rock work.

(10) In any mine in which solid shooting is done, the chief mine inspector shall prescribe the conditions under which such solid shooting may be done. Any operator, or mine foreman, who causes or permits any solid shooting to be done in any mine without first having obtained a written permit from the Chief, or any miner therein who shoots coal from the solid, without first having obtained permission so to do from the operator, or the mine foreman, shall be guilty of a misdemeanor, and upon conviction, shall be fined as hereinafter provided.

(11) The operator shall designate ~~competent~~ *certified* persons to fire shots.

(12) Boreholes shall not be charged while any other work is being done at the face, and the shot or shots shall be fired before any other work is done in the zone of danger from blasting except that which is necessary to safeguard the employees.

(13) Only nonmetallic tamping bars shall be used for charging and tamping boreholes. This does not prohibit the use of a nonmetallic tamping bar with a nonsparking metallic scraper on one end.

(14) The leg wires of electric detonators shall be kept shunted until ready to connect to the firing cable.

(15) Shots shall not be fired from the power of signal circuit while any men are in the mine.

(16) The roof and faces of working places shall be tested before and after firing each shot or group of multiple shots.

(17) Ample warning shall be given before shots are fired, and care shall be taken to ascertain that all persons are in the clear. Men shall be removed from adjoining working places when there is danger of a shot blowing through.

(18) Mixed types or brands of explosives shall not be charged or fired in any borehole.

(19) Adobe (mudcap) or other open, unconfined shots shall not be fired in any mine.

(20) Power wires and cables that could contact blasting cables or leg wires shall be de-energized during charging and firing.

§ 45.1-53.1. Explosives and blasting practices in shaft and slope operations.—A. Blasting areas in shaft or slope operations shall be covered with mats or materials when the excavations are too shallow to retain the blasted material.

B. When explosives are in the shaft or slope and an electrical storm approaches, all persons shall be removed from such working places until the storm has passed.

§ 45.1-68. Hoisting; hoisting engineer; stop controls, brakes, etc.; testing and inspection of equipment; ropes.—(a) Where men are transported into or out of a mine or underground by hoists, or on surface inclines, a qualified hoisting engineer person who is certified to operate hoisting equipment, who shall be a person who has operated a hoist for at least one year, has handled materials only under the direct and immediate supervision of a person who is certified to operate hoisting equipment possessing such experience as is required by the Board, and who has passed an examination given by the Chief and approved by the Board, shall be on duty continuously at each hoist necessary to provide immediate transportation while any person is underground; provided, however, that this shall not apply to automatically operated elevators that can be operated safely by any workman. Any application for certification as hoisting personnel shall be accompanied by the sworn affidavit of a person certified to operate a hoist stating that the applicant has had a minimum of one year's experience under the direct and immediate supervision of certified hoisting personnel and that such applicant possesses the necessary skills to safely operate hoisting equipment.

(b) A hoist used for handling men shall be equipped with overspeed, overwind, and automatic stop controls; unless a second engineer is on duty, and a stop control is provided for his immediate use. All suspended work decks and platforms shall operate automatically, shall be equipped with guard rails capable of protecting men and materials from accidental overturning and shall be equipped with safety belts and other protective devices provided for by regulation.

(b1) When moving the platform or work deck, all men traveling thereon shall have safety belts secured.

(c) The Hoisting engineer personnel shall operate the empty cages up and down the shaft at least one round trip at the beginning of each shift and after the hoist has been idle for one hour or more before hoisting or lowering men. Similar procedure shall be followed in slope and surface incline hoisting except that an attendant may ride on the trip.

(c1) It shall also be the duty of the hoisting personnel to inspect all

cable or rope fastenings at all cages, buckets, or slope cars, inspect hammer locks and pins, thimbles, and clamps, inspect safety chain on buckets, cage or slope cars, inspect the braking system for malfunctions, clean all excess oil and extraneous materials from the hoist housing construction, inspect the overwind, overtravel, and lilly switch or control from stopping at the collar and within one hundred feet of the workdeck, and to check communications between the top house, work deck and work deck tugger house.

(d) Slope, shaft, or surface incline hoists shall be equipped with brakes capable of stopping and holding the fully loaded unbalanced cage or trip at any point in the shaft, slope, or on the incline.

(e) An accurate and reliable indicator, showing the position of the cage or trip, shall be placed so as to be in clear view of the engineer, unless the position of the car or trip is clearly visible to the engineer at all times.

(f) Hoisting equipment including the headgear, cages, ropes, connections, links and chains, shaft guides, shaft walls, and other facilities shall be inspected daily by a competent person designated by the operator. *Such person shall also inspect all bull wheels and lighting systems on the head frame.* Such inspector shall report immediately to his superior any defects found, and any such defect shall be corrected promptly. The person making such examination shall make a daily permanent record of such inspection, which shall be open for inspection by interested persons.

(g) Hoisting ropes on all cages or trips shall be adequate in size to handle the load and have a proper factor of safety. Ropes used to hoist or lower coal and other materials shall have a factor of safety of not less than five to one; ropes used to hoist or lower men shall have a factor of safety of not less than ten to one. The rope shall be replaced as soon as there is evidence of possible failure *and shall be inspected at the beginning of each shift by hoisting personnel .*

(h) The rope shall have at least three full turns on the drum when extended to its maximum working length and shall make at least one full turn on the drum shaft or around the spoke of the drum, in case of a free drum, and be fastened securely by means of clamps.

(i) The hoisting rope shall be fastened to its load by a spelter-filled socket or by a thimble and adequate number of clamps properly spaced and installed.

(j) Any rope attached to a cage, man-car, or trip used for hoisting or lowering men *or materials* shall be provided with two bridle chains or cables connected securely to the rope at least three feet above the socket or thimble and to the crosspiece of the cage or to the man-car or trip.

(k) Any platform or work deck used for transporting men or materials shall be equipped with leveling indicators and such conveyance shall be maintained and operated in a reasonably level position at all times.

§ 45.1-69. Same; cage ; shafts; lopes.—(a) Cages used for hoisting men shall be of substantial construction; with adequate steel bonnets, with enclosed side ; with gate , safety chains, or bars across the ends of the cage when men are being hoisted or lowered; and with sufficient handholds or charins for all men on the cage to maintain their balance. A locking device to prevent tilting of the cage shall be used on all self-dumping cage when men are transported thereon.

(b) The floor of the cage shall be constructed so that it will be adequate to carry the load and so that it will be impossible for a workman' foot or body to enter any opening in the bottom of the cage.

(c) Cages used for handling men shall be equipped with safety catches that act quickly and effectively in case of an emergency.

(d) A test of safety catches on cages shall be made at least once each month. A written record shall be kept of such tests, and such record shall be open for inspection by interested persons.

(e) The speed of the cage, car, or trip in shafts, slopes, or on surface inclines shall not exceed one thousand feet a minute when men are being hoisted or lowered.

(f) Two independent means of signaling shall be provided between the top, bottom, and all intermediate landings of shafts, slopes, and surface incline and the hoisting station. At least one of these means of signaling shall be audible to the hoisting engineer. *Bell cords shall be installed in shafts in such a manner as to prevent unnecessary movement of such cords within the shaft. All chokers and slings used to transport materials within a shaft or slope shall meet the United States of America Standards Institut specifications.*

(g) An approved uniform signal code approved by the Chief shall be in use at each mine and shall be at the cage station designated by the shaftman.

(h) When men are being hoisted or lowered in shafts slopes, or on surface inclines the loading and unloading of men and movement of the cage, car, or trip shall be under the direction of qualified attendants, unless automatic elevator type hoists are used.

(i) 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.

(j) Positive topblocks or derails shall be placed near the top and at intermediate landings of slopes and surface inclines and at the approach to all shaft landings.

(k) 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.

(l) Ice shall not be permitted to accumulate excessively in any shaft where men are hoisted or lowered.

(m) No person shall ride on a loaded cage.

(n) The number of persons riding in any cage or car at one time shall be prescribed by the Chief.

(o) Conveyances being lowered into a shaft in which men are working shall be topped at least twenty feet above the area where such men are working.

(p) Whenever men 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.

(q) An conveyance used to haul men or materials within a shaft or slope shall be designed to prevent materials from falling back into the shaft or slope and shall be equipped with at least a six-inch clearance to prevent objects from falling.

§ 45.1-90. Flammable oils; internal combustion engines.—(a) No gasoline, benzine, kerosene or other flammable oils shall be used underground in powering machinery ; ~~except that equipment powered by diesel engines, approved by the Chief before installation, may be used underground in the operation of other than coal mines, and except as hereinafter provided without the written approval of the Chief .~~

(b) Internal combustion engines shall not be permitted underground in any coal mine except with the written approval of the Chief. ~~The Chief may in his discretion approve diesel powered locomotives, shuttle cars, or other equipment, which may be operated only upon his written permission and under such rules as he may promulgate.~~

§ 45.1-98. Smoking, etc.; arcs, sparks and flames.—(a) Smoking, the carrying of matches, other flame-making devices, and smokers' articles and the intentional creation of any arc, spark or open flame, except as provided in the following subsection, shall be prohibited in all mines.

(b) Welding and cutting with arc or flame or soldering underground in other than fireproof enclosure ventilated with intake air shall be done under the direct supervision of a competent person who shall test for methane before and during such operations in gassy mines and shall make a diligent search for fire after such operation in all mines. Rock dust or suitable fire extinguishers shall be immediately available during such welding or cutting. *Welding operations shall be performed only in well-ventilated areas.*

§ 45.1-99.1. Noise levels and ear protection.—A. The Chief shall

promulgate by regulation such feasible engineering controls and mining equipment noise levels as are deemed necessary. Such noise levels shall meet minimum federal noise level standards.

B. Ear protectors shall be supplied by the operator to all miners upon request.

APPENDIX II

A BILL to amend and reenact §§ 45.1-2, 45.1-4, 45.1-5, 45.1-8, 45.1-10, 45.1-16, 45.1-19, 45.1-20, 45.1-54, 45.1-56, 45.1-57, 45.1-58, 45.1-65, 45.1-67 and 45.1-104 of the Code of Virginia; and to repeal §§ 45.1-29 and 45.1-33.6 of the Code of Virginia, the amended and repealed sections relating to coal mine health and safety.

Be it enacted by the General Assembly of Virginia:

1. That §§ 45.1-2, 45.1-4, 45.1-5, 45.1-8, 45.1-10, 45.1-16, 45.1-19, 45.1-20, 45.1-54, 45.1-56, 45.1-57, 45.1-58, 45.1-65, 45.1-67 and 45.1-104 of the Code of Virginia are amended and reenacted as follows:

§ 45.1-2. Definitions.—As used in chapters 1 to 14 (§§ 45.1-1 to 45.1-161) of this title, the following words and terms shall have the following meanings, unless the context shall indicate another or different meaning:

(1) "Commissioner" means the Commissioner of the Department of Labor and Industry or such other public officer, employee, board, commission, or other authority that may by law be assigned the duties and authority of the Commissioner of the Department of Labor and Industry.

(2) "Chief" means the Chief of the Division of Mines of the Department of Labor and Industry, or such other public officer, employee, board, commission or other authority that may in emergencies be acting in the stead, or by law be assigned the duties and authority of the Chief of the

(3) "Mine inspector" means a public employee assigned by the Chief to make mine inspections as required by Chapters 1 to 14 of this title, and other laws from time to time in such cases made and provided.

(4) "Superintendent" means the person placed in overall charge of the operation of a coal mine or mines.

(5) "Operator" means the owner, pari owner, operator, or lessee to whom the superintendent reports and is accountable for the operation. The operator may also be the superintendent.

(6) "Mine foreman" means a person holding a valid certificate of qualification duly issued by action of the Board of Examiners, and also including the person acting in the stead of a mine foreman appointed as provided hereunder when a certified mine foreman is unavailable.

(7) "Supervisor" may be used to designate a mine foreman, assistant mine foreman, section foreman, traffic man, maintenance foreman, etc., and is restricted herein to mean those persons employed by the operator or superintendent to manage all or a part of the mine operations.

(8) "Fire boss" means a person holding a valid certificate of qualification duly issued by action of the Board of Examiners, and also

including the person acting in the stead of a fire boss appointed as provided hereunder when a certified fire boss is unavailable.

(9) "Approved competent person" is one who has had at least two years of practical experience, has knowledge of mine roof, timbering and ventilation, and who has demonstrated knowledge of mine gases and the use of permissible flame safety lamps, such demonstration to be given and made of record in a manner prescribed by the Chief.

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

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

(12) "Approved" means a device, apparatus, equipment, condition, method or practice approved in writing by the Chief.

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

(14) "Blower fan" means a fan with tubing used to direct part of a particular circuit of air to a working face.

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

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

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

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

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

(20) "Room entry" means any entry or set of entries from which rooms are turned - a panel entry.

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

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

(23) "Gassy or gaseous mine" means a mine in which the percentage of explosive gas exceeds one fourth of one per centum at the return of any one split, or in which methane has been detected by a flame safety lamp or one in which there is a record of methane having been ignited.

(24) "Nongassy mine" means any mine which is not classified gassy or gaseous.

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

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

(27) "High-potential" shall conform to § 45.1-83 (e).

(28) "Interested persons" means members of the mine safety committee and other duly authorized representatives of the employees at the mine; federal and State coal-mine inspectors; and, to the extent required by the State mining law any other person.

(29) "Mine" means any open pit or any underground workings from which coal or other minerals are produced for sale, exchange, or commercial use, and all shafts, slopes, drifts, or inclines leading thereto, and includes all buildings and equipment, above or below the surface of the ground, used in connection with such mine. *All work areas utilized to prepare a site shall also be considered as a part of the 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.

(30) "Intake air" means air that has not passed through the last working place of the split or by the unsealed entrances to abandoned workings and by analysis contains not less than nineteen and one-half per centum oxygen nor more than one half of one per centum of carbon dioxide, nor any dangerous quantities of flammable gas nor any harmful amounts of poisonous gas.

(31) "Return air" means air that has passed through the last active working place on each split, or air that has passed through abandoned, inaccessible or pillared workings. Area within a panel shall not be deemed abandoned until such panel is abandoned.

(32) "Permissible" means a device, process, or equipment or method heretofore or hereafter classified by such term by the United States Bureau of Mines, when such classification is adopted by the Chief, and includes, unless otherwise herein expressly stated, all requirements, restrictions, exceptions, limitations, and conditions attached to such classification by the said Bureau.

(33) "Shot firer" means a *certified* person employed or designated by the foreman to charge, stem and fire shots.

(34) "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.

(35) "Working face" means those areas within a mine from which coal is being extracted or is to be extracted, including all of the area extending inby from the last open crosscut or cross entry to the coal face.

(36) "Working place" means any place within the mine where men are required to work or travel.

(37) "*Serious accident*" means any injury requiring at least one day of hospital confinement.

(38) "*Working coal miner*" means a person who is employed to work in coal mining operations and may include supervisory personnel.

§ 45.1-4. Qualifications of Chief and mine inspectors; removal of inspectors; records of inspections; affiliation with labor union, coal company, etc.; retirement; interest in coal mine.—(a) The Chief and mine inspectors shall have a thorough knowledge of the various systems of working and ventilating coal mines, nature and properties of mine gases and methods for their detection and control, the control of mine roof, methods of rescue and recovery work in mine disasters, application of electricity and mechanical loading in mining operations equipment and explosives used in mining, methods for preventing gas and dust explosions in mines, and ~~the~~ mine haulage. Each must have a first-class mine foreman's certificate of competency from the Board of Examiners of the Commonwealth of Virginia; and, be not less than thirty years of age. They shall be of good moral character and temperate habits, and shall have at least twelve years' experience underground at coal mines. As evidence of possession of the knowledge required by chapters 1-14 (45.1-1 to 45.1-161) of this title, any person appointed as mine inspector shall possess a first-class mine foreman's certificate and also shall be subject to the mine inspector's examination, as prescribed by the Board and given by the Chief. The mine inspectors may be removed from office for cause. The Chief shall keep a record of all inspections made by him and the mine inspectors and a comprehensive report shall be made to the Commissioner of Labor and Industry. The Chief shall also keep a permanent record thereof properly indexed, which record shall at all times be open to inspection by any citizen of the Commonwealth and shall be collated and embodied in the annual report of the Department.

(b) Neither the Chief nor any other officer or employee of the Division of Mines shall, upon taking office or being employed, or at any other time during the term of his office or employment, have any affiliation with any operating coal company, operator's association, or labor union. Retirement at age sixty-five shall be compulsory. No mine inspector while in office shall be directly or indirectly interested as owner, lessor, operator, stockholder, superintendent or engineer of any coal mine.

§ 45.1-5. Schedule of mine inspections; conduct of inspections; certificates of inspection; accidents; clearing mines in dangerous condition.—
(a) The following schedule of mine inspections shall be maintained: All mines shall have one complete inspection at least every ninety days. However, special, partial or complete inspections shall be made when deemed necessary by the Chief, or if requested in writing by ten men engaged in any one mine, or the owner, operator or superintendent of such mine, and shall make a personal examination of the interior of such mine, and of the outside of the mine where any danger may exist to the workmen. During an inspection, the inspector shall inspect the surface plant, every working place in the mine, all active haulageways and travelways, entrances to abandoned workings, and accessible old workings, at least one entry of each intake and return airway in its entirety, escapeways and other places where men work or travel or where dangerous conditions may exist, electric installations and equipment, haulage facilities, first-aid equipment, ventilation facilities, communication installations, roof and rib conditions, and roof-support practices, blasting practices, haulage practices and equipment, and any other condition, practice or equipment pertaining to the health and safety of the employees. The quantity of air passing through the last crosscut between the intake and return in any set of entries shall be not less than ~~six~~ nine thousand cubic feet of air per minute, and as much more as is necessary to direct and render harmless and carry away flammable and harmful gases. Provided, however, that the quantity of air reaching the last crosscut in pillar sections may be less than ~~six~~ nine thousand cubic feet of air per minute, if ~~six~~ nine thousand cubic feet of air per minute is being delivered to the intake of the pillar line. He shall make tests for gas and oxygen deficiency in each place which he is required to inspect in the mine. In mines operating more than one shift in a twenty-four-hour period, the inspector shall devote sufficient time on the second and third shifts to determine conditions and practices relating to the health and safety of the employees.

(b) The certificate of inspection shall show the date of inspection, the condition in which the mine is found, the extent to which the mining laws are being violated, the progress made in the improvement of the mine as such progress relates to the health and safety of the employees, the number of accidents and injuries occurring in and about the mine since the last previous inspection, and all other facts and information of public interest concerning the condition of the mine as may be useful and proper.

(c) The mine inspector shall deliver one copy of the certificate of inspection to the owner, superintendent, or mine foreman, one copy to the employee's safety committee and one copy shall be posted at a prominent place on the premises where it can be read conveniently by the employees.

(d) The mine inspector shall report immediately, and by the quickest available means, any mine fire, mine explosion, and any accident resulting in loss of life, to his superior.

(e) The mine inspector shall 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 the Chief as soon as practicable. He shall have the power to compel the attendance of witnesses, and to administer oaths or affirmations; and the cost of such investigation shall be paid by the county in which such accident occurred.

(f) The mine inspector shall 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.

(g) The Chief or mine inspector shall, and is hereby authorized to, order any mine or section thereof cleared of all persons where, in his opinion, there is imminent or serious danger to the life, or health of the employees therein and refuse further entry to all persons, except those necessary to correct or eliminate such dangerous condition. Whenever such a mine or section thereof is ordered cleared of persons by the Chief, or mine inspector, he shall immediately thereafter notify the owner, agent, superintendent, or mine foreman of the mine, in writing, setting forth the reasons therefor and shall forward promptly a copy thereof to this superior. Whenever the operator of such mine has complied with the requirements of the mine inspector, the operator shall call the Chief who shall assign an inspector to reinspect the mine.

45.1-8. Examination fees; Examiners' fund.—A fee of ten dollars, money order or certified check, shall be paid to the Chief by each person examined, before the examination is begun. All such fees collected, including moneys collected pursuant to § 45.1-9 and 45.1-13 of the Code, shall be retained by the Division and shall be promptly paid by the Chief into the State treasury and shall constitute an Examiners' fund under the control of the Chief for the payment of the compensation and expenses of the members of the Board of Examiners and the expenses of the Board, as hereinafter provided, for which purposes such moneys are hereby appropriated.

45.1-10. Meetings of Board; per diem and expenses.—The Board shall meet at least once a year and shall be called by the Chief to meet at such other times as he deems necessary. The Board shall meet at such place or places and at such times as may be designated by the Chief, and the Board shall remain in session until its work is completed; but no one session of the Board shall continue more than three days. Out of the Examiners' fund, there shall be paid to each member of the Board, except the Chief who shall serve without extra pay his necessary expenses incurred in the service of the Board and a per diem not to exceed ~~twenty~~ *thirty-five* dollars for each day or part thereof the Board is in session.

45.1-16. Employment and qualifications of mine foreman; qualifications of assistant foremen and section foremen.—In every commercial coal mine where three or more persons work during any part of any period of twenty-four hours, the operator thereof or the agent

such operator shall employ a competent and practical inside overseer, to be called mine foreman ~~who shall be a citizen of the United States~~, and who, except as otherwise provided in the first paragraph (§ 45.1-15), above, shall hold a certificate of competency for such position, issued to him by the Board. Every assistant foreman and section foreman employed to assist the mine foreman in the immediate supervision of a portion or the whole of a mine and the persons employed therein shall have had five years of practical experience in a coal mine and shall hold a certificate of competency for such position issued to him by the Board.

§ 45.1-19. Employment, duties and qualifications of fire bosses or other certified persons.—(a) Operators of mines ~~classed as gaseous or gassy~~ shall employ one or more certified fire bosses or other certified persons to make examinations prior to the beginning of a coal-producing shift. The duties of the fire boss or other certified persons are to examine for dangerous conditions, all manways, slopes, entries used by men in traveling to and from work, and to examine for gas and other dangerous conditions all working places, adjoining abandoned places, and accessible pillar falls for accumulations of gas.

(b) Each such fire boss or other certified person shall have such knowledge of fire damp and other dangerous gases as to be able to detect the same with the use of safety lamps. He shall also have a practical knowledge of the subject of ventilation of mines, and the machinery and appliances used for that purpose; at least five years' experience in mines; and hold a fire boss certificate issued by the Board of Mine Examiners.

§ 45.1-20. Examination of mines by fire bosses or others; portable illumination.—(a) It shall be the duty of such fire boss, or bosses, where employed in any ~~gaseous~~ mine, or mines, to prepare a danger signal, with suitable color, at each mine entrance, and no person except the mine owner or operator, or his agent, in cases of necessity, shall pass beyond this danger signal until the mine has been examined by the fire boss, and the same, or certain parts thereof, reported by him to be safe.

(b) In the performance of the duties on the part of the fire boss, or bosses, they shall have no superior officer, but all employees working inside the mine, or mines, shall be subordinate to the fire boss, or bosses, in the execution of their duties under chapters 1 to 14 (§§ 45.1-1 to 45.1-161) of this title.

(c) No person shall enter the mine or mines for any purpose at the beginning of work upon any shift therein, until such signal or warning has been given by the fire boss or bosses as to the safety thereof, as provided by statute, except under the direction of the fire boss or bosses, and then for the purpose of assisting in making the mine safe; provided, however, that men regularly employed on a shift during which the mine is being preshift examined by a fire boss or certified person, shall be permitted to leave or enter the mine in the performance of their duties.

(d) The fire boss will ascertain that the air is traveling in its proper course and that all ventilation appliances are in good condition and

working effectively. The fire boss will indicate his examination of working and abandoned places, pillar falls and ventilating appliances by marking his initial and the date conspicuously in or at such places.

(e) Whenever gas is detected, or danger exists to men entering any place in the mine, the fire boss shall leave at each entrance to that place a conspicuous DANGER sign.

(f) Examination of the first working place in *all* mines ~~classed as gaseous or gassy~~ shall take place not more than ~~four~~ *three* hours prior to the beginning of a coal-producing shift, before the men are permitted to enter the mine or to pass a designated station underground. In such mines, a light or other signal shall be provided at the mine entrance. When the fire boss or fire bosses report the mine clear, which they do by telephone or other means, the signal shall be changed to clear by the mine foreman or by his designated subordinate. The Chief shall have authority in certain mines in his discretion to authorize man trips to proceed to a designated station underground, which they may not pass until the fire boss or fire bosses report the remainder of the mine clear.

(g) In multiple shift operations, certified supervisors may be used to make the fire boss examination for the next or succeeding shift.

(h) The fire boss shall record the results of his inspection in ink or indelible pencil in a book kept on the surface for that purpose. Similar records may be kept at designated stations or offices underground. This book shall be countersigned daily by the mine foreman.

(i) Idle or abandoned parts of any mine ~~classed as gaseous or gassy~~ shall be examined by a certified person immediately before other employees are permitted to enter or work in such areas.

(j) Examination for gas and other dangerous conditions shall be made by a certified official or approved competent person, in *all* mines ~~classed as gaseous or gassy~~, before taking loading or cutting machines in by the open breakthrough nearest the face or before applying power to machinery that remains at or near the face at not more than ~~thirty~~ *twenty* minute intervals during cutting, drilling, or mechanical loading; before drilling with electric drills, before blasting, after blasting, before other work is resumed and at such other times as may be necessary or designated by the operator or mine inspector for adequate safety.

(k) In *all* mines ~~classed as gaseous or gassy~~, all persons underground shall use only permissible electric cap lamps that are worn on the person for portable illumination. This does not preclude the use of other type of permissible electric lamps, permissible flashlights, permissible safety lamps or any other portable illumination classed as permissible.

§ 45.1-54. Main fans in gaseous, gassy and nongassy coal mines; ventilation in other mines.—(a) All gaseous or gassy mines shall be ventilated by means of main fans installed as follows:

(1) On the surface.

(2) In fireproof housings.

(3) Offset not less than fifteen feet from the nearest side of the mine opening; provided, however, that this shall not apply to fans that are offset any distance from the mine opening if they otherwise comply with subparagraph five of this section.

(4) Equipped with fireproof air ducts and ample means of pressure relief.

(5) In lieu of requirements for the location of the fan and the pressure relief facilities, the fan may be directly in front of, or over, the mine opening; provided, however, that the opening is not in direct line with possible forces coming out of the mine should an explosion occur, and provided further that there is 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 one hundred feet from the fan opening.

(b) 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 a responsible person.

(c) At gassy mines, main fans shall be on separate power circuits, independent of the mine circuit.

(d) The area surrounding main fan installations shall be kept free of combustible material for at least one hundred feet in all directions where physical conditions permit.

(e) A daily inspection shall be made of all main fans and machinery connected therewith by a competent person and a record kept of the same in a book prescribed for this purpose or by adequate facilities provided to permanently record the performance of the main fan and to give warning of an interruption to a fan.

(f) When the main fan of a gassy mine fails or stops, the power shall be cut off the mine and the men shall be withdrawn from the face regions. If ventilation is restored within a reasonable time, the face regions and other places where methane is likely to accumulate shall be examined by properly certified persons, and if found to be free of explosive or harmful gasses, power may be restored and work resumed. If ventilation is not restored within a reasonable time, and in no case more than ~~thirty~~ *fifteen* minutes, all persons shall be removed from the mine. The main fan shall be operated for a period of not less than two hours, and thereafter the mine shall be examined by properly certified persons before the men are permitted again underground. The power wires underground shall not be energized until the mine is reported safe following such examination.

(g) Coal mines classified as nongaseous shall be ventilated by main fans offset not less than fifteen feet from the nearest side of the mine opening, when considered necessary by the Chief.

(h) When the main fan of a nongassy mine fails or stops and cannot be started within a reasonable time, the men shall be withdrawn from the face regions. If ventilation is not restored within a reasonable time, to be determined as provided in subsection (f), all persons shall be removed from the mine, and the mine shall be examined by properly certified persons before the men are permitted again underground.

(i) Main fans at nongassy mines shall be operated continuously except when the mine is shut down with all men out of the mine. If the main fan of a nongassy mine is stopped after all men are out of the mine, the fan shall be operated for a period of at least two hours before any man is allowed underground.

(j) Except for repairs, main fans at gassy mines shall be operated continuously day and night unless written permission is granted by the Chief for planned stoppages. If the main fan of a gassy mine is stopped after all men are out of the mine, the fan shall be operated for a period of at least two hours before any man is allowed underground.

(k) Where electric power is available, main mine fans shall not be powered by means of gasoline-powered engines; provided, however, that where electric power is not available or for emergency use, main mine fans may be powered with internal combustion engines, but they shall be surrounded with safeguards as follows:

(1) The fan shall be operated exhausting, unless otherwise permitted by the Chief.

(2) The engine operating the fan shall be offset at least ten feet from the fan and housed in a separate fireproof structure.

(l) Main fans at gassy mines shall be provided with pressure-recording gauges.

(m) The ventilation in other mines for minerals, stone, sand, clay, talc, salt, etc., shall be such that the air in all of its workings that are in use or are to be used by workmen or others shall be free from dangerous amounts of noxious impurities and shall contain sufficient oxygen to prevent danger to the health of anyone employed in any such mine. Where such conditions cannot be obtained by natural ventilation, approved means for mechanical ventilation shall be provided and kept in operation until such workings have been abandoned or until satisfactory natural ventilation shall have been brought about therein.

§ 45.1-56. Volume of air; bleeders.—(a) The quantity of air passing through the last open crosscut in any pair or set of active entries shall be not less than ~~six~~ *nine* thousand cubic feet per minute; provided, however, that the quantity of air reaching the last crosscut in any pair or set of

entries in pillar-recovery sections may be less than ~~six~~ *nine* thousand cubic feet per minute if at least ~~six~~ *nine* thousand cubic feet of air per minute is being delivered to the intake end of the pillar line.

(b) [Repealed.]

(c) 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.

(d) At least once each week, a properly 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.

(e) In gassy mines a system of bleeder openings or air courses designed to provide positive movement of air through and/or around abandoned or caved areas, sufficient to prevent dangerous accumulation of gas in such areas and to minimize the effect of variations in atmospheric pressure, shall be made a part of pillar-recovery plans projected hereafter [after June twenty-seven, nineteen hundred sixty-six]. Mines not having bleeders established must provide them as soon as practicable.

§ 45.1-57. Coursing of air.—(a) The main intake and return air currents of drifts or slope mines opened after June twenty-seven, nineteen hundred sixty-six, shall not be in a single partitioned opening.

(b) All entries driven in coal after June twenty-seven, nineteen hundred sixty-six, shall be in sets of two or more.

(c) Permanently installed underground stables, 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 type 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 with no men in the mine other than those engaged in changing the ventilation.

(e) The number of men on the same air current or split shall not exceed seventy.

(f) Each section in a ~~gassy or gaseous~~ mine must 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.

§ 45.1-58. Quality of air.—(a) Mine air in which men work or travel

shall contain at least nineteen and five-tenths per centum oxygen, not more than five-tenths per centum carbon dioxide, and shall not be contaminated with noxious or poisonous gases.

(b) If the air immediately returning from a split that ventilates any group of active workings contains more than one per centum methane, as determined with a permissible flame safety lamp, by air analysis, or by other recognized means of accurate detection, the ventilation shall be improved.

(c) If a split of air returning from active underground working places in a mine contains one and five-tenths per centum of methane, as determined by a permissible methane detector, a permissible flame safety lamp, air analysis, or other recognized means of accurately detecting such gas, the employees 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 one and five-tenths per centum. However, in virgin territory in mines ventilated by exhaust fans where methane is liberated in large amounts, if the quantity of air in a split ventilating the workings in such territory equals or exceeds twice the minimum volume of air, which is ~~six~~ *nine* thousand cubic feet per minute and if only permissible electric equipment is used in such workings and the air in the split returning from such workings does not pass over trolley or other bare power wires, and if a certified person designated by the mine operator is continually testing the gas content of the air in such split during mining operations in such workings, it shall be necessary to withdraw the employees and cut off all power from the portion of the mine endangered by such methane only when the quantity thereof in the air returning from such workings exceeds two per centum, as determined by a permissible methane detector, a permissible flame safety lamp, air analysis, or other recognized means of accurately detecting such gas.

§ 45.1-65. Examination of mines for gas and other dangers.—(a) Officials whose regular duties require them to inspect working places in any mine for dangers shall have in their possession, and shall use, when underground, a suitable permissible device capable of detecting methane and oxygen deficiency.

(b) All ~~gassy~~ mines shall be examined for gas and other dangers by properly certified persons assigned specifically to make fire-boss examinations before other men are permitted to enter irrespective of whether the mine is being operated or is idle. In ~~gassy~~ mines, Such certified persons shall begin their examination in the first working place in their assigned territory not more than ~~four~~ *three* hours before each shift enters the mine ; in ~~nongassy~~ mines they shall begin their examination in the first working place in their assigned territory not more than ~~four~~ hours before the first shift enters the mine .

(c) During the prestift examination, the fire boss shall visit every live working place in the mine and inactive places adjacent thereto, and during each visit shall test for methane and oxygen deficiency with a suitable

permissible device; examine all seals and doors; test and inspect the roof, face and rib conditions in all working places visited, inspect active roadways, travelways, approaches to abandoned workings, and accessible falls in active sections for explosive gas and other dangers; be certain that the air is traveling in its regular course and in sufficient volume in each split; and he shall place his initials and the date at or near the face of each place examined.

(d) Where dangerous conditions are found, the fire boss shall danger-off each approach to such place by placing a "danger" sign thereon; no one but an authorized person shall pass such danger sign, and then only for the purpose of examining the place or correcting the condition.

(e) Upon completing his examination, each fire boss shall return to the surface or a designated station underground and report in person to the mine foreman or a designated certified assistant before other men enter the mine; immediately upon reaching the surface, the fire boss shall record in ink or indelible pencil the result of his inspection in a regular fire-boss book kept on the surface for that purpose.

(f) Idle and abandoned sections shall be inspected for gas and other dangerous conditions by a certified foreman, assistant mine foreman or fire boss immediately before other employees are permitted to enter or work in such places. A certified official shall supervise the correction of exceptionally dangerous conditions.

(g) The working places in all mines shall be examined for dangers by a properly certified official at least once during each shift while the men are in the mines, or oftener if necessary for safety. Such examination shall include tests with a suitable permissible device for detecting methane and oxygen deficiency. Any danger found shall be eliminated promptly or the men shall be withdrawn and the affected area plainly marked with "danger" signs.

(h) Pillar workings shall be examined by a certified official for methane and other dangers before a fall is made purposely. If methane can be detected with a flame safety lamp, 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 men except those necessary to complete the fall shall be removed from such area.

(i) Examinations for dangerous conditions, including tests for methane with a permissible flame safety lamp, a permissible methane detector, or by chemical analysis shall be made at least once each week by the mine foreman or other properly 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 workings. 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.

(j) The mine foreman shall read and countersign promptly the daily reports of the fire bosses and assistant mine foreman, and he shall read and countersign promptly the weekly report covering the examinations for dangerous conditions. Where such reports disclose dangerous conditions, the mine foreman shall take prompt action to have such conditions corrected. The mine superintendent, where such official is in charge at the mine, shall also read and countersign promptly the daily and weekly reports of the mine officials.

(k) Each day, the mine foreman or each assistant shall enter plainly and sign with ink or indelible pencil in a book provided for that purpose 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 observed by them or reported to them during the day, and the report shall state what action, if any, was taken to remedy such danger.

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

§ 45.1-67. Rock dusting.—(a) All dry coal mines, or parts of mines, or sections thereof, shall be rock dusted if conditions are found to be so dusty as to constitute a hazard after proper inspection. Should such conditions be found to exist, the Chief or his accredited representative shall require the necessary rock dusting to make the mine, part of mine, or section thereof safe.

(b) ~~In all mines accumulations of fine dry coal dust shall, as far as is practicable, be removed from the mine, and all dry and dusty operating sections kept thoroughly watered or rock dusted or the dust allayed by other methods approved by the Chief; but in every dusty mine, or in any part or section thereof rock dusting shall be applied to maintain at all times a minimum of sixty five per centum of noncombustible matter to within forty feet of the faces. All open breakthroughs within the forty foot zone shall be rock dusted. Samples taken to determine noncombustible content shall be taken around the perimeter of the place. The term "dusty mine" shall not include a wet or damp mine, but the provisions hereof relating to rock dusting shall apply to any dusty part or section of a wet or damp mine. The Chief may at his discretion approve rock dusting regulations consistent with advanced mining methods.~~

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

(d) *Where underground mining operations in active workings create or raise excessive amounts of dust, water or water with a wetting agent added to it, or other no less effective methods approved by the Chief or his authorized representative, shall be used to abate such dust. In working*

places, particularly in distances less than forty feet from the face, water, with or without a wetting agent, or other no less effective methods 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 explosion hazard.

(e) All underground areas of a coal mine, except those areas in which the dust is too wet or too high in incombustible content to propagate an explosion, shall be rock dusted to within forty feet of all working faces, unless such areas are inaccessible or unsafe to enter or unless the Chief, or his authorized representative, permits an exception upon his finding that such exception will not pose a hazard to the miners. All crosscuts that are less than forty feet from a working face shall also be rock dusted.

§ 45.1-104. Responsibilities of owners and operators; rules and regulations of Chief.—(a) Nothing in chapters 1 to 14 (§§ 45.1-1 to 45.1-161) of this title shall be so construed as to relieve the mine owner or operator from seeing that all of the provisions of chapters 1 to 14 of this title are strictly complied with, nor from the duty imposed at common law to secure the reasonable safety of their employees and, in the performance of those duties that are nonassignable at common law, as well as those duties required by chapters 1 to 14 of this title, the mine foreman, assistants, or fire boss, shall be considered as acting for the mine owner or operator as a vice-principal.

(b) The Chief shall have the authority to promulgate rules and regulations in accordance with the provisions of chapter 1.1 (§ 9-6.1 et seq.) of Title 9 of the Code of Virginia. The Chief shall appoint two mine safety advisory committees. These committees shall consult with and make recommendations to the Chief on matters involving or relating to mine health and safety. One committee shall be composed of the following: One member shall be a coal mine operator or a coal mine operator's representative, who is actually engaged in or the representative of a coal mine operation in this State. One member shall be a miner or a representative of a mine worker's organization who has a mine foreman's first class certificate and who is in a nonsupervisory capacity. The other committee shall have one member representing the noncoal mining industry who is an operator or an operator's representative. One member shall represent labor or a labor representative of persons who work in noncoal mines, which member is in a nonsupervisory capacity. Thereafter, as vacancies occur, the Chief shall appoint persons who have the qualifications described herein to fill such vacancies.

The committee representing coal mining shall consider rules and regulations dealing with coal mine health and safety; the committee representing noncoal mining shall consider health and safety rules and regulations dealing with noncoal mining industry and make recommendations for adoption by the Chief.

The Chief is authorized to adopt, after consultation with the appropriate advisory committee, health and safety rules and regulations relating to:

The Chief shall appoint four safety advisory committees, constituted as follows:

(1) An underground coal mine safety advisory committee shall be established and have two members. One member shall be a coal mine operator or a coal mine operator's representative, who is actually engaged in, or the representative of, an underground coal mine operation in this State. One member shall be a miner or a representative of a mine worker's organization who has a mine foreman's first-class certificate and who is employed in a nonsupervisory capacity in an underground coal mine in this State.

(2) A surface coal mine safety advisory committee shall be established and have one member who is a surface coal mine operator or operator's representative in this State, and one member who is a miner employed in a nonsupervisory capacity at a surface mine operation in this State.

(3) A noncoal mine safety advisory committee shall be established and have one member representing the noncoal mining industry who is an operator or an operator's representative and one member, employed in a nonsupervisory capacity at a noncoal mine, who shall represent persons working in noncoal mines.

(4) An oil and gas production safety advisory committee shall be established, composed of one oil and gas well driller, owner or operator or operator's representative, and one worker who is employed in a nonsupervisory capacity in the oil and gas production industry in this State.

(b1) As vacancies occur in the safety advisory committees established pursuant to subsection (b) of this section, the Chief shall appoint persons who have the qualifications described therein to fill such vacancies. The safety advisory committees established pursuant to this section shall consult with and make recommendations to the Chief on matters involving or relating to health and safety in their respective fields of mining or oil and gas well operations.

The Chief shall have authority, after consultation with the appropriate safety advisory committee and in accordance with the provisions of the Administrative Process Act (§ 9-6.14:1 et seq.), to promulgate health and safety rules and regulations, not in conflict with the Constitution or any statute of the Commonwealth of Virginia, relating to:

(1) The maintenance, operation, storage or transportation of any mechanical or electrical equipment, device or machinery which is used for any purpose in the mining of coal or other minerals, or substances extracted from beneath the surface of the earth or sea.

(2) Safety and health standards for the protection of the life, health and property of, and the prevention of injuries to persons involved in or likely to be affected by any mining operations which shall include but not be limited to the control of dust concentration levels, use of respiratory

equipment and ventilating systems; development and maintenance of roof control systems; handling of combustible materials and rock dusting; installation, maintenance and use of electrical devices, equipment, cables and wires; fire protection, including equipment, emergency evacuation plans, emergency shelters, communication facilities; use and storage of explosives; and the establishment and maintenance of barriers around oil and gas wells.

(3) The storage or disposal of any matter or materials extracted or disturbed as the result of a mining operation or operations or used in the mining operation or for the refinement or preparation of the materials extracted from the mining operation so that such matter or material does not threaten the health or safety of the miners or the general public.

(4) Safety and health standards for the protection of life, health and property of, and the prevention of injuries to persons involved in or likely to be affected by the exploration for and the production and transmission of oil and gas; the location, drilling, redrilling, casing, completion, plugging and abandonment of wells.

In promulgating such standards , *rules and regulations* the Chief shall consider:

(i) Standards utilized and generally recognized by the industry; or

(ii) Standards established by recognized professional organizations and groups, including federal laws or regulations; or

(iii) Research, demonstrations, experiments and such other information that is available regarding the maintenance of the highest degree of safety protection, and shall include the latest available scientific data in the field, the technical feasibility of the standards, and the experience gained under this and other safety statutes; or

(iv) Such other criteria as shall be necessary for the protection of safety and health of ~~miners~~ *workers* and persons or property likely to be affected by mines or mine-related operations , *or oil and gas production or related operations*

(v) Recommendations of the appropriate ~~mine~~ *mine* safety advisory committee.

(c) The Chief shall be authorized to apply to any court of equity in the place where any violation of this title or of the rules and regulations promulgated hereunder occurs or is threatened, for an injunction.

2. That §§ 45.1-29 and 45.1-33.6 of the Code of Virginia are repealed.

APPENDIX III

Be it enacted by the General Assembly of Virginia:

1. That §§ 45.1-101, 45.1-101.1, 45.1-101.2, and 54-276.9 of the Code of Virginia are amended and reenacted as follows:

§ 45.1-101. First aid equipment; medical care.—(a) Each mine shall have an adequate supply of first aid equipment as determined by the Chief, and such supplies shall be located on the surface, at the bottom of shafts and slopes, and at other strategic locations near the working faces. The first aid supplies shall be encased in suitable sanitary receptacles designed to be reasonably dust-tight and moisture-proof and shall be available for use of all persons employed in the mine. In addition to the material in the cases, blankets, splints, and properly constructed stretchers in good condition shall be provided. No first aid material shall be removed or diverted without authorization except in case of injury in or about the mine.

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

(c) Safe transportation shall be provided to carry an injured person from the site where the injury occurred to the outside of the mine.

§ 45.1-101.1. Emergency medical care technicians.—On and after March thirty-one, nineteen hundred seventy-eight, at least one employee who is a working coal miner and who has been certified by the State Board of Health ; ~~after consultation with the Division of Mines,~~ as possessing the qualifications of an emergency medical care ~~attendant~~ ~~as provided in § 32-310.4~~ technician shall be ~~on located so as to be available for duty at each coal mine or mine development site on each shift when workers at such mine or mine development site are engaged in the production, extraction or preparation of coal or in the development of mine shafts or slopes .~~ Such emergency medical care ~~attendants~~ technicians shall be utilized in sufficient numbers to assure that workers in any mine location can be reached by them within a ~~such~~ reasonable time - ~~and as is determined by the Chief.~~ Emergency medical care technicians shall have available to them at all times the necessary equipment , ~~as specified by the Chief,~~ for prompt response to emergencies. ~~In the event that at any time there is at any mine an insufficient number of qualified employees volunteering to serve as emergency medical care technicians as provided for in this section, the operator may elect to utilize the services of first aid trainees as provided in paragraph A. of § 45.1-101.2, in such numbers as the Chief and the underground mine safety advisory committee determine to be appropriate.~~ Telephone or equivalent facilities shall be installed to provide two-way voice communication between the emergency medical care ~~attendants~~ technicians and medical personnel outside the mine. The provisions of this section shall not apply to any surface mining operation.

§ 45.1-101.2. First aid training of coal miners.— Every employer engaged in coal mining or mine construction work shall provide each new employee, who requests such training, with such first aid training as is prescribed by the Division of Mines, after consultation with the State Board of Health, the Mining Enforcement and Safety Administration of the United States Department of the Interior, and safety representatives of the miners.

A. The Chief shall, by rules and regulations approved by the mine safety advisory committees, created pursuant to § 45.1-104, establish specifications for mine first aid and refresher training programs. Such specifications shall be no less than, but may exceed, the minimum requirements of such training programs which underground and surface mine operators are required to provide for their employees by applicable federal law. The Chief is authorized to utilize the Division's educational and training facilities in the conduct of such training programs and may require the cooperation of mine operators in making such programs available to their employees.

B. Each candidate for certification as a first class mine foreman shall complete the course or courses of instruction provided under paragraph A. and pass an examination approved by the Board of Mine Examiners, as a prerequisite for certification.

C. Each operator of a mine, upon request, shall make available to every miner employed in such mine the course of first aid training, including refresher training, as is required by paragraph A. of this section.

§ 54-276.9. Persons rendering emergency care exempt from liability.—(a) Any person who, in good faith, renders emergency care or assistance, without compensation, to any injured person at the scene of an accident, fire, or any life-threatening emergency, or en route therefrom to any hospital, medical clinic or doctor's office, shall not be liable for any civil damages for acts or omissions resulting from the rendering of such care or assistance.

(b) Any emergency medical care attendant or technician possessing a valid certificate issued by authority of the State Board of Health who in good faith renders emergency care or assistance, without compensation, to any injured or ill person, whether at the scene of an accident, fire or any other place, or while transporting such injured or ill person to, from or between any hospital, medical facility, medical clinic, doctor's office or other similar or related medical facility, shall not be liable for any civil damages for acts or omissions resulting from the rendering of such emergency care, treatment or assistance.

(c) Any person having attended and successfully completed a course in cardiopulmonary resuscitation, which has been approved by the Board of Health, who in good faith and without compensation renders or administers emergency cardiopulmonary resuscitation, cardiac defibrillation or other emergency life-sustaining or resuscitative treatments or procedures which have been approved by the State Board of Health to any sick or injured person, whether at the scene of a fire, an accident or any other place, or

while transporting such person to or from any hospital clinic, doctor' office or other medical facility, shall be deemed qualified to administer such emergency treatments and procedures; and such individual shall not be liable for acts or omissions resulting from the rendering of such emergency resuscitative treatments or procedures.

(d) Nothing contained in this section shall be construed to provide immunity from liability arising out of the operation of a motor vehicle.

(e) For the purposes of this section, the term "compensation" shall not be construed to include the salaries of police, fire or other public officials or emergency service personnel who render such emergency assistance , *nor the salaries or wages of coal mine employees engaging in emergency medical technician service or first aid service pursuant to the provisions of § 45.1-101.1 or 45.1-101.2 .*

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

APPENDIX IV

A BILL to amend and reenact §§ 45.1-27, 45.1-35, 45.1-41, 45.1-42, 45.1-81, 45.1-84, 45.1-85, 45.1-88, 45.1-89, 45.1-102, 45.1-103 and 45.1-105 of the Code of Virginia, relating to mine maps, lamps, roof supports, electrical wiring, shop equipment and fire prevention; penalty for violations.

Be it enacted by the General Assembly of Virginia:

1. That §§ 45.1-27, 45.1-35, 45.1-41, 45.1-42, 45.1-81, 45.1-84, 45.1-85, 45.1-88, 45.1-89, 45.1-102, 45.1-103 and 45.1-105 of the Code of Virginia are amended and reenacted as follows:

§ 45.1-27. Maps of coal mines required to be made; contents; extension and preservation.—The operator of every mine, or his agent, shall make, or cause to be made, unless already made and filed, an accurate map or plan of such mine, on a scale to be stated thereon of one hundred to four hundred feet to the inch. Such map, or plan, shall show the openings or excavations, the shafts, slopes, entries and airways, with darts or arrows showing direction of air currents, headings, rooms, pillars and so forth, and such portions of such mine or mines as may have been abandoned, the general inclination of the coal strata, and so much of the property lines and the outcrop of the coal seam of the tract of land on which said mine is located, as may be within one thousand feet of any part of the workings of such mine. A true copy of such map or plan shall be delivered by such operator to the Chief, and the said map shall be filed and preserved among the records of the Division of Mines *and shall be made available at a reasonable cost to all persons owning, leasing, or residing on or having an equitable interest in surface areas or mineral interests within one thousand feet of such mining operation upon written proof satisfactory to the Chief and upon sworn affidavit that such person requesting a map has a proper legal or equitable interest; provided, however, that the Chief 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 and 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 Chief shall forthwith deliver notice of such request to the operator of such mining operation.* The original map, or a true copy thereof, shall be kept by such operator at the mine, open at all reasonable times for the examination and use of the mine inspector; and such operator shall twice within every twelve months to wit, between the first day of December and the first day of February, and between the first day of June and the first day of August 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, the property lines and outcrop as before described, and shall forward the property lines and outcrop as before described, and shall forward the same to the Division of Mines, to be kept on record, subject to the conditions hereinbefore stated. The mine index number assigned to the mine by the Division of Mines must be shown on the map at or near the portal.

§ 45.1-35. Lamp house and lamps.—(a) Naphtha or other flammable

liquids in lamp houses shall be kept in safe containers and safe dispensers.

(b) All lamps used for portable illumination, flame safety lamps and methane detectors or indicators shall be of permissible type and maintained in permissible condition. Such lamps shall be properly cleaned, assembled, and checked by a qualified lamp attendant or other competent person before each period of use.

(c) It shall be unlawful for unauthorized persons to handle, use or assemble flame safety lamps which are provided for underground use. *At least one qualified person shall inspect the lamp to be certain that it is operating properly prior to going underground.*

45.1-41. Supplies of materials for supports; installation and removal of supports; correction of unsafe conditions.—(a) The operator shall provide at or near the working places an ample supply of suitable materials of proper size with which to secure all such working places in a safe manner. *Suitable supply materials shall provide for variations in seam height. In the event that such operator fails to provide such suitable materials, the foreman shall follow those procedures outlined in § 45.1-21 (g).*

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

(c) Safety posts or jacks shall be used to protect the workmen 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 workmen involved.

(d) All underground working places, travelways and haulageways shall be secured sufficiently to protect employees from falls of roof, face or rib. Loose roof and overhanging or loose faces and ribs shall be taken down or supported.

(e) Supports knocked out accidentally shall be replaced promptly. Supports in active workings shall not be removed deliberately unless equivalent protection is provided.

(f) No person shall advance under unsupported roof in any working places except those who are assigned to install supports or to inspect the place.

(g) If roof, face or rib conditions are found to be unsafe, they shall be corrected by taking down loose material or securely supporting the same before other work is started.

§ 45.1-42. Examination and testing; loose material.—(a) The operator shall instruct all workmen in the proper testing of roof, face and ribs.

(b) Persons 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 insure safety. When dangerous conditions are found, they shall be corrected immediately by taking down the loose material or by proper timbering before work is continued or any other work is done, or the place shall be vacated.

(c) At least once each shift, or oftener if necessary, and during each visit, a certified official shall examine and test the roof, face and ribs of each active working place while the men are working therein. Any place in which a dangerous condition is found by the foreman shall be made safe in his presence or under the direction of a competent person, or the workmen shall be withdrawn.

(d) At least once each day the mine is in operation, or more often if necessary, a certified official shall examine the roof and ribs of each passageway where men work or travel and the supports therein, and a record of such examination shall be made in an official record book of the mine which shall be open for inspection by interested persons. Any dangerous condition found shall be corrected promptly or traffic thereunder shall be discontinued until the danger has been removed. All unintentional roof and rib falls *which restrict travel or air flow* shall be reported promptly, including those which do not result in a lost-time injury. Such falls shall be marked on a map of the mine to indicate the specific location of the fall. Such reports shall be conspicuously posted near the main entrance of the mine, and shall also be kept on file for review by State or federal mine inspectors. Copies of such reports shall be furnished to the employee's safety committee.

(e) When there is danger of coal rolling on a person during or after cutting, it shall be spragged by placing blocks in the cut or by blocking with leaning posts.

(f) A bar of proper length shall be used to pull down loose material.

(g) Installed roof bolts shall be tested by qualified persons designated by the mine foreman.

§ 45.1-81. 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. ~~Adequate communication systems shall be provided to other active sections of the mine.~~ *A telephone or equivalent two-way communication facility shall be located on the surface within five hundred 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 responsible person who is always on duty when men are underground can 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 wire , 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 i operation depends entirely upon power from the mine electric system, means shall be provided to permit continued communication in event the mine electric power fails or is cut off.

§ 45.1-84. Trailing cables.—(a) Trailing cables purchased for or transferred to any mine after June twenty-seven, nineteen hundred sixty-six for use underground shall be flame-resistant cables.

(b) Trailing cables shall be provided with suitable short-circuit protection and means of disconnecting power from the cable. In gass mines, power connections made in other than intake air shall be by mean of permissible connectors.

(c) Temporary splices in trailing cables shall be made in a workmanlike manner, mechanically strong, and well insulated.

(d) The number of temporary, unvulcanized splices in a trailing cable hall be limited to ~~six~~, and to ~~three~~ in a hand cable *one* .

(e) Permanent splices in trailing cables shall be made as follows:

(1) Mechanically strong with adequate electrical conductivity and flexibility.

(2) Effectively insulated and sealed so as to exclude moisture.

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

(f) Trailing cables shall be protected against mechanical injury.

§ 45.1-85. Inspection of electric equipment and wiring.— A. Electric equipment and wiring shall be inspected by a competent person at least once a ~~month~~ *week* and more often if necessary to assure safe operating conditions, and any defect found shall b corrected.

B. The Chief may require the operators of designated mines which liberate large volumes of gas to functionally check on a daily basi. methane monitors on electrical face equipment to determine that such monitors are deenergizing properly. Such check shall be made on a twenty-four hour period and shall be conducted, recorded and signed by a certified chief electrician, maintenance foreman, or repairman and shall be recorded in the on-shift report of the section foreman.

C. The Chief may require the operators of designated mines liberating

large volumes of gas to perform weekly calibration tests on methane monitors on electrical face equipment to determine the accuracy and operation of such monitors.

45.1-88. Shop and other equipment.—(a) The following shall be guarded *and maintained* adequately:

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

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

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

(4) Fly wheels. Where fly wheels extend more than seven feet above the floor, they shall be guarded to a height of at least seven feet.

(5) Circular and band saws and planers.

(6) Repair pits. Guards shall be kept in place when the pits are not in use.

(7) Counterweights.

(8) Mine fans. The approach shall be guarded.

(b) Machinery shall not be repaired or oiled while in motion; provided, however, that this shall not apply where safe remote oiling devices are used.

(c) A guard or safety device removed from any machine shall be replaced before the machine is put in operation.

(d) Mechanically operated grinding wheels shall be equipped with:

(1) Safety washers and tool rests.

(2) Substantial retaining hoods, the hood opening of which shall not expose more than a ninety degree sector of the wheel. *Such hoods shall include a device to control and collect excess rock, metal or dust particles or equivalent protection shall be provided to the employees operating such machinery.*

(3) Eyeshields, unless goggles are worn by the operators.

§ 45.1-89. Fire-fighting equipment; duties in case of fire; fire prevention generally.—(a) Each mine shall be provided with suitable fire-fighting equipment, adequate for the size of the mine, such as supplies of rock dust at doors and at other strategic places, waterlines and hose, or water or chemical trucks, and fire extinguishers.

(b) Clean dry and, rock dust, or fire extinguishers, suitable from a toxic and shock standpoint, shall be provided and placed at each electrical station such as sub stations, transformer station and permanent pump stations, so as to be out of the smoke in case of a fire in the station and suitable fire extinguishers shall be provided on all self-propelled mobile equipment, at belt heads, and at the inby end of belts.

(c) An examination for fire shall be made after every blasting operation underground.

(d) Should a fire occur, the person discovering it and any person in the vicinity of the fire shall make a prompt effort to extinguish it.

(e) When a fire that may endanger the men underground cannot be extinguished immediately, the men shall be withdrawn promptly from the mine.

(f) Immediately upon knowledge of serious fire in or about a mine, the operator shall report by the quickest available means to the Chief, giving all information known to him. Based on the information, the Chief shall take prompt action to go in person or dispatch qualified subordinates to the scene of the fire for consultation, and assist in the extinguishing of the fire and the protection of exposed persons. In the event of a difference of opinion as to measures required, the decision of the Chief or his designated subordinate shall be final, but must be given to the operator in writing to have the force of an order.

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

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

(i) 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.

(j) 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.

(k) Except regular transportation equipment, no mining equipment shall be transported or trammed, other than daily sectional movement, unless by qualified personnel under the direction of a certified foreman.

(1) When equipment is being transported or trammed, no person shall be permitted to be inby the equipment in the ventilating split that is passing over such equipment.

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

(3) Sufficient prior notice shall be given the Virginia Division of Mines so that a State inspector may travel the route of the move before the actual move is made, if he deems it necessary.

(4) The following minimum equipment must be immediately available:

(i) Water car (filled with water) provided with hose and pump.

(ii) At least three twenty pound dry chemical fire extinguishers.

(iii) Ten fifty pound bags of rock dust.

(iv) Bolt cutters which may be used to cut trolley wire in an emergency.

(v) One pair of rubber gloves to be used with bolt cutters when cutting trolley wire.

(vi) Two twenty pound sledge hammers.

(vii) Five hundred square feet of brattice cloth, nails and hammer.

(viii) Three Type N (Universal) gas masks, or equivalent protective device.

(5) In case of a fire, the next inby permanent stopping into the return air course is to be opened, as soon as possible. This will short-circuit the air and permit close access to the fire for extinguishment.

(1) A copy of a fire evacuation plan, approved by the Chief or his representative, shall be posted in a conspicuous manner and place within and without the mines, readily accessible to all mine employees.

§ 45.1-102. Consent required before working mine near land of another. —No owner or tenant of any land containing coal, sulphur or other minerals, within this Commonwealth, shall open or sink, dig, excavate or work in any mine or shaft on such land within five feet of the line dividing such land from that of another person, without the consent, in writing, of every person interested in or having title to such adjoining lands *or mineral rights* in possession, reversion or remainder, or of the guardian of any such person as may be an infant. If any person violates this section, he shall forfeit five hundred dollars to the party injured or to anyone whose consent is required but not obtained.

§ 45.1-103. Adjacent owner to be permitted to survey mine; proceedings to compel entry for survey.—(a) The owner, tenant, or occupant of any land *or minerals*, on *or in* which a coal or other mine is opened and worked, or his agent, shall permit any person interested in or having title to any land *or mineral rights* conterminous with that in which such mine is, if he has reason to believe his property is being trespassed, to have ingress and egress with surveyors and assistants to explore and survey such mine at his own expense, not oftener than once a month, for the purpose

of ascertaining whether or not the preceding section (§ 45.1-102) has been violated. Every owner, tenant, occupant or agent who shall refuse such permission, exploration or survey, shall forfeit twenty dollars for each refusal, to the person so refused.

(b) The judge of the court not of record in the county in which such mine is, before whom complaint of such refusal shall be made, may issue a summons to such owner, tenant, occupant or agent, to answer such complaint. On the return of the summons executed, and proof that the complainant has right of entry, and that it has been refused without sufficient cause, the judge shall designate an early and convenient time for such entry to be made, and issue his warrant, commanding the sheriff of the county to attend and prevent obstructions and impediments to such entry, exploration and survey. The costs of such summons, and a fee of three dollars to the sheriff executing the warrant, shall be paid by the person whose refusal caused the complaint. But if the court dismiss the complaint, the costs shall be paid by the party making it.

§ 45.1-105. Penalties; duty of Commonwealth's Attorneys.—(a) Any operator, company or corporation, or any mine superintendent, inspector, engineer, mine foreman, agent or employee, who is charged with the making of maps or other data to be furnished as provided in Chapters 1 to 14 (§§ 45.1-1 to 45.1-161) of this title, and who does not correctly show, within the limits of error, the data required, or who knowingly makes any false statement or return in connection therewith, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined not less than fifty dollars nor more than two hundred dollars, in the discretion of the court, or jury, trying the case.

(b) The Chief, or any inspector, or any operator, mine superintendent, mine foreman, or other employees of any mining company or any other person, who shall willfully violate any of the provisions of Chapters 1 to 14 of this title, shall, *upon conviction*, be guilty of a *Class 1* misdemeanor; and, *upon conviction thereof*, shall, *unless a different penalty is expressly provided in Chapters 1 to 14 of this title*, be fined not less than twenty five dollars nor more than five hundred dollars, or be imprisoned in jail not less than ten days nor more than one year, in the discretion of the court, or jury, trying the case

(b1) It shall be unlawful and constitute a Class 1 misdemeanor for any owner, operator, superintendent, foreman, employee or other person to deny the Chief or his authorized representative entry to, upon or through any mine for the purpose of conducting a lawful inspection pursuant to the provisions of § 45.1-5.

(c) It shall be the duty of the Commonwealth's Attorney of the appropriate county or city, upon the request of the Chief, or any of his deputies, to prosecute any violation of any law which it is the duty of the Chief to have enforced.

APPENDIX V

A BILL to amend and reenact §§ 45.1-106 and 45.1-108 of the Code of Virginia; to amend the Code of Virginia by adding a section numbered 45.1-115.1; and to repeal § 45.1-115 of the Code of Virginia, the amended, added, and repealed sections relating to the oil and gas laws of this Commonwealth.

Be it enacted by the General Assembly of Virginia:

1. That §§ 45.1-106 and 45.1-108 of the Code of Virginia are amended and reenacted and that the Code of Virginia is amended by adding a section numbered 45.1-115.1 as follows:

§ 45.1-106. Definitions.—As used in §§ 45.1-106 through 45.1-144 unless the context clearly indicates otherwise:

(a) "Casing" means a string or strings of pipe commonly placed in wells drilled for petroleum and natural gas;

(b) "Casing-head gas" means any gas or vapor, or both gas and vapor, indigenous to an oil stratum and produced from such stratum with oil;

(c) "Cement" means hydraulic cement properly mixed with water only;

(d) "Chief" means the Chief Mine Inspector *or his designated assistant unless the context indicates otherwise*

(e) "Coal operator" means any person or persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine;

(f) "Commissioner" means the Commissioner of the Department of Labor and Industry;

(g) "Division" means the Division of Mines;

(h) "Gas" means the natural gas including casing-head gas obtained from gas or combination wells regardless of its chemical analysis;

(i) "Log" or "well log" means the written record progressively describing all strata, water, oil or gas encountered in drilling, depth and thickness of each bed or seam of coal drilled through, quantity of oil, volumes of gas, pressures, rate of fill-up, fresh and salt water-bearing horizons and depths, cavings strata, casing records, etc., as is usually recorded in the normal procedure of drilling; also includes the electrical survey records or logs;

(j) "Mine" means an underground or surface excavation or development with or without any shafts, slopes, drifts or tunnels for the extraction of coal, minerals or nonmetallic materials, commonly designated as mineral resources (excluding petroleum and natural gas), containing the

same with hoisting or haulage equipment and appliances for the extraction of the said mineral resources; and embraces any and all of the land or property of the mining plant, and the surface and underground, that is used or contributes directly or indirectly to the mining property, concentration or handling of aid mineral resources;

(k) "Mine operator" means any person or persons, firm, partnership, partnership association or corporation that proposes to or does operate a mine;

(l) "Mud-laden fluid" means any approved mixture of water and clay or other material as the term is commonly used in the industry which will effectively seal the formation to which it is applied;

(m) "Natural gas" (See Gas);

(n) "Oil" means crude petroleum oil or petroleum;

(o) "Operator" means any person who, duly authorized, is in charge of the development of a lease, drilling activities or the operator of a producing well;

(p) "Person" means any natural person, firm, partnership, partnership association, association, company, corporation, receiver, trustee, guardian, executor, administrator, fiduciary or representative of any kind;

(q) "Petroleum" means the natural untreated oil obtained from an oil well;

(r) "Pillar" means a solid block of coal or ore or other material, left unmined to support the overlying strata in a mine;

(s) "Pipeline" means any pipes above or below the ground used or to be used for the transportation of oil or gas;

(t) "Plat" or "map" means a map, drawing or print showing the location of a well or well , mines, quarries;

(u) "Plug" means the stopping of the flow of water, gas or oil in connection with the abandoning of a producing or nonproductive well;

(v) "Porosity" means the state of or quality of being porous, the absorbent capacity of the material or the volume of liquid held by the pores;

(w) "Shot" or "shooting" means exploding nitroglycerine or other high explosive in a hole, to shatter the rock and increase the flow of oil or gas;

(x) "Tubing" means the conduit through which oil or gas is removed from a well;

(y) "Waste," in addition to its ordinary meaning means "physical

waste” as that term is generally understood in the oil and gas industry;

(z) “Well” means a bore hole or excavation for the purpose of producing any liquid or gaseous substance from beneath the surface of the earth;

(aa) “Well operator” means any person or persons, firm, partnership, partnership association or corporation that proposes to or does locate, drill, operate or abandon any well as herein defined;

(bb) “Workable coal bed” means a coal bed in fact being operated commercially, or which, in the judgment of the Chief, can, and that is reasonably to be expected will be so operated, and which, when operated, will require protection if wells are drilled through it ; :

(cc) Any words or expressions used in this chapter which are not specifically defined herein, unless the context indicates otherwise, shall have the meaning they have acquired by common usage in the industry.

§ 45.1-108. Powers and duties of Chief; rules, regulations and orders.–

A. The Chief shall be charged with the enforcement of the laws of Virginia relating to exploration for and the production and transportation of oil and gas. He shall have power to require that the drilling, re-drilling, deepening, casing, completion, plugging and abandonment of wells be done in such a manner as to prevent the escape of oil or gas out of one stratum to another and the unnecessary escape or waste of oil or gas; to prevent the intrusion of water into an oil or gas stratum from a separate stratum; to prevent the pollution or contamination of freshwater supplies by oil, gas or salt water; to require reports, maps, well logs and other pertinent information on oil and gas wells; and generally to prevent waste as hereinafter set forth. He shall hold hearings and make rules and regulations necessary to carry out the provisions of Chapters 1 to 14 (§§ 45.1-1 to 45.1-161) of this title and shall have such further powers as are conferred upon him by Chapters 1 to 14 of this title.

B. Special and emergency rules, regulations and orders shall be issued when required and shall prevail as against general rules, regulations and orders if and when in conflict therewith. Special and emergency rules, regulations and orders shall apply to particular fields, districts, areas or subject matter.

C. In the event that the Chief finds the existence of an emergency which in his opinion requires the making, adoption, changing, modification, renewal or extension of a rule, regulation or order without first giving advance notice and having a public hearing on the same, such emergency rule, regulation or order shall have the same validity as if a public hearing with respect to the same had been held after due notice. Emergency rules, regulations and orders shall remain in force no longer than sixty days from their effective date. The Chief shall promptly, upon the adoption of any emergency rule, regulation or order, give notice thereof by publication and hold a public hearing to make permanent, modify, or repeal such emergency rule, regulation or order.

§ 45.1-115.1. Permit to drill required; fee; application; bond.—A. Before any such well is drilled, the operator shall secure from the Chief a permit to drill. The application for such permit shall be accompanied by a fee of twenty-five dollars and such operator shall, in addition, give bond, payable to the Commonwealth of Virginia, with surety acceptable to the Chief when in the opinion of the Chief such is considered necessary, to insure compliance with all laws and regulations relating to the drilling, redrilling, deepening, casing, plugging and abandonment of wells and for furnishing such reports and information as may be required by the Chief. The amount of the bond shall be set by the Chief in an amount not less than two thousand five hundred dollars nor more than ten thousand dollars for a well which is to be drilled three thousand feet or less; the bond shall be set in an amount not less than five thousand nor more than ten thousand dollars for a well which is to be drilled more than three thousand feet but less than six thousand feet; the bond shall be set in an amount not less than seven thousand five hundred dollars nor more than ten thousand dollars for a well which is to be drilled more than six thousand feet but less than nine thousand feet; and the bond shall be in the amount of ten thousand dollars for a well which is to be drilled more than nine thousand feet. Such bond shall remain in force until released by the Chief. The Chief may, at his discretion, release the bond at any time and shall release the same when he is satisfied that the well has been abandoned and plugged and reports and information furnished as required by Chapters 1 to 14 of this title. When such operator makes or has made application for permit to drill a number of wells, the Chief on request of such operator, may, in lieu of requiring a separate bond for each well, require a blanket bond in such sum as he deems adequate, and the Chief may increase or reduce the amount of such bond from time to time as he may deem proper in view of the number of wells drilled by the particular well operator and the number of wells abandoned and plugged in the manner prescribed herein by such operator. On or after July one, nineteen hundred seventy-eight, all wells not covered by a bond shall be bonded in accordance with the provisions of this section.

B. The bonding requirements for oil and gas wells shall be limited to those set forth in this section and no additional bonding requirements contained within §§ 45.1-1 through 45.1-225 shall apply to oil and gas operations.

2. That § 45.1-115 of the Code of Virginia is repealed.

APPENDIX VI

A BILL to amend and reenact §§ 45.1-2, 45.1-21, 45.1-22, 45.1-23, 45.1-25 and 45.1-26 of the Code of Virginia, relating to licensure of coal docks.

Be it enacted by the General Assembly of Virginia:

1. That §§ 45.1-2, 45.1-21, 45.1-22, 45.1-23, 45.1-25 and 45.1-26 of the Code of Virginia are amended and reenacted as follows:

§ 45.1-2. Definitions.—As used in chapters 1 to 14 (§§ 45.1-1 to 45.1-161) of this title, the following words and terms shall have the following meanings, unless the context shall indicate another or different meaning:

(1) “Commissioner” means the Commissioner of the Department of Labor and Industry or such other public officer, employee, board, commission, or other authority that may by law be assigned the duties and authority of the Commissioner of the Department of Labor and Industry.

(2) “Chief” means the Chief of the Division of Mines of the Department of Labor and Industry, or such other public officer, employee, board, commission or other authority that may in emergencies be acting in the stead, or by law be assigned the duties and authority of the Chief of the Division of Mines of the Department of Labor and Industry.

(3) “Mine inspector” means a public employee assigned by the Chief to make mine inspections as required by chapters 1 to 14 of this title, and other laws from time to time in such cases made and provided.

(4) “Superintendent” means the person placed in overall charge of the operation of a coal mine or mines.

(5) “Operator” means the owner, part owner, operator, or lessee to whom the superintendent reports and is accountable for the operation. The operator may also be the superintendent.

(6) “Mine foreman” means a person holding a valid certificate of qualification duly issued by action of the Board of Examiners, and also including the person acting in the stead of a mine foreman appointed as provided hereunder when a certified mine foreman is unavailable.

(7) “Supervisor” may be used to designate a mine foreman, assistant mine foreman, section foreman, traffic man, maintenance foreman, etc., and is restricted herein to mean those persons employed by the operator or superintendent to manage all or a part of the mine operations.

(8) “Fire boss” means a person holding a valid certificate of qualification duly issued by action of the Board of Examiners, and also including the person acting in the stead of a fire boss appointed as provided hereunder when a certified fire boss is unavailable.

(9) “Approved competent person” is one who has had at least two

years of practical experience, has knowledge of mine roof, timbering and ventilation, and who has demonstrated knowledge of mine gases and the use of permissible flame safety lamps, such demonstration to be given and made of record in a manner prescribed by the Chief.

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

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

(12) "Approved" means a device, apparatus, equipment, condition, method or practice approved in writing by the Chief.

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

(14) "Blower fan" means a fan with tubing used to direct part of a particular circuit of air to a working face.

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

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

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

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

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

(20) "Room entry" means any entry or set of entries from which rooms are turned - a panel entry.

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

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

(23) "Gassy or gaseous mine" means a mine in which the percentage of explosive gas exceeds one fourth of one per centum at the return of any one split, or in which methane has been detected by a flame safety lamp or one in which there is a record of methane having been ignited.

(24) "Nongassy mine" means any mine which is not classified gassy or gaseous.

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

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

(27) "High-potential" shall conform to § 45.1-83 (e).

(28) "Interested persons" means members of the mine safety committee and other duly authorized representatives of the employees at the mine; federal and State coal-mine inspectors; and, to the extent required by the State mining law any other person.

(29) "Mine" means any open pit or any underground workings from which coal or other minerals are produced for sale, exchange, or commercial use, and all shafts, slopes, drifts, or inclines leading thereto, and includes all buildings and equipment, above or below the surface of the ground, used in connection with such 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.

(30) "Intake air" means air that has not passed through the last working place of the split or by the unsealed entrances to abandoned workings and by analysis contains not less than nineteen and one-half per centum oxygen nor more than one half of one per centum of carbon dioxide, nor any dangerous quantities of flammable gas nor any harmful amounts of poisonous gas.

(31) "Return air" means air that has passed through the last active working place on each split, or air that has passed through abandoned, inaccessible or pillared workings. Area within a panel shall not be deemed abandoned until such panel is abandoned.

(32) "Permissible" means a device, process, or equipment or method heretofore or hereafter classified by such term by the United States Bureau of Mines, when such classification is adopted by the Chief, and includes, unless otherwise herein expressly stated, all requirements, restrictions, exceptions, limitations, and conditions attached to such classification by the said Bureau.

(33) "Shot firer" means a *certified* person employed or designated by the foreman to charge, stem and fire shots.

(34) "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.

(35) "Working face" mean those areas within a mine from which coal is being extracted or is to be extracted, including all of the area extending in by from the last open cut or cross entry to the coal face.

(36) "Working place" means any place within the mine where men are required to work or travel.

(37) "Dock" means a facility used for the purpose of handling coal so as to prepare it for sale, exchange or commercial use and does not include such facilities when used in conjunction with preparation plants that are used in connection with a mine.

§ 45.1-21. Miscellaneous duties of owners, operators and their agents; procedure for reopening mine ordered cleared; reports and investigations of accidents; transfer of ownership.—(a) The operator, or his agent, of every mine shall furnish the Chief and mine inspectors proper facilities for entering such mine and making examinations or obtaining information and shall furnish any data or information not of a confidential nature requested by such inspector. The operator or his agent shall, when ordered to do so by the Chief or mine inspectors, promptly clear the mine or section thereof of all person .

(b) The owner or operator of any mine or part thereof so cleared of persons may apply to the circuit court in whose jurisdiction such mine is located, or the judge thereof in vacation, by petition, for an order directing said mine or part thereof, to be reopened, and such court, or judge, shall promptly hear and determine the matters arising upon such petition, and if, upon full hearing thereof, the court or the judge thereof in vacation, shall find that the mine, or the part thereof in question, is in a reasonably safe condition, the prayer of said petition shall be granted. At least three days' notice of such hearing shall be given to the mine inspector appointed for, and acting in, that district, and to the Chief. In all such hearings the Attorney General or the local Commonwealth's attorney, upon request of the Chief or his deputy, shall appear in behalf of the State. In the event of such appeal, the mine or section thereof affected shall remain idle until a full hearing has been held and a decision has been rendered.

(c) Each operator will report promptly to the Chief the occurrence at any mine of any accident involving serious personal injury or death to any person or persons, whether employed or not. The scene of the accident will not be disturbed pending an investigation, except to prevent suspension of use of a slope, entry or facility vital to the operation of a section or a mine. In cases where reasonable doubt exists as to whether to leave the scene unchanged, the operator will secure prior approval from the Chief before any changes are made. The Chief will go personally or dispatch one or more mine inspectors to the scene of the accident or accidents, investigate causes, and issue such orders as may be needed to insure safety of other persons. Representatives of the operator will render such assistance as may be needed and act in a consulting capacity in the investigation. An employee designated by the employees of the mine will be notified, and as many as three employees designated as representatives of the employees may be present at the investigation in a consulting

capacity. The Division will render a complete report of circumstances and causes of each accident investigated, and make recommendations for the prevention of similar accidents. The Division will furnish one copy of the report to the operator, and one copy to the employee representative when he has been present at the investigation. The Chief will maintain a complete file of all accident reports, and may give such further publicity as may be ordered by the Commissioner in an effort to prevent mine accidents. Each employee shall promptly notify his supervisor of any injury received during the course of his employment.

(c1) Each operator shall keep on file a report of each accident including any accident which does not result in lost-time injury. Copies of such report shall be given to the employee involved and to the employee's safety committee prior to filing such report for the review of State or federal mine inspectors.

(d) The owner or operator of any mine shall employ only persons certified as required by the coal-mining laws of this State as mine foreman, assistant foreman, section foreman or fire boss.

(e) The owner or operator of any mine shall operate his mines in full conformity with the coal-mining laws of this State at all times.

(f) No operator, or his agent, of any mine worked by shaft, slope or incline shall place in charge of any engine or drum used for lowering or hoisting persons employed in such mine, any but competent and sober engineers or drum runners; and no engineer in charge of such machinery shall allow any person, except such as may be designated for such purpose by the operator, or his agent, to interfere with any part of the machinery; and no person shall interfere with or intimidate, the engineer or drum runner in the discharge of his duties.

(g) It shall be the duty of every operator or his agent to keep on hand at or within convenient distance, of each mine, at all times a sufficient quantity of all materials and supplies required to preserve the safety of the employees, as ordered by the mine foreman and required by chapters 1 to 14 (§§ 45.1-1 to 45.1-161) of this title. If for any reason, the superintendent cannot procure the necessary materials or supplies as aforesaid, he shall at once notify the mine foreman, whose duty it shall be to withdraw the men from the mine, or the portion thereof affected until such material or supplies are received.

(h) The operator and superintendent shall cooperate with the mine foreman and other officials in the discharge of their duties as required by chapters 1 to 14 of this title, and shall direct that the mine foreman and all other employees under his employment, comply with the law in all its provisions, especially when his attention is called, by the Chief or his deputies, to any violation of the laws.

(i) The operator or superintendent of every mine shall, at least ten days preceding, send to the Chief notices of the following occurrences: (1) when a mine is about to be abandoned; (2) when the working of a mine is

to be resumed after the abandonment, or a discontinuance for a period exceeding thirty days (said mine shall be inspected and meet the approval of the Chief before operations begin); (3) when any change occurs in the name of a mine or in the name of the operation of a mine; (4) the opening of a new mine.

The name of mine, location of mine, name of operator and post-office address must be given in all written notices.

(j) No person shall be placed in charge of a cutting, loading, drilling, continuous miner or timbering machine in any mine who is not a competent person capable of determining the safety of the roof and ribs of the working places; provided, however, that if such person be employed in gassy mines he shall also be capable of detecting the presence of explosive gas and shall be compelled to undergo examination by the mine inspector to determine his fitness to detect explosive gas before being permitted to have charge of machines in such mines, unless the required test has been made by a certified boss or by other persons having passed such examination.

(k) The operator, or his agent, of every coal mine, dock and quarry shall annually, by the fifteenth day of February, mail or deliver to the Division of Mines a report for the preceding twelve months, ending with the thirty-first day of December. Such report shall state the names of the operators and officers of the mine or dock the quantity of coal or minerals mined or processed, and such other information not of a private nature, as may, from time to time, be required by the Division of Mines on blank forms furnished by the Division of Mines. Whenever any person, company, or corporation operating a mine, dock or quarry shall transfer the ownership of such mine, dock or quarry to another person, company or corporation, the person, company or corporation transferring such ownership shall submit a report to the Division of Mines of such change and a statement of the tons of coal or minerals produced or processed since the first of January previous to the date of such sale or transfer of such mine or mines, dock or quarry. A license will not be issued covering such transfer of ownership until the report is finished.

§ 45.1-22. License required for operation of mines or docks; term; not transferable; separate license for each mine or dock; form; posting.—No person shall engage in the operation of any commercial mine or dock as defined in § 45.1-2 within this State after ~~June twenty seven~~ July one, nineteen hundred ~~sixty six~~ ~~seventy-eight~~, without first obtaining a license so to do from the Division of Mines which license shall be valid for a period of one year and shall not be transferable. Such license shall be obtained within forty-five days of January one, and shall be renewed each year thereafter during such period. Any person who desires to commence operation of any commercial mine or dock after such forty-five day period has expired shall procure such license for the remainder of the year before operations are commenced. *A license shall be required prior to commencement of operations necessary to open a mine.* A separate license shall be secured for each commercial mine or dock operated and shall be in such form as the Chief may prescribe. Such license shall be posted in a

conspicuous place near the main entrance to the mine *or dock* . Licenses issued by the Division of Mines and outstanding as of ~~June twenty seven July one~~ , nineteen hundred ~~sixty six~~ *seventy-eight* , shall remain effective during the period specified therein. Thereafter, such licenses shall be renewed as hereinabove provided.

§ 45.1-23. Fee to accompany request for license; disposition of fees.— Each request for a license shall be submitted to the Division of Mines, accompanied by a postal money order, cashier's check, or certified check drawn in favor of the State Treasurer in the amount of ~~twenty five one hundred~~ dollars ; ~~provided, however, that any person engaged in mining sand or gravel on an area of five acres or less, shall be required to pay a fee of five dollars~~ . All funds derived by this section shall be earmarked for the use of the Division of Mines. Expenditures from this fund may be made for safety equipment, safety education or for any expenditure to further the safety program in the mining and quarrying industry. All expenditures from this fund must be approved by the Commissioner of the Department of Labor and Industry and the Chief.

§ 45.1-25. Penalty for operating without license; powers of Chief.— *A. In addition to any other power conferred by law, the Chief, or his designated representative, shall have the authority to close any commercial mine or dock in which there is probable cause to believe that such mine or dock is operating without a license as is required by § 45.1-22. The owner or operator of a dock or any mine or part thereof, so closed, may apply to the circuit court in whose jurisdiction such mine or dock is located, or the judge thereof in vacation, by petition, for an order directing said mine or dock to be reopened, and such court, or judge, shall promptly hear and determine the matters arising upon such petition, and if, upon full hearing thereof, the court or the judge thereof in vacation, shall find that the mine or dock is licensed, the prayer of said petition shall be granted. At least three days' notice of such hearing shall be given to the mine inspector appointed for, and acting in, that district, and to the Chief. In all such hearings the Attorney General, or the local Commonwealth's Attorney, upon request of the Chief or his deputy, shall appear in behalf of the State. In the event of such appeal, the mine or dock affected shall remain idle until a full hearing has been held and a decision has been rendered.*

B. Any person operating a commercial mine or dock within this State without first obtaining a license as provided herein shall, upon conviction, be guilty of a Class 3 misdemeanor and, upon conviction thereof, shall be fined not less than twenty five dollars nor more than two hundred dollars, in the discretion of the court or jury trying the case . Each day any person operates any commercial mine or dock without first obtaining such license shall constitute a separate offense.

§ 45.1-26. Prohibited acts by miners, workmen or other persons; mine employees to comply with law.—(a) No miner, workman, or other person shall knowingly damage any shaft, lamp, instrument, air course, or brattice or obstruct airways, or carry therein any intoxicating liquors *or controlled drugs without the prescription of a licensed physician* , or disturb any part of the machinery or appliances, or open a door used for directing

ventilation and fail to close it again, or enter any part of a mine against caution, or disobey any order given in carrying out any of the provisions of chapters 1 to 14 (§§ 45.1-1 to 45.1-161) of this title.

(b) The employees at any mine *or dock* shall comply fully with the provisions of the mining laws of this State that pertain to their duties.

