

No. 346

AN ACT

HB 1171

Relating to anthracite coal mines; amending, revising, consolidating and changing the laws relating thereto; providing for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania, and for the protection and preservation of property connected therewith; prescribing powers and duties in connection therewith; prescribing penalties, and repealing existing laws.

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¹ "Foreman" in original.

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¹ "Roof" in original.

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¹ "are" in original.

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¹ "Blasts" in original.

² "to" in original.

³ "in Mine" in original.

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¹ "Telephone" in original.

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¹ "Sall" in original.

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¹ "Nonflammable" in original.

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¹ "Installations" in original.
² "Made" not in original.

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The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

ARTICLE I

APPLICATION, DEFINITIONS, ADMINISTRATION

Section 101. Short Title.—This act shall be known and may be cited as the “Pennsylvania Anthracite Coal Mine Act.”

Section 102. Application.—This act shall apply to every anthracite coal mine or colliery in the Commonwealth of Pennsylvania.

Section 103. Definitions.—Subject to additional definitions contained in the subsequent articles, or sections hereof, and unless the context otherwise requires, in this act the following words and terms shall have these meanings:

(1) “Abandoned workings,” excavations, either caved or sealed, that are deserted and in which further mining is not intended.

(2) “Active workings,” all places in a mine that are ventilated and inspected regularly.

(3) “Anthracite mine,” shall include any coal mine not now included in the bituminous boundaries.

(4) “Approved,” which is used in connection with equipment, supplies, explosives and lamps, means “approved for use in anthracite mines by the secretary,” whether such approval has been made prior to or subsequent to the effective date of this act.

(5) “Coal mine or colliery,” includes every operation and work, both

underground and above-ground, used or to be used for the purpose of mining and preparing coal.

(6) "Department," the Department of Mines and Mineral Industries organized and operating in the Commonwealth of Pennsylvania, hereinafter referred to as the "department."

(7) "Deputy Secretary of Mines and Mineral Industries," a person appointed by the secretary, with the approval of the Governor, to assist and aid the secretary in carrying out the provisions of this act, hereinafter referred to as the "deputy secretary."

(8) "Drift," a horizontal passageway driven from the surface in the coal seam used for the same purposes as a shaft or slope.

(9) "Electrical inspector," the person commissioned by the Governor to perform electrical inspections as hereinafter prescribed.

(10) "Face," defined as being the solid coal or rock at the inby end of a working place.

(11) "Gassy mine," an anthracite coal mine where methane has been ignited therein; or has been detected therein with an approved flame safety lamp, or an approved methane detector; or by laboratory analysis of a sample of air, taken not less than twelve inches from the roof, face and rib, containing methane in an amount of twenty-five one hundredths percent or more.

(12) "Intake air," shall be considered a volume of fresh air being conducted toward the interior of a mine before it contacts the first working place in any particular air split.

(13) "Investigating commission," (hereinafter referred to as a commission) shall consist of a group of at least three mine inspectors or electrical inspectors, or a combination of both, appointed by the secretary for the purpose of investigating and reporting on any problem in question in compliance with the provisions contained in this act. The district mine inspector shall accompany any commission in his district but need not be a member thereof. The secretary, at his discretion, may appoint the deputy secretary as a member of any commission.

(14) "Main doors," which are erected in sets of three, mean those which if left open or removed will interrupt or destroy the ventilating current on the split in which they are located or in any other split in the mine.

(15) "Mine," includes all underground workings and excavations, and shafts, tunnels and other ways and openings; also all such shafts, slopes, tunnels and other openings in course of being sunk or driven, together with all roads, appliances, machinery and material connected

with the same below the surface. The term "mine" shall not include any strip mine.

(16) "Mine examiner," shall mean any certified person designated to examine a mine for gas and other dangers. The title "mine examiner," as used in this act, is synonymous with the title "fire boss," as heretofore understood.

(17) "Mine foreman," the person whom the operator or superintendent shall place in charge of the inside workings of the mine and of the persons employed therein.

(18) "Mine inspector," the person commissioned by the Governor to have supervision of mines as hereinafter prescribed.

(19) "Miner," the person who cuts or blasts coal or rock at the face of a gangway, airway, breast, chamber, pillar, tunnel, drift, or other working place; also any person engaged at general work in a mine, and qualified to do the work of a miner.

(20) "Non-gassy mine," any anthracite coal mine which has not been classified as gassy.

(21) "Operator," any firm, corporation, or individual, operating any coal mine, or any part thereof.

(22) "Owner," means any person or body corporate who is or becomes the owner of the coal recovered as the result of deep mining. The term "owner" does not include a person or body corporate who receives a royalty, rent or fine from a coal mine or colliery, or part thereof, or is the proprietor of a mine subject to any lease, grant or license for the working or operating thereof.

(23) "Permissible," means any equipment, device or explosive that has been approved as such by the United States Bureau of Mines, whether such approval has been made prior to or subsequent to the effective date of this act.

(24) "Permissible equipment," when used herein, shall mean such equipment tested and approved by the United States Bureau of Mines, whether such approval has been made prior to or subsequent to the effective date of this act, and providing that the same is installed, maintained and used in accordance with the conditions prescribed by the bureau.

(25) "Preparation plant," a breaker, washery or other plant, where run-of-mine anthracite from mines and strippings, or anthracite from refuse banks, is processed by crushing, washing, screening and the removal of impurities to make the same suitable as a fuel.

(26) "Return air," after a volume of air has ventilated one or more

places in "active" or "abandoned workings" it shall be designated as return air.

(27) "Secretary of Mines and Mineral Industries," the head of the Department of Mines and Mineral Industries, appointed and commissioned by the Governor, hereinafter referred to as the "secretary."

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

(29) "Shall," where used herein is understood to be mandatory and the word "should" advisory.

(30) "Slope," means any inclined way or opening used for the same purpose as a shaft.

(31) "Superintendent," the person who shall have, on behalf of the operator, general supervision of one or more mines or collieries.

(32) "Working place," means the face area of a gangway, airway, breast, chamber, cross heading, pillar, tunnel, drift, or other place where coal or rock is being removed or any place that is being prepared for the removal of coal or rock.

(33) "Workings," includes all the excavated parts of a mine, those abandoned as well as the places actually at work.

Section 104. The Secretary and the Deputy Secretary.—(a) It shall be the duty of the secretary to devote the whole of his time to duties of his office, and to see that the mining laws of the Commonwealth are faithfully executed. The secretary shall appoint, with the approval of the Governor, a deputy secretary for the anthracite division to assist with his duties. The secretary and the deputy secretary are hereby invested with the same power and authority as the inspectors to enter and examine any mine within the Commonwealth, and the works and machinery connected therewith, and to give such aid and instruction to the inspectors from time to time as they may deem best calculated to protect the health and promote the safety of all persons employed in and about the mines.

(b) It shall be the duty of the secretary to take charge of, and preserve in his office the annual reports of the mine inspectors, and transmit a synopsis of them, together with such other statistical data compiled therefrom, and other work of the department as may be of public interest, properly addressed, to the Governor, to be transmitted to the General Assembly of this Commonwealth, on or before March 15 in each year. It shall also be the duty of the secretary to see that said reports are placed in the hands of the public printer or others equipped to reproduce same, for publication, on or before April 1 in each year;

the same to be published under the direction of the secretary. In order that the secretary may be able to prepare, compile and transmit a synopsis of his annual report to the Governor within the time herein specified, the mine inspectors are hereby required to deliver their annual reports to the secretary on or before February 20 in each year. In addition to the annual reports herein required of the mine inspectors, they shall furnish the secretary monthly reports, and also such special information on any subject regarding mine accidents, or other matters pertaining to mining interests, or the safety of persons employed in and about the mines, as he at any time may require or may deem necessary in the proper and lawful discharge of his official duties. The secretary shall also establish, as far as may be practicable, a uniform style and size of blanks for the annual, monthly and special reports of the mine inspectors, and prescribe the form and subject matter to be embraced in the text and the tabulated statements of their reports.

The secretary is hereby authorized to make such examinations and investigations as may enable him to report on the various systems of coal mining in the Commonwealth, method of mining, ventilation and machinery employed, the circumstances and responsibilities of mine accidents, and such other matters as may pertain to the general welfare of coal miners and others connected with mining, and the interests of mine owners and operators in the Commonwealth.

(c) The board of examiners for the examination of applicants for mine inspectors and electrical inspectors in the anthracite coal mines of the Commonwealth, the boards for the examination of applicants for mine foreman, assistant foreman, mine examiner, and certificates, the boards for applicants for certificates of competency as miners, shall send to the secretary the manuscripts and all other papers of applicants, together with the tally sheets and the solution of each question as given by the examining boards, which shall be filed in the department as public documents for a period of time not less than eight years.

(d) The secretary shall keep in the department a journal or record of all inspections, examinations and work done under his administration, and copies of all official communications; and is hereby authorized to procure such books, instruments and chemicals, or other tests, as may be found necessary to the proper discharge of his duties under this act, at the expense of the Commonwealth. All instruments, plans, books and records pertaining to the office shall be the property of the Commonwealth, and shall be delivered to his successor in office.

(e) The secretary shall, at all times, be accountable to the Governor for the faithful discharge of his duties imposed on him by law, and the

administration of his office and the rules and regulations pertaining to said department shall be subject to the approval of the Governor.

(f) No person who is acting as a land agent, or as a manager, viewer or agent of any mine, shall, at the same time, serve as secretary or deputy secretary under the provisions of this act.

Section 105. Mine Inspection Districts; Mine Inspectors.—The anthracite coal producing counties of the Commonwealth shall be arranged by the secretary, with the consent of the Governor, into mine inspection districts, and the secretary may at any time, with the consent of the Governor, redistrict the anthracite coal producing districts. Each mine inspection district shall have a mine inspector. The Governor shall commission and appoint mine inspectors from among persons holding valid unexpired certificates of qualification issued by the examining board under this act or under any previous act, and each mine inspector shall hold office during good behavior or until removed from office as herein provided. It shall be the duty of the secretary to assign the mine inspectors to their respective districts and the secretary shall also designate the place of abode of each mine inspector, at a point as convenient as possible to the mines of his district.

Section 106. Electrical Inspectors.—On or after the effective date of this act, the secretary, with the consent and approval of the Governor, shall appoint such certified electrical inspectors as he may deem necessary to inspect twice a year or more often if necessary all electrical equipment used in anthracite coal mines to properly protect the lives of the workmen and the property of the operator, and to perform such other inspections of electrical equipment in and around the anthracite coal mines of the Commonwealth as may be deemed necessary by the secretary.

Section 107. Eligibility for Appointment as an Anthracite Coal Mine Inspector.—The qualifications for certification of a candidate for the office of mine inspector shall be as follows: The candidate shall be a citizen of the Commonwealth of Pennsylvania, of temperate habits, of good repute as a man of personal integrity, in good physical condition, shall be between the ages of thirty and fifty-five years, shall have successfully passed the examination for mine inspector provided in section 109 hereof, shall have had at least ten years' practical experience in anthracite coal mines, five years of which shall have been immediately preceding the examination, and shall have had practical experience with explosive gas and other dangerous and noxious gases found in coal mines: Provided, however, That any candidate who has honorably served in the armed forces of the United States or any ally thereof shall be eligible

to take such examination, where the required continuity of practical experience has been interrupted by such military service.

Section 108. Eligibility for Appointment as an Electrical Inspector.—The qualifications for certification of a candidate for the office of electrical inspector shall be as follows: The candidate shall be a citizen of the Commonwealth of Pennsylvania, shall be between the ages of thirty and fifty-five years, of temperate habits, of good repute as a man of personal integrity, in good physical condition, shall have had five years' experience in gassy mines of this Commonwealth as a mine electrician or an electrical engineer, and shall have successfully passed the examination for electrical inspectors provided in section 109 of this article: Provided, however, That any candidate who has honorably served in the armed forces of the United States or an ally thereof shall be eligible to take such examination, where the required continuity of practical experience has been interrupted by such military service.

Section 109. Anthracite Mine Inspectors' and Electrical Inspectors' Examining Board.—(a) The Anthracite Mine Inspectors' and Electrical Inspectors' Examining Board for the anthracite coal mines of the Commonwealth of Pennsylvania shall consist of the secretary, two mining engineers, who shall have had at least five years' experience in the anthracite coal mines of Pennsylvania, three members who shall be coal miners in actual practice and who shall have had at least five years practical experience in the anthracite mines of Pennsylvania. All members of the examining board shall be at least thirty years of age, and all members, other than the secretary, shall be appointed by the Governor.

(b) The Secretary of Mines and Mineral Industries shall be the chairman of the examining board. The chairman of the examining board shall select a secretary who need not be a member of the examining board.

(c) The examining board, after being duly organized, shall take and subscribe to, before any officer authorized to administer the same, the following oath, namely:

"We, the undersigned, do solemnly swear (or affirm) that we will perform the duties of examiners of applicants for appointment as inspector of mines or as electrical inspector to the best of our ability, and that in recommending or rejecting said applicants we will be governed by the evidence of their qualifications to fill the position, and not by any consideration of political or personal favor, and that we will certify all whom we may find qualified according to the true intent and meaning of this act, and none other."

(d) The secretary of the examining board and each member of the examining board (other than the Secretary of Mines and Mineral Industries), shall receive thirty dollars (\$30) per diem while actively engaged in the performance of the work of the examining board. The Secretary of Mines and Mineral Industries shall have the right to determine, from time to time, the maximum number of days for which the members of the examining board and its secretary shall receive compensation. The members of the examining board and its secretary shall receive traveling expenses at the prevailing rate from their home to the place of the meeting of the examining board and returning therefrom, and such other necessary expenses as may be incurred in connection with the work of the examining board.

(e) The examining board shall prepare questions and answers and formulate rules for the examination of candidates for appointment to the office of mine inspector and electrical inspector. The examining board shall conduct, at a place designated by it, an examination of candidates for appointment to the offices of mine inspector and electrical inspector when there remains upon the list of successful candidates less than three names, as a result of appointments made therefrom, or as a result of the expiration of certificates of qualification or from any other cause, the Governor shall call the Anthracite Mine Inspectors' and Electrical Inspectors' Examining Board to meet and proceed to conduct an examination for the purpose of supplying a new list of eligible candidates.

(f) Candidates for the office of mine inspector who have submitted such proof as the examining board shall require that they are otherwise qualified as set forth in section 107 of this article shall be examined on and must possess the following qualifications:

(1) They shall be citizens of this Commonwealth and residents of the anthracite region, of temperate habits, of good repute as a man of personal integrity, in good physical condition, and not under thirty or over fifty-five years of age. Every applicant shall furnish to the examining board a service statement. Such statement shall show the length of time served at each class of work at which the applicant has been employed in and about the mines, and be certified to by the superintendent or other responsible official under whom such applicant was employed. The operator or superintendent of every mine or colliery is hereby required to furnish such a statement to every applicant.

(2) They shall give to the board satisfactory evidence of having had at least ten years of practical experience in the anthracite coal mines of this Commonwealth, five years of which shall have been immediately

preceding the examination, and shall have served as qualified coal miners possessing miners' certificates engaged in the actual practice of cutting and blasting coal or rock at the face of a gangway, airway, breast, pillar, or other working place in a mine, and in performing such other work in such working places as is necessary for the extraction of coal.

(3) They shall give to the board satisfactory evidence of having had practical experience with explosive gases and other dangerous and noxious gases found in coal mines.

(4) They shall give to the board satisfactory evidence of having a general, practical knowledge of mines, mining and machinery.

(5) They shall give to the board satisfactory evidence of having a general, practical and comprehensive knowledge of the chemistry of gases generally found in coal mines.

(6) They shall give to the board satisfactory evidence of having a knowledge of the methods of administering first aid to the injured, and of the work and requirements of rescue corps.

(7) They shall give to the board satisfactory evidence of having a knowledge of the science of electricity as applied to coal mining, and they shall, in addition, give evidence of having a sufficient knowledge of the science of mining engineering to enable them to read and understand the mine workings of any mine as shown on mine maps which may be presented at such examinations, and they shall be able to make a cross section of a mine from said maps.

(8) They shall give to the board satisfactory evidence of having a theoretical and practical knowledge of the different systems of mining and ventilating anthracite coal mines, and of their fitness and capability to perform the duties of the office of a mine inspector.

(9) The examination shall be in writing, and the applicants who have attained an average of at least ninety percent, including proper allowances for experience shall be deemed successful, but in no case shall the allowances for experience be more than twenty-five percent.

(g) Candidates for the office of electrical inspector who have submitted such proof as the examining board shall require that they are otherwise qualified as set forth in section 108 of this article, shall be examined on and must give evidence of having such theoretical as well as practical knowledge and general intelligence respecting the use and installation of both alternating current and direct current electricity in the mines, machinery powered thereby, and the laws of the Commonwealth relating to the application of electricity in mines as will satisfy the examining board of their capacity and fitness to perform the duties

of electrical inspectors under this act and must pass the examination with an average of eighty-five percent.

(1) Public notice of an examination shall be given at least two weeks prior thereto in a newspaper published in each of the following counties: Luzerne, Lackawanna, Schuylkill and Northumberland. The board shall meet at the time and place set forth in said notice, and examine the applicants for the office of anthracite mine inspector or electrical inspector.

(2) The names and percentages of all successful candidates who are properly qualified under the provisions of this article to fill the office of inspector shall be certified by the examining board to the Governor and to the department. A certificate of qualification shall be issued to each successful candidate by the secretary. A certificate so granted shall be valid for a period of four years from the date of the examination unless the holder has received an appointment in the interim period in which case the certificate shall become permanent unless the appointee has voluntarily relinquished the position within a period of one year after appointment. A certificate of qualification of a person honorably discharged from the armed forces of the United States shall not expire until the first examination occurring more than six months following his release from military service.

(3) Any inspector appointed under the provisions of previous laws or under the provisions of this act shall be eligible for reappointment without further examination, even if beyond fifty-five years of age, if he has served as an inspector for a period of four or more years.

Section 110. Salary of Mine Inspectors.—The salary of mine inspectors shall be as established by the executive board.

The mine inspectors shall be allowed all necessary expenses incurred by them in enforcing the several provisions of this act in the respective courts of this Commonwealth, if they have obtained the consent of the department before such expense is incurred, the same to be paid by the State Treasurer, on warrant of the Auditor General, issued upon presentation of itemized vouchers approved by the court before which the proceedings were instituted, and also by the secretary.

Section 111. Salary of Electrical Inspectors.—The salary of electrical inspectors shall be as established by the executive board.

Section 112. Mine Inspector; Expenses.—Each mine inspector may also incur traveling expenses, and such other expenses as may be necessary for the proper discharge of his duties under the provisions of this act. Each mine inspector shall have an office in his district, which may be at his place of residence: Provided, That a suitable room approved

by the secretary be set apart for that purpose. The secretary shall have authority to procure for the mine inspectors, on their request, furniture, instruments, chemicals, typewriters, stationery, and all other necessary supplies, which shall be paid for by the State Treasurer, on warrant of the Auditor General, issued upon presentation of vouchers approved by the secretary. All furniture, instruments, plans, books, memoranda, notes and other materials pertaining to the office of mine inspector, shall be the property of the Commonwealth, and shall be delivered by the mine inspector to his successor in office.

Section 113. Electrical Inspector; Expenses.—Each electrical inspector may incur traveling expenses, and such other expenses as may be necessary for the proper discharge of his duties under the provisions of this act. The secretary, through the Department of Property and Supplies, shall purchase for the electrical inspectors such instruments and equipment as he deems necessary to assist them in carrying out the duties imposed upon them by this act. All furniture, instruments, plans, books, memoranda, notes and other materials pertaining to the office of electrical inspector, shall be the property of the Commonwealth, and shall be delivered by the electrical inspector to his successor in office.

Section 114. Mine Inspector; Bond; Oath.—Each mine inspector shall, before entering upon the discharge of his duties, give a surety bond in the sum of five thousand dollars (\$5,000), conditioned for the faithful discharge of his duties; and shall take an oath, or make affirmation that he will discharge his duties with impartiality and fidelity, to the best of his knowledge and ability. Such bond and oath shall be filed in the office of the Secretary of the Commonwealth. No person who is acting as manager or agent of any coal mine, or as mining engineer, or who is directly or indirectly interested in operating any coal mine shall at the same time act as mine inspector.

Section 115. Temporary Mine Inspectors and Electrical Inspectors.—In case a mine inspector or electrical inspector becomes incapacitated to perform the duties of his office, or is granted a leave of absence by the secretary, it shall be the duty of the Governor, at the request of the secretary, to appoint temporarily to the office a person holding a valid certificate of qualification. The temporary inspector shall act until the regular inspector is able to resume the duties of his office.

Section 116. Removal of Mine Inspectors and Electrical Inspectors.—The mine inspector and electrical inspector shall be responsible to the secretary for the proper performance of their duties. The secretary shall have the power to suspend any mine inspector or electrical inspector for any neglect of duty, but such suspended inspector shall have

the right of appeal to the Governor, who shall be empowered to approve of such suspension or restore such suspended inspector to duty, after investigating the causes which led to such suspension. Should the secretary receive information by petition, signed by ten or more miners or three or more operators, setting forth that any of the inspectors are neglectful of the duties of their office, or are physically unable to perform the duties of their office, or are guilty of malfeasance in office, he shall at once investigate the matter; and if he shall be satisfied that the charge or charges are well founded, he shall then petition the court of common pleas or the judge in chambers, in any county within or partly within the inspection district of the inspector; which court, upon receipt of said petition and a report of the character of the charges and testimony produced, shall at once issue a citation, in the name of the Commonwealth, to the said inspector to appear, on not less than fifteen days' notice, on a fixed day, before said court at which time the court shall proceed to inquire into the allegations of the petitioners, and may require the attendance of such witnesses, on the subpoena issued and served by the proper officer or officers, as the judge of the court and the secretary may deem necessary in the case; the inspector under investigation shall also have similar power and authority to compel the attendance of witnesses in his behalf. If the court shall find by said investigation that the said inspector is guilty of neglecting his official duties, or is physically incompetent to perform the duties of his office, or is guilty of malfeasance in office, the said court shall certify the same to the Governor, who shall declare the office vacant, and shall proceed to supply the vacancy as provided by the mining laws of the Commonwealth. The cost of such investigation shall, if the charges are sustained, be imposed upon the deposed inspector; but if the charges are not sustained, the costs shall be paid out of the State Treasury, upon voucher or vouchers duly certified by said secretary. If said charges are not sustained the inspector shall be compensated for time lost during suspension.

To enable said secretary to conduct more effectually his examinations and investigations of the charge and complaints which may be made by petitioners against any of the inspectors as herein provided, he shall have power to administer oaths and take affidavits and depositions, in form and manner provided by law. Within thirty days after a mine inspector or an electrical inspector attains the age of sixty-five they shall undergo a physical examination and a copy of the physician's findings shall be furnished to the Secretary of Mines and Mineral Industries. The same procedure shall be followed each succeeding year after the

age sixty-five is reached. If, as a result of the physical examination, it is found that the inspector is physically unable to perform the duties of a mine inspector or an electrical inspector he or they shall submit their resignation to the Governor. Failure to submit resignation will constitute cause for removal from office by the secretary.

Section 117. Duties of Mine Inspectors.—Each mine inspector shall devote the whole of his time to the duties of his office. They shall examine all the mines and collieries of their district at least once every two months and as often, in addition thereto, as the Secretary of Mines and Mineral Industries may direct or the necessities of the case or the condition of the mines require. They shall see that every necessary precaution is taken to secure the safety of the workmen, and that the provisions of this act are observed and obeyed; and they shall personally visit each active working-face and the face of each place where work has progressed since the last inspection and see that the air current is carried to the active and inactive working-faces, and is of sufficient quantity or volume to thoroughly ventilate the places. They shall, within fifteen days after every inspection, make a report of the condition of each active and inactive face visited in each colliery, on a form to be furnished to the inspectors by the Secretary of Mines and Mineral Industries designating, as they appear on the maps of the mine inspector and mine operator, the gangway title in which the working is situated and the breast number of said working and their condition shall be designated in clear, specific, descriptive language (use of generic words such as good, fair or bad are not deemed to be specific) and shall note any action that may be taken. The report shall show the date of the inspection, the number of cubic feet of air measured at the intake for each split, the number of persons employed in each split of air together with such information as the secretary may deem necessary. Where there are multiple shifts the mine inspector shall so arrange his inspection work to insure that a part of the inspection falls on each operating shift.

Section 118. Inspector to Have One or More Inspectors Accompany Him for Examination.—The mine inspector shall have the right, and it is hereby made his duty, to enter, inspect and examine each operating mine, bank and colliery in the territory allotted to him and the workings and machinery belonging thereto, at all times, either by day or by night and shall have power to take one or more of his fellow inspectors into or around any mine, bank or colliery in the territory allotted to him, for the purpose of consultation or examination.

Section 119. Inspector Shall Make Record of Visit.—The inspector shall make a record of the visit, noting the time, designating the place

inspected by gangway title and breast number as they appear on the maps of the mine inspector and mine operator, listing specifically any deficiencies observed and stating any remedial action taken.

Section 120. Provide Means Necessary for Inspection.—The operator or superintendent of such mine or colliery is hereby required to furnish the means necessary for such entry, inspection, examination, inquiry and exit.

Section 121. Inspector Make Inquiry and Provide Suggestions.—The mine inspector shall also have the right, and it is hereby made his duty, to make inquiry into the condition of such mine, bank or colliery workings, machinery, ventilation, drainage, method of lighting or using lights, electric power, use of explosives, timbering practices, roof support, transportation, and into all matters and things connected with or relating to, as well as to make suggestions providing for, the health and safety of persons employed in or about the same, and especially to make inquiry whether the provisions of this act have been complied with.

Section 122. Inspector Furnish Secretary with Stop Orders.—It shall be the duty of the mine inspector to transmit to the Secretary of Mines and Mineral Industries all stop orders he may issue, designating the exact location of the area involved and the reason for and time of issuance of the stop order. Upon receipt of all stop orders the Secretary of Mines and Mineral Industries shall immediately record them in a special ledger to be used exclusively for the recording of such orders. The mine inspector shall also transmit to the secretary notification of the rescinding of any and all stop orders. The mine inspector shall also furnish to the safety committee a copy of all stop orders that have been issued and also a copy of the notification of the rescinding of all stop orders.

Section 123. Newly Assigned Mine Inspector Accompanied by Predecessor or Other Representatives of Department.—When a mine inspector is newly assigned to a district, he shall, before assuming his duties, be accompanied through all working places in each mine in the district by his predecessor or some other representative of the Department of Mines and Mineral Industries, who is thoroughly familiar with the workings.

Section 124. Duties of Electrical Inspectors.—In order that the electrical inspector may properly perform the duties required of him, he shall devote his whole time and attention to the duties of his office, and he shall have the right to enter any coal mine for the purpose of inspecting electrical equipment, and if he finds during his inspection any defects in the electrical equipment which may be detrimental to

the lives or health of the workmen, he shall have the authority to order the operator, in writing, to remedy such defects within a prescribed time, and to prohibit the continued operation of such electrical equipment after such time, unless such defects have been corrected. In addition he shall immediately notify the mine inspector of the district in which the mine is located.

Section 125. Inspections; Reports of Inspections.—(a) Each inspector, upon completion of each inspection of a mine, is required to meet with the safety committee of the mine and to attach to the report of inspection for the mine a letter stating that the meeting was held, listing the names of the members of the safety committee present and the matters, pertaining to safety, discussed at the meeting.

(b) A duplicate of the said report of inspection shall be immediately mailed to the operator and by him at once placed in a weather or dust-proof case, with a glass front furnished by the operator, and placed in a conspicuous place at each mine opening, shaft, slope or drift, so that the workmen may have easy access thereto.

(c) It shall be the duty of the electrical inspector after completing his examination of a mine to prepare a report describing his findings in said mine in a manner and form designated by the secretary. The original report shall be forwarded to the operator or his representative whose duty it shall be to post it in some conspicuous place where it shall remain for one year, open to examination by any person employed in or about the mine. The report shall show the date of inspection, a list of equipment inspected, and any other information that the secretary may deem necessary.

Section 126. Mine Inspectors' Orders; Cease Work.—(a) If the mine inspector discovers any chamber, breast, or other working place being driven in advance of the air current, contrary to the requirements of this act, he shall order the workmen in such places to cease work at once until the law is complied with.

(b) If the mine inspector shall discover any condition whereby, in his judgment, the lives or health of persons or the security of the property in or about a mine or colliery are endangered he shall immediately issue a stop order to the superintendent, mine foreman and assistant foreman of the mine, which stop order shall withdraw all workmen except those necessary to correct the hazardous condition.

Section 127. Mine Inspectors' Reports to the Secretary.—Each mine inspector shall make the following reports to the secretary, on blank forms provided for that purpose. Not later than the fifteenth of each month he shall make a report of all fatal and lost time accidents that

have occurred in his district during the preceding month, stating the date, nature, and cause of each accident, together with the name, age and occupation of each person killed or injured, and whether married or single, and the number of widows and orphans left; which report shall be recorded and filed in the department, and included (or a synopsis of the same) in the annual report of said department. Not later than February 20 of each year, he shall make an annual report, which shall briefly recapitulate the duties performed by him during the preceding year, and briefly describe the condition of the mines in his district relative to ventilation, roof control, drainage, and general sanitary arrangements, as relating to the health, safety and welfare of the employes, and which shall also contain such suggestions or information of importance as he may deem necessary, or as required by the secretary. The mine inspector shall also make such other reports as the secretary shall require.

Section 128. Discretionary Power of Mine Inspectors.—The mine inspector shall exercise sound discretion in the performance of his duties under the provisions of this act, and if the operator, superintendent, mine foreman, or other persons employed in or about any mine, shall be dissatisfied with any decision the mine inspector has given in the discharge of his duties, which decision shall be in writing, it shall be the duty of the dissatisfied person to appeal from said decision to the secretary, who shall at once appoint a commission to accompany promptly the mine inspector in the district to make further examination into the matter in dispute. If the said commission shall agree with the decision of the mine inspector in the district, their decision shall be final and conclusive, unless the dissatisfied person shall, within seven days of the receipt of the decision of the commission, appeal therefrom to the court of common pleas of the county in which said mine or a portion thereof is situated. Whereupon the court or a judge of said court in open court or in chambers shall promptly hear such appeal and shall permit testimony and argument, oral or written, or both, by both parties. In such appeal the appellant shall be designated the plaintiff and the secretary shall be the defendant. Within five days after conclusion of testimony and argument the said court shall issue such decision and order as may be proper and appropriate under the circumstances. Such decision shall be final, subject only to review by the Superior Court upon a petition for certiorari filed in such court within sixty days from the entry of said decision and order. Said appeal to the said court of common pleas shall act as a supersedeas of the decision of the commission.

Section 129. Appointment of a Commission by the Secretary.—The

secretary may, at his discretion, appoint a commission for the purpose of investigating any question within the purview of this act to enable him to make a decision in accordance therewith: Provided, however, That it shall be mandatory that the secretary appoint a commission for the purpose of an investigation wherein such action is required in any of the provisions of this act.

Section 130. Reports of Operating Mines and Preparation Plants.—The operator or superintendent of each operating mine or preparation plant in the anthracite region shall file a report with the mine inspector in the district setting forth the name of the mine or preparation plant, the name of the operator, the location of the mine or preparation plant and the postal address of the office on the following occasions:

- (1) Within thirty days after the effective date of this act.
- (2) Prior to the commencement of work for the purpose of opening a new mine or preparation plant.
- (3) Prior to any work being done in resumption of the operation of a mine or preparation plant after an abandonment; within ten days after a discontinuance of its operation for a period exceeding two months.
- (4) Immediately of any change in the name of the mine or preparation plant or in the identity of the operator of a mine or plant.
- (5) Monthly and annual reports as to the source of coal purchased for preparation.

Section 131. Mine Rescue Station; Equipment; Instructors.—(a) On and after the effective date of this act, the secretary with the consent of the Governor, shall appoint one first-aid instructor and one mine rescue instructor to carry on the work of instructing mine employes how to care for persons injured in and about the anthracite coal mines of this Commonwealth, and to train such other employes of the various coal companies, who may voluntarily seek training in the use of self-contained breathing apparatus, gas masks, first aid to the injured and such other things or practices essential to the safe and efficient conduct of the work of first aid and mine rescue.

(b) The secretary, with the consent of the Governor, shall have the authority to purchase, through the Department of Property and Supplies, one truck equipped with the necessary breathing apparatus, gas masks, first-aid supplies, analytical apparatus and such other chemical and scientific instruments commonly used and necessary in the work of first aid and mine rescue.

The secretary, with the consent of the Governor, shall also have the authority to purchase, through the Department of Property and Supplies, such emergency mine rescue trucks and equipment as in his

opinion shall be deemed necessary for use in mine catastrophies.

(c) The persons appointed to the position of first-aid instructor and mine rescue instructor shall not be under twenty-five years of age or over fifty-five years of age on the date of their appointment. They shall be citizens of this Commonwealth and shall devote their whole time and attention to the duties of their office. They shall have a mine foreman's certificate, issued by the department, and shall be in possession of a first-aid certificate issued by the department, the Red Cross, the Federal Bureau of Mines, or any other recognized authority on the subject of first aid. They shall also undergo an examination arranged and conducted by the secretary. The examination, so conducted by the secretary, shall pertain to the applicant's knowledge and experience in the use of such instruments and equipment as are commonly used in mine rescue work.

(d) The salaries of first-aid instructors and mine rescue instructors shall be as established by the executive board.

(e) The persons so trained in the work of first aid and mine rescue shall, upon completion of a course of training and instruction as may be prescribed by the secretary, be granted a certificate of competency. Such certificate shall be issued by the secretary upon written notice from the "chief of crew" that the applicant has completed, in a satisfactory manner, the course of training and instruction prescribed by the said secretary.

Section 132. Mine Rescue Crews.—The secretary is hereby authorized to have trained and employed at the rescue stations operated by the department, such rescue crews as he may deem necessary. Each member of a rescue crew shall devote four hours each month for training purposes, and shall be available at all times to assist in rescue work at explosions, mine fires and recovery work. Regular members shall receive for such services the sum of seven dollars (\$7) per month, and captains shall receive eight dollars (\$8) per month, payable on requisition approved by the secretary, and such other sums, to be paid by the operating company, as may be agreed upon when engaged in rescue work at explosions, mine fires or recovery work. The secretary may remove any member of a rescue crew at any time.

Section 133. Supervision of Mine Rescue Work.—The secretary is hereby authorized to assign mine rescue crews and such mine rescue and recovery work to mine inspectors or other qualified employes of the department as he may deem necessary.

ARTICLE II

BOARDS OF EXAMINERS; CERTIFICATION OF MINE ¹FOREMEN,
ASSISTANT MINE ¹FOREMEN, MINERS, SUPERINTENDENTS;
GENERAL MINING REQUIREMENTSA. Boards of Examiners and Certification of Mine
¹ Foremen and Assistant Mine ¹ Foremen

Section 201. Employment of Mine Foreman.—It shall not be lawful, neither shall it be permitted, for any person or persons to act as mine foreman, assistant mine foreman or mine examiner of any coal mine or colliery, unless they are registered as a holder of a certificate of qualification or service under this act. The mine foreman shall have full charge of all the inside workings and the persons employed therein, subject, however, to the supervision and control of the operator or the superintendent, in order that all the provisions of this act, so far as they relate to his duties, shall be complied with and the regulations prescribed for each class of workmen under his charge carried out in the strictest manner possible. Nothing in this article shall prevent a mine foreman or assistant mine foreman from acting as a mine examiner in case of an emergency. Upon the effective date of this act and after an examination has been given for the certification of mine foremen, assistant mine foremen, and mine examiner, it shall be unlawful for any operator or superintendent to employ a mine examiner who has not been certified as such by the Department of Mines and Mineral Industries.

Section 202. Boards of Examiners; Mine Foreman, Assistant Foreman and Mine Examiner; Certificates.—For the purpose of examination of candidates for such certificate, a board of examiners shall be appointed in each of the inspection districts provided for by this act. The said board shall consist of the district inspector of mines, two practical miners and one engineer, operator, or superintendent of a mine. The said inspector shall act ex officio and the said boards shall be appointed by the courts of common pleas of the county in which the inspection districts are located. The said boards shall act as such for the period of one year from the date of their appointment. Meetings of the board may be held at any time and they may make such rules and conduct such examinations as in their judgment may seem proper for the purpose of such examinations. The said board shall report their action to the Secretary of the Department of Mines and Mineral Industries, and at least three of the members thereof shall certify to the qualification of each candidate who has passed such examination.

Section 203. Compensation of Boards of Examiners.—Each board member, with the exception of the mine inspector members, shall

¹“Foreman” in original.

receive thirty dollars (\$30) a day for each day actually employed, not exceeding ten days in all during the year, together with traveling expenses at the prevailing State rate for each mile necessarily traveled in going from his home to the place of meeting and return, by the shortest practicable route.

Each member shall also be reimbursed for all other necessary expenses incurred in the discharge of his duties. Each board of examiners is hereby authorized to employ the services of a clerk, whose compensation and rate of mileage shall be the same as that of members of the board. The clerk of each board shall, on final adjournment, send to the secretary properly attested vouchers for compensation and expenses of each member of the board, and also a voucher covering his own compensation and expenses, which vouchers shall be approved by the chairman of the board. The secretary shall then approve said vouchers and transmit them to the Auditor General who shall issue warrants on the State Treasurer for their payment.

Section 204. Records of Examinations.—The board of examiners for the examination of applicants for mine foreman, assistant mine foreman, and mine examiner certificates shall send to the Secretary of the Department of Mines and Mineral Industries duplicates of the manuscript and all other papers of applicants, together with the tally sheets and the solution of each question as given by the examining board, which shall be filed in the department as public documents for a period of time not less than eight years.

Section 205. Certificates of Qualification; Fees.—Certificates of qualification to mine foremen, assistant mine foremen and mine examiner shall be granted by the Secretary of Mines and Mineral Industries to every applicant who may be reported by the examiners as having passed a satisfactory examination and as having given satisfactory evidence of at least five years' practical experience as a miner, and of good conduct, capability and sobriety. The certificate shall be in manner and form as shall be prescribed by the Secretary of Mines and Mineral Industries and a record of all certificates issued shall be kept in the department. Certificates of qualification and certificates of service shall contain the full name, age and place of birth of the applicant, and also the length and nature of his previous service in or about the mines. Before the examination for certificates of qualification to mine foremen, assistant mine foremen, and mine examiners in the anthracite mines, each applicant shall pay a fee of two dollars (\$2), and each successful applicant shall pay an additional fee of three dollars (\$3) before receiving a certificate. The money thus received from applicants shall be transmitted

to the Secretary of the Department of Mines and Mineral Industries to be deposited in the State Treasury. In case of the loss or destruction of a certificate, the Secretary of Mines and Mineral Industries shall, upon the presentation of satisfactory evidence of the loss or destruction, issue a copy of the certificate, to the original possessor, on the payment of the sum of one dollar (\$1).

Section 206. Penalty for Forged Certificates.—If any person or persons shall forge or counterfeit a certificate or knowingly make or cause to be made any false statement in any certificate under this act, or in any official copy of the same, or shall urge others to do so, or shall alter or use any such forged or false certificate, or unofficial copy thereof, or shall make, give, alter, produce or make use of any false declaration, representation or statement in any such certificate or copy thereof, or any document containing the same, he or they shall be guilty of a misdemeanor and, upon conviction thereof, shall be fined two hundred dollars (\$200), or imprisoned for a term not exceeding one year, or both, at the discretion of the court trying the case.

B. Miners' Examining Boards and Certification of Miners

Section 207. Certification of Miners.—No person whosoever shall be employed or engaged in the anthracite coal region of this Commonwealth, as a miner in any anthracite coal mine, without having obtained a certificate of competency and qualification so to do from the miners' examining board of the proper district, and having been duly registered as herein provided.

Section 208. Boards of Examiners.—There shall be established in each of the Counties of Luzerne, Lackawanna, Carbon, Schuylkill and Northumberland a board to be known as the "Miners' Examining Board" to consist of three miners, who shall be appointed by the judges of the court of common pleas of the county from among the most skillful miners actually engaged in said business in their respective counties who must have had five years' practical experience in the same. The said persons so appointed shall each serve for a term of two years from the date on which their appointment takes effect. The Miners' Examining Board in the County of Luzerne shall examine and register applicants for the Counties of Luzerne and Sullivan; the Miners' Examining Board in the County of Lackawanna shall examine and register applicants for the Counties of Lackawanna, Wayne and Susquehanna; the Miners' Examining Board in the County of Carbon shall examine and register applicants for the County of Carbon; the Miners' Examining Board in the County of Schuylkill shall examine

and register applicants for the Counties of Schuylkill and Columbia; and the Miners' Examining Board for the County of Northumberland shall examine and register applicants for the Counties of Northumberland and Dauphin. Each member of the examining boards shall receive as compensation for his services thirty dollars (\$30) per day, for each day actually engaged in this service, and all legitimate and necessary traveling expense incurred in attending the meetings of the board under the provisions of this act at the prevailing State rate. The members of the boards shall submit monthly statements approved by the president of the board, setting forth the number of days during which each member has actually been in attendance at the sessions of the board, together with any expenses that may have been incurred, to the Secretary of Mines and Mineral Industries who, upon approval of the statements shall submit them to the State Treasurer for payment.

Section 209. Organization of Miners' Examining Boards.—Each of said boards shall organize by electing one of their members president, and one member as secretary.

Section 210. Meeting Place of Miners' Examining Boards.—Each of said examining boards shall designate some convenient place within their districts for the meeting of the board, but in no case shall such meeting be held in a building where any intoxicating liquors are sold.

Section 211. Registration Books of Miners' Examining Boards.—Each of said boards shall open at the designated place of meeting a book of registration, in which shall be registered the name and address of each and every person duly qualified under this act to be employed as a miner in an anthracite coal mine. And it shall be the duty of all persons employed as miners to be properly registered, and in case of a removal from the district in which a miner is registered it shall be his duty to be registered in the district to which he removes.

Section 212. Application for Registration.—Application for registration only may be sent by mail to the board, after being properly attested before any person authorized to administer an oath or affirmation in the county in which the applicant resides. The form of application shall be subject to such regulation as may be prescribed by the boards, but in no case shall any applicant be put to any unnecessary expense in order to secure registration.

Section 213. Fee For Miners' Certificates; Fee for Registration.—Each applicant for examination and registration and for the certificate hereinafter provided, shall pay a fee of two dollars (\$2) to the said board, and a fee of one dollar (\$1) shall be charged for registering any person who shall have been examined and registered by any other said

board, and the amount derived from these sources shall be forwarded monthly to the Secretary of Mines and Mineral Industries who, upon receipt of same, shall submit the amount of money obtained from the boards to the State Treasurer to be applied to the salaries and expenses herein provided.

Section 214. Monthly Meetings of Miners' Examining Boards.—It shall be the duty of each of the said boards to meet once every month and not oftener, and said meeting shall be public, and examine under oath all persons who shall desire to be employed as miners in their respective districts; and said board shall grant such persons as may be qualified, certificates of competency or qualification which shall entitle the holders thereof to be employed as and to do the work of miners as may be expressed in said certificate, and such certificate shall be good and sufficient evidence of registration and competency under this act; and the holder thereof shall be entitled to be registered without an examination in any other of the anthracite districts upon the payment of the fee herein provided.

Section 215. Qualifications for Miners' Certificates.—All persons applying for a certificate of competency, or to entitle them to be employed as miners, must produce satisfactory evidence of having had not less than two years' practical experience as a mine laborer in the mines of this Commonwealth, and in no case shall an applicant be deemed competent unless he appear in person before the said board and answer intelligently and correctly at least twelve questions in the English language pertaining to the requirements of a practical miner, and be properly identified, under oath, as a mine laborer by at least one practical miner holding a miner's certificate. The said board shall keep an accurate record of the proceedings of all its meetings, and in said record shall show a correct detailed account of the examination of each applicant, with the questions asked and their answers, and at each of its meetings the board shall keep said record open for public inspection. Any miner's certificate granted under the provisions of this act, and the hereinafter mentioned act approved May 9, 1889 (P. L. 142), shall not be transferable to any person or persons whatsoever, and any transfer of the same shall be deemed a violation of this act. Certificates shall be issued only at meetings of said board, and said certificates shall not be legal unless then and there signed in person by at least two members of said board.

Section 216. Unlawful to Employ Non-certified Miners.—No person shall hereafter engage as a miner in any anthracite coal mine without having obtained such certificate as aforesaid. And no person shall employ

any person as a miner who does not hold such certificate as aforesaid, and no mine foreman or superintendent shall permit or suffer any person to be employed under him, or in the mines under his charge and supervision as a miner, who does not hold such certificate. Any person or persons who shall violate or fail to comply with the provisions of this act, shall be guilty of a misdemeanor and, on conviction thereof, shall be sentenced to pay a fine of not less than one hundred dollars (\$100) and not to exceed five hundred dollars (\$500), or shall undergo imprisonment for a term not less than thirty days and not to exceed six months, or either, or both, at the discretion of the court.

Section 217. Present Holders of Miners' Certificates Exempted.—Nothing in this act shall be construed to in any way, ¹ except as herein provided, affect miners' certificates which have been lawfully issued under the provisions of the herein mentioned act, approved May 9, 1889 (P. L. 142).

Section 218. Miners' Examining Boards to Investigate Complaints.—It shall be the duty of the several miners' examining boards to investigate all complaints or charges of noncompliance or violation of the provisions of this act, and to prosecute all persons so offending; and upon their failure so to do, then it shall become the duty of the mine inspector of the district wherein the complaints or charges are made to investigate the same and prosecute all persons so offending, and it shall at all times be the duty of the mine inspector to prosecute such members of the miners' examining board as have failed to perform their duty under the provisions of this act; but nothing herein contained shall prevent any citizen, a resident of this Commonwealth, from prosecuting any person or persons violating this act, with power to employ private counsel to assist in the prosecution of the same; upon conviction of any member of the miners' examining board for any violation of this act, in addition to the penalties herein provided, his office shall be declared vacant, and he shall be deemed ineligible to act as a member of the said board.

Section 219. Power to Administer Oaths.—For the purposes of this act the members of the said miners' examining boards shall have power to administer oaths.

C. Mine Foreman and Assistant Mine Foreman

Section 220. Mine Foreman, Assistant Mine Foreman, Agent of Operators.—The mine foreman and assistant mine foreman, shall be

¹ "excepting" in original.

the agent of the operators, and such operators shall employ them and discharge them at will.

Section 221. Mine Foreman, Assistant Mine Foreman and Mine Examiner, Agent of Commonwealth.—Every mine foreman, assistant mine foreman and mine examiner under the provisions of the anthracite mining laws, shall represent the Commonwealth in the coal mine or colliery in which he is employed and be deemed to be an officer of the Commonwealth in enforcing the provisions of said mining laws and performing his duties thereunder. He shall perform said duties during such times as the mine or colliery in which he is employed is in operation, and at such other times as, in the judgment of the operator or Secretary of Mines and Mineral Industries, shall be necessary or desirable to make the mine or colliery safe for operations or to protect the health and safety of the employes of the operator or the protection and preservation of the property connected therewith.

Section 222. Mine Foreman; Ventilation.—The mine foreman shall have charge of all matters pertaining to ventilation, and the speed of the ventilators shall be particularly under his charge and direction; and any operator or superintendent who shall cause the mine foreman to disregard the provisions of this act shall be amenable in the same manner as the mine foreman.

D. Mine Foreman and Mine Examiner; Examination and Safety of Working Places

Section 223. Mine Examiner; Examine All Mines Prior to Entrance of Workmen; Report of Examination Recorded in Book.—In all mines the mine examiner shall make a careful examination every morning of all working places and traveling roads and all other places which might endanger the safety of the workmen, before the workmen shall enter the mine, and such examination shall be made with a safety lamp within three hours at most, before time for commencing work, and a workman shall not enter the mine or his working place until the said mine or part thereof and working place are reported to be safe. Every report shall be recorded without delay in a book which shall be kept at the colliery for the purpose and shall be signed by the person making the examination.

Section 224. Mine Foreman; Examine Working Places While Men Are or Should Be at Work.—The mine foreman or his assistant shall visit and examine every working place in the mine each working shift while the men of such place are or should be at work, and shall direct and see that each and every working place is properly secured by props,

timber, roof bolts or such other practical devices as may serve to secure the safety of the workmen, and that safety in all respects is assured by having all loose coal or rock pulled down or secured, and that no person shall be permitted to work in an unsafe place, unless it be for the purpose of making it secure, and a report of said examination shall be recorded in a book kept at the colliery for that purpose, and signed by the person making the same. All such reports shall be made and signed at the end of each shift and countersigned within a period of one week by the mine foreman; providing, however, if the mine is idle forty-eight hours or more, the mine foreman, assistant mine foreman or mine examiner shall examine every working place and the adjoining places the day before operations are resumed; and all such entries shall be made and signed in ink in a manner similar to that heretofore described.

Section 225. Mine Foreman; Examine Slopes, Shafts, Main Roads, etc.—The mine foreman, or some other competent person or persons to be designated by him, shall examine at least once every day all slopes, shafts, main roads, traveling ways, signal apparatus, pulleys and timbering and see that they are in safe and efficient working condition and a report of said examinations shall be recorded in a book, without delay, kept at the colliery for that purpose, and signed by the person making the same and countersigned by the mine foreman within a period of one week. The book in which this and all other such reports are required to be made and recorded by the mine foreman, assistant foreman and mine examiner and others shall be securely bound and the manner and form in which the results of each examination shall be recorded shall be in accordance with a form furnished by the Department of Mines and Mineral Industries.

Section 226. Mine Foreman, Assistant; Weekly Inspection; Accessible Abandoned Portions of Mine.—All accessible parts of an abandoned portion of a mine shall be carefully examined by the mine foreman, assistant mine foreman or mine examiner at least once a week, and all danger found existing therein shall be immediately removed. A report of said examination shall be recorded in a book kept at the colliery for that purpose on the day the examination is made and shall be signed by the person making the same and countersigned by the mine foreman within a period of one week.

Section 227. Proof of Examination.—The person who makes said examinations as listed under sections 223, 224, 225 and 226 shall establish proof of the same by marking plainly his initials and the date thereof at the face of each working place and all other places examined.

Section 228. Stations at Entrance to Mine or Parts of Mine.—A station or stations shall be established at the entrance to each mine or different parts of each mine, as the case may require, and a workman shall not pass beyond any such station until the mine or part of the mine beyond the same has been inspected by the mine foreman, assistant mine foreman or mine examiner and reported to be safe.

Section 229. Withdrawal of Workmen, Noxious Gases.—If, at any time, it is found by the person in charge of a mine or any part thereof, that by reason of noxious gases prevailing in such mine or such part thereof, or of any cause whatever the mine or the said part is dangerous, every precaution shall be used to ensure the safety of the workmen; and every workman, except such persons as may be required to remove the danger, shall be withdrawn from the mine, or such part thereof as is so found dangerous, until the said mine or said part thereof is examined by the mine foreman, assistant mine foreman or mine examiner and reported by him to be safe.

Section 230. Operator, Superintendent, Mine Foreman to Furnish Supplies.—It shall be the duty of the operator, superintendent and mine foreman of every mine to furnish to the miners all props, ties, rails, timbers and materials necessary for the safe mining of coal and for the protection of the lives of the workmen. Such props, ties, rails, timbers and materials shall be suitably prepared and shall be delivered to the workmen as near to their working places as they can be conveyed in ordinary mine cars free of charge.

Section 231. Failure to Furnish Supplies, Negligence.—A failure to furnish timbers and materials as required shall be deemed an offense against this act, and shall be taken to be negligence per se on the part of the operator, superintendent and mine foreman of such mine, in ¹ an action for the recovery of damages for accidents resulting from the insufficient propping of such mine, through failure to furnish the necessary props or timbers.

Section 232. Unlawful to Employ Person Not Competent to Understand Regulations Concerning Explosive Gases.—It shall not be lawful for any mine foreman or superintendent of any mine or colliery to employ any person who is not competent to understand the regulations of any mine evolving explosive gases; provided that this rule shall not apply to a mine free from the said explosive gases.

E. Mine Foreman; Blasting

Section 233. Mine Foreman, Permission for Blasts in Mine Where

¹ "an" not in original.

Locked Safety Lamps Are in Use.—No blast shall be fired in any mine where locked safety lamps are used except by permission of the mine foreman or his assistants.

Section 234. Certified Miners Only to Blast Coal or Rock.—No person shall be permitted to blast coal or rock unless he is a certified miner and in the opinion of the mine foreman is qualified by experience and judgment to perform the work with ordinary safety.

Section 235. Firing Lines, Supervision of Mine Foreman.—The location of the firing lines and safety breaks shall be under the supervision of the mine foreman or his assistant.

Section 236. Mine Foreman to Supervise Misfires.—The handling of a misfired blast shall be under the supervision of the mine foreman or his assistant.

F. Mine Foreman; Drainage

Section 237. Passageways, Well Drained.—Passageways used by persons and roads used for transportation in any mine shall be well drained.

Section 238. Regulations, Places Approaching Inaccessible Workings.—Whenever a place is approaching inaccessible workings, the operator shall establish and clearly show on the map furnished the mine foreman a stopping distance not less than one hundred feet from the said inaccessible workings and such stopping point shall not be passed until after the coal company officials, the mining engineer and the mine inspector have agreed on the width of any such approaching place or places, the point at which test holes shall be started and the location of the test holes. The test holes shall not be less than twenty feet in advance of the working face with sufficient flank holes on each side of said place. No such stopping distance shall be less than one hundred feet from the said inaccessible abandoned workings, nor need it be greater than the distance calculated in accordance with the rule commonly used in the establishing of barrier pillars, namely, one percent of the depth below drainage times the thickness of the coal seam plus thickness of seam times five, excepting in such cases where calculation in accordance with said rule establishes a stopping distance of less than one hundred feet. This act does not permit the driving of gangways, chambers or other excavations into barriers which are subjected to their maximum water pressure, as calculated in accordance with the rule here established, unless the said waterhead is reduced by pumping or other means. The term "mining engineer," as used in this act, shall mean the person who shall, in behalf of the operator, have charge or general supervision of the work of compiling the mine map.

G. Duties of Miners

Section 239. Secure Roof and Sides.—Any person having charge of a working place in any mine shall keep the roof and sides thereof properly secured by timber or otherwise so as to prevent such roof and sides from falling, and he shall not do any work or permit any work to be done under loose or dangerous material except for the purpose of securing the same.

Section 240. Tight Cartridge Not to Be Rammed Into Blast Hole.—In charging holes for blasting in coal, slate or rock in any mine, a tight cartridge shall not be rammed into the hole by any means. Only non-metallic tamping bars shall be used for charging and tamping blast holes.

Section 241. Issue Warning to All Persons in 'Proximity Before Firing Blast.—When a miner is about to fire a blast he shall notify the persons in the adjoining places and shall have received a reply therefrom and shall give sufficient alarm so that any person or persons who may be approaching shall be warned of the danger before firing the blast.

Section 242. Leg Wires of Electric Detonators to Be Kept Shunted.—The leg wires of electric detonators shall be kept shunted until ready to connect to the firing cable.

Section 243. Examine for Gas Before and After Firing Blast.—Examinations for gas shall be made immediately before firing each blast or group of blasts. Before work is commenced an examination of the face shall be made.

Section 244. Shall Not Detonate Blast in Presence of Methane.—Blasts shall not be detonated in any place where methane can be detected with a flame safety lamp.

Section 245. Extinguish Gas Ignited by Blast, Notify Mine Foreman.—When gas is ignited by blast or otherwise, the person igniting the same shall immediately extinguish it, if possible, and notify the mine foreman or his assistant of the fact, and workmen must see that no gas blowers are left burning upon leaving their working places.

Section 246. Misfired Explosives Not to Be Withdrawn.—A charge of explosives in coal, slate or rock, which has misfired shall not be withdrawn or the hole reopened.

Section 247. Thirty Minute Waiting Period Before Returning to Misfire.—Where misfires occur with electric detonators, a waiting period of at least thirty minutes shall elapse before anyone returns to the misfired hole or holes. The blasting wires shall be disconnected from the blasting battery and the ends of the blasting wires short-circuited before returning to the misfired hole or holes.

¹ "Proximity" in original

Section 248. Method of Removing Misfired Explosives.—Explosives in misfired blast holes shall be removed by drilling a separate blast hole two feet distant from and parallel to the hole containing the misfired charge and then charging and detonating the explosives in this new hole.

Section 249. Order Props, Ties, Rails, Timber, Materials at Least One Day in Advance.—Every workman in want of props, ties, rails, timbers or materials shall notify the mine foreman or his assistant of the fact at least one day in advance, giving the length of the props or timber required; and in case of danger from loose roof or sides, he shall not continue to cut or load coal or do any other work within the danger area until the said props and timber have been properly furnished and the place made secure.

Section 250. Notify Mine Foreman of Any Dangerous Condition.—Any miner or other workman who shall discover anything wrong with the ventilating current or with the condition of the roof, side, timber, or roadway or with any other part of the mine in general, such as would lead him to suspect danger to himself or his fellow workmen or to the property of his employer, shall immediately report the same to the mine foreman or other certified person for the time being in charge of that portion of the mine.

Section 251. Penalty Endangering Lives, Health of Workmen, Security of Property.—Any person or persons who shall knowingly or wilfully damage, or without proper authority remove or render useless any fencing, means of signaling, apparatus, instrument or machine, or shall throw open or obstruct any airway, or open a ventilating door and not have the same closed, or enter a place in or about a mine against caution, or carry fire, open lights, matches or any device for making lights or fire not authorized or approved in places where safety lamps are used, or handle without proper authority, or disturb any machinery or cars, or do any other act or thing whereby the lives or health of persons or the security of the property in or about a mine or colliery are endangered, shall be guilty of an offense against this act.

Section 252. Accumulation of Gas Not to Be Removed by Brushing.—An accumulation of gas in mines shall not be removed by brushing.

Section 253. Props or Timbers Supporting Roof Not to Be Removed by Cutting, Removed by Blasting or Prop Puller.—No person or persons working in any coal mine or colliery shall cut any props or timbers while the same are in position to support the roof or sides. When it becomes necessary to remove any of the said props or timbers they shall be removed by blasting or by means of a prop puller. Such prop puller, however, shall be designed and constructed with ropes or chains of

sufficient length that the person operating the device will not be exposed to the danger of a falling roof or falling coal resulting from the removal of such props or timbers.

Section 254. System of Roof Support.—The roof in all underground areas shall be supported as outlined in sections 269 and 270 of this article.

Section 255. Examine Place for Gas Prior to Start of Work and Other Times.—Before the commencement of work the miner in charge shall examine his working place for gas and oxygen deficiency with an approved safety lamp and thoroughly test the roof, face and ribs with a suitable testing bar. A similar test shall also be made before starting any machine, before and after each blast fired during the working shift.

Section 256. Correct Unsafe Roof, Face or Rib Conditions Before Other Work Started.—If roof, face or rib conditions are found to be unsafe, they shall be corrected by taking down loose material, or shall be securely supported, before other work is started.

Section 257. Roof Support to Be Placed Promptly as Soon as Room Available.—All props and timbers shall be placed promptly, as soon as the room to do so is made available, and shall be adequate and proper for the needs of the place.

Section 258. Props, Timbers, Properly Hitched, Spragged, Blocked, Lined and Lagged.—All props and timbers shall be properly hitched. If necessary they shall be spragged or braced, blocked, lined and lagged and cribbed.

H. General Responsibility of the Superintendent

Section 259. Mine Not to Be Operated Without Supervision of Mine Foreman.—No mine shall be operated without the supervision of a mine foreman. In case any mine is worked without a mine foreman, the operator or superintendent thereof shall be subjected to a penalty of fifty dollars (\$50) per day for each day during which the said mine is operated.

Section 260. Superintendent Shall Direct and Provide Means for Law Compliance.—The superintendent shall not obstruct the mine foreman or other officials in the fulfillment of any of their duties as required by this act, but he shall direct, provide the means, and see to it that the mine foreman and all other employes under him comply with the law in all its provisions. He shall give immediate attention to any violation of the law called to his attention by the mine inspector.

Section 261. Superintendent or Operator, Supervision, Direction and Control of All Employes.—The operator or superintendent of a mine or

colliery shall use every precaution to insure the safety of the workmen in all cases, whether provided for in this act or not, and shall have supervision, direction, and control of the mine foreman and all other mine employes.

Section 262. Safety Committee; Superintendent; Monthly Report of Safety Meeting.—If a safety committee has not been selected by the employes, a safety committee consisting of the mine superintendent, mine foreman, at least one assistant mine foreman, or, in the absence of such officials, a designated qualified agent or agents of the operator and at least two persons selected by the employes working in the mine shall be formed to acquaint the workers with the shortcomings of the mine as indicated by the State mine inspector and prescribing appropriate precautions and remedial action. The mine superintendent shall execute, on behalf of the safety committee a monthly report on the last work day of each calendar month with the Department of Mines and Mineral Industries containing a statement that the committee met and a summary of the information that was furnished to the employes.

Section 263. Superintendent to Provide Supplies and Materials to Mine Foreman.—It shall be the duty of every superintendent, on behalf and at the expense of the operator, to keep on hand at each mine at all times a sufficient quantity of all materials and supplies required to preserve the health and safety of the employes, as ordered by the mine foreman, and required by this act. 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 portion of mine, until such materials or supplies are received.

Section 264. Authorize Mine Foreman to Employ Assistants.—Whenever a mine foreman cannot personally carry out the provisions of this act so far as they pertain to him, the operator or superintendent shall authorize him to employ a sufficient number of competent persons to act as his assistants, who shall be subject to his orders.

Section 265. Superintendent or Operator to Provide and Maintain Constant and Adequate Supply of Pure Air for Mine or Colliery.—The operator or superintendent of every mine or colliery shall provide and maintain a constant and adequate supply of pure air for the same, as hereinafter provided for in article V.

Section 266. Superintendent or Operator to Employ Outside Foreman.—The operator or superintendent of a colliery shall place a competent person to be called "outside foreman," in charge of the breaker and the outside work of such colliery, who shall direct and as far as

practicable see that the provisions of this act are complied with in respect to the breaker, outside machinery, ropes, cages and all other things pertaining to the outside work, unless otherwise provided for in this act.

Section 267. Superintendent or Operator to Have Right to Hire and Discharge Employes.—The right to hire and discharge employes, the management of the mine, and the direction of the working forces, are vested exclusively in the operator or superintendent and no person or persons, association or associations, organization or organizations, or corporation or corporations, shall interfere with or attempt to interfere with, abridge or attempt to abridge, in any manner whatsoever, such right, provided that this does not invalidate any existing or future contract.

Section 268. Superintendent or Operator to Furnish Reports to Mine Inspectors.—The operator or superintendent of each mine or colliery shall furnish the district mine inspector with all reports and notices hereinbefore or hereinafter cited in this act.

Section 269. Minimum Timbering or Other Roof Support Methods Adopted.—Where roof support is required, minimum timbering, or other roof support methods, suitable to the roof conditions of each mine or part of a mine shall be adopted by the operator and complied with.

Section 270. Roof Support Plan Not to Exceed Six Feet Centers.—Such plan shall specify the maximum center line distance between props, timbers, roof bolts or such other practical devices which shall, in no instance exceed six feet. However, if conditions of the seam or seam roof warrant, additional roof support shall be placed without delay.

Section 271. Roof-Bolt Support Requirements.—Should an operator desire to use roof bolts in lieu of props or timber as conventionally used, he shall not be permitted to do so unless permission in writing is first obtained from the Secretary of Mines and Mineral Industries. The Secretary of Mines and Mineral Industries shall grant such permission after he has received the approval of a commission of three mine inspectors, one of whom shall be the inspector in whose district the mine for which permission is sought to use roof bolts is located.

Section 272. Employment of Boys under Eighteen Years of Age.—No boy under eighteen years of age and no woman or girl of any age, shall be employed or permitted to be in any mine for the purpose of employment therein. Nor shall a woman or girl of any age, be employed or permitted to be in or about the outside structures or workings of a colliery for the purpose of employment, but it is provided, however, that this prohibition shall not affect the employment of a female of at

least eighteen years of age in an office or in the performance of clerical work at a colliery.

Section 273. Posting of Copy of Mining Law in Pamphlet Form.—For the purpose of making known the provisions of this act to all persons employed in or about such mine or colliery to which this act applies, a copy of the law in pamphlet form shall be posted in some conspicuous place or places at the mine or colliery, where it may be conveniently read by the persons employed, and so often as the same become obliterated or destroyed the operator or superintendent shall cause it to be renewed with all reasonable dispatch. Any person who pulls down, injures or defaces such copy of the law when posted up in pursuance of the provisions of this act, shall be guilty of an offense against this act.

Section 274. Gassy Mines—No Light or Fire Except Approved Safety Lamps and Electric Lamps.—In each part of all gassy mines no light or fire, other than a locked safety lamp, or a locked safety lamp and electric lamp, both of a type which shall be first approved by the Department of Mines and Mineral Industries, shall be allowed or used in such part.

Section 275. Gassy Mines—Unlawful to Employ Persons Unable to Understand Regulations.—It shall not be lawful for any mine foreman or superintendent of any mine or colliery to employ any person who is not competent to understand the regulations of any mine evolving explosive gases: Provided, That this rule shall not apply to a mine free from the said explosive gases.

Section 276. Safety Lamps or Electric Lamps Property of Operator; Competent Person to Examine.—Whenever safety lamps or electric lamps are required in any mine or part thereof, they shall be the property of the operator of said mine; and a competent person, who shall be appointed for the purpose, shall examine every safety lamp and electric lamp immediately before it is taken into the workings for use and he shall ascertain that all safety lamps are clean, safe, and securely locked; and safety lamps and electric lamps shall not be used until they have been so examined and found safe, and, in the case of safety lamps, clean and securely locked.

Section 277. Matches, Smokers' Articles in Gassy Mine Unlawful; Mine Foreman to Cause Search.—It shall be unlawful for any person or persons, working in a mine or portion of a mine, which is worked by locked safety lamps or locked safety lamps and electric lamps, to carry into the mine matches, smokers' articles, or any other material or article which may cause fire. To prevent such articles being carried into a

dangerous mine or section thereof, the mine foreman, when he sees fit, shall cause a search of the men for such articles.

Section 278. Acetylene Burners or Blow Torches.—Welding, cutting or soldering with arc or flame, use of blow torch in underground face regions shall be done under the direct supervision of the mine foreman or assistant mine foreman who shall test for methane before and during such operations in gassy mines and shall make a diligent search for fire after such operations in all mines. Suitable fire extinguishers shall be immediately available during such welding, cutting, soldering or use of blow torch.

Section 279. Notices of Accidents to Mine Inspectors.—Notices of death or serious injuries resulting from accidents and any injury resulting from a roof-fall accident in or about mines or collieries, shall be made to the inspector of mines immediately and shall specify the name, age and occupation of the person killed or injured, and also the nature and character of the accident and of the injury caused thereby.

Section 280. Scene of Accident; Preservation of Evidence.—After the occurrence of a mine accident which resulted in the death or serious injury to one or more persons and after the occurrence of any accident due to a fall of roof, the evidence surrounding such occurrence shall not be disturbed after recovery of bodies or removal of injured persons until an investigation of the accident has been completed by the mine inspector or inspectors: Provided, however, That sufficient wreckage or debris may be moved to allow recovery work after disasters or continued general operation of the mine following fatalities not caused by mine fires or explosions.

Section 281. Notices to Mine Inspector from Operators or Superintendents.—The operator or superintendent of a mine, bank, preparation plant or colliery shall without delay give notice in writing to the inspector of the district in which said mine or colliery is situated in any or all of the following cases:

(1) Where any working is commenced for the purpose of opening a new mine, preparation plant or bank, the operator or superintendent shall file a report with the mine inspector, on a form furnished by the department, setting forth the name and post office address of the company, the name or names of the officials of the corporation, partnership or firm, the name of the superintendent, the location and type of operation, together with other pertinent data deemed necessary.

(2) Where any mine is abandoned or the workings thereof discontinued for a period exceeding two months.

(3) Where the working of any mine, colliery or preparation plant is to resume after any abandonment.

(4) Where any new preparation plant is completed and work commenced therein for the purpose of preparing coal for market.

(5) When the pillars of any seam of coal are to be removed or robbed.

(6) Where a squeeze or crush or any other cause or change may seem to affect the safety of persons employed in any mine, or where fire occurs or a dangerous body of gas or water is found in any mine.

(7) When an injured employe has returned to work.

(8) When a change is made in the name of the mine or preparation plant or in the identity of the operator or superintendent of a mine.

Section 282. Monthly Report of Tonnage, Man Hours, Source and Quantity of Coal.—On or before the fifteenth day of every month, the operator or superintendent of every mine, bank or colliery shall, with respect to the previous month, send by mail to the inspector of the district, on a form to be prescribed and furnished by the Department of Mines and Mineral Industries, a report of the quantity of coal mined or produced and the man hours worked. Operators of preparation plants shall furnish the mine inspector with a monthly and annual report showing the source and quantity of coal purchased for preparation.

Section 283. Annual Report February First for Previous Year.—On or before the first day of February, in each year, the operator or superintendent of every mine, bank or colliery, shall send to the inspector of the district, a correct report specifying with respect to the year ending December 31, previously, the name of the operator and officials of the mine with their post office addresses; the quantity of coal mined; the amount of powder or other explosives consumed; the number of persons employed above and below ground in or about such colliery or bank, classifying the persons so employed. The report shall be in such form as may be from time to time prescribed by the Department of Mines and Mineral Industries. Blank forms for said report shall be furnished by the Commonwealth.

ARTICLE III

MAPS AND PLANS

Section 301. Operator or Superintendent—Map Scale 1" = 100'.—The operator or superintendent of every coal mine or colliery shall make, or cause to be made, an accurate map or plan of the workings or excavations of such coal mine or colliery, on a scale of one hundred feet to the inch, which map or plan shall exhibit the workings or excavations

in each and every seam of coal and the tunnels and passages connecting with such workings or excavations. It shall state in degrees the general inclination of the strata with any material deflection therein in said workings or excavations, the seam thickness and shall also state the tidal elevations of the bottom of each and every shaft, slope, tunnel, and gangway, and of any other point in the mine or on the surface where such elevation shall be deemed necessary by the inspector. The map or plan shall show the number of the last survey station and date of each survey on the gangways or the most advanced workings and the location and identity of each working face advanced and the location of each area of pillar removed since the last inspection.

Section 302. Map to Show Boundary Lines, Pipe Lines, Streams, Roads, etc.—The map shall also accurately show the boundary lines of the lands of the said coal mine or colliery and the proximity of the workings thereto, all pipelines, streams or other bodies of water, buildings and structures, roads and highways and in case any mine contains any water dammed up in any part thereof, it shall be the duty of the operator or superintendent to cause the true location of the said dam to be accurately marked on said map or plan, together with the tidal elevation, inclination of strata and area of said workings containing water, and whenever any workings or excavations are approaching the workings where such dam or water is contained or situated, the operator, superintendent, or mine foreman, shall notify the inspector of the same without delay.

Section 303. Copy of Map or Plan Furnished Mine Inspector.—A true copy of which map or plan, the said operator or superintendent shall deposit with the inspector of mines for the district in which the said coal mine or colliery is situated, showing the workings of each seam. If so desired by the inspector, a copy may be made on a separate sheet of tracing muslin. One copy of the said map or plan shall be kept at the colliery and a copy shall be furnished by the superintendent or mine foreman to the inspector upon his arrival at the mine for the purpose of making a periodic inspection.

Section 304. Extensions Placed on Inspector's Map Every Two Months.—The said operator or superintendent shall as often as once in every two months place or cause to be placed on the said inspector's map or plan of said coal mine or colliery, the plan of the extensions made in such coal mine or colliery during the preceding two months. The said extensions shall be placed on the inspector's map and the map returned to the inspector within one month from the date of the last survey.

Section 305. Mine Worked Out Maps Extended; Certified Copies.—When any coal mine or colliery is worked out preparatory to being abandoned, or when any lift thereof is about to be abandoned, the operator or superintendent of such coal mine or colliery shall have the maps or plans thereof extended to include all excavations, as far as practicable, and such portions thereof as have been worked to the boundary lines of adjoining properties; or any part or parts of the workings of which it is intended to be allowed to fill with water, must be surveyed in duplicate and such surveys must practically agree, and certified copies be filed with the inspector of the district in which the mines are situated.

Section 306. Operator Fails to Furnish Map to Inspector, Stop Order Issued.—Whenever the operator or superintendent of any coal mine or colliery shall neglect or refuse, or from any cause not satisfactory to the inspector, shall fail, for a period of one month, to furnish to the inspector the map or plan of said colliery or of the extensions thereto, as provided for in this act, the inspector is hereby authorized to issue a stop order until an accurate map or plan of the said coal mine or colliery is furnished to him.

Section 307. Inspector Finds Map Inaccurate, Inspector to Apply to Court for Accurate Map.—If the inspector finds or has reason to believe that any map or plan of any coal mine or colliery, furnished under the provisions of this act, is materially inaccurate, it shall be his duty to make application to the court of common pleas of the county in which such colliery is situated for an order to have an accurate map or plan of said colliery prepared, and if such survey shall prove that the map furnished was materially inaccurate or imperfect, such operator or superintendent shall be liable for the expense incurred in making the same.

Section 308. Commonwealth Liable for Expense—Map Not Inaccurate.—If it shall be found that the map or plan furnished by the operator or superintendent was not materially inaccurate or imperfect, the Commonwealth shall be held liable for the expense incurred in making said test survey.

Section 309. Penalty When Operator Knowingly Furnishes Inaccurate Map.—If it shall be shown that the said operator or superintendent has knowingly or designedly, caused or allowed such map or plan, when furnished, to be incorrect or false, such operator or superintendent thus offending, shall be guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine not exceeding five hundred

dollars (\$500) or imprisonment not exceeding three months, or both, at the discretion of the court.

Section 310. Inspector's Maps Property of Commonwealth.—The maps or plans of the several coal mines or collieries in each district and which are placed in the custody of the inspector, shall be the property of the Commonwealth, and shall remain in the care of the inspector of the district in which the said collieries are situated to be transferred by him to his successor in office; and in no case shall a copy of the same be made without the consent of the operator or superintendent.

Section 311. Inspector's Map Open for Inspection During Business Hours.—The inspector's map or plan of any particular colliery shall be open for inspection, in the presence of the inspector, to any miner or miners of that colliery, whenever said miner or miners shall have cause to fear that his or their working place or places are becoming dangerous, by reason of its proximity to other workings which may be supposed to contain water or dangerous gases. Said map shall also be open to the inspection and examination of any citizen interested, during business hours.

Section 312. Barrier Pillar Between Adjoining Properties.—It shall be obligatory on the owners of adjoining coal properties to leave, or cause to be left, a pillar of coal in each seam or vein of coal worked by them, along the line of adjoining property, of such width, that taken in connection with the pillar to be left by the adjoining property owner, will be a sufficient barrier for the safety of the employes of either mine in case the other should be abandoned and allowed to fill with water; such width of pillar to be determined by the engineers of the adjoining property owners together with the inspector of the district in which the mine is situated, and the surveys of the face of the workings along such pillar shall be made in duplicate and must practically agree. A copy of such duplicate surveys, certified to, must be filed with the owners of the adjoining properties and with the inspector of the district in which the mine or property is situated.

ARTICLE IV

MACHINERY, STRUCTURES, BUILDINGS

A. Outside

Section 401. Machinery to Be Guarded.—All machinery used in or about the mines and collieries, washeries and preparation plants and especially in breakers, such as engines, rolls, wheels, screens, shafting and belting shall be protected by covering or railing so as to prevent persons from inadvertently walking against or falling upon the same.

The sides of stairs, trestles and dangerous plank walks in and around the collieries shall be provided with hand and guard railing to prevent persons from falling over their sides. This section shall not forbid the temporary removal of a fence, guard rail or covering for the purpose of repairs or other operations, if proper precautions are used, and the fence, guardrail or covering is replaced immediately thereafter.

Section 402. Competent Person Not Under Eighteen Years of Age to Run Breaker Engine.—A sober and competent person, not under eighteen years of age, shall be engaged to run the breaker engine and he shall attend to said engine while the machinery is in motion.

Section 403. No Person Under Eighteen Years of Age to Oil Machinery; Machinery Not Oiled While in Motion.—No person under eighteen years of age, shall be appointed to oil the machinery, and no person shall oil dangerous parts of such machinery while it is in motion.

Section 404. Persons Not to Interfere With Machinery.—No person shall play with, loiter around or interfere with any machinery in or about any mine or colliery.

Section 405. Signals to Be Established in Breaker.—A signal apparatus shall be established at important points in every breaker so that in case of an accident the engineer can be promptly notified to stop the machinery.

Section 406. Dust to Be Controlled in Preparation Plants, Washeries, etc.—In all preparation plants, washeries, tipples and coal breakers where the coal dust is so dense as to be injurious to the health of persons employed therein, the operator or superintendent shall, upon the request of the inspector, immediately adopt measures for the removal of the dust as far as practicable.

Section 407. Preparation Plants to Be Heated.—It shall be the duty of the operator or superintendent of any or all preparation plants, washeries and coal breakers, to have them properly heated in order to prevent injury to the health of persons employed therein.

Section 408. Boilers Generating Steam Not Less Than One Hundred Feet to Preparation Plant; Does Not Apply to Boilers Less Than Fifteen Pounds.—It shall not be lawful to place any boiler or boilers, for the purpose of generating steam, under or nearer than one hundred feet to any preparation plant or other structure in which persons are employed in the preparation of coal: **Provided**, That this section shall not apply to boilers or breakers already erected: And provided further, That nothing in this act contained shall be construed to apply to boilers carrying a pressure of not more than fifteen pounds per square inch, which are used for heating purposes and which are equipped with safety

devices approved by the Department of Mines and Mineral Industries.

Section 409. Fireman in Charge of Boilers to Keep Constant Watch.—Every fireman in charge of a boiler or boilers for the generation of steam, shall keep a constant watch of the same. He shall see that the steam pressure does not at any time exceed the limit allowed by the outside foreman or superintendent. He shall frequently try the safety valve, and shall not increase the weight on the same. He shall maintain a proper depth of water in each boiler, and if anything should happen to prevent this, he shall report the same without delay to the foreman, for the time being in charge, and take such other action as may under the particular circumstances be necessary for the protection of life and preservation of property.

Section 410. Explosive Magazines Provided on Surface.—Surface magazines for the storage of explosives shall be provided by the operator or superintendent of every mine and colliery, and shall be constructed as specified in section 605 of this act.

Section 411. Naphtha in Lamp Houses Stored in Containers Not to Exceed Five Gallons.—Naphtha or other flammable liquids in lamp houses shall be kept in a suitable approved container or dispenser not to exceed five gallon capacity.

Section 412. Operator or Superintendent to Provide Wash Houses Where Ten or More Men are Employed.—It shall be the duty of the operator or superintendent of each mine or colliery, where ten or more men are employed, to provide a suitable building, not an engine or boiler house, which shall be convenient to the principal entrance of such mine or colliery, for the use of the persons employed therein for the purpose of washing themselves and changing their clothes when entering and leaving their place of employment. The said building shall be maintained in good order, to be properly lighted and heated, supplied with pure cold and warm water, toilet facilities, and shall be provided with facilities for persons to wash. If any person or persons shall neglect or fail to comply with the provisions of this article, or maliciously injure or destroy, or cause to be injured or destroyed, the said building, or any part thereof, or any of the appliances or fittings used for supplying light, heat and water therein, or doing any act tending to the injury or destruction thereof, he or they shall be deemed guilty of an offense against this act.

B. Inside

Section 413. Buildings Constructed of Incombustible Material.—All buildings inside of any anthracite coal mine in Pennsylvania, including

engine houses, pump houses, et cetera, shall be constructed of incombustible material. It shall be unlawful to provide a stable inside of any anthracite coal mine.

Section 414. Penalty for Failure to Comply with Section 413.—Any company failing to comply with section 413 of this act shall be subject to a penalty of five hundred dollars (\$500) to be recoverable by the Commonwealth as debts of like amount are now by law recoverable. Any superintendent of a coal mine failing to comply with section 413 of this act shall be deemed guilty of a misdemeanor and, upon conviction, shall be sentenced to pay a fine of one hundred dollars (\$100), or undergo imprisonment in the county jail for a period of ten days, or both, at the discretion of the court.

Section 415. Fines, Violation of this Act.—The fines collected for violation of this act shall be paid to the Department of Mines and Mineral Industries, and the Department of Mines and Mineral Industries shall pay the same into the State Treasury of the Commonwealth.

ARTICLE V

VENTILATION

Section 501. Operator or Superintendent to Provide and Maintain Constant and Adequate Supply of Pure Air for Each Mine.—The operator or superintendent of every mine shall provide and maintain a constant and adequate supply of pure air for the same, as hereinafter provided.

Section 502. Main Fans Installed on Surface; Auxiliary Fans Underground to Be Fire-Resistant.—(a) All main fans shall be installed on the surface, in fire-resistant surroundings, and equipped with fire-resistant air ducts. Auxiliary fans installed underground shall be on positive intake air, in fire-resistant surroundings and in such location as to prevent recirculating the ventilating current.

(b) Approved facilities shall be provided at main fans at a point or points under observation while men are in the mine, which shall give warning of an interruption to a fan. Where such facilities are not provided an attendant shall be constantly kept on duty while men are in the mine.

(c) 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 that purpose.

Section 503. Furnace Not to Be Used to Ventilate Mine.—It shall not be lawful to use a furnace for the purpose of ventilating any mine.

Section 504. Minimum Quantity Provided—Two Hundred Cubic

Feet Per Minute for Each Person.—The minimum quantity of air thus produced, shall not be less than two hundred cubic feet per minute for each and every person employed in any mine, and as much more as the circumstances may require.

Section 505. Mine Foreman in Charge of Ventilation; Speed of Ventilators.—The mine foreman shall have charge of all matters pertaining to ventilation, and the speed of the ventilators shall be particularly under his charge and direction; and any superintendent who shall cause the mine foreman to disregard the provisions of this act shall be ¹amenable in the same manner as the mine foreman.

Section 506. Ventilators to Be Provided with Ventilating Pressure Recording Instruments.—All ventilators used at mines shall be provided with recording instruments by which the ventilating pressure shall be registered for each hour, and such data shall be preserved at the colliery for future reference, for a period of three months.

Section 507. Ventilating Currents Sufficient to Render Harmless All Gases.—The ventilating currents shall be conducted and circulated to and along the face of each and every working place throughout the entire mine, in sufficient quantities to dilute, render harmless and sweep away smoke and noxious or dangerous gases, to such an extent that all working places and traveling roads shall be in a safe and fit state to work and travel therein.

Section 508. Worked Out or Abandoned Parts of Mine to Be Kept Free of Bodies of Gases.—All worked out or abandoned parts of a mine in operation, so far as practicable, shall be kept free of dangerous bodies of gases or water, and if found impracticable to keep the entire mine free from an accumulation of gases or water, the mine inspector must be immediately notified, and later confirmed in writing.

Section 509. Not More Than Seventy-five Persons Employed on One Split.—Every mine employing more than seventy-five persons shall be divided into two or more districts. Each district shall be provided with a separate split of pure air and the ventilation shall be so arranged that not more than seventy-five persons shall be employed at the same time in any one current or split of air.

Section 510. Inlet and Return Air Passages Separated by Pillar of Stone or Coal.—The inlet and return air passages for any particular district must be separated by a pillar of coal or stone, if the thickness and dip of the vein will permit, except where it is necessary to cut through said dividing pillar for the purposes of ventilation, traffic or drainage.

¹“amendable” in original.

Section 511. Air Passages Sufficient in Area to Allow Passage of Not Less than Two Hundred Cubic Feet of Air Per Minute Per Person.—All air passages shall be of sufficient area to allow the free passage of not less than two hundred cubic feet of air per minute for every person working therein.

Section 512. Crosscuts Closed with Brick or Other Suitable Building Material.—All crosscuts connecting the main inlet and return air passages of every district, when it becomes necessary to close them permanently, shall be substantially closed with brick or other suitable building material, laid in mortar or cement: Provided, however, That where physical conditions prohibit the use of such materials, timbers laid longitudinally "skin to skin" may be used. All stoppings shall be reasonably air tight.

Section 513. Doors Hung So as to Be Self-Closing.—All doors used in assisting or in any way affecting the ventilation shall be so hung and adjusted in such manner as to be self-closing.

Section 514. Main Doors to Have Attendant.—All main doors shall have an attendant whose constant duty shall be to open them for transportation and travel and prevent them from standing open longer than is necessary for persons or cars to pass through, unless a self-acting door is used which is approved by the inspector of the district.

Section 515. Main Doors Placed to Prevent Temporary Stoppage of Air Current.—All main doors shall be so placed that when one door is open, another, which has the same effect upon the same current, shall be and remain closed and thus prevent any temporary stoppage of the air current.

Section 516. Extra Main Door Kept Standing Open.—An extra main door shall be so placed and kept standing open, as to be out of reach of accident, and so fixed that it can be at once closed in the event of an accident to the doors in use.

Section 517. Frame Work in Main Doors to Be Secured in Stone; Brick to Be Laid in Cement.—The frame work of such main doors shall be substantially secured in stone or brick, laid in mortar or cement.

Section 518. Air Bridges to Be of Incombustible Material.—All permanent air bridges, overcasts and undercasts shall be substantially built of incombustible material.

Section 519. Line Brattice Used from Crosscut to Face.—Substantially constructed line brattice shall be used from the last open heading of a breast, chamber, or other working place, to provide adequate ventilation for the workmen and to remove gases and explosive fumes. When damaged by falls or otherwise, they shall be repaired promptly.

Section 520. Chamber, Breast Shall Have Crosscut at Face When Finished.—Where practical, each breast, chamber, or other working place, when finished, shall have a crosscut connected at the face to an adjoining place.

Section 521. Quantities of Air Measured Weekly with Anemometer by Mine Foreman Recorded in Report Book; Report of Measurement Sent to Inspectors before Twelfth of the Month for Preceding Month.—The quantities of air in circulation shall be ascertained with an anemometer or other efficient instrument; such measurements shall be made by the inside foreman or his assistant once every week at the intake and return airways, also at or near the face of each gangway and at the nearest crosscut to the face of the inside and outside chamber or breast where men are employed. The quantities of air in circulation shall be entered in the colliery report book. A report of these air measurements shall be sent to the inspector before the twelfth day of each month, for the preceding month, together with a statement of the number of persons employed in each district.

Section 522. Face of Chamber, Breast Not to Be Advanced More than Sixty Feet Beyond Last Open Crosscut.—The face of a chamber, room or breast shall not be advanced more than sixty feet beyond the last open crossheading or crosscut.

Section 523. Persons Failing to Comply with Provisions ¹ Guilty of Offense.—Any person or persons who shall neglect or fail to comply with the provisions of this article, or who shall make any false report in regard to air measurements, shall be guilty of an offense against this act.

Section 524. Sewage Dumping into Active Abandoned Mine Prohibited.—If any person shall construct or cause to be constructed for use after the effective date of this act, any sewer or other method of drainage from any building or dwelling house for the carrying of sewage, offal, refuse, or other offensive matter, into any portion of any operating or abandoned mine, such person shall be guilty of a misdemeanor and, upon conviction thereof, shall be sentenced to pay a fine not exceeding one thousand dollars (\$1,000) and undergo an imprisonment not exceeding one year, either or both, at the discretion of the court.

ARTICLE VI

EXPLOSIVES AND BLASTING

A. Definitions

Section 601. Definition of Explosives.—The term “explosives,” when-

¹ “of” in original.

ever used in this act, shall mean and include any chemical compound or other substance, intended for the purpose of producing an explosion, or ¹ containing oxidizing and combustible units or other ingredients in such proportions or quantities that ignition by fire, by friction, by concussion, by percussion or by detonator, may produce an explosive capable of causing injury to persons, or damage to property.

Section 602. **Manufactured Articles Not to Be Held as Explosives.**—For the purpose of this act, manufactured articles shall not be held to be explosives when individual units contain ingredients in such limited quantities and of such nature ² not ordinarily to be classified as an explosive, such as fixed ammunition for small arms, firecrackers, safety fuses, matches, and other articles which may be defined from time to time by regulations of the department.

Section 603. **Definition of Magazine.**—The term “magazine” as used herein, means any building or other structure used exclusively for the storage of explosives.

B. Surface Magazine

Section 604. **Separate Surface Magazines for Explosives and Detonators.**—Separate surface magazines shall be provided for the storage of explosives and detonators.

Section 605. **Surface Explosive Magazine Requirements.**—Surface magazines for storing and distributing explosives in amounts exceeding one hundred twenty-five 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 non-sparking 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.

¹ “that” in original.

² “as” in original.

Section 606. Locations of Surface Magazines.—The locations of explosives magazines shall not be less than two hundred feet from any mine opening, occupied building, or public road. Where such location is not practicable, they shall be barricaded effectively.

Section 607. Surface Detonator Magazines.—Surface magazines for storing detonators need not be bulletproof, but they shall be in accordance with other provisions for storing explosives.

Section 608. Area Surrounding Surface Magazines to Be Free of Combustible Material.—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.

Section 609. Type of Electric Lamps for Surface Magazines.—If magazines are illuminated electrically, the lamps shall be a vaporproof type properly installed and wired.

Section 610. Extraneous Materials Not to Be Stored in Surface Magazines.—Extraneous materials shall not be stored in an ¹ explosive or detonator magazine.

Section 611. Open Flame Smoking and Smokers' Articles Prohibited.—Smoking, carrying smokers' articles, or open flame shall be prohibited in or near any magazine.

Section 612. Requirements as to Explosives One Hundred Twenty-five Pounds or Less; Underground Transportation.—Explosives in amounts of one hundred twenty-five pounds or less or five thousand detonators or less shall be stored in accordance with preceding standards or separate locked box type magazines may be used as distributing magazines when quantities do not exceed those mentioned. Wooden box type magazines shall be constructed strongly of two inch hardwood or the equivalent. No magazine shall be placed in a building containing oil, grease, gasoline, wastepaper, or other highly flammable material, nor shall a magazine be placed less than twenty feet from a stove, furnace, open fire, or flame.

C. Underground Transportation

Section 613. Explosives or Detonators to Be Carried in Special Containers.—Explosives or detonators carried from the surface to the miners' powder box by any person shall be in special individual containers or in the original unopened container. Such containers shall be constructed substantially of nonconductive material, maintained in good condition, and kept closed.

Section 614. Transportation of Explosives and Detonators Underground.—When explosives or detonators are transported underground

¹ "Explosives" in original.

in cars moved by means of a locomotive or rope, they shall be in substantial covered cars or in special substantial covered containers used specifically for transporting detonators or explosives.

(1) The bodies and covers of such cars and containers shall be constructed or lined with nonconductive material.

(2) Explosives and detonators shall not be hauled in the same explosives car or in the same special container.

(3) Explosives or detonators shall not be transported on the same cage or trip with men.

(4) Man trips shall not precede or follow a trip containing explosives or detonators until sufficient time has elapsed to assure the safety of the men in the man trip. If traveling against the air current, the man trip shall precede the explosives trip; if traveling with the air current the man trip shall follow the explosives trip.

Section 615. Transportation of Explosives and Detonators Underground by Belt.—Explosives and detonators shall be transported underground by belt only under the following conditions:

(1) In the original and unopened case, in special closed cases constructed of nonconductive material, or in suitable individual containers.

(2) Clearance requirements shall be the same as those for transporting men on belts.

(3) Suitable loading and unloading stations shall be provided.

(4) Stop controls shall be provided at loading and unloading points, and an attendant shall supervise the loading and unloading of explosives and detonators.

Section 616. Transportation of Explosives, Detonators, Conveyors, etc., Forbidden.—Neither explosives nor detonators shall be transported on flight or shaking conveyors, scrapers, mechanical loading machines, locomotives, cutting machines, drill trucks, or any self-propelled mobile equipment: Provided, however, That this does not prohibit the transportation of explosives or detonators in equipment designed especially to transport such explosives or detonators.

D. The Safekeeping of Small Quantities of Explosives Underground

Section 617. Quantity of Explosives Stored in a Mine.—Explosives shall not be stored in any mine, and a workman shall not have at any one time in any one place, more than one box containing twenty-five pounds, unless more is necessary for a person to accomplish one day's work.

Section 618. Method of Storing Explosives in a Mine.—Every person who has explosives and detonators in a mine, shall keep same in separate wooden boxes securely locked, and such boxes shall be kept at least ten

feet from the tracks in all cases where room at such a distance is available, and out of the direct line of blasting. If not kept in separate boxes, they may be kept in the same box if separated by at least a four inch hardwood partition or the equivalent.

Section 619. Explosives and Detonators to Be Kept in Containers.—Explosives and detonators shall be kept in their containers until immediately before use at the working faces.

Section 620. Tools, Materials Not to Be Stored with Explosives.—Tools or other materials shall not be stored with explosives or detonators.

Section 621. Black Blasting Powder Not to Be Used Underground.—Black blasting powder shall not be used underground in a mine.

E. Blasting Practices

Section 622. Blasts Fired in Mine Using Safety Lamps Only by Permission of Mine Foreman.—No blast shall be fired in any mine where locked safety lamps are used except by permission of the mine foreman or his assistants.

Section 623. Tight Cartridge Not to Be Rammed into Hole.—In charging holes for blasting in coal, slate or rock in any mine, a tight cartridge shall not be rammed into the hole by any means. Only non-metallic tamping bars shall be used for charging and tamping blast holes.

Section 624. Tamping Tools of Nonmetallic Material.—All charging and tamping tools shall be constructed of nonmetallic materials.

Section 625. Examination Made Before and After Firing Blast in Gassy Mine.—In gassy mines, examinations for gas shall be made immediately before firing each blast or group of multiple blasts. Before work is commenced an examination of the face shall be made.

Section 626. Blast Not to Be Fired Where Methane is Detected by Flame Safety Lamp.—A blast shall not be fired in any place where methane can be detected with a flame safety lamp.

Section 627. Explosive Which Has Misfired Not to Be Withdrawn or Hole Reopened.—A charge of explosive in coal, slate or rock which has misfired shall not be withdrawn or the hole reopened.

Section 628. Thirty Minute Waiting Period Before Returning to Misfired Hole.—Where misfires occur with electric detonators, a waiting period of at least thirty minutes shall elapse before anyone returns to the misfired hole or holes. Before returning to the misfire, the blasting wires shall be disconnected from the blasting battery and the ends of the blasting wires short-circuited.

Section 629. Explosives Misfired—Hole to Be Removed by Drilling Hole Two Feet Distant.—Explosives in misfired blast holes shall be removed by drilling a separate blast hole at least two feet distant from

and parallel to the hole containing the misfired charge and then charging and detonating the explosives in this new hole.

Section 630. Search for Explosives After Detonating Misfired Hole.—A very careful search of the working place, the loose material, and if necessary, of the coal after it reaches the tipple, shall be made after blasting a misfired hole, to recover any undetonated explosive.

Section 631. Handling of Misfired Blast Under Supervision of Mine Foreman.—The handling of a misfired blast shall be under the direct supervision of the mine foreman or his assistant.

Section 632. Leg Wires of Electric Detonators to Be Kept Shunted.—The leg wires of electric detonators shall be kept shunted until ready to connect to the firing cable.

Section 633. Power or Signal Circuit Not to Be Used to Fire Blast.—Blasts shall not be fired from any power or signal circuit.

Section 634. Mixed Type of Explosives Not to Be Used in Same Blast Hole.—Mixed types of explosives shall not be used in any blast hole, nor shall detonators made by different manufacturers be combined in the same blasting circuit.

Section 635. Miner to Give Sufficient Alarm Before Firing Blast.—When a miner is about to fire a blast he shall notify the persons in the adjoining places and have received a reply therefrom, and shall give sufficient alarm so that any person or persons approaching shall be warned of the danger before firing the blast.

Section 636. Mudcaps or Other Unconfined Shots Shall Not be Fired Underground.—Mudcaps (adobes) or other unconfined shots shall not be fired underground in a mine. However, in anthracite mines mudcaps or other open, unconfined shots may be fired, if restricted to battery starting when no gas or fire hazard is present, and if it is otherwise impracticable to start the battery; likewise, in anthracite mines, open unconfined "shake" shots in working places, and other places in pitching veins may be fired, when no gas or fire hazard is present, if the taking down of loose, hanging coal by other means is too hazardous for men working in such places. Only permissible explosives shall be used for such open, unconfined shots in anthracite mines.

Section 637. Gas Ignited by Blast to Be Extinguished and Mine Foreman Notified.—When gas is ignited by a blast or otherwise, the person igniting the same shall immediately extinguish it, if possible, and notify the mine foreman or his assistant of the fact, and workmen must see that no gas blowers are left burning upon leaving their working places.

¹ "of" in original.

F. The Firing Lines

Section 638. Firing Lines.—Each working place shall have a separate firing line, of not less than No. 20 wire, with waterproof insulation and of sufficient length to allow the person firing the blast to be in a safe place.

ARTICLE VII

SHAFTS, SLOPES, OPENINGS AND OUTLETS

Section 701. Two Openings in Every Mine and in Each Lift of Mine in Each Seam.—It shall not be lawful for the operator or superintendent of any mine to employ any person or persons in such mine or permit any person or persons to be in such mine for the purpose of working therein, unless there are in connection with every seam or stratum of coal, and from every lift thereof, worked in such mine, not less than two openings or outlets, separated by a stratum of not less than sixty feet in breadth underground, and one hundred fifty feet in breadth at the surface, at which openings or outlets safe and distinct means of ingress and egress are at all times available for the person or persons employed in the said mine. All means of ingress and egress shall be marked in a uniform manner, as prescribed by the Department of Mines and Mineral Industries, and each miner, as part of his certification requirements, shall have a thorough knowledge of the manner in which means of ingress and egress are marked. It shall be the duty of the mine foreman or assistant mine foreman to notify all of the persons working within the mine of the two nearest openings.

Section 702. Not Applicable to New Mine or Opening New Lift of a Mine.—(a) When a new mine is to be opened or when a mine that has been idle or abandoned is to be reopened, no work will be permitted until a plan showing the two openings or outlets is submitted to and approved by the district mine inspector and the Secretary of Mines and Mineral Industries. The plan shall also show the method of mining, ventilation, drainage and any other information deemed necessary by the district mine inspector. Approval or disapproval of the plan is to be submitted by the Secretary of Mines and Mineral Industries to the operator in writing. Upon approval of the plan no other work shall be permitted in the mine until both openings have been completed and approved by the district mine inspector and notification of the completion of the two openings and approval by the inspector forwarded to the Secretary of Mines and Mineral Industries in writing.

(b) In any mine or section of a mine in which the second outlet has been rendered inaccessible by reason of the final robbing of pillars, no

further mining shall be done until a plan for the final mining of remaining pillars has been approved by a commission of state mine inspectors appointed by the Secretary of Mines and Mineral Industries as provided for in this act.

Section 703. Operator to Petition Court for Second Opening on Adjoining Lands.—The operator or superintendent of any contemplated mine which he may plan to open or reopen and on whose property there are only facilities for one shaft, slope or outlet may petition the court of common pleas in and for the county in which such mine is situated, which said court is hereby empowered to act in the premises, setting forth that, in consequence of intervening lands between the working of his mine and the most practicable point, or the only practicable point, as the case may be, at which to make or bring to the surface from the working of his mine, he is unable to make an additional shaft, slope or outlet in accordance with the requirements of this act, whereupon the court may make an order of reference and appoint three disinterested persons, residents of the county, viewers, one or more of whom shall be a practical mining engineer, all of whom, after being sworn to a faithful discharge of their duties, shall view and examine the premises and determine as to whether the owner should have the privilege of making an additional outlet through or upon any intervening lands, as the case may require, and report in writing to the court, which report shall be entered and filed of record. If the finding of the viewers, or any two of them, is in favor of the operator of such coal mine or colliery, he may make an additional shaft, slope or outlet under, through or upon intervening lands, as may be determined upon and provided for by the award. If the finding of the viewers is against the operator, or if no award be made by reason of any default or neglect on the part of the operator, he shall be bound to comply with the provisions of this act in the same manner as if this section had not been enacted. In case the operator or superintendent desires to, and claims that he ought to make an additional opening under, through or upon any adjoining or intervening lands, to meet the requirements of this act, for the ingress and egress of the men employed in his or their mine, he or they shall make a statement of the facts in the petition, with a survey, setting forth the point of commencement and the point of ¹ termination of the proposed outlet which he or they, their engineers, agents or employes may enter upon said intervening lands and survey and mark, as he or they shall find it proper to adopt for such additional outlet, doing so little damage as possible to the property explored; and the viewers

¹ "terminaion" in original.

shall state in their report what damage will be sustained by the operator or operators of the intervening lands by the opening, constructing and using of the outlet, and if the report is not appealed from, it shall be confirmed or rejected by said court as to right and justice shall appertain, and any further and all proceedings in relation thereto shall be in conformity with like proceedings as the case of a lateral railroad across or under intervening lands, under the act in relation to lateral railroads, approved May 5, 1832 (P. L. 501), and the supplements thereto, so far as the provisions of the same are applicable hereto; and the notices to the owners of intervening lands, of the intention to apply for the privilege of making an outlet, and meeting of the viewers shall be given, and the costs of the case shall be paid as provided in the said act of May 5, 1832 (P. L. 501), and the supplements thereto.

Section 704. Shafts or Slopes to Be Fitted with Available Appliances for Escape.—The escapements, shafts or slopes shall be fitted with safe and available appliances by which the persons employed in the mine may readily escape in case an accident occurs deranging the hoisting machinery at the main outlets.

Section 705. Slopes with Angle Inclination of Fifteen Degrees or Less—Separate Traveling Way Must Be Provided.—In slopes where the angle of inclination is fifteen degrees or less there must be provided a separate traveling way, which shall be maintained in a safe condition for travel and kept free from dangerous gases.

Section 706. Inflammable Structures Shall Be Two Hundred Feet from Mine Opening.—No inflammable structure, other than a frame to sustain pulleys or sheaves, shall be erected over the entrance of any opening connecting the surface with the underground workings of any mine, and no preparation plant, tipple, breaker or other inflammable structure for the preparation or storage of coal shall be erected nearer than two hundred feet to any such opening, but this act shall not be construed to prohibit the erection of a trestle for the transportation of cars from any slope to such breaker or structure; neither shall it apply to any shaft or slope until the work of development and shipment of coal has commenced: Provided, That this section shall not apply to breakers that are now erected.

Section 707. At Top of Each Shaft and Slope, Intermediate Lifts to Be Securely Fenced Off.—The top of each shaft and also of each slope, if dangerous, or any intermediate lift thereof, shall be securely fenced off by railing or vertical or flat gates.

Section 708. Inactive Openings to Be Properly Fenced Off at En-

trance.—Every inactive slope, shaft, air hole and drift not in course ¹ of working or extension shall be properly fenced around or across its entrance.

Section 709. Underground Entrances to Inactive Places to Be Properly Fenced Off.—All underground entrances to any places not in actual course of working or extension shall be properly fenced across the whole width of such entrances, so as to prevent persons from inadvertently entering the same.

Section 710. Operator or Superintendent to Provide Telephones.—The operator or superintendent of any coal mine or colliery which is worked by shaft, slope or plane, shall provide and maintain a telephone, or suitable appliance by or through which conversation can be held by and between persons at each shaft landing and slope or plane lift and at the top of the shaft, slope or plane, and also an efficient means of signaling from each shaft landing, slope or plane lift to the engineer in charge of the hoisting engine. The operator or superintendent of every coal mine or colliery shall provide and maintain a telephone by or through which conversation can be had between persons on the outside of the mines and each working section that is fifteen hundred feet or more from the outside.

Section 711. Handrails and Safety Catches to Be Attached to Cover Overhead; Every Cage Surface Landing and Other Landings of Shafts to Be Provided with Gates Controlled by Shaft Cage; Headman and Footman, Provided with Safety Headgear.—Handrails and efficient safety catches shall be attached to, and a sufficient cover overhead shall be provided on, every cage used for lowering or hoisting persons in any shaft. The operator or superintendent of all mines shall see that the surface landing, and all other landings, of shafts are, so far as practicable, provided with gates, controlled in such a fashion that they cannot be opened except when the shaft carriage is at that particular landing. Such gates, before being used, shall be first approved by the mine inspector. It shall be unlawful for any man, employed as a footman or headman at a shaft hoisting coal or other material, to work at this occupation, unless he has provided himself with a safety headgear or helmet of a design approved by the Department of Mines and Mineral Industries, which headgear or helmet must be worn by him at all times while on duty.

Section 712. Safety Holes Provided at Bottom of All Slopes and Planes.—Safety holes shall be made at the bottom of all slopes and

¹ "or" in original.

planes and kept free from obstruction to enable the footman to escape readily in case of danger.

Section 713. Safety Blocks Placed at Head of Every Shaft, Slope or Plane.—Safety blocks or some other device for the purpose of preventing cars from falling into a shaft or running away on a slope or plane, shall be placed at or near the head of every shaft, slope or plane, and said blocks or other device must be maintained in good working order.

Section 714. Cage or Gun-Boat on Slopes to Be Provided with Protector.—Whenever practicable, every cage or gun-boat used for lowering or hoisting persons in any slope, shall be provided with a proper protector, so constructed that persons, while on such cage or gun-boat, shall not be struck by anything which may fall or roll down said slope.

Section 715. Main Link Chain Connecting Rope to Cage to Be of Best Quality of Iron; Bridle Chains to Be of Same Quality of Iron and Attached to Main Link Rope or Rope Socket when Persons Are Being Lowered.—The main link of the chain connecting the rope to the cage, gun-boat or car in any shaft or slope, shall be made of the best quality of iron. Bridle chains made of the same quality of iron shall be attached to the main link, rope or rope socket from the cross-head of the cage, gun-boat or car when persons are being lowered or hoisted thereon.

Section 716. Ropes, Safety Catches, Links and Chains to Be Examined Every Day and a Report of the Examination Recorded in Book; Test of Safety Catches to Be Made Every Two Months and a Record Made of Results of Tests to Mine Inspector.—The ropes, safety catches, links and chains shall be carefully examined every day they are used, by a competent person delegated for that purpose, and any defects therein found, by which life or limb may be endangered shall be immediately remedied. A report of said examination shall be recorded in a book kept at the colliery for that purpose, signed by the person making the same and countersigned by the mine foreman within a period of one week. A test of the safety catches shall be made every two months, a record kept thereof and a copy of the results of the test sent to the mine inspector.

Section 717. Brake Attached to Every Drum Used for Lowering or Raising Persons or Material in Any Mine.—An efficient brake shall be attached to every drum that is used for lowering or raising persons or material in any mine.

Section 718. Flanges or Horns to Prevent Rope Slipping Off Drum

to Be Provided and Attached to Drum; Machines Used for Lowering or Hoisting Persons in Mines to Be Provided with Indicator.—Flanges or horns of sufficient dimensions to prevent the rope from slipping off the said drum shall be provided and properly attached to the drum, and all machines used for lowering or hoisting persons in mines shall be provided with an indicator to show the position of the cage, car or gun-boat in the shaft or slope.

Section 719. Not More than Ten Persons Hoisted or Lowered at One Time in Any Shaft or Slope; Whenever Five or More Persons Arrive at Bottom of Shaft or Slope They Shall be Hoisted.—Not more than ten persons shall be hoisted or lowered at any one time in any shaft or slope, and whenever five persons shall arrive at the bottom of any shaft or slope in which persons are regularly hoisted or lowered they shall be furnished with an empty car or cage and be hoisted, except, however, in mines where there is provided a traveling way having an average pitch of fifteen degrees or less and not more than one thousand feet in length. This, however, shall not prohibit the hoisting or lowering of twenty persons at one time on slopes where two or more loaded cars are regularly hoisted: Provided, That not less than thirty workmen therein make such a request in writing, to the inspector of the district, and if, in his judgment, the hoisting appliances in every respect are of sufficient strength, he may comply with the request of the workmen: Provided, That in any coal mine or colliery where the hoisting appliances are not of sufficient strength to hoist or lower the number of persons named, the inspector shall have the power to reduce the number of persons to be hoisted or lowered.

Section 720. Persons Ascending or Descending Shaft or Slope; Headman or Footman Shall Notify Engineer.—When any person is about to descend or ascend a shaft or slope, the headman or footman, as the case may be, shall inform the engineer by signal or otherwise of the fact, and the engineer shall return a signal before moving or starting the engine. In the absence of a headman or footman the person or persons about to descend or ascend shall give and receive the signals in the same manner. At all shaft and slope landings where persons, coal and other material are hoisted or lowered by machinery a system of signaling or code of signals, approved by the mine inspector of the district, shall be posted.

Section 721. Shaft or Slope Where Persons Are Hoisted or Lowered—Headman or Footman Shall Be Designated by Superintendent at Proper Places.—At every shaft or slope in which provision is made in this act for lowering and hoisting persons, a headman and a foot-

man shall be designated by the superintendent or foreman to be at their proper places from the time that persons begin to descend until all the persons who may be at the bottom and at the intermediate landings of said shaft or slope when quitting work shall be hoisted. Such headman and footman shall personally attend to the signals and see that the provisions of this act, in respect to lowering and hoisting persons in shafts or slopes, shall be complied with: Provided, That in slopes where persons are hoisted and lowered and where the tops of such slopes are in clear view or the engineer in charge of the hoisting machinery and where signaling stations or bell buttons are installed along the slope in such manner that the engineer may be promptly signaled to stop the trip in case of need, the footman may accompany the persons ascending or descending the slope and personally perform such duties as are imposed by this act upon the headman and footman. The signaling stations or bell buttons shall be installed at convenient points along the slope, as prescribed by the mine inspector, but in no case shall such signaling stations be separated by more than one hundred feet excepting in such cases where it would be unsafe to use the signaling system because of the pitch of the slope: Provided further, That a headman and footman need not be employed in such cases where a shaft is fitted with an elevator operated by a person employed for that purpose and constructed in such a manner that the top and bottom of the shaft is fitted with doors or gates controlled by the elevators and where the elevator contains all such safety features as are now or may hereafter be commonly used in the operation and installation of elevators.

Section 722. No Person Except Man Giving Signal Shall Jump on Car, Cage or Gun-Boat After Signal Start is Given.—No person, except the man giving the signal, shall jump on a car, cage or gun-boat after the signal to start has been given, and if any person shall enter a car, cage or gun-boat in excess of the lawful number the headman or footman shall notify him of the fact and request him to get off, which request must be immediately complied with. Any violation of this rule must be reported promptly to the mine foreman.

Section 723. Empty Trip to Be Hoisted in Shaft or Slope Where Engine Standing Idle One Hour or More Before Men Hoisted or Lowered in Shaft or Slope.—An empty trip shall be hoisted in any shaft or slope where the engine has been standing idle for one hour or more, before men are hoisted or lowered in said shafts or slopes, and no person or persons shall ascend or descend any shaft or slope when working on the night turn until one trip shall first be hoisted therein.

Section 724. No Person Shall Travel on Gravity Plane While Cars Are Being Hoisted or Lowered.—No person shall travel on any gravity plane while cars are being hoisted or lowered thereon. Whenever ten persons arrive at the bottom or top of any plane on which it is necessary for men to travel, traffic thereon shall be suspended until they reach the top or bottom of said plane.

Section 725. Structure to Be Erected Over Shafts Which are Being Sunk.—Over all shafts which are being sunk or shall hereafter be sunk, a safe and substantial structure shall be erected to sustain the sheaves or pulleys, at a height of not less than twenty feet above the tipping place, and the top of such shaft shall be arranged in such manner that no material can fall into the shaft while the bucket is being emptied.

Section 726. Structure Erected After Shaft is Sunk to Depth of Fifty Feet.—The said structures shall be erected as soon as a substantial foundation is obtained, and in no case shall a shaft be sunk to a depth of more than fifty feet without such structure.

Section 727. Landing Truck Constructed to Prevent Material Falling in Shaft.—If provision is made to land the bucket upon a truck, the said truck shall be constructed in such manner that material cannot fall into the shaft.

Section 728. Rock and Coal from Shafts Being Sunk to Be Raised in Bucket on Cage.—All rock and coal from shafts as they are being sunk, shall not be raised except in a bucket or on a cage, and such bucket or cage must be connected to the rope or chain by a safety hook, clevis, or other safe attachment.

Section 729. Shafts Being Sunk to Be Provided with Guides to Within Seventy-Five Feet from Bottom.—Such shafts shall be provided with guides and guide attachments applied in such manner as to prevent the bucket from swinging while descending or ascending therein, and such guides and guide attachments shall be maintained at a distance of not more than seventy-five feet from the bottom of such shaft, until its sinking shall have been completed, but this section shall not apply to shafts one hundred feet or less in depth.

Section 730. Strata Secured by Casing, Lining or Otherwise.—Where the strata are not safe every shaft shall be securely cased, lined or otherwise made secure.

Section 731. Rules to Apply ¹ in Sinking of Shafts.—The following rules shall be observed, as far as practicable, in every shaft to which this act applies:

(1) After each and every blast the chargeman must see that all

¹ "to" in original.

loose material is swept down from the timbers before the workmen descend to their work.

(2) After a suspension of work, and also after firing a blast in a shaft where explosive gases are evolved, the person in charge must have the said shaft examined and tested with a safety lamp before the workmen are allowed to descend.

(3) Not more than four persons ¹ shall be lowered or hoisted in any shaft on a bucket at the same time, and no person shall ride on a loaded bucket.

(4) Whenever persons are employed on platforms in shafts the person in charge must see that the said platforms are properly and safely constructed.

(5) While shafts are being sunk all ² blasts therein must be exploded by an electric battery.

(6) Every person who fails to comply with or who violates the provisions of this article shall be guilty of an offense against this act.

Section 732. Shafts Abandoned After Effective Date of This Act.—

(a) Every shaft permanently abandoned after the effective date of this act shall be filled for its entire depth.

(b) Every slope, drift or tunnel permanently abandoned after the effective date of this act shall be filled for a distance of twenty-five feet with incombustible materials.

(c) All drillholes and boreholes, permanently abandoned after the effective date of this act, shall be effectively plugged or sealed with concrete.

ARTICLE VIII

TRANSPORTATION

Section 801. Safety Holes to Be Not More Than One Hundred Fifty Feet Apart.—Every passageway used by persons in any mine and also roads ³ used for transportation of coal or other material shall be made of sufficient width to permit persons to pass moving cars with safety, but if found impracticable to make any passageway of sufficient width, then holes of ample dimensions, and not more than one hundred fifty feet apart, shall be made on one side of said passageway. The said passageway and safety holes shall be kept free from obstructions and shall be well drained; the roof and sides of the same shall be made secure.

Section 802. Use of Internal Combustion Engines Underground.—Underground equipment powered by internal combustion engines using

¹ "shall" not in original.

² "basts" in original.

³ "used" not in original.

petroleum products, alcohol, or any other compound shall not be used in an anthracite mine unless such equipment has been approved by the secretary for underground use in anthracite coal mines.

Section 803. Rerailing Devices and Jacks to Be Provided on Locomotives; Warning Devices and Headlights to Be Provided.—Locomotives, mine cars, supply cars, shuttle cars and all other haulage equipment shall be maintained in a safe operating condition. An audible warning device and headlights shall be provided on each locomotive and each shuttle car. Rerailing devices and jacks shall be provided on all locomotives. Operators of haulage equipment shall sound a warning on approaching curves, intersections, doors, curtains, manway crossings, or any other location where persons are likely to travel.

Section 804. No Person to Ride on or against Loaded Car, Cage or Gun-Boat or on Outside of Empty Car or Gun-Boat in Shaft, Slope or Plane.—No person shall ride upon or against any loaded car, cage or gun-boat nor on the outside of any empty car or empty gun-boat in any shaft, slope or plane in or about a mine or colliery.

Section 805. Cars Not to Be Coupled or Uncoupled While in Motion.—No person shall couple or uncouple loaded or empty cars while the same are in motion: Provided, however, That this shall not apply to the top or bottom men of slopes, planes or shafts.

Section 806. Runner to Ride on Rear End of Cars Running by Gravity Roads by Sprags Spaced Not Less than Two Feet on at Least One Side of the Tracks.—When cars are run on gravity roads by brakes or sprags, the runner shall only ride on the rear end of the last car, and when said cars are run by sprags, a space of not less than two feet from the body of the car shall be made on one or both sides of the track, wherever it may be necessary for the runner to pass along the side of the moving car or cars, and said space or passageway shall always be kept free from obstructions.

Section 807. Handling of Cars in Breasts or Chambers.—No miner or laborer shall run cars out of any breast or chamber or on any gravity road unless he is a suitable person, employed by the mine foreman for that particular work; and no person shall be employed by any mine foreman to perform such work, under the age of eighteen years.

Section 808. Mine Car Bumpers to Be of Sufficient Length to Separate Cars by Not Less than Twelve Inches.—No mine cars shall be used in any mine unless the bumpers are of sufficient length and width to keep the bodies of said cars separated by not less than twelve inches when the cars stand on a straight level road and the

bumpers touch each other.

Section 809. Driver or Motorman to Leave Trip of Cars in Safe Place.—When a driver or motorman has occasion to leave his trip he shall see that it is left in a safe place, securely blocked or spragged and where it will not endanger the drivers or motormen of other trips or other persons. He shall not leave any cars standing where they may materially obstruct the ventilating current, except in case of accident, which he shall promptly report to the mine foreman or his assistant. When it is his duty to open a door for the purpose of passing his trip through, he shall see that the door is immediately closed thereafter.

Section 810. Cars Running to Haulageway; Person Running the Cars to Determine if Safe to Proceed.—When a driver or any other employe is about to run a car or cars from his place of work onto another haulageway, where clear and unobstructed view is not available, it shall be his duty to bring his car or cars to a complete stop, and ascertain, positively, whether it is safe for him to proceed before doing so.

Section 811. Transportation of Men.—(a) The speed of mantrips shall be governed by the mine foreman and mantrips shall be operated at safe speeds consistent with the condition of roads and type of equipment used. Each mantrip shall be under the charge of a competent person designated by the mine ¹foreman or his assistant. It shall be operated independently of any loaded trip of mine cars, but may include tools and small machine parts.

(b) Cars on the mantrip shall not be overloaded, and sufficient cars in good mechanical condition shall be provided. "Drop-bottom" cars shall not be used for mantrips unless they are provided with a secure supplementary locking device. No person shall ride under the trolley wire unless suitable covered man cars are used. Men shall not load or unload before the cars in which they are to ride, or are riding in, come to a full stop. Men shall proceed in an orderly manner to and from mantrips.

(c) When belts are used for transporting men, a minimum overhead clearance of eighteen inches shall be maintained between the belt and the roof or crossbars, projecting equipment, cap pieces, overhead cables, wiring, and other objects. Where the height of the coal seam permits, the overhead clearance shall not be less than twenty-four inches. The belt speed shall not exceed two hundred fifty feet per minute where the minimum overhead clearance is eighteen inches, or

¹ "moreman" in original.

three hundred feet per minute where the minimum overhead clearance is twenty-four inches. Men shall ride not less than six feet apart. Where men are transported, control lines shall be installed the full length of the belt with control switches placed along the belt line at intervals not exceeding two hundred feet unless equivalent or safer protection is provided. Emergency switches shall be wired in such a manner so that when the belt is stopped it cannot be started by any other switch except the one that was de-energized.

(d) An assistant mine foreman or some other person designated by the mine foreman shall supervise the loading and unloading of belts and mantrips. Adequate clearance and proper illumination shall be provided where men board or leave conveyor belts.

(e) Adequate precautions shall be taken so that moving trips and standing cars are subject to proper control by derailing or braking devices.

(f) It shall be unlawful to operate any conveyor belt in any anthracite coal mine unless such conveyor belt is efficiently insulated by flame resistant material: Provided, however, That an operator who, on April 4, 1956, has in use or on hand within the State of Pennsylvania, a conveyor belt which is not fire resistant may use such conveyor belt in the same or in any other mine of the same operator until replacement is necessary.

A. Hoisting Engineers

Section 812. Engineer Hoisting Persons to Be Not Less than Twenty-one Years of Age.—An engineer placed in charge of an engine whereby persons are hoisted or lowered in any mine, shall be a sober and competent person of not less than twenty-one years of age.

Section 813. Engineer to Work Engine Slowly; No One to Interfere with Engineer.—Every engineer shall work his engine slowly and with great care when any person is being lowered or hoisted in a shaft or slope and no one shall interfere with or intimidate him while in the discharge of his duties.

Section 814. Engineer to Be in Constant Attendance While Men are Underground.—An engineer who has charge of the hoisting machinery by which persons are lowered or hoisted in a mine, shall be in constant attendance for that purpose during the whole time any person or persons are below ground, and he shall not allow any person or persons, except such as may be deputed by the operator or superintendent, to handle or meddle with the engine under his charge or any part of its machinery.

Section 815. Engineer Hoisting Persons Shall Not Work More

than Eight Hours Out of Each Day of Twenty-four Hours.—No person engaged as a hoisting engineer at or about the anthracite coal mines of this Commonwealth, part of whose duties it is to lower persons into, and hoist them and coal from the said mines, shall be engaged for a longer period than eight hours out of each day of twenty-four hours.

ARTICLE IX

AMBULANCES, HOSPITALS, CARE OF THE INJURED

Section 901. Operator or Superintendent to Provide Ambulance.—The operator or superintendent of every mine or colliery, except as hereinafter provided, shall provide and keep at such mine or colliery a motor ambulance, and also at least two stretchers, for the purpose of conveying to their places of abode, or to a hospital, any person or persons who may be injured while in the discharge of his or their work at such mine or colliery.

Section 902. Motor Ambulance Construction.—The said motor ambulance shall be constructed upon good, substantial and easy springs. It shall be covered and closed, and shall have windows on the sides or ends. It shall be of sufficient size to convey at least two injured persons with two attendants, at one time, and shall be provided with spring mattresses or other comfortable bedding, to be placed on roller frames, together with sufficient covering and protection for convenient movement of the injured. It shall also be provided with seats for the attendants. The stretchers shall be constructed of such material and in such manner as to afford the greatest ease and comfort in the carriage of the injured persons. The motor ambulance shall at all times be properly heated.

Section 903. Injured Persons Removed by Ambulance.—Whenever any person or persons employed in or about a mine or colliery shall receive such injury, by accident or otherwise while so employed, as would render him or them unable to walk to his or their place of abode, the operator or superintendent of such mine or colliery shall immediately cause such person or persons to be removed in said motor ambulance to his or their place of abode or to a hospital, as the case may require.

Section 904. Exceptions to Requirements of Ambulance.—It is provided, however, that the operator or superintendent of any mine or colliery shall be excepted from the requirement of a motor ambulance, as aforesaid, if a community ambulance is available at all times for use in case of need at the mine.

Section 905. Registration Certificate and Number Tags to Be Furn-

ished by Commonwealth.—There shall be furnished, free of charge, by the Pennsylvania Department of Revenue, Bureau of Motor Vehicles, a registration certificate and number tags for every such motor ambulance.

Section 906. Mine Hospital Supplies.—It shall be unlawful to operate any anthracite mine unless said mine is provided with a sufficient quantity of linseed or olive oil, bandages, linens, splints, woolen and water-proof blankets. Said articles shall be stored in rooms erected at a convenient place in the mine and on the surface, which rooms shall not be less than eight by twelve feet, and sufficiently furnished, lighted, clean and ventilated, so that therein medical treatment may be given injured employes in case of emergency. The furnishings shall be sufficient to accommodate two or more persons in a reclining and sitting posture.

Section 907. Mine Foreman to Treat Injured Workmen.—It shall be the duty of the mine foreman or his assistants, in case of injury to any employe by ignition of gas or explosives, or by any cause while said miners are at work in said mines, to at once visit the scene of the accident, see that the injured is carefully wrapped in woolen blankets and removed to the "medical room," and so treated with oils or other remedies as will add to the comfort and care of the patient. After being treated with all the skill known to the foreman or his assistants, the injured person shall be carefully wrapped ¹ and sent to the surface, to be taken home, or to a hospital, in an ambulance as may be necessary, without expense to the injured party.

Section 908. Mine Foreman to Maintain Record of Injured Employes.—Where accident to any employe involves injury to limbs or causes loss of blood, the foreman or his assistants shall see that the bandages, splints and linen shall be applied where necessary to prevent loss of blood and relieve pain. The foreman shall, in all cases, see that the injured person is sent to the surface without delay. He shall also keep a book showing required articles on hand, name of persons injured, nature of injury, treatment, and by whom treated at time of accident.

Section 909. Mine Inspector to Examine Hospitals Each Two Months.—It shall be the duty of the mine inspector to visit each of the medical rooms in his district at least once in two months; see that the law is complied with; examine records of the medical room. He shall notify the county coroner of any neglect or noncompliance with the provisions of this act by any operator which information shall be regarded as evidence on any inquest that may be held on employes dying from

¹ "up" in original.

injuries received while working in such anthracite mine.

Section 910. Right of Action by Injured Persons when Violation of Act Occurs.—For any injury to employes, occasioned by any violation of the act, or any failure to comply with its provisions, by any operators or superintendent of any coal mine or colliery, a right of action shall accrue to the party injured against said operator, for any direct injuries he may have sustained thereby, and in case of loss of life, limb or bodily power by reason of such neglect or failure aforesaid a right of action shall accrue to the person, widow or lineal heirs, for the recovery of damages for the injury he or they shall have sustained.

ARTICLE X

INQUESTS

Section 1001. Notice of Loss of Life to Be Given by Superintendent to Inspector.—Whenever loss of life to a miner or other employe occurs in or about a mine or colliery, notice thereof shall be given promptly to the inspector of mines for the district in which the accident occurred, by the superintendent, mine foreman or outside foreman or other person or persons having immediate charge of the work at the time of the accident; and when death results from personal injury or from natural causes in or about a mine or colliery, such notice shall be given promptly after the knowledge of the death comes to the said superintendent, foreman or person in charge.

Section 1002. Inspector to Investigate Loss of Life and Notify Coroner for Inquest.—Whenever loss of life occurs or whenever the lives of persons employed in a mine or at a colliery are in danger from any accident, the inspector of mines shall visit the scene of the accident as soon as possible thereafter and offer such suggestions, as, in his judgment, shall be necessary to protect the lives and secure the safety of the persons employed. In case of death from such accident, and after examination he finds it necessary that a coroner's inquest shall be held, he shall notify the coroner to hold such inquest without delay, and if no such inquest be held by the coroner within twenty-four hours after such notice, the inspector shall institute a further and fuller examination of such accident, and for this purpose he shall have power to compel the attendance of witnesses at such examination and to administer oaths and affirmations to persons testifying thereat. The inspector shall make a record of all such investigations and accidents, which record shall be preserved in his office. The cost of such investigation shall be paid by the county in which the accident occurred in like manner as costs of inquests held by coroners or justices of the peace are now paid.

Section 1003. Coroner's Inquest—Inspector to Be Present.—An in-

quest held by the coroner upon the body of a person killed by explosion or other accident, shall be adjourned by the coroner if the inspector of mines be not present to watch the proceedings, and the coroner in such case shall notify the inspector, in writing, of such adjourned inquest, and the time and place of holding the same, at least three days previous thereto.

Section 1004. Notice of Inquest of Coroner to Be Given Inspector.—Due notice of an intended inquest to be held by the coroner shall be given by the coroner to the inspector, and at any such inquest the mine inspector and any representative of a party in interest shall have the right to examine witnesses, and read the law governing the case to the coroner's jury.

Section 1005. Coroner to Notify Inspector of Neglect or Default.—If, at any inquest held over the body or bodies of persons whose death was caused by an accident in or about a mine or colliery, the inspector be not present, and it is shown by the evidence given at the inquest that the accident was caused by neglect or by any defect in or about the mine or colliery, which in the judgment of the jury required a remedy, the coroner shall send notice in writing to said inspector of such neglect or default.

Section 1006. Persons Interested Personally in Mine or Employes—Not to Serve on Jury.—No person who is interested personally nor a person employed in the mine or at a colliery in or at which loss of life has occurred by accident, shall be qualified to serve on a jury empaneled on the inquest, and a constable or other officer shall not summon such a person so disqualified as juror, but the coroner shall empanel a majority of the jury from miners who are qualified to judge ¹ the nature of the accident; every person who fails to comply with the provisions of this article shall be guilty of an offense against this act.

ARTICLE XI

RULES FOR THE INSTALLATION AND MAINTENANCE OF ELECTRICAL EQUIPMENT

Section 1101. Duties of Mine Foreman and Superintendent.—It shall be the duty of the mine foreman and superintendent to see that the requirements of this article for the installation and maintenance of electrical ² equipment are observed in all coal mines.

Section 1102. Definitions.—As used in this article, the following words and terms shall have these meanings:

(1) "Approved" means in strict compliance with this act or, in the

¹ "of" in original.

² "equipemnt" in original.

absence of specific mention, approved by the secretary.

(2) "Armored cable" is a cable provided with a wrapping of metal, usually steel wires or tapes, primarily for the purpose of mechanical protection.

(3) "Borehole cable" is a cable designed for vertical suspension in a borehole or shaft and is used for power circuits in the mines.

(4) "Branch circuit" shall be any tap taken off a main circuit.

(5) "Cable sheath (nonmetallic)" is a covering consisting of composition tapes, compound jackets of natural or synthetic rubber, thermoplastic or fiber braids applied over the conductor assembly and insulation of multiple conductor cables.

(6) "Cable shield" is a metallic shield consisting of nonmagnetic material applied over the insulation of the individual conductors.

(7) "Circuit breaker" is a device which may be controlled by relaying or protective equipment for interrupting a circuit between separable contacts under normal or abnormal conditions.

(8) "Delta-connected" a delta-connected power system is one in which the unlike ends of windings of three phase A. C. generators, motors or transformers are connected to form a triangular phase relationship, and with external conductors connected to each point at the triangle.

(9) "Difference of potential" the difference of electrical pressure or electromotive force existing between any two points of an electrical system, or between any point of such a system and the earth, as determined by a voltmeter or other suitable instrument. The terms "potential" and "voltage" are synonymous and mean electrical pressure.

(10) "Disconnecting switch" is a form of air switch used for opening the circuit. It has no interrupting rating and is to be operated only after the circuit has been opened by some other means.

(11) "Effectively grounded" is an expression which means grounded through a grounding connection of sufficiently low impedance (inherent or intentionally added or both) so that fault grounds which may occur cannot build up voltages in excess of limits established for apparatus, circuits, or systems so grounded.

(12) "Electric system" means all electric equipment and circuits that pertain to the operation of the mine and are under control of the mine management.

(13) "Electrical face equipment" is mobile or portable mining machinery having electric motors or accessory equipment normally installed or operated in by the last open crosscut.

(14) "Explosion or flameproof equipment" explosion or flameproof

casings or enclosures are those which, when completely filled with a mixture of methane and air, and the same exploded, are capable of either entirely confining the products of such explosion within the casing or of so discharging them from the casing that they cannot ignite a mixture of methane and air, combined in proportions most sensitive to ignition and entirely surrounding the points of discharge, and in most intimate proximity therewith.

(15) "Flame-resistant cable, portable" is a portable cable that has met the department requirements for flame resistance and has been assigned an approval number (P-number).

(16) "Ground (earth)" is a conducting connection, whether intentional or accidental, between an electric circuit or equipment and earth, or to some conducting body which serves in place of the earth.

(17) "Ground or grounding conductor (mining)" a grounding conductor (also referred to as a safety ground conductor, safety ground and frame ground) is a metallic conductor used to connect the metal frame or enclosure of an equipment, device, or wiring system, with an effective grounding medium.

(18) "Lightning arrestor" is a protective device for limiting surge voltages on equipment by discharging or bypassing surge current; it prevents continued flow of follow current to ground and is capable of repeating these functions as specified.

(19) "Machine operator" a qualified person who is placed in charge of operating a portable or mobile face machine of any sort.

(20) "Mine power center" is a combined transformer and distribution unit complete within a metal enclosure, from which one or more low voltage or medium voltage power circuits are taken.

(21) "Neutral (derived)" is a neutral point of connection established through the use of a "zig-zag" or grounding transformer with a normally ungrounded delta power system.

(22) "Neutral point" in a wye-connected A. C. power system means the connection point of transformer or generator windings from which the voltage to ground is nominally zero, and is the point generally used for system grounding.

(23) "Nonmetallic armor" means a tough outer covering or cable sheath of rubber, rubber compound or thermoplastic, designed to protect the cable conductors and insulation from abrasion or other damage from external sources.

(24) "Portable (trailing) cable" is a flexible cable or cord used for connecting mobile, portable, or stationary equipment in mines to a trolley system or other external source of electric energy where permanent

mine wiring is prohibited or is impractical.

(25) "Portable electrical equipment" consists of motors and their control equipment and other electrical devices, so constructed or mounted as to facilitate moving them from place to place.

(26) "Potential of a circuit" the potential or voltage of a circuit, machine, or any piece of electrical apparatus, is the electrical pressure normally existing between the conductors of such circuit or the terminals of such machine or apparatus.

(a) High voltage shall be deemed any electrical pressure exceeding six hundred fifty volts.

(b) Low voltage shall be deemed an electrical pressure not exceeding three hundred volts.

(c) Medium voltage shall be deemed an electrical pressure not exceeding six hundred fifty volts.

(27) "Primary ground" is a low impedance ground bed or system consisting of several interconnected ground rods or buried conducting mesh or both, located near an outdoor substation and used as a lightning arrester and/or station ground, or separately, as a basic ground for one conductor of a power transmission or distribution system. A single ground rod of any length is not considered a primary ground.

(28) "Protection (electrical)" is provided by fuses or other suitable automatic circuit interrupting devices for preventing damage to circuits, equipment and personnel by abnormal conditions, such as overcurrent, high or low voltage and single-phasing.

(29) "Rectifiers" as referred to in this law mean alternating current to direct current power conversion devices of the mercury arc or semiconductor (silicon, selenium or other) type.

(30) "Sectionalizing switch" is a switch used for connecting or disconnecting low or medium voltage supply lines in sections of a mine.

(31) "Wye-connected (Y connected)" a wye-connected power system is a system in which the like ends of each phase winding of the three phase A. C. generators, motors or transformers are connected together to form a neutral point and other ends connected to external conductors.

(32) "Zig-zag transformer (grounding transformer)" is a three-phase transformer used to provide a neutral point on "delta" systems and capable of carrying continuously the maximum ground fault current of the system.

Section 1103. Plan of Electrical System.—A plan shall be kept at the mine showing the location of all stationary electrical apparatus in connection with the mine electrical system, including permanent cables, conductors, circuit breakers, switches and trolley lines. The plan shall

be of sufficient size to show clearly the position of such apparatus, and the scale shall not be less than five hundred feet per inch. There shall be stated on the plan the capacity in horsepower of each motor, and in kilowatts of each generator, rectifier, and KVA of each transformer, and the nature of its duty. Such plans shall be corrected as often as may be necessary to keep them up-to-date, or at intervals not exceeding six months.

Section 1104. Protection against Shock.—All power circuits and electric equipment shall be de-energized before work is done on them: Provided, That qualified employes may, where necessary, make necessary attachments or connections to energized trolley wires if they wear insulated shoes and lineman's gloves. Gloves or mats of rubber or other suitable insulating material shall be provided and used by qualified persons, so engaged, to de-energize or energize circuits of medium or high voltage when other than remotely connected.

Section 1105. Restoration from Shock.—Instructions shall be posted in every generating, transforming and motor room and at the entrance to the mine, containing directions as to the restoration of persons suffering from electric shock, and all employes working in connection with electrical apparatus shall be familiar with and competent to carry out these instructions.

Section 1106. Report of Defective Equipment.—In the event of a breakdown or damage or injury to any portion of the electrical equipment in a mine, or overheating, or the appearance of sparks or arcs outside of enclosed casings, or in the event of any portion of the equipment, not a part of the electrical circuit, becoming energized, the equipment shall be disconnected from its source of power, the occurrence shall be promptly reported to a mine official, and the equipment shall not be used again until necessary repairs are made.

Section 1107. Damage or Alteration to Mine Electrical System.—No person shall wilfully damage or, without authority alter or make connections to any portion of a mine electrical system.

Section 1108. Capacity.—All electrical apparatus and conductors shall be sufficient in size and power rating for the work they may be called upon to do, and as hereinafter prescribed, efficiently covered or safeguarded, and so installed, operated and maintained as to reduce danger from accidental shock or fire to the minimum, and shall be of such construction, and so operated, that the rise in temperature caused by ordinary operation will not injure the insulating materials. Where these conditions are not met, affected equipment shall be removed from service until corrective action is taken.

Section 1109. Joints in Conductors.—All joints in conductors shall be mechanically and electrically efficient. Suitable connectors shall be used. All joints of insulated wire shall, after the joint is complete, and in the case of multiconductor, properly staggered, be re-insulated to at least the same extent as the original insulation ¹ and shall be effectively sealed so as to exclude moisture. If the cable has metallic armor, ground wires and metallic shielding, mechanical protection and electrical conductivity, equivalent of the original armor shall be provided, and electrical conductivity equivalent to the original conductors likewise provided.

Section 1110. Cables Entering Fittings.—The exposed ends of cables where they enter fittings of any description, shall be protected and finished off so that moisture cannot enter the cable, or the insulating material, if of an oily or viscous nature, leak. Where unarmored cables or wires pass through metal frames, or into boxes or motor casings, the holes shall be substantially bushed with insulating bushings, and where necessary or required, with gas-tight bushings which cannot readily become displaced.

Section 1111. Underground Power Wires and Cables.—All underground power wires and cables shall have adequate current carrying capacity, shall be protected from mechanical injury, and with the exception of trailing cables, shall be installed in a permanent manner.

Section 1112. Underground Transmission Cable.—All underground transmission cable shall be:

- (1) Installed in regularly inspected airways.
- (2) Placed so as to provide reasonable protection against damage.
- (3) Guarded where men regularly work or pass under, unless they are at least six and one-half feet above the floor or rail.
- (4) Securely anchored, properly insulated and guarded at ends.
- (5) All power wires and cables shall be insulated adequately where they pass into electrical compartments, through doors and stoppings and where they cross other power wires and cables.

Section 1113. Switches, Fuses and Circuit Breakers.—(a) Fuses and automatic circuit breakers shall be so constructed as to effectively interrupt the current on short circuit, or when the current through them exceeds a predetermined value. Open type fuses shall be provided with terminals. Circuit breakers shall be of adequate interrupting capacity, adjustable to trip at from fifty percent to one hundred fifty percent of their normal rated capacity.

(b) Circuit breakers used to protect feeder circuits shall be set to trip

¹ "and" not in original.

when the current exceeds by more than fifty percent the current carrying capacity of the feeder. In case the feeder is subjected to overloads, sufficient to trip the circuit breaker, but of short duration, the circuit breaker may be equipped with a device which will prevent its acting unless the overload persists for a longer period than ten seconds. Trip current shall be indicated at the circuit breaker.

(c) Fuses shall be stamped or marked, or shall have a label attached indicating the maximum current which they are intended to carry. Fuses shall only be adjusted or replaced by a competent person authorized by the mine foreman. Wire or other conducting materials shall not be used as a substitute for properly designed fuses.

(d) Fuses used to protect feeders shall not be greater than the current rating of the feeder.

(e) All switches, circuit breakers and fuses shall have incombustible bases.

(f) Operating controls, such as starters, switches and switch buttons, shall be so installed that they are readily accessible and can be operated without danger of contact with moving or live parts. On stationary equipment provision shall be made for locking starting equipment in "off" position to prevent accidental application of power.

(g) Circuit breakers and disconnect switches shall be installed underground in all main power circuits within five hundred feet of the bottom of shafts, boreholes and inclines, where main power circuits enter the mine.

Section 1114. Lightning Protection.—If the surface transmission lines of low or medium voltage from the generating station are overhead, there shall be lightning arrestors installed in connection therewith at the generating, or transformer station. If the distance from the generating, or transformer station, to the point where the line enters the mine is more than five hundred feet, an additional arrestor shall be installed at this point.

Section 1115. Underground Power Supply.—(a) **Ground Detectors.** All underground systems of distribution that are completely insulated from earth shall be equipped with properly installed ground detectors of suitable design, maintained in working condition. The condition of such system as indicated by the ground detector shall be noted each day by the person in charge of the underground electrical system, or by another competent person, who shall immediately report to the mine foreman the occurrence of a ground.

(b) **Protection of Circuits Leading Underground.** (1) In every completely insulated feeder circuit, in excess of twenty-five kilowatts capa-

city, leading underground and operating at a potential not exceeding the limits of medium voltage, there shall be provided above ground a circuit breaker arranged to open simultaneously each ungrounded conductor. In addition, a positive disconnect means shall be installed¹ by the circuit breaker. Overload protection shall be provided to open the circuit breaker in case of overload on any conductor. Fuses may be substituted for circuit breakers in circuits transmitting twenty-five kilowatts or less. Each power circuit in excess of fifty kilowatts leading underground shall be provided with a suitable ammeter.

(2) Every alternating current feeder circuit leading underground and operating at a potential exceeding the limits of medium voltage shall be provided above ground with a suitable circuit breaker, such breaker to be equipped with automatic overload trip, arranged to open simultaneously each ungrounded power carrying conductor. Each such circuit shall also be provided with a suitable ammeter.

(c) Cables in Shafts, Slopes and Boreholes. (1) All cables passing underground through inclines, boreholes and shafts shall be installed in a manner that will prevent undue strains in sheath, insulation, or conductors and damage by chafing of cables against each other or against the borehole casing or shaft. All power conductors in shafts, boreholes and inclines shall be covered with suitable insulating materials and installed to provide minimum tensile factor of safety of five. Conductors shall be securely fastened and properly supported out of contact with combustible materials. When the weight, length and construction of a cable are such that suspension from its upper end only would subject the cable to possible damage, it shall be supported at intervals necessary to prevent undue strains in the sheath, insulation and conductors, and to provide a minimum tensile factor of safety of five. Adequate protection shall be provided so that no damage can result from water, electrolysis, moving cages, skips, ice, coal or other falling or moving materials.

(2) Installation of direct current and high voltage alternating current cables in the same borehole shall require approval of the secretary.

(d) High Voltage Underground Transmission Systems. High voltage conductors or cables leading underground and extending underground, shall be of flame resistant type, with either a rubber, plastic or armor sheath, meeting the requirements of the department for flame resistance. When such cable is fed by high voltage systems other than that described in article XI, section 1131, of this act, it shall be either metallic armored, installed in rigid steel conduit or buried one foot below com-

¹ "out" in original.

bustible material. When circuit and protective requirements are met, the cable construction and method of installation may be that described in article XI, section 1131. Cables shall be adequate for the intended current and voltage. Splices made in cable shall provide continuity of all components and shall be made equivalent to the cable manufacturer's recommendation. The making of such splices shall be supervised by a competent person designated by the mine electrician.

(e) Braid Covered Cable (Weatherproof). No power wires or cables having what is commonly termed as weatherproof insulation or insulation consisting of braided covering, which is susceptible to moisture absorption from the outer surface to the conductor shall be installed in any mine.

(f) Ventilation. (1) In any gassy mine bare power conductors shall not be installed in any air current that has passed through or by the first working place in the air split.

(2) In all mines high voltage transmission cable, high voltage motors and high voltage transformers shall not be installed in any air current that has passed through or by the first working place in the air split.

(g) Cables in Haulage Roads. (1) Where the cables or feed wires, other than trolley wires, in main haulage roads, cannot be kept at least twelve inches from any part of the mine car or locomotive, they shall be specially protected by proper guards.

(2) Cables and wires, except fire resistant, metallic covered or ground shielded cables shall be installed on roof, ribs, walls or timbers by means of efficient insulators. In no instance shall the method of support damage the cable jacket or armor.

(3) When main or other roads are being repaired, or blasting is being carried on, suitable temporary protection from damage shall be given the cables.

(4) All other wires, except telephone, shot-firing and signal wires should be on the same side of the road as the trolley wire.

(5) Haulage block signal circuits and other control circuits powered from the trolley shall be located on the same side of the road as the trolley.

(h) Branch Circuit Protection. When the potential of a branch circuit exceeds the limit of medium voltage, it shall be protected by a circuit breaker. Such circuit breaker shall be equipped with an automatic overload trip arranged to open simultaneously each ungrounded power carrying conductor. Provision for positive disconnection of the branch circuit shall be included.

(i) Underground Transformer and Substation Rooms. (1) Underground

electric stations for permanent installations of pumps, hoists, compressors, rectifiers, rotary convertors and transformers, excepting room hoists¹ and gathering pumps, which will remain in the same location for a period of one year or more shall be constructed of incombustible materials and be well ventilated on positive intake air.

(2) Battery charging stations shall be separately ventilated with intake air, the return from which does not pass through any active workings.

(3) Permanent underground stations shall be provided with fire doors which close automatically in the event of fire. These stations shall be provided with a well of concrete or metal, or the equivalent, about the oil containing equipment that contains over twenty gallons, that will confine the oil in the event of leakage or explosion. All transformers ordered for underground installations in mines, subsequent to this ruling shall be of the dry air-cooled type or those containing nonflammable and nonexplosive liquid; other electrical devices or switches or combination of devices or switches ordered for underground installations shall not contain more than twenty gallons of inflammable oil.

(4) Transformers commonly called portable transformers, used underground, shall be located only in well ventilated places, and they shall be installed in fireproof enclosures fitted with doors which close automatically in the event of fire.

(5) Switchboards. Main and distribution switch and fuse boards shall be made of incombustible, moisture resistant, insulating material, and be fixed in as dry a situation as practicable, or shall be of suitable metal construction, exposed portions of which shall be effectively grounded. All switches, circuit breakers, rheostats, fuses and instruments used in connection with underground motor-generators, rotary-convertors, high voltage motors, transformers, and low and medium voltage motors of more than fifty horsepower or fifty KVA capacity, shall be installed upon a suitable switchboard or in a metal clad switchgear structure. Similar equipment for low and medium voltage motors of fifty horsepower and less, may be separately installed if mounted upon insulating bases of suitable material or effectively metal clad.

(6) Clearances. (i) In underground stations where switchboards are installed, there shall be a passageway in front of the switchboard not less than three feet in width and, if there are any high voltage connections at the back of the switchboard, any passageway behind the switchboard shall not be less than three feet clear. The floor at the back of the switchboard shall be properly floored and insulated with nonconducting material, accessible from each end, and in the case of high volt-

¹ "and" not in original.

age switchboards, shall be kept locked, but the lock shall allow the door being opened from the inside without the use of a key. (ii) Where the supply is at a voltage exceeding the limits of medium voltage, there shall be no live metal work on the front of the main switchboard within seven feet of the floor or platform, and the space provided under subsection (6) (i) of this section shall not be less than four feet in the clear. Insulating floors or mats shall be provided for medium voltage boards where live metal work is on the front.

(7) Transformers. The primary of each underground power transformer shall be protected by a suitable circuit breaker equipped with automatic overload trip arranged to open simultaneously each ungrounded power conductor. The primary of a transformer of less than twenty-five KVA capacity may be protected by proper fuses. When a transformer is the only load on a branch circuit, the branch circuit protection can be considered the transformer protection.

(8) Outgoing Feeder Protection. Main circuits leaving underground substation or transformer stations shall be protected by circuit breakers.

(9) Grounding. All metal buildings, all metallic coverings, metal armoring of cables, and the frames and bedplates of generators, transformers and motors shall be effectively grounded, or equivalent protection provided.

(10) Identification of Hazard. All high voltage machines and apparatus shall be marked to clearly indicate that they are dangerous, by the use of the words "Danger, High Voltage," conspicuously posted.

(11) Protection of Terminals. All terminals on machines, motors, or equipment over medium voltage underground shall be protected with insulating covers or with metal covers effectively connected to ground.

(12) Unauthorized Persons. No person other than one authorized by the mine foreman or mine electrician shall enter a station or transformer room or interfere with the working of any apparatus connected therewith.

(13) Fire Protection. Fire extinguishers suitable for extinguishing electrical fires shall be kept at electrical stations and transformer rooms, ready for immediate use.

(j) Fireproof Rectifiers and Transformers. A portable rectifier with dry type transformer, except those using pumped tubes or glass bulb mercury arc tubes, or dry type transformer designed for underground use with adequate automatic electrical protection and substantially of fireproof construction, full metal clad, which will not be in the same location in excess of one year, may be installed in any intake air current, not beyond the last open crosscut. The location where such fireproof

rectifier or transformer is installed need not be made fireproof with masonry or steel, but shall be equipped with doors, grillwork or otherwise to prevent entry or access by unauthorized persons.

Section 1116. Storage Battery Equipment.—(a) All storage battery equipment and charging stations shall be designated, operated and ventilated so that gas from the batteries will be safely diluted. Storage battery charging stations shall be on a separate split of air.

(b) The presence of flammable materials or smoking is not permitted in any storage battery room or charging station. Signs to this effect shall be posted in all battery rooms or charging stations.

(c) Storage battery operated equipment may be used in face areas of gassy mines when all electrical parts are enclosed in explosion proof casings and the batteries are adequately ventilated.

Section 1117. Steam Cleaners.—(a) Steam cleaning units used underground shall be only electrically operated. Their use shall be confined to repair shops where ventilation shall be arranged to conduct their exhaust to return air with baffles installed to prevent distribution of oil and grease in the return airway.

(b) Machines shall be equipped with a pressure relief valve and a soft plug. Cutoff valves shall not be installed in the discharge nozzle.

(c) The area in which the machine is used shall be cleaned after each operation. Oil, grease and other residue shall be put in metal containers and removed from the mine.

(d) Steam cleaner operators shall be provided with a protective mask when chemical and detergent solvents are used.

Section 1118. Electrical Face Equipment.—(a) Voltage Restriction. Motors of electrical face equipment shall not be operated at higher than medium voltage. Those on hand held tools shall be restricted to low voltage.

(b) Grounding. The frame of all off-track face equipment shall be effectively grounded through a safety ground conductor in its trailing cable.

(c) Hand Held Tools. Electric drills and other electrically operated rotating tools intended to be held in the hands shall be equipped with an integrally mounted electric switch designed to break the circuit when the hand releases the switch.

(d) Trailing Cables. (1) Trailing cables for face equipment shall be safely and efficiently insulated by a flame resistant material. They shall be approved by the secretary.

(2) Cables for hand held electric tools shall be three conductor type, specially flexible, heavily insulated by flame resistant material and effec-

tively protected from damage; the free end of cable to have a weather-proof, lock type, three pronged polarized plug, with a suitable receptacle for attachment.

(3) Each trailing cable in use shall be examined daily by the machine operator for abrasions and other defects while cable is de-energized. He shall also carefully observe the trailing cable while in use, and shall at once report any defect to the mine official in charge.

(4) In the event of the trailing cable in service breaking down or becoming damaged in any way, or of its inflicting a shock upon any person, it shall be put out of service at once. The faulty cable shall not be used again until it has been repaired and tested by a properly authorized person.

(5) The trailing cable shall be divided at the machine in which it is supplying power, but only for such length as is necessary for making connection to the machine terminals, and the cable, with its outer covering complete, shall be securely clamped to the machine frame in a manner that will protect the cable from injury and prevent any mechanical strain being borne by the single ends connected to the machine terminals.

(6) No more than five temporary splices shall be made in any trailing cable. After the fifth such splice is made, the cable shall be changed before the machine is operated on the following shift. Trailing cables on equipment without cable reels shall have no temporary splices within fifty feet of the machine before the machine is operated on the following shift.

(7) Trailing cables shall be hung or adequately protected to prevent their being run over and damaged by mobile machinery.

(8) Trailing cables on off-track equipment shall contain a safety ground conductor which shall be solidly connected to the machine frame. The safety ground conductor shall have a cross sectional area of at least fifty percent of that of a single power conductor.

(e) Motors. In any gassy mine, all electrical equipment in use inside the last open crosscut shall have all their current carrying parts completely enclosed in explosion proof enclosures. This shall not include trailing cable, except where terminated, and shall not include flexible cable as required between motors, controllers, terminal boxes and other auxiliaries. These enclosures shall not be opened except by an authorized person and ¹ then only when the power is switched off. The power shall not be switched on while the enclosures are open.

(f) Safeguarding. The person in charge of electrical face machinery

¹ "they" in original.

shall not leave such machinery while it is working and shall, before leaving the working place, see that power is cut off the trailing cables.

(g) Explosion Tested Compartments. All explosion tested compartments shall be properly secured with cover clearance tolerances not exceeding four one-thousandths of an inch. Packing glands shall be correctly assembled and the packing compressed by a packing nut tightened to within one-eighth of an inch of its seat.

(h) Detection of Gas. (1) In working places where explosive or noxious gas is likely to be encountered, an approved safety lamp for the detection of such gas shall be provided for use with each machine when working, and should any indication of gas appear on the flame of the safety lamp, the person in charge shall immediately stop the machine, cut off the current at the nearest switch, and report the matter to a mine official.

(2) In any gassy mine no electrically operated face equipment shall be taken in by the last open breakthrough until the machine operator shall have made an ¹ inspection for gas in the place where the machine is to work, unless such examination is then made by some other competent person authorized or appointed for that purpose by the mine foreman. If any explosive gas is detected in the place by an approved safety lamp, the machine shall not be taken in. The place shall be dangerous off until the gas has been removed or rendered harmless.

(3) No electrically operated face equipment shall be continued in operation in a gassy mine for a longer period than half an hour without an examination as above described being made for gas, and if gas is found the current shall at once be switched off the machine, and the trailing cable shall forthwith be disconnected from the power supply.

(4) The person finding gas shall at once report the fact to the mine foreman ² and assistant mine foreman and the machine shall not again be started in such place until the mine examiner or a person duly authorized by the mine foreman, has examined it and pronounced it safe.

(5) In any gassy portion of a mine, if any electric sparking or arc be produced, outside of a coal-cutting or other portable motor, or by the cables or rails, the machine shall be stopped, disconnected from the power supply, and not be worked again until the defect is repaired and the occurrence shall be reported to a mine official.

Section 1119. Inspection of Equipment.—All enclosed motors used underground shall be opened and thoroughly inspected by the mine electrician or person designated by him periodically, and, where necessary, shall then be cleaned and repaired. Enclosed switches shall be

¹ "inspection" in original.

² "and" not in original.

opened and inspected at least once a month.

Section 1120. Stationary Motors.—Every stationary motor underground, together with its starting equipment shall be protected by a fuse or circuit breaking device on each ungrounded pole, and by switches outby arranged to entirely cut off the power from the motor. The above devices shall be installed in a convenient position near the motor, and every stationary underground motor of one hundred brake horsepower or over shall be provided with a suitable meter to indicate the load on the machine.

Section 1121. Underground Illumination.—(a) In all mines the sockets of fixed electric lamps shall be of the so-called “weatherproof” type, the exterior of which shall be entirely nonmetallic. Flexible lamp cord connections are prohibited, except for portable lamps, as covered by rule subsection (c) of this section. Electric lights installed on all shaft and slope landings, hoist rooms, substations, pump rooms and the like, shall be on a separate circuit from the trolley circuit, and where A. C. current is used for lighting circuits, the maximum voltage shall be two hundred and twenty volts.

(b) Electric lamps shall be so placed that they cannot come in contact with combustible material.

(c) In gassy mines, portable electric lamps, other than battery lamps, shall not be used in connection with the repair and inspection of machines and equipment in face areas. When used elsewhere, they shall be protected by a heavy wire cage completely enclosing both lamp and socket, and shall be provided with a handle to which both cage and socket are firmly attached and through which the lead-in wires are carried.

(d) Electric lamps, when used in face areas of gassy mines, shall be installed in explosion proof enclosures.

(e) Electric lamps shall be replaced by a competent person only, and in face areas of gassy mines, after an examination for gas has been made with an approved safety lamp.

(f) In gassy mines, underground photography, using flash bulbs or other sources of artificial illumination shall be prohibited unless immediately preceded by an examination for gas by a qualified person and the place found safe.

Section 1122. Telephones and Signalling.—(a) Telephone lines, other than cables, where practicable shall be carried on insulators, installed on the opposite side from power or trolley wires, and where they cross power or trolley wires they shall be adequately insulated.

(b) Lightning arrestors shall be provided at the points where telephone

circuits enter the mine, also at entrance of each surface building.

(c) Telephone cables permanently installed in power boreholes containing power cables shall be protected at top and bottom by insulating transformers.

(d) All proper precautions shall be taken to prevent electric signal and telephone wires from coming into contact with other electric conductors, whether insulated or not.

(e) Bare signal wires shall not carry more than twenty-four volts.

(f) Bells, wires, insulators, signal contacts and other apparatus used in connection with electric signalling underground, shall be of suitable design, of substantial and reliable construction, and erected in such a manner as to reduce the liability of failures or false signals to a minimum.

(g) In the face areas of a gassy mine, the potential used for signal purpose shall not exceed twelve volts. Electric signals and signal buttons shall be explosion proof. Bare wires shall not be used for signal circuits except on haulage roads.

(h) The potential on signal circuits confined to intake air and using insulated conductors may be greater than twelve volts, but shall not exceed one hundred twenty-five volts average. (This shall not apply to haulage block signal systems).

Section 1123. Direct Current Installation Grounding.—The following provisions shall apply only to direct-current electrical systems in anthracite coal mines:

(a) In a direct-current electrical system grounding shall consist in so connecting any part of an electrical system including frames, to the earth that there shall be no difference of potential between them.

(b) Only the negative side of the direct-current circuit shall be grounded.

(c) Where track is used as a power conductor:

(1) Both rails of primary track haulage shall be welded or bonded at every joint, and cross bonded at intervals of not more than two hundred feet. If the rails are paralleled by a feeder of like polarity, such paralleled feeder shall be bonded to the like track rails at intervals of not more than one thousand feet.

(2) At least one rail on secondary roads of a temporary nature shall be welded or bonded at every joint and cross bonded at not more than two hundred feet.

(3) Track switches on entries shall be well bonded.

Section 1124. Voltage Limitations.—In any new mine, or any old mine that may be reopened and re-equipped after the effective date of

this act, the potential of the trolley system shall not exceed three hundred volts.

Section 1125. Incoming Feeder Disconnect Switches.—Disconnecting switches shall be installed underground in all main direct-current power circuits within five hundred feet of the bottom of shafts, boreholes, or at other places where main power circuits enter the mine.

Section 1126. Bonding.—Where air (except compressed air blast lines) or water pipes parallel the grounded return of power circuits, the return shall be securely bonded to such pipes at frequent intervals to eliminate the possibility of a difference of potential between rails and pipes to prevent electrolysis of the pipes. The rail return shall be of sufficient capacity for the current used, independent of the capacity of the pipes.

Section 1127. Trolley Installation.—(a) All trolley wires and feeder lines installed on underground haulage roads shall be placed as far to one side of the passageway as is practicable, but not less than six inches outside of line of rail. The trolley hangers shall be securely supported, and be so spaced that the wire may become detached from any one hanger without creating a shock hazard, and not more than twenty-four feet apart.

(b) Trolley wires and trolley feeders shall be kept taut and not be permitted to touch the roof, ribs, timbers or any combustible material.

(c) In gassy mines trolley and feeder wires shall not extend beyond one hundred feet outside the last open crosscut.

(d) All branch trolley lines shall be fitted with either a trolley switch, circuit breaker, or section insulator and line switch, or some other device that will allow the current to be shut off from such branch headings. Switches or circuit breakers shall be provided on haulage roads to de-energize all trolley and feeder lines at intervals not to exceed two thousand feet.

Section 1128. Connections to Trolley.—(a) All permanent connections to trolley or feeder circuits shall be made with suitable mechanical connectors. No connection, temporary or permanent, shall be wrapped or tied.

(b) Temporary connections for portable or face equipment may be made through fused trolley taps.

(c) Safety ground and negative connections for temporary or permanent installations shall be made directly to the track, a bond, or the system ground.

Section 1129. Guarding.—At all landings and partings or other places where men are required to regularly work or pass under trolley

or other bare power wires, which are placed less than six and one-half feet above top of rail, a suitable protection shall be provided. This protection shall consist of placing boards along the wire, which boards shall not be more than five inches apart, nor less than two inches below the lowest point of the wire: Provided, That the distance between boards on curves may exceed five inches, but shall not exceed eight inches. This does not prohibit the use of other approved devices or methods furnishing equal or better protection. At all man trip loading and unloading stations the trolley and bare power wires shall be guarded and sectionalizing switches installed to cut off the power in the trolley and bare power wire while loading or unloading is in progress.

Section 1130. Locomotives.—(a) Electric haulage by trolley locomotive is not permitted in any gassy mine except on intake air. Where the main intake of fresh air is drawn in through surface openings of old workings, it shall be deemed to come within the definition of “intake air” of article I, section 103 (12).

(b) It shall be unlawful in any gassy mine to run or operate a locomotive, fed directly or indirectly from a trolley wire, beyond the open entrances to worked out places wherein the pillars have been removed.

(c) In a gassy mine explosion-tested, cable-reel locomotives shall be equipped with two conductor trailing¹ cables.

(d) No open type electric locomotive or open type electric machine of whatsoever name shall be taken into a working place or places in a gassy mine unless such open type electric locomotives or open type electric machines are operated on intake air. Return airways (or passageways) shall not be used as haulageways for electric locomotives operated from a trolley wire in gassy mines: Provided, however, That if at any time after the effective date of this act a mine classed as non-gassy should be declared gassy under the provisions of this act, the operator of such mine shall, within the six months immediately following such reclassification, discontinue the use of open type electric locomotives or open type electric machines of any kind in a working place or places in such gassy mine or portion thereof. Upon written request from the operator of any such mine the secretary, after investigation, shall have authority to grant an additional six month period to such operator to discontinue the use of such locomotives or machines.

Section 1131. Alternating Current Installations.—(a) The following provisions shall apply to alternating current electrical systems serving mobile face equipment in anthracite coal mines. The fundamental components of such a system are (1) the outdoor substation through

¹ “cable” in original.

which power is fed to the mine, (2) high voltage underground transmission system, (3) section transformers or load centers which step the transmission voltage down to machine utilization voltage, and (4) distribution centers used to distribute utilization voltage to mining machinery. The latter may be an integral part of the section transformer or load center (3).

(b) The basic system for both transmission and distribution of alternating current power for mobile face equipment shall be a three-phase four-wire system, with a ground fault current limiting resistor in the neutral circuit and the inby or load end of the neutral resistor solidly grounded. The ground end of the neutral resistor shall be connected to equipment frames through the cable ground conductor to prevent dangerous differences of potential between frame and ground under fault conditions.

(c) The basic system for a completely insulated medium voltage transmission and distribution system furnished from a delta-delta connected bank of transformers serving portable face equipment may be a three-phase four-wire system with ground detectors.

Section 1132. Surface Transmission Lines.—(a) Overhead high potential power lines shall be placed at least eighteen feet above the ground and twenty-five feet above driveways and haulageways and shall be installed on insulators of the proper rating and shall be supported and guarded to prevent contact with other circuits.

(b) Surface transmission lines, including trolley circuits, shall be protected against short circuits and lightning.

(c) Electric wiring in buildings and rooms shall be installed in accordance with good electrical practice to minimize fire and contact hazards.

Section 1133. Outdoor Substation.—The outdoor substation shall be built in accordance with current American Institute of Electrical Engineers standards and shall include:

(1) Protective fence or enclosure. Unless surface transformers are isolated by an elevation of at least eight feet above the ground, they shall be enclosed in a transformer house or surrounded by a fence at least six feet high and a horizontal distance of at least eight feet from any live part. All metal enclosures shall be effectively grounded. The entrance to enclosure shall be kept locked at all times, unless authorized persons are present.

(2) All transformers containing flammable oil and installed where they present a fire hazard, shall be provided with means to confine the oil in the event of a leak or rupture of the transformer casing.

(3) Primary or incoming line lightning arrestors.

(4) Positive disconnecting means on the incoming or primary line with circuit breaker or fuses to interrupt safely any current, normal or abnormal, which may be encountered.

(5) Transformer bank to convert the incoming or primary voltage to the transmission voltage. The use of auto-transformers for this purpose is prohibited. Secondary or underground transmission voltage shall not exceed seven thousand two hundred volts, nominal, phase to phase. The transformer may be ¹ connected delta-wye, wye-delta or delta-delta. Wye-wye connections shall not be used because of voltage instability under some conditions of load. In the event that the secondary winding is delta-connected, the neutral necessary for the four wire transmission circuit shall be derived by use of three-phase "zig-zag" or grounding transformer except as provided in section 1131 (c). Where such grounding transformers are used, they shall be capable of carrying full ground fault current with same time rating as the ground resistor to which it is connected. Should the substation primary or supply voltage equal the mine transmission voltage, the main transformer bank may be omitted and the "zig-zag" transformer used to derive a system neutral if one is not otherwise available.

(6) Secondary lightning arrestors.

(7) Ground fault current limiting resistor capable of continuously limiting ground fault current to fifty amperes or less. The resistor shall be adequately insulated and shall be protected by a grounded fence or screen unless mounted eight feet or more above ground.

(8) A secondary or mine feeder circuit breaker with interrupting capacity adequate for any possible condition of fault and no less than the short circuit capacity of the system supplying power to the breaker. Positive disconnect means shall be provided on the input side of the breaker. Use of automatic reclosing circuit breakers is prohibited. Breaker automatic tripping shall be through protective relays.

(9) Surge protection or station ground bed to which shall be connected all ² lightning arrester grounds, substation equipment frame grounds, fence (if metallic) and substation structure (if metallic). There shall be no direct connection between this ground bed and either the grounded side of the mine direct current system or the neutral ground bed described below.

(10) Neutral or primary ground bed located at least fifty feet away from the station ground at its closest point and to which shall be connected only the inby or load end of the neutral current limiting resistor.

¹ "connecetd" in original.

² "lighting" in original.

To prevent current transformer core saturation by stray direct current return currents, or neutral conductor damage, there shall be no direct or metallic connection between any point of the alternating current neutral circuit and the mine direct current ground.

(11) All surface and underground substations, battery charging stations, pump stations ¹ and compressor stations shall be kept free of non-essential combustible materials and refuse.

(12) Suitable danger signs shall be posted conspicuously at all electrically operated stations.

(13) All housings enclosing oil switch gear shall be effectively ventilated.

(14) Reverse-current protection shall be provided at all synchronous motor-direct current generator stations where two or more generators are connected in parallel, and battery charging stations, to prevent a feedback in the case of power failure.

(15) Insulating mats or other non-conducting material shall be kept in place at each switchboard power control switch, and at stationary machinery where shock hazards exist.

(16) Resistors or rheostats shall be installed in such a manner as not to create a fire hazard and shall be guarded adequately against personal contact.

(17) Switchboards shall be well lighted, front and rear.

(18) Switch rooms and substations shall be kept free of all refuse, debris and combustible material not in service.

Section 1134. High Voltage Underground Transmission ² System.—

(a) High voltage cables leading underground and extending underground shall be of the multiple conductor flame resistant type with either a rubber, plastic or armor sheath meeting the requirements of the department for flame resistance. They shall be equipped with metallic shields around each power conductor. One or more ground conductors shall be provided of a total size either (1) not less than one-half the power conductor size, or (2) capable of carrying two times the maximum ground fault current. There shall also be provided an insulated conductor not smaller than No. 8 AWG for the ground-continuity check-circuit. Cables shall be adequate for the intended current and voltage. Splices made in the cable shall provide continuity of all components and shall be made in accordance with the cable manufacturers' recommendations. The making of such splices shall be supervised by a competent person designated by the mine electrician.

¹ "and" not in original.

² "Systems" in original.

(b) High voltage cables subject to repeated flexing shall be similar in construction to type SHD-GC in accordance with Insulated Power Cable Engineers Association standard S-19-81.

(c) If couplers are used, they shall be of the three-phase type with a full metallic shell, and shall be adequate for the voltage and current expected. All exposed metal on the couplers shall be grounded to the ground conductor in the cable. The coupler shall be constructed so that the ground-continuity conductor shall be broken first and the ground conductor shall be broken last when the coupler is being uncoupled.

(d) Installations at locations where cables cross haulageways or travelways or where equipment must pass over or under cable, shall have the approval of the district mine inspector.

(e) High voltage cables shall be installed only in intake airways. They may be installed on intake haulageways only with written approval of the secretary. Such cable may be installed by hanging on suitable hooks or clamps, or by supporting by a suitable messenger cable, or by burying or by installation in metal conduit. When suspended, distance between supports shall not exceed twenty feet and they shall be so placed that they do not damage the cable jacket. When hung in a haulage entry containing a trolley wire, the cable shall be installed at least twelve inches from the trolley wire or feeder wires and away from the track.

(f) Any excess cable which is connected and supplying a load shall be coiled in a figure eight fashion, using long loops stored on a reel, or otherwise stored, at a place near the load where it can be protected by dangering off the place. Such cable shall not exceed one thousand feet in length.

(g) Frames and enclosures of high voltage switch units, transformers, metallic cable couplers, and splice boxes shall be grounded to the common or primary ground for the system in the high voltage cable.

(h) Taps or branch circuits from the high voltage feeder shall be made through circuit breakers adequate to interrupt any fault current which might occur. Relaying protection on such breakers shall include instantaneous and inverse time limit phase overcurrent, undervoltage, ground-fault and ground-continuity check-functions. A separate ground-continuity check-circuit originating at the branch circuit breaker shall be extended into each branch and shall be connected to ground at the frame of the load served. The ground-continuity check-circuit shall be so wired that the ground-wire or ground-continuity conductor or any connection on either wire cannot be broken without interrupting the check-circuit unless such break occurs on a branch which has been disconnected. A suitable load break switch may be used in lieu of a circuit breaker provided that the ground-continuity check-circuit shall be wired as provided

in subsection (h) of this section.

(i) When nonload breaking disconnect switches are used for section-alizing high voltage circuits, they shall be fully metal-clad, equipped with a door interlock to break the ground-continuity check-circuit, thus tripping the feeding breaker when the door is open, and a voltmeter or indicating ¹ light to verify that the circuit is de-energized before the disconnect switches are opened.

Section 1135. Load Center.—Transmission voltage shall be reduced to machine utilization voltage by a portable transformer or load center of adequate capacity for the equipment powered by it. The transformer shall be of the dry type, ventilated, nonventilated, or sealed, substantially constructed and completely enclosed in a metal case. The metal enclosure shall be connected to the high voltage system ground conductor in the high voltage cable. Complete load center construction shall render it essentially fireproof. In addition to these requirements, the following shall be observed:

(1) Connection of the high voltage cable to the load center shall be made through a cable coupler of the type described in subsection (c) of section 1134.

(2) The load center shall be equipped with positive disconnect means on the incoming or high voltage circuit. This may consist of a circuit breaker, load break switch, disconnect switch, or other device.

(i) If a circuit breaker is used for this purpose it shall be equipped with instantaneous and inverse time limit phase overcurrent and under-voltage relaying protection.

(ii) If a device other than a circuit breaker is used, it shall be so arranged that it cannot be operated until the ground-continuity check circuit in the high voltage cable has opened causing the nearest feeding circuit breaker to trip.

(3) The restriction of subsection (5) of section 1132 of article XI pertaining to transformer connections and use of "zig-zag" grounding transformers also apply to the load center.

(4) The transformer secondary neutral of load center transformers, direct or derived, shall be connected to machine trailing cable safety ground conductors through a ground current limiting resistor capable of limiting ground fault current to twenty-five amperes or less. The inby side of this resistor shall be grounded to the load center frame.

(5) The load center shall be equipped with a main secondary breaker of adequate interrupting capacity with tripping devices which shall feed individual machine breakers located either in the load center or external

¹ "lights" in original.

to it in a separate distribution center. External utilization voltage connections shall be made through receptacles so arranged that they cannot be uncoupled under load.

(6) Load centers shall be located on intake air only. Load centers shall not be located beyond one hundred fifty feet outside the last open crosscut.

Section 1136. Distribution Centers.—(a) Distribution centers may be used to distribute utilization power to portable equipment. The distribution center may be connected to the load center through one or more cables or conductors protected by flame-resistant jackets with combined capacity sufficient to carry the maximum loads which may be encountered. The distribution center shall contain breakers adequate to interrupt any fault current which might occur, which shall feed each unit of equipment which is connected to the distribution center. Each breaker shall be equipped with tripping devices which will function on overload, phase fault and ground fault. Distribution centers shall be located on intake air only, and shall not be located beyond one hundred fifty feet outside the last open crosscut unless the distribution center shall have an approved explosion-proof enclosure.

(b) Utilization voltage cables shall be fitted with plug couplers and provision made so that cables cannot be uncoupled under load. All plugs and length of cable sockets shall be substantially constructed and any exposed metal portions shall be grounded. Couplers shall be constructed so that the ground conductor connection is broken last during uncoupling.

(c) Utilization voltage conductors, cables, or conductor groups shall contain one or more ground conductors which combined equal one-half size of power conductor or shall be able to carry safely and continuously at least twice the maximum ground fault current.

Section 1137. Technological Improvement.—(a) The secretary shall recognize, encourage and permit the adoption and use of alternative or new methods, materials, machinery, equipment, supplies, tools, devices and processes in carrying out the provisions of this act pertaining to electricity in anthracite coal mines when such alternates provide protection to personnel and property equal to or in excess of the requirements set forth in any portion of this act. Any operator proposing use of such alternate or new methods, materials, machinery, equipment, supplies, tools, devices and processes shall notify, in writing, the secretary, describing such proposal in detail.

(b) Upon receipt of this proposal it shall be given preliminary review by the secretary. If such review indicates that the proposal has potential

merit, the secretary may, at his discretion, appoint a commission consisting of three mine inspectors and any others he deems pertinent. Such commission shall investigate and review said proposal to determine its ¹ effect on safety and property and report their findings in writing to the Secretary of Mines and Mineral Industries.

(c) If either the secretary or commission recommends disapproval, their report shall include specific references to the requirements and standards of this act which the proposal violates and shall also specify the manner in which it fails to provide personnel and property protection equal to or in excess of such requirements or standards.

(d) Upon the approval of the commission, the secretary shall forthwith issue a permit approving the alternate or new methods, materials, machinery, equipment, supplies, tools, devices and processes.

Section 1138. Installation Made Prior to Effective Date of Act.—Installation made prior to the effective date of these rules for the installation and maintenance of electrical equipment are to be accepted, provided equipment and installation are made in accordance with accepted electrical practices.

ARTICLE XII INJUNCTIONS

Section 1201. Inspector to Apply to Court for Injunction.—Upon application of the inspector of mines of the proper district, acting in behalf of the Commonwealth, any of the courts of law or equity having jurisdiction where the mine or colliery proceeded against is situated, whether any proceedings have or have not been taken, shall prohibit, by injunction or otherwise, the working of any mine or colliery in which any person is employed or is permitted to be for the purpose of working in contravention of the provision of this act, and may award such costs in the matter of the injunctions or other proceedings as the court may think just; but this section shall be without prejudice to any other remedy permitted by law for enforcing the provisions of this act. Written notice of the intention to apply for such injunction in respect to any mine or colliery, shall be made to the operator or superintendent of such mine or colliery not less than twenty-four hours before the application is made.

ARTICLE XIII PENALTIES

Section 1301. Affidavit Presented to Judge of Court of Quarter Sessions.—Any judge of the court of quarter sessions of the peace of the county in which the mine or colliery, at which the offense, act or omission as hereinafter stated has occurred, is situated, is hereby author-

¹ "affect" in original.

ized and required, upon the presentation to him of the affidavit of any citizen of the Commonwealth setting forth that the operator or superintendent, or any other person employed in or about such mine or colliery had been negligently guilty of an offense against the provisions of this act, whereby a dangerous accident had resulted or might have resulted to any person or persons employed in such mine or colliery, to issue a warrant to the sheriff of said county, directing him to cause such person or persons to be arrested and brought before said judge, who shall hear and determine the guilt or innocence of the person or persons so charged, and if convicted he or they shall be sentenced to pay a fine not exceeding five hundred dollars (\$500), in all cases not otherwise provided for in this act, or an imprisonment in the county jail for a period not exceeding three months, or both, at the discretion of the court: Provided, That any defendant may waive trial before a judge as herein provided and at any time, at or before the time of such trial, demand a trial by a jury in the court of quarter sessions, in which case he may enter into a recognizance before said judge with such surety or sureties and in such sum as said judge may approve, conditioned for his appearance at the next court of quarter sessions to answer the charge against him and abide the orders of the court in the premises, meanwhile to be of good behavior and keep the peace, or in default of such recognizance to be committed to the county jail to await such trial.

Section 1302. Appellant May Appeal Conviction.—If any person shall feel himself aggrieved by such conviction and sentence before a judge as aforesaid, he may appeal therefrom subject to the following conditions, namely: The appellant shall, within seven days after the decree has been made, give notice to the prosecutor of his intention to appeal, and within the same time enter into a recognizance, with such surety or sureties and in such sum as shall be proved by said judge, conditioned to appear and try such appeal before the next court of quarter sessions of the peace and to abide the judgment of the court thereon and to pay all such costs and penalties as may be there awarded, and upon the compliance with such conditions the judge shall release the appellant from custody pending the appeal.

Section 1303. Liable to Higher Penalty in Opinion of Court.—Nothing in this act shall prevent any person from being indicted or liable under any other act to any higher penalty or punishment than is herein provided, and if the court before whom any such proceeding is had shall be of the opinion that proceedings ought to be taken against such persons under any other act, or otherwise, he may adjourn the case to enable such proceedings to be taken.

Section 1304. Offenses; Misdemeanors.—All offenses under this act are declared to be misdemeanors and in default of payment of any penalty or cost by the party or parties sentenced to pay the same, he or they may be imprisoned for a period not exceeding three months and not less than thirty days.

Section 1305. Violation of Duty by Mine Inspector.—For any violation of duty by the mine inspector prescribed by this act, he shall be deemed guilty of a misdemeanor and, upon conviction, be sentenced to pay a fine of not more than three hundred dollars (\$300) or be imprisoned for a period not exceeding three months, or either, or both, at the discretion of the court.

Section 1306. Fines Paid to County Treasury.—All fines imposed under this act shall be paid into the county treasury for the use of the county.

Section 1307. Conviction or Acquittal Under Act Not Received in Evidence in Any Action for Damages.—No conviction or acquittal under this act, in any complaint, shall be received in evidence upon the trial of any action for damages arising from the negligence of any owner, operator or superintendent or employe in any mine or colliery.

Section 1308. Criminal Penalties.—Any person who shall intentionally or carelessly disobey any order given in carrying out the provisions of this act, or do any other act whatsoever, whereby the lives or the health of the persons employed, or the security of the mine or the machinery are endangered, or who neglects or refuses to perform the duties required of him by this act, or who makes any false statement in any report required by this act, or who is responsible for failure to comply with any decision made in accordance with this act, or who violates any of the provisions or requirements thereof, shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof in the court of quarter sessions of the county in which the misdemeanor was committed, unless otherwise specified hereinbefore, be punished by a fine not exceeding two hundred dollars (\$200), or imprisonment in the county jail for a period not exceeding three months, or both, at the discretion of the court.

ARTICLE XIV

MISCELLANEOUS PROVISIONS

Section 1401. Compliance and Construction.—Whenever any equipment or supplies required by this act, including approved electric equipment, are unobtainable in the normal course of business, as determined by the secretary, compliance with the requirements of this act with respect thereto is suspended so long as such items remain unobtainable.

Due allowance shall also be made for planning, institution of change procedures and installation of new equipment.

Section 1402. Adoption of New Items or Methods.—Nothing in this act shall be construed to prevent the adoption or use by any operator of new machinery, equipment, tools, supplies, devices, methods and processes if such new machinery, equipment, tools, supplies, devices, methods and processes accord protection to personnel and property substantially equal to or in excess of the requirements set forth in any portion of this act.

Section 1403. Severability.—If any provisions of this act or the application of such provision to any person or circumstances shall be held invalid, the remainder of the act and the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

Section 1404. Specific Repeals.—(a) The following acts and all amendments thereof are repealed absolutely.

(1) The act of April 12, 1869 (P. L. 852), entitled “An act for the better regulation and ventilation of mines, and for the protection of the lives of the miners in the county of Schuylkill.”

(2) The act of June 30, 1885 (P. L. 218), entitled “An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania, and for the protection and preservation of property connected therewith.”

(3) The act of June 2, 1891 (P. L. 176), entitled “An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania and for the protection and preservation of property connected therewith.”

(4) The act of July 15, 1897 (P. L. 287), entitled “An act to protect the lives and limbs of miners from the dangers resulting from incompetent miners working in the anthracite coal mines of this Commonwealth, and to provide for the examination of persons seeking employment as miners in the anthracite region, and to prevent the employment of incompetent persons as miners in anthracite coal mines, and providing penalties for a violation of the same.”

(5) The act of May 29, 1901 (P. L. 342), entitled “An act relating to anthracite mines, and providing for the care and life and attention of employees injured in and about said mines.”

(6) The act of April 29, 1911 (P. L. 102), entitled “An act to provide for the safety of persons employed in and about the anthracite coal-mines of this Commonwealth, and to limit the hours of labor and hoisting-engineers employed at or about the same, and fixing a penalty for

the violation of this act.”

(7) The act of July 1, 1937 (P. L. 2461), entitled “An act providing for the qualifications, examination, appointment, term of office, and removal of Anthracite Mine Inspectors; conferring powers and imposing duties in connection therewith upon the Governor, the Anthracite Mine Inspectors’ Examining Board, the Department of Mines, and the courts; and imposing penalties.”

(b) The following acts and all amendments thereof are repealed in so far as they apply to anthracite coal mines:

(1) The act of March 3, 1870 (P. L. 3), entitled “An act providing for the health and safety of persons employed in coal mines.”

(2) The act of June 30, 1885 (P. L. 202), entitled “An act to prevent the employment of female labor in and about the coal mines and the manufactories thereof in the State of Pennsylvania.”

(3) The act of May 7, 1889 (P. L. 108), entitled “An act to create a commission to investigate the waste of coal mining, with a view to the utilizing of said waste, and making an appropriation for the expense thereof.”

(4) The act of April 24, 1901 (P. L. 97), entitled “An act to regulate the weight of all black blasting powder used, made, or sold in kegs, for use in the coal mines within the Commonwealth of Pennsylvania, and providing for the proper stamping of the kegs containing said powder, and making it unlawful for the use of any such kegs for containing said black blasting powder save only by the person, firm or corporation whose name is stamped on said kegs, and providing penalties for the violation of any of the provisions of this act.”

(5) The act of June 15, 1911 (P. L. 979), entitled “An act to safeguard life in the coal-mines of the Commonwealth of Pennsylvania, and to protect and preserve the property connected therewith, by providing that all inside buildings shall be constructed of incombustible material; and providing penalties for failure to comply with the terms of this act, and making a violation thereof by mine superintendents a misdemeanor.”

(6) The act of April 25, 1945 (P. L. 289), entitled “An act providing for the health and safety of persons employed in and about the coal mines of the Commonwealth of Pennsylvania; the protection and preservation of property connected therewith; the appointment of electrical inspectors by the Secretary of Mines with the consent and approval of the Governor; the fixing of their salaries and necessary expenses incurred in the performance of their duties; and the fixing of the qualifications which shall be possessed by persons appointed to the position of electrical inspector.”

(7) The act of May 15, 1945 (P. L. 526), entitled "An act relating to the use of trailing cables on portable electric machinery in coal mines; providing for the health and safety of persons employed therein, and for the protection and preservation of property connected therewith, and for the inspection of such equipment by the Department of Mines."

(8) The act of May 29, 1945 (P. L. 1132), entitled "An act providing for the health and safety of persons employed in and about coal mines in the Commonwealth of Pennsylvania; the protection and preservation of property connected therewith; the appointment of first aid and mine rescue instructors by the Secretary of Mines, with the approval of the Governor, fixing their salaries and qualifications; providing for the purchase of trucks and necessary equipment to carry on the work; and making an appropriation therefor."

(9) The act of May 26, 1949 (P. L. 1846), entitled "An act fixing the salaries of State mine inspectors under the jurisdiction of the Department of Mines and the expenses incident to their office."

(10) The act of December 28, 1951 (P. L. 1801), entitled "An act regulating the use of machinery powered by internal combustion engines or motors in coal mines."

(11) The act of April 4, 1956 (P. L. 1395), entitled "An act relating to the use of conveyor belts in coal mines; providing for the safety of persons employed therein and the protection of property connected therewith; conferring powers and imposing duties upon the Department of Mines; and prescribing penalties."

Section 1405. General Repeal.—All other acts and parts of acts are repealed in so far as they are inconsistent therewith.

APPROVED—The 10th day of November, A. D. 1965.

WILLIAM W. SCRANTON

No. 347

AN ACT

HB 1357

Amending the act of June 1, 1959 (P. L. 350), entitled "An act relating to the retirement of public school employes; amending, revising, consolidating and changing the laws relating thereto," extending the act to public school nurses attending parochial school children.

The General Assembly of the Commonwealth of Pennsylvania hereby