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Introduced

Senate Bill 677

FISCAL NOTE

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[Introduced March 19, 2021; referred

to the Committee on Energy, Industry, and Mining;

and then to the Committee on the Judiciary]

A BILL to amend and reenact §22A-1-2 and §22A-1-12 of the Code of West Virginia, 1931, as amended; to amend and reenact §22A-2-33, §22A-2-40, §22A-2-46, and §22A-2-70 of said code; and to amend and reenact §22A-9-1 of said code, all relating to miners' safety, health and training standards regarding capacitors used for power correction, electrical work performed on low, medium, or high voltage circuits or equipment, and the use of gas-detecting devices; making technical corrections; authorizing the director to terminate tenured inspectors; and providing for a hearing process related to an inspector's termination.

Be it enacted by the Legislature of West Virginia:

ARTICLE 1. OFFICE OF MINERS' HEALTH, SAFETY AND TRAINING.

§22A-1-2. Definitions.

Unless the context in which used clearly requires a different meaning, the following definitions apply to this chapter:

(a) *General. —*

(1) Accident: The term "accident" means any mine explosion, mine ignition, mine fire, or mine inundation, or injury to, or death of any person.

(2) Agent: The term "agent" means any person charged with responsibility for the operation of all or a part of a mine or the supervision of the miners in a mine.

(3) Approved: The term "approved" means in strict compliance with mining law, or, in the absence of law, accepted by a recognized standardizing body or organization whose approval is generally recognized as authoritative on the subject.

(4) Face equipment: The term "face equipment" means mobile or portable mining machinery having electric motors or accessory equipment normally installed or operated inby the last open crosscut in an entry or room.

(5) Imminent danger: The term "imminent danger" means the existence of any condition or practice in a coal mine which could reasonably be expected to cause death or serious physical

harm before such condition or practice can be abated.

(6) Mine: The term “mine” includes the shafts, slopes, drifts or inclines connected with, or intended in the future to be connected with, excavations penetrating coal seams or strata, which excavations are ventilated by one general air current or divisions thereof, and connected by one general system of mine haulage over which coal may be delivered to one or more points outside the mine, and the surface structures or equipment connected or associated therewith which contribute directly or indirectly to the mining, preparation or handling of coal, or construction thereof.

(7) Miner: The term “miner” means any individual working in a coal mine.

(8) Operator: The term “operator” means any firm, corporation, partnership or individual operating any coal mine, or part thereof, or engaged in the construction of any facility associated with a coal mine.

(9) Permissible: The term “permissible” means any equipment, device or explosive that has been approved as permissible by the Federal Mine Safety and Health administration and/or the United States Bureau of Mines and meets all requirements, restrictions, exceptions, limitations and conditions attached to such classification by that agency or the bureau.

(10) Person: The term “person” means any individual, partnership, association, corporation, firm, subsidiary of a corporation or other organization.

(11) Work of preparing the coal: The term “work of preparing the coal” means the breaking, crushing, sizing, cleaning, washing, drying, mixing, storing and loading of bituminous coal or lignite and such other work of preparing such coal as is usually done by the operator of the coal mine.

(b) *Office of Miners’ Health, Safety and Training. —*

(1) Board of appeals: The term “board of appeals” means as provided for in article five of this chapter.

(2) Director: The term “director” means the Director of the Office of Miners’ Health, Safety

and Training provided for in section three of this article.

(3) Mine inspector: The term “mine inspector” means a state mine inspector provided for in section eight of this article.

(4) Office: The term “office” means, when referring to a specific office, the Office of Miners’ Health, Safety and Training provided for in this article. The term “office”, when used generically, includes any office, board, agency, unit, organizational entity or component thereof.

(c) *Mine areas. —*

(1) Abandoned workings: The term “abandoned workings” means excavation, either caved or sealed, that is deserted and in which further mining is not intended, or open workings which are ventilated and not inspected regularly.

(2) Active workings: The term “active workings” means all places in a mine that are ventilated and inspected regularly.

(3) Drift: The term “drift” means a horizontal or approximately horizontal opening through the strata or in a coal seam and used for the same purposes as a shaft.

(4) Excavations and workings: The term “excavations and workings” means any or all parts of a mine excavated or being excavated, including shafts, slopes, drifts, tunnels, entries, rooms and working places, whether abandoned or in use.

(5) Inactive workings: The term “inactive workings” includes all portions of a mine in which operations have been suspended for an indefinite period, but have not been abandoned.

(6) Mechanical working section: The term “mechanical working section” means an area of a mine: (A) In which coal is loaded mechanically; (B) which is comprised of a number of working places that are generally contiguous; and (C) which is of such size to permit necessary supervision during shift operation, including pre-shift and on-shift examinations and tests required by law.

(7) Panel: The term “panel” means workings that are or have been developed off of submain entries which do not exceed three thousand feet in length.

(8) Return air: The term “return air” means a volume of air that has passed through and ventilated all the working places in a mine section.

(9) Shaft: The term “shaft” means a vertical opening through the strata that is or may be used for the purpose of ventilation, drainage, and the hoisting and transportation of individuals and material, in connection with the mining of coal.

(10) Slope: The term “slope” means a plane or incline roadway, usually driven to a coal seam from the surface and used for the same purposes as a shaft.

(11) Working face: The term “working face” means any place in a coal mine in which work of extracting coal from its natural deposit in the earth is performed during the mining cycle.

(12) Working place: The term “working place” means the area of a coal mine inby the last open crosscut.

(13) Working section: The term “working section” means all areas of the coal mine from the loading point of the section to and including the working faces.

(14) Working unit: The term “working unit” means an area of a mine in which coal is mined with a set of production equipment; a conventional mining unit by a single loading machine; a continuous mining unit by a single continuous mining machine, which is comprised of a number of working places.

(d) *Mine personnel.* —

(1) Assistant mine foreman: The term “assistant mine foreman” means a certified person designated to assist the mine foreman in the supervision of a portion or the whole of a mine or of the persons employed therein.

(2) Certified electrician: The term “certified electrician” means any person who is qualified as a mine electrician and who has passed an examination given by the office, or has at least three years of experience in performing electrical work underground in a coal mine, in the surface work areas of an underground coal mine, in a surface coal mine, in a noncoal mine, in the mine equipment manufacturing industry or in any other industry using or manufacturing similar

equipment, and has satisfactorily completed a coal mine electrical training program approved by the office or any person who is qualified as a mine electrician in any state that recognizes certified electricians licensed in West Virginia.

(3) Certified person: The term “certified person”, when used to designate the kind of person to whom the performance of a duty in connection with the operation of a mine shall be assigned, means a person who is qualified under the provisions of this law to perform such duty.

(4) Interested persons: The term “interested persons” includes the operator, members of any mine safety committee at the mine affected and other duly authorized representatives of the mine workers and the office.

(5) Mine foreman: The term “mine foreman” means the certified person whom the operator or superintendent shall place in charge of the inside workings of the mine and of the persons employed therein.

(6) Qualified person: The term “qualified person” means a person who has completed an examination and is considered qualified on record by the office.

(7) Shot firer: The term “shot firer” means any person having had at least two years of practical experience in coal mines, who has a knowledge of ventilation, mine roof and timbering, and who has demonstrated his or her knowledge of mine gases, and ~~the use of a flame safety lamp, and other~~ approved gas detecting devices by examination and certification given him or her by the office.

(8) Superintendent: The term “superintendent” means the person who has, on behalf of the operator, immediate supervision of one or more mines.

(9) Supervisor: The term “supervisor” means a superintendent, mine foreman, assistant mine foreman or any person specifically designated by the superintendent or mine foreman to supervise work or employees and who is acting pursuant to such specific designation and instructions.

(e) *Electrical.* —

(1) Armored cable: The term “armored cable” means a cable provided with a wrapping of metal, usually steel wires or tapes, primarily for the purpose of mechanical protection.

(2) Borehole cable: The term “borehole cable” means a cable designed for vertical suspension in a borehole or shaft and used for power circuits in the mine.

(3) Branch circuit: The term “branch circuit” means any circuit, alternating current or direct current, connected to and leading from the main power lines.

(4) Cable: The term “cable” means a standard conductor (single conductor cable) or a combination of conductors insulated from one another (multiple conductor cable).

(5) Circuit breaker: The term “circuit breaker” means a device for interrupting a circuit between separable contacts under normal or abnormal conditions.

(6) Delta connected: The term “delta connected” means a power system in which the windings or transformers or a.c. generators are connected to form a triangular phase relationship, and with phase conductors connected to each point of the triangle.

(7) Effectively grounded: The term “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.

(8) Flame-resistant cable, portable: The term “flame-resistant cable, portable” means a portable flame-resistant cable that has passed the flame tests of the federal mine safety and health administration.

(9) Ground or grounding conductor (mining): The term “ground or grounding conductor (mining)”, also referred to as a safety ground conductor, safety ground and frame ground, means a metallic conductor used to connect the metal frame or enclosure of any equipment, device or wiring system with a mine track or other effective grounding medium.

(10) Grounded (earthed): The term “grounded (earthed)” means that the system, circuit or apparatus referred to is provided with a ground.

(11) High voltage: The term “high voltage” means voltages of more than one thousand volts.

(12) Lightning arrestor: The term “lightning arrestor” means a protective device for limiting surge voltage 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.

(13) Low voltage: The term “low voltage” means up to and including 660 volts.

(14) Medium voltage: The term “medium voltage” means voltages from 661 to 1,000 volts.

(15) Mine power center or distribution center: The term “mine power center or distribution center” means a combined transformer or distribution unit, complete within a metal enclosure from which one or more low-voltage power circuits are taken.

(16) Neutral (derived): The term “neutral (derived)” means a neutral point or connection established by the addition of a “zig-zag” or grounding transformer to a normally underground power system.

(17) Neutral point: The term “neutral point” 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 groundings in wye-connected a.c. power system.

(18) Portable (trailing) cable: The term “portable (trailing) cable” means 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 impracticable.

(19) Wye-connected: The term “wye-connected” means a power system connection in which one end of each phase windings or transformers or a.c. generators are connected together to form a neutral point, and a neutral conductor may or may not be connected to the neutral point, and the neutral point may or may not be grounded.

(20) Zig-zag transformer (grounding transformer): The term “zig-zag transformer (grounding transformer)” means a transformer intended primarily to provide a neutral point for

grounding purposes.

§22A-1-12. Employment of underground mine inspectors; eligibility; qualifications; examinations; salary and expenses; reinstatement; removal.

(a) The office shall employ as many underground mine inspectors as the director determines to be reasonably necessary in fully and effectively carrying out the applicable provisions of this chapter.

(b) To be eligible for employment as a mine inspector the applicant shall be: (1) A citizen of West Virginia, in good health, not less than 24 years of age, of good character and reputation and of temperate habits; (2) a person who has had at least five years of practical experience in coal mines, at least two years of which have been in mines of this state: *Provided,* That graduation from any accredited college of mining engineering may be considered the equivalent of two years of practical experience; (3) a person who has had practical experience with dangerous gases found in coal mines; and (4) a person who has a good theoretical and practical knowledge of mines, mining methods, mine ventilation, sound safety practices and applicable mining laws and rules. For the purpose of this section, practical experience means the performance of normal mining duties requiring a person to hold a certificate of competency and qualification as an experienced underground miner prior to actually performing such duties.

(c) In order to qualify for appointment as an underground mine inspector, an eligible applicant shall submit to written, oral and practical examinations administered by the mine inspectors' examining board and furnish evidence of good health, character and other facts establishing eligibility as the board may require. The examinations shall relate to the duties to be performed by an underground mine inspector and, subject to the approval of the mine inspectors' examining board, may be prepared by the director. If the board finds after investigation and examination that an applicant: (1) Is eligible for appointment; and (2) has passed each required examination, with a grade of at least 75 percent or an overall combined average score of 80 percent, the board shall add the applicant's name and grades to the register of qualified eligible

candidates and promptly certify its action in writing to the director. The director shall then appoint one of the candidates from the three having the highest grades.

(d) Underground mine inspectors shall be paid an annual salary of not less than $38,160; assistant inspectors-at-large, not less than $44,448; inspectors-at-large, not less than $46,104, each of which shall be fixed by the director, who shall take into consideration ability, performance of duty, and experience. In accordance with established rules of the state's travel management office, underground mine inspectors shall also be allowed and paid expenses necessarily incident to the performance of their official duties: *Provided,* That no reimbursement for expenses may be made other than upon the timely submittal of a properly itemized expense account settlement completed by the underground mine inspector, approved and countersigned by the director, or his or her designated representative, verifying that the expenses were actually incurred in the performance of official duties. Underground mine inspectors shall devote all of their time to the duties of the office and shall be afforded compensatory time or compensation of at least the regular rate for all time in excess of 40 hours per week.

(e) (1) An underground mine inspector, after having received a permanent appointment, may be removed from office only for physical or mental impairment, incompetency, neglect of duty, public intoxication, malfeasance in office or other similarly good cause.

(2) ~~Proceedings for the removal of an underground mine inspector may be initiated by the director whenever there is reasonable cause to believe that adequate cause exists, warranting removal. The proceeding may be initiated by a verified petition, filed with the mine inspectors' examining board by the director, setting forth with particularity the facts alleged~~ The director may remove an underground mine inspector at any time for the reasons set forth in subsection (1) of this section. Upon such removal, the inspector shall be provided a written document with the cause(s) for removal and setting forth with particularity the facts on which the removal was based. Not less than 20 reputable citizens, who are operators or employees in mines in this state, may petition the director for the removal of an underground mine inspector. If the petition is verified by

at least one of the petitioners, based on actual knowledge of the affiant of the alleged facts, which, if true, warrant the removal of the inspector, the director shall cause an investigation of the alleged facts to be made. If, after the investigation, the director finds that there is substantial evidence~~,~~ ~~which, if true~~ that warrants removal of the inspector, the director shall ~~file a petition with the board requesting removal of the inspector~~ remove the inspector and provide him or her a written document with the cause(s) for removal and setting forth with particularity the evidence found in the investigation: *Provided*, That in all cases of removal, the inspector has the right to request a hearing in writing before the Board of Coal Mine Health and Safety within 15 days of receipt of the notice of removal and the director shall provide the inspector written notice of such right to a hearing.

~~(3) On receipt of a petition by the director seeking removal of an underground mine inspector, the board shall promptly notify the inspector to appear before it at a time and place designated in the notice, which time shall be not less than fifteen days thereafter. There shall be attached to the copy of the notice served upon the inspector a copy of the petition filed with the board~~

~~(4)~~ (3) ~~At the time and place designated in the notice~~ If the inspector requests a hearing in writing, the board shall promptly schedule a hearing and shall provide notice to the inspector of the time and place for such hearing, at which time and place the board shall hear all evidence offered in support of the ~~petition~~ removal and on behalf of the inspector. Each witness shall be sworn, and a transcript shall be made of all evidence taken and proceedings had at the hearing. No continuance may be granted except for good cause shown. ~~The chair of the board and the director have power to administer oaths and subpoena witnesses~~ The administrator of the board, or in their absence a member of the board designated by the board, has the power to administer oaths and subpoena witnesses.

~~(5)~~ (4) ~~If any mine inspector against whom a petition has been filed~~ If any mine inspector removed requests a hearing in and thereafter willfully refuses or fails to appear before the board,

or having appeared, refuses to answer under oath any relevant question on the basis that the testimony or answer might incriminate him or her or refuses to waive immunity from prosecution because of any relevant matter about which the inspector may be asked to testify, then the inspector shall forfeit his or her position.

~~(6)~~ (5) ~~If, after hearing, the board finds that the inspector should be removed, it shall enter an order to that effect~~ If the inspector fails to request a hearing in writing, or after requesting a hearing in writing and such hearing having been held, the board finds that the inspector should be removed based on a preponderance of the evidence, it shall enter an order to that effect. Should the board find that the inspector should not have been removed, the inspector shall be reinstated. The decision of the board is final and is not subject to judicial review.

ARTICLE 2. UNDERGROUND MINES.

§22A-2-33. Preparation of shots; blasting practices.

(a) Only a certified “shot firer” designated by mine management shall be permitted to handle explosives and do blasting. Only electric detonators of proper strength fired with permissible shot firing units shall be used except under special permits as hereinafter provided, and drillholes shall be stemmed with at least 24 inches of incombustible material, or at least one half of the length of the hole shall be stemmed if the hole is less than four feet in depth, unless other permissible stemming devices or methods are used. Drillholes shall not be drilled beyond the limits of the cut, and as far as practicable, cuttings and dust shall be cleaned from the holes before the charge is inserted. Charges of explosives exceeding one and one-half pounds, but not exceeding three pounds, shall be used only if drillholes are six feet or more in depth. Ample warning shall be given before shots are fired, and care shall be taken to determine that all persons are in the clear before firing. Miners shall be removed from adjoining places and other places when there is danger of shots blowing through. No shots shall be fired in any place known to liberate explosive gas, until such place has been properly examined by a competent person who is designated by mine management for that purpose, and no shots shall be fired in any place

where gas is detected with ~~a permissible flame safety lamp~~ an approved gas detecting device until such gas has been removed by means of ventilation. After firing any shot, or shots, the person firing the same shall not return to the working face until the smoke has been cleared away and then he or she shall make a careful examination of the working face before leaving the place or before performing any other work in the place.

(b) Multiple shooting in coal or rock or both is authorized only under permit issued by the director. Permission to shoot more than 10 shots simultaneously may be granted by the director only after consultation with interested persons, and such shooting will be performed by special methods and under precautions prescribed by the director. All multiple shooting in bottom or roof rock shall be performed in intake air, except by special permit from the director, after consultation with interested persons, as heretofore provided. Multiple blasting of more than 10 shots performed under any permit granted by the director under this section shall be done only on noncoal-producing shifts or idle days, except as may be provided as a condition of the permit granted.

(c) Regular or short-interval delay detonators may be used for blasting purposes with written permission from the director. Regular delay detonators shall not be used for blasting coal, but may be used for grading above or below coal seams and during shaft, slope, tunnel work and in faults or wants. Where short-interval delay detonators are permitted by said director to be used, the shot firing circuit must be tested with a blasting galvanometer before firing, and the leg wires connected in series. No instantaneous, regular, or zero-delay detonators are to be fired in conjunction with short-interval delay detonators. The delay interval between dependent rows must not be less than 25 milliseconds or more than 100 milliseconds, and the entire series of any one round shall not provide a delay of more than 500 milliseconds between the first and last shot. The total number of charged holes to be fired during any one round must not exceed the limit permitted by the director. Misfires must be tested with a blasting galvanometer before removing.

(d) Electrical equipment shall not be operated in the face areas, and only work in connection with timbering and general safety shall be performed while boreholes are being

charged. Shots shall be fired promptly after charging. Mudcaps (adobes) or any other unconfined shots shall not be permitted in any coal mine. No solid shooting shall be permitted without written permission of the office.

(e) Blasting cables shall be well insulated and shall be as long as may be necessary to permit persons authorized to fire shots to get in a safe place out of the line of fire. The cable, when new, shall be at least 125 feet in length and never less than 100 feet. Shooting cables shall be kept away from power wires and all other sources of electric current, connected to the leg wires by the person who fires the shot, staggered as to length or well separated at the detonator leg wires, and shunted at the battery until ready to connect to the blasting unit.

ELECTRICITY

§22A-2-40. General provisions.

Operators of coal mines in which electricity is used as a means of power shall comply with the following provisions:

(1) All surface transformers, unless of a construction which will eliminate shock hazards, or unless installed at least eight feet above ground, shall be enclosed in a house or surrounded by a fence at least six feet high. If the enclosure is of metal, it shall be grounded effectively. The gate or door to the enclosure shall be kept locked at all times, unless authorized persons are present.

(2) Underground transformers shall be air cooled or cooled with noninflammable liquid or inert gas.

(3) Underground stations containing circuit breakers filled with inflammable liquids shall be put on a separate split of air or ventilated to the return air, and shall be of fireproof construction.

(4) Transformers shall be provided with adequate overload protection.

(5) “Danger -- High Voltage” signs with the voltage indicated shall be posted conspicuously on all transformer enclosures, high-potential switchboards and other high-potential installations.

(6) Dry insulating platforms of rubber or other suitable nonconductive material shall be

kept in place at each switchboard and at stationary machinery where shock hazards exist.

(7) Capacitors used for power factor ~~connection~~ correction shall be ~~noninflammable~~ nonflammable liquid filled. Suitable drain-off resistors or other means to protect miners against electric shock following removal of power shall be provided.

(8) All unattended underground loading points where electric driven hydraulic systems are used shall utilize a fireproof oil or emulsion.

(9) Before electrical changes are made to permissible equipment for use in a mine, they shall be approved by the director.

(10) Reverse current protection shall be provided at storage battery charging stations to prevent the storage batteries from energizing the power circuits in the event of power failure.

(11) In all mines all junction or distribution boxes used for making multiple power connections inby the last open crosscut shall be permissible.

(12) All hand-held electric drills, blower and exhaust fans, electric pumps, and such other low horsepower electric face equipment which are taken into or used inby the last open crosscut of any coal mine shall be permissible.

(13) All electric face equipment which is taken into or used inby the last open crosscut of any coal mine shall be permissible.

(14) In mines operated in coal seams which are located at elevations above the water table, the phrase “coal seams above the water table” means coal seams in a mine which are located at an elevation above a river or the tributary of a river into which a local surface water system naturally drains.

(15) The operator of each coal mine shall maintain in permissible condition all electric face equipment, which is taken into or used inby the last open crosscut of any mine.

(16) Except where permissible power connection units are used, all power-connection points outby the last open crosscut shall be in intake air.

(17) All power circuits and electric equipment shall be deenergized before work is done

on such circuits and equipment, except when necessary for trouble shooting or testing.

(18) Energized trolley wires may be repaired only by a person trained to perform electrical work and to maintain electrical equipment and the operator of a mine shall require that such persons wear approved and tested insulated shoes and wireman's gloves.

(19) No electrical work shall be performed on low-, medium-, or high-voltage distribution circuits or equipment, except by a qualified person or by a person trained to perform electrical work and to maintain electrical equipment under the direct supervision of a qualified person. Disconnecting devices shall be locked out and suitably tagged by ~~the persons who perform~~ each person who performs such work, except that in cases where locking out is not possible, such devices shall be opened and suitably tagged by such persons who installed them, or, if such persons are unavailable, by qualified persons authorized by the operator or his or her agent.

(20) All electric equipment shall be examined weekly, tested, and properly maintained by a qualified person to assure safe operating conditions. When a potentially dangerous condition is found on electric equipment, such equipment shall be removed from service until such condition is corrected. A record of such examinations shall be kept and made available to an authorized representative of the director and to the miners in such mine.

(21) All electric conductors shall be sufficient in size and have adequate current-carrying capacity and be of such construction that a rise in temperature resulting from normal operation will not damage the insulating material.

(22) All electrical connections or splices in conductors shall be mechanically and electrically efficient, and suitable connectors shall be used. All electrical connections or splices in insulated wire shall be reinsulated at least to the same degree of protection as the remainder of the wire.

(23) Cables shall enter metal frames of motors, splice boxes, and electric compartment only through proper fittings. When insulated wire, other than cables, pass through metal frames, the holes shall be substantially bushed with insulated bushings.

(24) All power wire (except trailing cables on mobile equipment, specially designed cables conducting high-voltage power to underground rectifying equipment or transformers, or bare or insulated ground and return wires) shall be supported on well-installed insulators and shall not contact combustible material, roof or ribs.

(25) Power wires and cables, including, but not limited to, phone communication and control wires, except trolley wires, trolley feeder wires and bare signal wires, shall be insulated adequately and fully protected. The provisions of this subdivision shall not become effective until January 1, 1978.

(26) Automatic circuit-breaking devices or fuses of the correct type and capacity shall be installed so as to protect all electric equipment and circuits against short circuit and overloads. Three-phase motors on all electric equipment shall be provided with overload protection that will deenergize all three phases in the event that any phase is overloaded.

(27) Incandescent lamps installed along haulageways and at other locations shall not contact combustible material, and if powered from trolley or direct current feeder circuits, need not be provided with separate short circuits or overload protection, if the lamp is not more than eight feet in distance from such circuits.

(28) In all main power circuits, disconnecting switches shall be installed underground within 500 feet of the bottoms of shafts and boreholes through which main power circuits enter the underground area of the mine and within 500 feet of all other places where main power circuits enter the underground area of the mine.

(29) All electric equipment shall be provided with switches or other controls that are safely designed, constructed and installed.

(30) Each underground, exposed power conductor that leads underground shall be equipped with suitable lightning arrestors of approved type within 100 feet of the point where the circuit enters the mine. Lightning arrestors shall be connected to a low-resistance grounding medium on the surface which shall be separated from neutral ground by a distance of not less

than 25 feet.

(31) Except for areas of a coal mine inby the last open crosscut, incandescent lamps may be used to illuminate underground areas. When incandescent lamps are used in a track entry or belt entry or near track entries to illuminate special areas other than structures, the lamps shall be installed in weatherproof sockets located in positions such that the lamps will not come in contact with any combustible material. Lamps used in all other places must be of substantial construction and be fitted with a glass enclosure.

(32) An authorized representative of the director may require in any mine that electric face equipment be provided with devices that will permit the equipment to be deenergized quickly in the event of an emergency.

(33) An authorized representative of the director shall require manually operated emergency stop switches, designed to deenergize the traction motor circuit when the contractors or controller fail to open, to be installed on all battery powered tractors, taken into or used inby the last open crosscut of any entry or room.

(34) Trailing cables used in coal mines shall meet the requirements for flame-resistant cables.

(35) Short circuit protection for trailing cables shall be provided by an automatic circuit breaker or other no less effective device approved by the director of adequate current-interrupting capacity in each ungrounded conductor. Disconnecting devices used to disconnect power from trailing cables shall be plainly marked and identified and such devices shall be equipped or designed in such a manner that it can be determined by visual observation that the power is disconnected.

(36) When two or more trailing cables junction to the same distribution center, means shall be provided to assure against connecting a trailing cable to the wrong size circuit breaker.

(37) One temporary splice may be made in any trailing cable. Such trailing cable may only be used for the next 24-hour period. No temporary splice shall be made in a trailing cable within

25 feet of the machine, except cable reel equipment. Temporary splices in trailing cables shall be made in a workmanlike manner and shall be mechanically strong and well insulated. Trailing cables or hand cables which have exposed wires or which have splices that heat or spark under load shall not be used. As used in this section, the term “splice” means a mechanical joining of one or more conductors that have been severed.

(38) When permanent splices in trailing cables are made, they shall be:

(A) Mechanically strong with adequate electrical conductivity and flexibility;

(B) Effectively insulated and sealed so as to exclude moisture; and

(C) Vulcanized or otherwise treated with suitable materials to provide flame-resistant qualities and good bonding to the outer jacket.

(39) Trailing cables shall be clamped to machines in a manner to protect the cables from damage and to prevent strain on the electrical connections. No cables will be hung in a manner which will damage the insulation or conductors.

(40) Trailing cables shall be adequately protected to prevent damage by mobile equipment.

(41) Trailing cable and power cable connections to junction boxes and to electrical equipment shall not be made or broken under load.

(42) All metallic sheaths, armors and conduits enclosing power conductors shall be electrically continuous throughout and shall be grounded by methods approved by an authorized representative of the director.

(43) Except where waived by the director, metallic frames, casings and other enclosures of electric equipment that can become alive through failure of insulation or by contact with energized parts shall be grounded, and on or before January 1, 1978, shall have a ground monitoring system.

(44) In instance where single-phase 110-220 volt circuits are used to feed electrical equipment, the only method of grounding that will be approved is the connection of all metallic

frames, casings and other enclosure of such equipment to a separate grounding conductor which establishes a continuous connection to a grounded center tap of the transformer.

(45) The attachment of grounding wires to a mine ~~tract~~ track or other grounded power conductor will be approved if separate clamps, suitable for such purpose, are used and installed to provide a solid connection.

(46) The frames of all offtrack direct-current machines and the enclosures of related detached components shall be effectively grounded or otherwise maintained at no less safe voltages.

(47) Installation of silicon diodes shall be restricted to electric equipment receiving power from a direct-current system with one polarity grounded. Where such diodes are used on circuits having a nominal voltage rating of 250, they must have a forward current rating of 400 amperes or more, and have a peak inverse voltage rating of 400 or more. Where such diodes are used on circuits having nominal voltage rating of 550, they must have a forward current rating of 250 amperes or more, and have a peak inverse voltage rating of 800 or more.

(48) In addition to the grounding diode, a polarizing diode must be installed in the machine control circuit to prevent operation of the machine when the polarity of a trailing cable is reversed.

(49) When installed on permissible equipment, all grounding diodes, over-current devices, and polarizing diodes must be placed in explosion-proof compartments.

(50) High-voltage lines, both on the surface and underground, shall be deenergized and grounded before work is performed on them, except that repairs may be permitted, in the case of energized surface high-voltage lines, if such repairs are made by a qualified person in accordance with procedures and safeguards, including, but not limited to, a requirement that the operator of such mine provide, test and maintain protective devices in making such repairs.

(51) When two or more persons are working on an energized high-voltage surface line simultaneously, and any one of them is within reach of another, such persons shall not be allowed to work on different phases or on equipment with different potentials.

(52) All persons performing work on energized high-voltage surface lines shall wear protective rubber gloves, sleeves, and climber guards if climbers are worn. Protective rubber gloves shall not be worn wrong side out or without protective leather gloves. Protective devices worn by a person assigned to perform repairs on high-voltage surface lines shall be worn continuously from the time he or she leaves the ground until he or she returns to the ground, and, if such devices are employed for extended periods, such person shall visually inspect the equipment assigned him or her for defects before each use, and, in no case, less than twice each day.

(53) Disconnecting or cutout switches on energized high-voltage surface lines shall be operated only with insulated sticks, fuse tongs or pullers which are adequately insulated and maintained to protect the operator from the voltage to which he or she is exposed. When such switches are operated from the ground, the person operating such devices shall wear protective rubber gloves.

(54) Solely for purposes of grounding ungrounded high-voltage power systems, grounded messenger wires used to suspend the cables of such systems may be used as a grounding medium.

(55) When not in use, power circuits underground shall be deenergized on idle days and idle shifts, except that rectifiers and transformers may remain energized.

(56) High-voltage circuits entering the underground area of any coal mine shall be protected by suitable circuit breakers of adequate interrupting capacity. Such breakers shall be equipped with devices to provide protection against undervoltage, grounded phase, short circuit and overcurrent.

(57) Circuit breakers protecting high-voltage circuits entering an underground area of any coal mine shall be located on the surface and in no case installed either underground or within a drift.

(58) One circuit breaker may be used to protect two or more branch circuits, if the circuit

breaker is adjusted to afford overcurrent protection for the smallest conductor.

(59) The grounding resistor, where required, shall be of the proper ohmic value to limit the voltage drop in the grounding circuit external to the resistor to not more than 100 volts under fault conditions. The grounding resistor shall be rated for maximum fault current continuously and insulated from ground for a voltage equal to the phase-to-phase voltage of the system.

(60) High-voltage circuits extending underground and supplying portable mobile or stationary high-voltage equipment shall contain either a direct or derived neutral which shall be grounded through a suitable resistor at the source transformers, and a grounding circuit, originating at the grounded side of the grounding resistor, shall extend along with the power conductors and serve as a grounding conductor for the frames of all high-voltage equipment supplied power from the circuit, except that the director or his or her authorized representative may permit ungrounded high-voltage circuits to be extended underground to feed stationary electrical equipment if such circuits are either steel armored or installed in grounded, rigid steel conduit throughout their entire length, and upon his or her finding that such exception does not pose a hazard to the miners. Within 100 feet of the point on the surface where high-voltage circuits enter the underground portion of the mine, disconnecting devices shall be installed and so equipped or designed in such a manner that it can be determined by visual observation that the power is disconnected, except that the director or his or her authorized representative may permit such devices to be installed at a greater distance from such area of the mine if he or she determines, based on existing physical conditions, that such installation will be more accessible at a greater distance and will not pose any hazard to the miners.

(61) High-voltage resistance grounded systems serving portable or mobile equipment shall include a fail-safe ground check circuit to monitor continuously the grounding circuit to assure continuity, and the fail-safe ground check circuit shall cause the circuit breaker to open when either the ground or pilot check wire is broken, or other no less effective device approved by the director or his or her authorized representative to assure such continuity.

(62) Underground high-voltage cables used in resistance grounded systems shall be equipped with metallic shields around each power conductor with one or more ground conductors having a total cross-sectional area of not less than one half the power conductor, and with an insulated internal or external conductor not smaller than No. 10 (A.W.G.) for the ground continuity check circuit.

(63) All such cables shall be adequate for the intended current and voltage. Splices made in such cables shall provide continuity of all components.

(64) Single-phase loads, such as transformer primaries, shall be connected phase-to-phase.

(65) All underground high-voltage transmission cables shall be installed only in regularly inspected air courses and haulageways, and shall be covered, buried, or placed so as to afford protection against damage, guarded where men regularly work or pass under them unless they are six and one-half feet or more above the floor or rail, securely anchored, properly insulated, and guarded at ends, and covered, insulated, or placed to prevent contact with trolley wires and other low-voltage circuits.

(66) Disconnecting devices shall be installed at the beginning of branch lines in underground high-voltage circuits and equipped or designed in such a manner that it can be determined by visual observation that the circuit is deenergized when the switches are open.

(67) Circuit breakers and disconnecting switches underground shall be marked for identification.

(68) In the case of high-voltage cables used as trailing cables, temporary splices shall not be used and all permanent splices shall be made in accordance with the manufacturers' specifications.

(69) Frames, supporting structures and enclosures of stationary, portable, or mobile underground high-voltage equipment and all high-voltage equipment supplying power to such equipment receiving power from resistance grounded systems shall be effectively grounded to

the high-voltage ground.

(70) Low-and medium-voltage power circuits serving three-phase alternating current equipment serving portable or mobile equipment shall be protected by suitable circuit breakers of adequate interrupting capacity which are properly tested and maintained as prescribed by the director. Such breakers shall be equipped with devices to provide protection against under-voltage, grounded phase, short circuit and overcurrent.

(71) Power centers and portable transformers shall be deenergized before they are moved from one location to another, except that, when equipment powered by sources other than such centers or transformers is not available, the director may permit such centers and transformers to be moved while energized, if he or she determines that another equivalent or greater hazard may otherwise be created, and if they are moved under the supervision of a qualified person, and if such centers and transformers are examined prior to such movement by such person and found to be grounded by methods approved by an authorized representative of the director and otherwise protected from hazards to the miner. A record shall be kept of such examinations. High-voltage cables, other than trailing cables, shall not be moved or handled at any time while energized, except that when such centers and transformers are moved while energized as permitted under this section, energized high-voltage cables attached to such centers and transformers may be moved only by a qualified person and the operator of such mine shall require that such person wear approved and tested insulated wireman’s gloves.

(72) Low-and medium-voltage three-phase alternating-current circuits used underground shall contain either a direct or derived neutral which shall be grounded through a suitable resistor at the power center, and a grounding circuit, originating at the grounded side of the grounding resistor, shall extend along with the power conductors and serve as a grounding conductor for the frames of all the electrical equipment supplied power from the circuit, except that the director or his or her authorized representative may permit underground low- and medium-voltage circuits to be used underground to feed such stationary electrical equipment if such circuits are either

steel armored or installed in grounded rigid steel conduit throughout their entire length. The grounding resistor, where required, shall be of the proper ohmic value to limit the ground fault current to 25 amperes. The grounding resistor shall be rated for maximum fault current continuously and insulated from ground for a voltage equal to the phase-to-phase voltage of the system.

(73) Low-and medium-voltage resistance grounded systems serving portable or mobile equipment shall include a fail-safe ground check circuit to monitor continuously the grounding circuit to assure continuity which ground check circuit shall cause the circuit breaker to open when either the ground or pilot check wire is broken, or other not less effective device approved by the director or his or her authorized representative to assure such continuity, except that an extension of time, not in excess of 12 months, may be permitted by the director on a mine-to-mine basis if he or she determines that such equipment is not available. Cable couplers shall be constructed so that the ground check continuity conductor shall be broken first and the ground conductors shall be broken last when the coupler is being uncoupled.

(74) Disconnecting devices shall be installed in conjunction with circuit breakers serving portable or mobile equipment to provide visual evidence that the power is connected.

(75) Circuit breakers shall be marked for identification.

(76) Single-phase loads shall be connected phase-to-phase.

(77) Trailing cables for medium-voltage circuits shall include grounding conductors, a ground check conductor, and grounded metallic shields around each power conductor or a ground metallic shield over the assembly, except that on equipment employing cable reels, cables without shields may be used if the insulation is rated 2,000 volts or more.

(78) Trolley wires and trolley feeder wires shall be provided with cutout switches at intervals of not more than 2,000 feet and near the beginning of all branch lines.

(79) Trolley wires and trolley feeder wires shall be provided with overcurrent protection.

(80) Trolley wires and trolley feeder wires, high-voltage cables, and transformers shall not

be located within 15 feet of the last open crosscut and shall be kept at least 150 feet from pillar workings.

(81) Trolley wires, trolley feeder wires, and bare signal wires shall be insulated adequately where they pass through doors and stoppings and where they cross other power wires and cables. Trolley wires and trolley feeder wires shall be guarded adequately:

(A) At all points where men are required to work or pass regularly under the wires.

(B) On both sides of all doors and stoppings.

(C) At man-trip stations.

(82) Temporary guards shall be provided where trackmen and other persons work in close proximity to trolley wires and trolley feeder wires.

(83) Adequate precaution shall be taken to ensure that equipment being moved along haulageways will not come in contact with trolley wires or trolley feeder wires.

(84) Trolley and feeder wires shall be installed as follows: Where installed on permanent haulage, they shall be:

(A) At least six inches outside the track gauge line.

(B) Kept taut and not permitted to touch the roof, rib or crossbars. Particular care shall be taken where they pass through door openings to preclude bare wires from coming in contact with combustible material.

(C) Installations of trolley wire hangers shall be provided within three feet of each splice in a trolley wire.

§22A-2-46. Welding and cutting.

(a) A record shall be kept of oxygen and gas tanks or cylinders taken into a mine and the date shall be recorded when they are removed from the mine. No more tanks or cylinders than necessary to perform the work efficiently shall be permitted underground at one time.

(b) Propane torches may be used in lieu of blowtorches. Only approved apparatus such as torches, regulators, pressure reducing valves, hoses, check valves and gas cylinders shall be

used.

(c) Welding and cutting may be done in mines: *Provided,* That all equipment and gauges are maintained in safe condition and not abused, that suitable precautions are taken against ignition of methane, coal dust, or combustible materials, that means are provided for prompt extinguishment of fires accidentally started, and that only persons who have demonstrated competency in welding and cutting are entrusted to do this work. Adequate eye protection shall be used by all persons doing welding or cutting, and precautions shall be taken to prevent other persons from exposure that might be harmful to their eyes. A suitable wrench designed for compressed tanks shall be provided to the person authorized to use the equipment.

(d) Transportation of oxygen and gas tanks or cylinders shall be permitted on self-propelled machinery or belt conveyors specially equipped for safe holding of the containers in transportation. In no instance shall such transportation be permitted in conjunction with any mantrip, unless such mantrip is especially equipped with a compartment, lined with at least four inches of foam rubber or the equivalent, and capable of tightly securing the tank inside the manufactured frame of the vehicle.

(e) Empty oxygen and gas tanks or cylinders shall be marked “empty” and shall be removed from the mine promptly in safe containers provided for transportation of the same.

(f) When tanks and cylinders are not in use and when they are being transported, valve protection caps and plugs shall be placed on all tanks or cylinders for which caps and plugs are available. No oxygen tanks, gas tanks or cylinders shall be transported with the hoses and gauges attached thereto.

(g) In all mines a certified person, pursuant to section 12 of this article, shall examine for gas with ~~permissible flame safety lamps or other~~ an approved gas ~~detectors~~ detector before and during welding or cutting. The safety of the equipment and methods used in such cases shall be subject to approval of the director. If equipment is mobile, it shall be removed outby the last open breakthrough before cutting and welding may be performed on such equipment.

§22A-2-70. Shafts and slopes.

(a) *When mine examiner to be employed; qualifications*. -- During the sinking of a shaft or the driving of a slope to a coal bed or while engaged in underground construction work, or relating thereto, the operator shall assign a mine examiner to such project areas. Such mine examiner shall have a certificate of competency valid only for the type of work stipulated thereon and issued to him or her by the office of miners' health, safety and training after he or she has passed an examination given by the office of miners' health, safety and training. He or she or she shall, at the time he or she takes the examination, have a minimum of five years' experience in shaft sinking, slope driving and underground construction; moreover, he or she shall be able to detect methane with ~~a flame safety lamp~~ an approved gas detector and have a thorough knowledge of the ventilation of shafts, slopes, and mines, and the machinery connected therewith, and finally, he or she shall be a person of good moral character with temperate habits.

(b) *Mine examiner or certified person acting as such; duties generally; records open for inspection*. -- In all shafts and slopes within three hours immediately preceding the beginning of a work shift and before any workmen in such shift, other than those who may be designated to make the examinations, enter the underground areas of such shafts or slopes, a certified foreman or mine examiner, designated by the operator of such shaft or slope to do so, shall make an examination of such areas. Each person designated to make such examinations shall make tests with ~~a permissible flame safety lamp~~ an approved gas detector for accumulations of methane and oxygen deficiency, and examine sides of shafts and ribs and roof of all slopes. Should he or she find a condition which he or she considers dangerous to persons, he or she shall place a conspicuous danger sign at all entrances to such places. He or she shall record the results of his or her examination with ink or indelible pencil in a book prescribed by the director, kept at a place on the surface designated by mine management. All records as prescribed herein shall be open for inspection by interested persons.

(c) *Approvals and permits*. -- An approval shall be obtained from the office before work is

started. A permit shall be obtained from the office: (1) To stop fan when miners are in shafts or slopes; (2) to use electrical machinery in shafts or slopes; (3) to use electric lights in shafts or slopes; (4) to use welders, torches and like equipment in shafts or slopes; (5) to hoist more than four miners at one time in buckets or cars; (6) to shoot more than 15 shots in one series.

(d) *Records*. -- The foreman in charge on each shift shall keep a daily report of conditions and practices. The foreman in charge on each shift shall read and countersign the reports of the previous shift. Unsatisfactory conditions and practices reported shall be repeated on daily reports until corrected. Hoists, buckets, cars, ropes and appliances thereto shall be examined by a qualified person before the start of each shift and a written record kept. Deaths from accidents or previous injuries shall be reported immediately by wire to the office of the director and to the district mine inspector or the inspector-at-large. A written report of all injuries and deaths shall be mailed to the Office of Miners' Health, Safety and Training and district mine inspector promptly. Immediate notice shall be given the office of the director, the district mine inspector and the inspector-at-large in the event of an ignition of gas, or serious accident to miners or equipment. All permits and approvals must be available for inspection by all interested persons.

(e) *General.* -- The foreman on shift shall have at least five years' experience in shafts or slopes. New employees shall be instructed in the dangers and rules incident to their work. Conspicuous bulletin boards and warning signs shall be maintained. Unauthorized persons shall not be permitted around shafts or slopes. First-aid material shall be maintained at the operation as required by section fifty-nine of this article. The scene of a fatal accident shall be left unchanged until an investigation is made by all interested persons. All employees and others around the operation shall wear hard-toe shoes and hard-top hats. Goggles or other eye protection shall be worn when cutting, welding or striking where particles may fly. Gears, belts and revolving parts of machinery shall be properly guarded. Hand tools shall be in good condition. Sides of shafts, ribs and roof of all slopes shall be closely observed for loose and dangerous conditions. Loose brows, ribs and top in slopes shall be taken down or supported; loose ribs in shafts shall be scaled.

Miners shall be hoisted and lowered under power in shafts and slopes. All hoists must have two positive breaking devices. At least three wraps of rope shall remain on the hoist drum at all times. Wire ropes shall not be less than three-fourths inches in diameter, and of a design to prevent excessive spinning or turning when hoisting.

When heavy materials are hoisted, a large rope shall be used if necessary. A hoisting engineer shall be in constant attendance while men are in shaft. Head frames shall be constructed substantially. Noise from machinery shall not interfere with signals. The standard signal code, whistle or bell shall be used for hoisting:

One signal ..... Hoist

One signal ..... Stop

Two signals ..... Lower

Three signals ..... Man cage

One signal from hoisting engineer ..... Miners board cage

Hoist signals shall be posted in front of the hoisting engineer. The shaft opening shall be enclosed by a fence five feet high. Buckets shall not be loaded within six inches of the top rim. Buckets shall have a positive lock on the handle or bale to prevent bucket from crumpling while being hoisted. Positive coupling devices shall be used on buckets or cars (hooks with safety catches or threaded clevis). Emergency devices for escape shall be provided while shafts are under construction. Miners shall not ride on or work from rims of buckets. Buckets or cars shall not be lowered without a signal from working area. Only sober and competent engineers shall be permitted to operate hoists. No intoxicating liquors or intoxicated persons shall be permitted in or around any shaft, slope or machinery. Lattice type platforms shall be used.

(f) *Explosives.* -- Explosives and blasting caps being taken into or removed from the operation shall be transported and kept in approved nonconducting receptacles (unopened cartons or cases are permissible). Explosives shall not be primed until ready to be inserted into holes. Handling of explosives and loading of holes shall be under the strict supervision of a

qualified person or shotfirer. No more explosives or caps than are required to shoot one round shall be taken into shafts. Adobe, mudcapped or unconfined shots shall not be fired. Holes shall be stemmed tightly and full into the mouth. Blasting caps shall be inserted in line with the explosive. Leg wires of blasting caps and buss wires shall be kept shunted until connected. Shooting cables shall be shunted at firing devices and before connecting to leg wires. Only approved shooting devices shall be used. Shots shall be fired promptly after the round of holes are charged. Warnings shall be given before shots are fired by shouting “Fire” three times slowly after those notified have withdrawn. The blasting circuit shall be wired in series or parallel series. All shooting circuits shall be tested with a galvanometer by a qualified person before shooting. A careful examination for misfires shall be made after each shot. Persons shall not return to the face until smoke and dust have cleared away. The shooting cable shall be adequately insulated and have a substantial covering; be connected by the person firing the shot; and be kept away from power circuits. Misfires shall be removed by firing separate holes or by washing; shall not be drilled out; and shall be removed under supervision of a foreman or qualified person. Separate magazines for the storage of explosives and detonators shall be located not less than 300 feet from openings or other structures. Magazines for the storage of explosives and detonators shall be separated at least 50 feet. Magazines shall be located behind barricades. The outside of magazines shall be constructed of incombustible material. Rubbish and combustible material shall not be permitted to accumulate around or in magazine. Warning signs, to be seen in all directions, shall be posted near magazines.

(g) *Electrical*. -- Power cables installed in slopes shall be placed in conduit away from the belt as far as possible. Surface transformers shall be elevated at least eight feet from the ground or enclosed by a fence six feet high, grounded if metal; shall be properly grounded; shall be installed so that they will not present a fire hazard; and shall be guarded by sufficient danger signs.

Electric equipment shall be in good condition, clean and orderly; shall be equipped with

guards around moving parts; and shall be grounded with effective frame grounds on motors and control boxes.

All electric wires shall be installed and supported on insulators. All electric equipment shall be protected by dual element fuse or circuit breakers.

(h) *Ventilation.* -- Ventilating fans shall be offset from portal at least 15 feet; shall be installed so that the ventilating current is not contaminated by dust, smoke or gases; shall be effectively frame grounded; and shall be provided with fire extinguishers.

All shafts and slopes shall be ventilated adequately and continuously with fresh air. Air tubing shall deliver not less than 9,000 feet per minute at the working area or as much more as the inspector may require.

(i) *Gases.* -- A foreman shall be in attendance at all times in shafts and slopes who has passed an examination given by the office as to his or her competency in the use ~~of flame safety lamps~~ an approved gas detector.

An examination shall be made before and after shooting by the foreman on shift. The foreman shall have no superior in the performance of his or her duties. ~~A lighted flame safety lamp or other~~ An approved gas detector shall be carried at all times by the foreman when in the working area and weekly gas analysis made. In all shafts and slopes within three hours immediately preceding the beginning of a work shift and before any workmen in such shift, other than those who may be designated to make the examinations, enter the underground areas of such shafts or slopes, a certified mine foreman or mine examiner designated by the operator of such shaft or slope to do so, shall make an examination of such area. Evidence of official examination shall be left at the face by marking date and initials.

Gases should be removed under the supervision of the foreman in charge. Smoking shall not be permitted inside of shafts or slopes.

(j) *Drilling*. -- Dust allaying or dust collecting devices shall be used while drilling.

(k) *Lights to be used in shafts.* -- Only approved electric cap lights shall be used in shafts.

Other lights shall be of explosive-proof type. Lights shall be suspended in shafts by cable or chain other than the power conductor. In slopes, lights must be substantially installed. Power cables shall be of an approved type. Power cables shall not be taut from shaft collar to light. Power cables shall be in good condition and free of improper splices. Lights shall be suspended not less than 20 feet above where miners are working. Lights shall be removed from shaft and power cut off when shooting. In slopes, lights must be removed a safe distance when shots are fired. Lights shall not be replaced in shafts or slopes until examination has been made for gas by the mine examiner and found clear. Front of light shall be protected by a substantial metal type guard. Lights shall be protected from falling objects from above by a metal hood. The lighting circuit shall be properly fused. Electric lights shall not be used in gaseous atmospheres. ~~A lighted flame safety lamp or~~ An approved gas detector shall be kept for use at the face while miners are at work.

ARTICLE 9. MINE INSPECTORS' EXAMINING BOARD.

§22A-9-1. Mine Inspectors' Examining Board abolished and duties imposed upon the Board of Coal Mine Health and Safety.

The Mine Inspectors' Examining Board is hereby abolished. All duties and responsibilities imposed upon the Mine Inspectors' Examining Board are transferred and hereby imposed upon the Board of Coal Mine Health and Safety. On the effective date of the reenactment of this article and section of the code, all equipment and records necessary to effectuate the purposes of this article shall be transferred to the Board of Coal Mine Health and Safety.

In addition to other duties expressly set forth elsewhere in this article, the Board of Coal Mine Health and Safety shall:

(1) Establish, and from time to time, revise forms of application for employment as mine inspectors, which shall include the applicant's Social Security number, and forms for written examinations to test the qualifications of candidates for that position;

(2) Adopt and promulgate reasonable rules relating to the examination, qualification and certification of candidates for appointment as mine inspectors, and hearing for removal of

inspectors, ~~required to be~~ held ~~by~~ under section 12, article one of this chapter. All of such rules shall be printed and a copy thereof furnished by the ~~secretary of the~~ board to any person upon request. The board shall determine whether applicants have the necessary experience to take the mine inspector examination, and the examination of candidates for appointment as a mine inspector shall be conducted by the board and it shall rank all applicants;

(3) Prepare and certify to the Director of the Office of Miners' Health, Safety and Training a register of qualified eligible candidates for appointment as mine inspectors. The register shall list all qualified eligible candidates in the order of their grades, the candidate with the highest grade appearing at the top of the list. After each meeting of the board held to examine such candidates, and at least annually, the board shall prepare and submit to the Director of the Office of Miners' Health, Safety and Training a revised and corrected register of qualified eligible candidates for appointment as mine inspector, deleting from such revised register all persons: (a) Who are no longer residents of West Virginia; (b) who have allowed a calendar year to expire without, in writing, indicating their continued availability for such appointment; (c) who have been passed over for appointment for three years; (d) who have become ineligible for appointment since the board originally certified that such person was qualified and eligible for appointment as mine inspector; or (e) who, in the judgment of the board, should be removed from the register for good cause by the board;

(4) The board shall keep and preserve the written examination papers, manuscripts, grading sheets, and other papers of all applicants for appointment as mine inspector for a period of two years. Specimens of the examinations given, together with the correct solution of each question, shall be preserved;

(5) The board shall issue a letter or written notice of qualification to each successful eligible candidate;

(6) The Board of Coal Mine Health and Safety shall hear and determine proceedings for hearings for the removal of mine inspectors in accordance with the provisions of ~~this article~~ §22A-

1-12 of this code when requested in writing by the mine inspector;

(7) The board shall hear and determine appeals of mine inspectors from suspension orders made by the director pursuant to the provisions of section four, article one of this chapter: *Provided,* That an aggrieved inspector, in order to appeal from any order of suspension, shall file such appeal in writing with the Board of Coal Mine Health and Safety not later than 10 days after receipt of notice of suspension. On such appeal the board shall affirm promptly the act of the director unless it be satisfied from a clear preponderance of the evidence that the director has acted arbitrarily. Each witness shall be sworn, and a transcript shall be made of all evidence taken and the proceedings had at the hearing. No continuance may be granted except for good cause shown. The administrator of the board, or in their absence a member of the board designated by the board, shall have the power to administer oaths and subpoena witnesses; and

(8) The board and office shall make an annual report to the Governor and the director concerning the administration of mine inspection personnel in the state service, making such recommendations as the board considers to be in the public interest.

NOTE: The purpose of this bill is to update provisions of the code related to miners' safety, health and training standards. The bill makes changes to code sections related to capacitors used for power correction, electrical work performed on low, medium, or high voltage circuits or equipment, and the use of gas detecting devices. The bill also makes technical corrections. It authorizes the director to terminate tenured inspectors and provides a hearing process related to an inspector's termination.

Strike-throughs indicate language that would be stricken from a heading or the present law, and underscoring indicates new language that would be added.