WEST VIRGINIA ADMINISTRATIVE REGULATIONS

DEPARTMENT OF MINES

CHAPTER 22-4

SERIES 3

SUBJECT: RULES AND REGULATIONS GOVERNING THE SAFETY OF THOSE EMPLOYED IN AND AROUND SURFACE MINES IN WEST VIRGINIA

Process papers on absolute rule which was effective June 15, 1981 to April 11, 1984

INDEX

Subject: Rules and Regulations Governing the Safety of those Employed in and Around Surface Mines in West Virginia.

References are to Sections in the West Virginia Administrative Regulations 22-4, Series III.

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Section 1. General

1.01 Authority - these rules and regulations are issued under the authority of West Virginia Code, Chapter 20, Article 6, Section 20 in accordance with the Provisions of Chapter 29A, Article 3, of the West Virginia Code.

1.02 Effective Date - these rules and regulations were promulgated on the 23 day April, 1979.

1.03 Filing Date - these rules and regulations were filed in the office of the Secretary of State on the _____ day of _____, 1979.

1.04 Applicability - these regulations shall extend to all surface mining operations. These regulations shall not apply to any utility or railroad having facilities in the vicinity of surface mining operations unless such utility or railroad is also the operators of such surface mining operations.

1.05 Other law applicable - All provisions of the mining law of this state, specifically Chapter 22, Article 2 of the Code, are applicable to surface mining, except to the extent that these regulations cover the specific requirement, and except to the extent that the context of a specific provisions would render its applicability totally inappropriate to surface mining.

Section 2. Effect of Law and Regulations

2.01 These regulations shall have the effect of law and violations shall be deemed a violation of law and so cited with the same effect as law. All provisions of Article 1, Chapter 22 of the West Virginia Code relative to enforcement are applicable to the enforcement of these regulations.

Section 3. Definitions

3.01 "Surface Mine" shall mean all areas surface mined or being surface mined as well as adjacent areas ancillary to the operations, together with preparation and processing plants; storage areas and haulageways, roads, shops and trails; which are covered by a surface mine, or prospecting permit issued by the Department of Natural Resources.

3.02 "Inspector" - the term "inspector" shall mean surface mine inspector employed by the Department of Mines.

3.03 "Director" - the term "director" shall refer to the Director of the Department of Mines who shall have full charge of the Department and the power and duty to supervise and direct the execution and enforcement of the provisions of these rules and regulations.

3.04 "Agent" - the term "agent" means any person charged with the responsibility for the operations of all or a part of a surface mine or the supervision of the miners on a surface mine.

3.05 Imminent Danger - the term "imminent danger" means the existence of any condition or practice on a surface mine which could be expected to cause death or serious harm.

3.06 "Accident" - the term "accident" shall mean any premature ignition, fire or injury, or death other than natural causes of any person.

3.07 Brake Systems:

(a) Service brake system - the primary brake system used for stopping a vehicle.
(b) Emergency stopping system - the system used for stopping a vehicle in the event of any single failure in the service brake system.
(c) Parking System - A system to hold a stopped vehicle in a stationary position.

3.08 "Barricaded" means to obstruct passage of persons, vehicles, or flying materials.

3.09 "Berm" means a pile or mound of material capable of restraining a vehicle.

3.10 "Approved" - the term "approved" shall mean in strict compliance with mining law, or, in the absence of law, accepted by a recognized body or organization whose approval is generally recognized as authoritative on the subject.

3.11 "Operator" - the term "operator" shall mean any firm, corporation, partnership or individual operating any surface coal mine or part thereof, or engaged in the construction of any facility associated with a coal mine.

3.12 "Miner" - the term "miner" shall mean any individual working on or around a surface mine, who is employed by the operator.

3.13 "Person" - the term "person shall mean any individual, partnership, association, corporation, firm, subsidiary of a corporation or other organization.

3.14 "Work of preparing the coal" - the term "work of preparing the coal" shall mean the breaking, crushing, sizing, cleaning, washing, drying, mixing, storing, loading, and removing of over-burden from the top of the coal for the purpose of extracting coal.

3.15 "Abandoned Underground Mine Workings" - the term "abandoned underground mine workings" shall mean 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.

3.16 "Active Underground Mine Working" the term "active underground mine working" shall mean all places in a mine that are ventilated and inspected regularly.

3.17 Mine Foreman - the term "mine foreman" shall mean a certified person whom the operator or superintendent shall place in charge of the workings of the surface mine and of the persons employed thereon.

3.18 Assistant Mine Foreman - the term "assistant mine foreman" shall mean a certified person designated to assist the superintendent or mine foreman in the supervision of a portion or the whole of a mine or of the persons employed therein.

3.19 "Certified Persons" - 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, shall mean a person who is qualified under the provisions of this law to perform such duty.

3.20 "Qualified Person" - the term "qualified person" shall mean a person who has completed an examination and is considered qualified on record by the Department of Mines.

3.21 "Interested Persons" - the term "interested persons" shall include the operator, members of any mine safety committee at the mine affected and other mine workers at the mine affected.

3.22 Explosives - the term "explosives" shall mean any or all of the following: water gel slurries; dynamites; permissibles; black blasting powder; pellet powder; blasting caps; electric blasting caps; non-electrical delay blasting caps; cast primers and boosters; detonating cord; and detonating cord delay connections.

3.23 Electric Blasting Caps - the term "electric blasting caps" shall mean instantaneous electric blasting caps and all types of delay electric blasting caps.

3.24 "Detonator" - the term "detonator" shall mean blasting caps, electric blasting caps, and non-electric delay blasting caps.

3.25 "Non-electric delay blasting caps" the term "non-electric delay blasting caps" shall mean a blasting cap with an integral delay element in conjunction with and capable of being detonated by a detonation impulse or signal from a miniaturized detonating cord.

3.26 "Primer" - the term "primer" shall mean a cartridge or container of explosives into which a detonator or detonating cord is inserted or attached, and whose purpose is to initiate the main explosive charge.

3.27 "Safety Fuse" - the term "safety fuse" shall mean a flexible cord containing an internal buring medium by which fire or flame is conveyed at a continuous and uniform rate from the point of ignition to the point of use, usually a blasting cap.

3.28 "Detonating cord" - the term "detonating cord" shall mean a flexible cord containing a center core of high explosives to detonate other explosives with which it comes in contact.

3.29 "Cast primer or booster" - the term "cast primer or booster" shall mean a case or pressed block or solid high explosives (i.e., not nitroglycerin sensitized) which is normally used to detonate in-sensitive or non-capsensitive explosives.

3.30 "Detonating cord millisecond delay connectors" - the term "detonating cord millisecond delay connectors" shall mean non-electric shot interval (millisecond) delay devices for use in delaying blasts which are surface initiated by detonating cord.

3.31 "Blasting agent" - means any material consisting of a mixture of a fuel and oxidizer which:

(a) is used or intended for use in blasting;
(b) is not classified as an explosive by the Department of Transportation;
(c) passes all United States DOT tests defining blasting agent, including insensitivity to a No. 8 blasting cap in accordance with CFR49, 173.114a.

3.32 "Blasting Area" - shall mean the area near blasting operations in which concussion or flying material can reasonably be expected to cause injury.

3.33 (a) High Voltage: the term "high voltage" shall mean voltage of more than one thousand volts.

(b) Low Voltage: the term "low voltage" shall mean up to and including six hundred sixty volts.

(c) Medium Voltage: the term "medium voltage" shall mean voltages from six hundred sixty-one to one thousand volts.

3.34 "Working Place" - the term "working place" shall mean all areas in or about a surface mine where persons are working.

Section 4. Apprenticeship and Supervision.

4.01 Permit - a permit of apprenticeship surface miner shall be issued by the Director to any person who has demonstrated by examination a knowledge of the subjects and skills pertaining to employment in the surface mining industry, including, but not limited to general safety, first-aid, miner and operator rights and responsibilities, general principles of electricity, health and sanitation, heavy equipment safety, highwalls and spoil banks, haulage, welding safety, tipple safety, state and federal mining laws and regulations and such other subjects as may be required by the Board of Miner Training, Education and Certification provided, that each applicant for said permit shall complete a program of education and training of at least forty hours, which program shall be determined by the Board of Miner Training, Education and Certification and provided for an implemented by the Director of the Department of Mines. If a sufficient number of state training centers are not provided by the State Department of Mines, the operator may request approval from the director to conduct his own pre-employment training program provided such training adequately covers the criteria determined by the Board of Miner Training, Education and Certification.

4.02 Supervision of Apprentice - (a) each holder of a permit of apprenticeship shall be known as an apprentice.
(b) Any miner holding a certificate of competency and qualification may have one person working with him, and under his direction, as an apprentice and any mine foreman or assistant mine foreman may have not more than five persons working with him and under his immediate supervision and direction, as apprentices for the purpose of learning and being instructed in the duties and calling of mining.
(c) Every apprentice working at a surface mine shall be at all time under the supervision and control of at least one person who holds a certificate of competency and qualification.
(d) In all cases, it shall be the duty of every mine operator who employs apprentices to insure that such persons are effectively supervised and to instruct such persons in safe mining practices.

4.03 Conduct as apprentice - Each apprentice shall wear a red hat which identifies him as such while employed at or near a mine. No person shall be employed or retain employment as an apprentice for a period in excess of eight months, except that in the event of illness or injury, time extensions shall be permitted as established by the Director.

4.04 Violations; Penalties - Any person who knowingly works in or at a mine without a certificate issued under the provisions of this article, any person who knowingly employs an uncertified miner to work in or at a coal mine in this state, or any operator who fails to insure the supervisions of miners holding a certificate of apprenticeship as provided for in this section, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not less than fifty dollars nor more than five hundred dollars.

4.05 Job assignments to any miner - When a job assignment is given to any miner that he has not performed in the recent past, such person inexperience in the particular job assignment shall be instructed in the hazards incident thereto and the law and regulations relevant thereto prior to performing any duties in such new job assignment. When such job assignment includes the operation of equipment, the instruction shall include a supervised dry run. When the job assignment related to a plan in effect at the mine, the relevant portions of the plan shall be reviewed. A record shall be kept of such instruction.

Section 5. Mine Foreman and Assistant Mine Foreman; Daily Inspection of Working Places; Records.

5.01 Pre-shift examination - (a) prior to the beginning of any shift the mine foreman or assistant mine foreman shall visit and carefully examine highwalls in the working areas and spoil piles for cracks, loose materials, overhanging ledges, and other dangerous conditions.

(b) All flame safety lamps or other approved methane detector which is used during a working shift shall be tested and given proper maintenance before such shift.

5.02 On-Shift Examination - (a) the mine foreman or assistant mine foreman shall examine all working places in the pit under his supervision for hazards at least once every four hours during each working shift, or more often if necessary for safety.

(b) It shall further be the duty of the mine foreman or the assistant mine foreman to carefully examine the haulage roads in the pit area for slips, cracks, over-hanging trees and other dangerous conditions during his preshift and on-shift examinations.

5.03 Dangerous Conditions - should the mine foreman or assistant mine foreman find a condition which he considers dangerous to person entering such areas, he shall place a conspicuous danger sign or other approved device at all entrances to such place or places. Only persons authorized by the mine management to enter such places for the purpose of eliminating the dangerous condition shall enter such place or places while the sign is posted.

5.04 Close deep operations - When a surface mine operations is known to be close to an active underground mine the mine foreman or superintendent shall give the official representative of the underground mine at least twelve hours notice in advance of any comtemplated blasting that may endanger the safety of persons employed in the underground mine.

5.05 Instructions - the mine foreman shall see that every person employed to work at such mine shall, before beginning work therein, be instructed in the particular dangers incident to his work at such mine, and be furnished a copy of the state surface mining rules and regulations.

5.06 Records of examinations - (a) All violations or hazardous conditions and the action taken to correct such violations or conditions including the pre-shift and on-shift examination shall be recorded with ink or indelible pencil in a book prescribed by the Director of the Department of Mines, kept for such purpose at a place at the surface mine designated by mine management. All records of daily and weekly reports as prescribed herein, shall be open for inspection by interested person, and the record book shall be kept for a period of one year.

(b) A record of all required daily equipment examinations (section 10.01) shall be kept for a period of thirty days and made available to an authorized representative of the Director of Department of Mines and to the miners at such mines.

Section 6. Excavating

6.01 Ground control plans - (a) Each operator shall establish and follow an approved ground control plan for the safe control of all highwall, pits, drainage, and spill banks, which shall be consistent with prudent engineering design and will insure safe working conditions. The mining methods employed by the operator shall be selected to insure highwall and spoil bank stability. Two copies of such plan shall accompany the application for the opening permit.

(b) Location of Ground Control Plans - the operator shall have available the ground control plans for inspection by the Director of the Department of Mines, his authorized representative; or any interested persons.

6.02 Loose material removal - loose hazardous material shall be stripped for a safe distance (minimum of 15 feet), except where vegetation is required to support the slope from the top of pit or highwalls, and the loose unconsolidated material shall be sloped to the angle of repose, or barriers, baffle boards, screen, or other approved devices that afford equivalent protection.

6.03 Benches- (a) when a bench is required to insure safe operations, the width and height of the bench shall be governed by the type of equipment to be used and the operations to be performed, type of material and height of wall.

6.04 Highwall and Spoil Bank Work Areas - (a) the highwall shall be sloped or benched when required by the Department of Mines, to prevent or minimize the danger of slides. All over-hanging ledges and loose material shall be scaled from the highwall. When scaling of highwalls is necessary to correct conditions, a safe means shall be provided to perform such work.

(b) When the highwall is cracked and shows evidence of movement, or of weakening, the area shall be made safe or abandoned and dangered off.

(c) All trees endangering workmen along highwalls shall only be removed during daylight hours.

(d) Spoil banks shall be placed an adeqaute distance from the pit to prevent any material from rolling back ~~---into the pit---~~ and endangering the workmen.

(e) Persons, other than those designated to correct unsafe conditions, shall not work near or under dangerous highwalls or banks.

(f) During bench loading, adequate precautions shall be taken to prevent equipment from going over a highwall.

6.05 Examinations - (a) highwalls, banks, benches, drainage, and terrain sloping into the working area shall be examined after every rain, freeze, or thaw before men work in such areas. Such examinations shall be recorded in a book prescribed by the Director of the Department of Mines.

(b) Should a slide occur, a certified foreman or assistant shall examine the area of the slope for danger of additional slides. No person shall work in the area until the examination is complete and the area declared safe.

6.06 Repairs in excavation areas - Special safety precautions shall be taken when persons are required to perform repair work between

immobilized equipment and within twenty-feet of the highwall or spoil bank where such equipment may hinder escape from falls or slides. A competent person shall be designated to observe the highwall or spoil bank.

6.07 Tree removal - when men are in the area, suitable warning shall be given before equipment shoves over or uproots trees, and all workmen shall be removed from the immediate vicinity.

6.08 Night Work - when surface mining is performed at night, the pit in the vicinity of the work shall be adequately illuminate

Section 7. Drilling

7.01 Inspection - all drilling equipment shall be inspected daily and any defects shall be corrected promptly.

7.02 Horizontal Drilling - (a) where horizontal highwall drills are used, the operator shall not leave the controls while the drills stems are in operation.

(b) All persons shall be required to keep in the clear of auger and drill stems while in motion, no person shall be permitted to pass under or step over a moving drill stem or auger.

(c) Prior to horizontal holes being drilled in overburden a careful inspection of the highwall face shall be made. All loose hazardou material shall be removed before other work is performed.

7.03 Vertical Drilling - (a) when vertical drilling operations ar being performed the drill machine shall be continuously attended.

(b) When churn drills or vertical rotary drills are used, the drill machine operator shall not work under suspended tools. Wh collaring holes, inspecting, or during any operation where tools are removed from the hole, the tools shall be lowered to the ground or platform.

7.04 General Precautions (Drilling) - (a) when drilling operations are being performed in the area of abandoned mine, special precautions shall be taken to protect against methane.

(b) In the event of a power failure, drill machine control shall be placed in the neutral position.

(c) No person shall be permitted around auger and drill stems that are in motion.

(d) Starter hole drill steels shall be utilized when collari holes with a hand-held drill.

(e) No person shall be permitted on the drill mast while the drill bit or carriage is in motion. Tools and/or other material shall not be left on the drill mast.

7.05 Drilling Position (a) Drill machine operators shall not drill from positions that hinder their access to control levers, or from insecure footing, or staging, or from atop equipment not designed for this purpose.

(b) Men shall not hand grasp the drill steel while collaring holes or place their hands on the chuck or centralizer while drilling.

(c) Men operating or working near jackhammers or jackleg drills, shall position themselves so they will not be struck or lose their balance if the drill steel breaks.

7.06 Movement of Drills - (a) vertical drill holes and blast crevices that remain open after blasting and constitute a hazard shall be protected to prevent persons from falling into them.

(b) While moving a drill machine from one area to another, drill steel tools and other equipment shall be secured and the mast placed in a safe position.

(c) The location of the drill machine helper shall be known to the drill machine operator at all times while such drill is being moved.

(d) Hand-held air drills shall be turned off and all air bled from the air hoses before such drill is moved from one working area to another and at the end of each shift.

Section 8. Explosives and Blasting

8.01 Transportation Vehicles - Motor vehicles used to haul explosives shall comply with the following provisions:

(a) Portable fire extinguisher - a portable fire extinguisher shall be a multi-purpose dry chemical type, containing a nominal weight of five pounds of dry powder and enough expellant to apply the powder; or a foam-producing type containing at least two and one-half gallons of foam producing liquid and enough expellant to supply foam. Only fire extinguishers approved by the Underwriters Laboratories, carrying appropriate labels as to type and purpose, shall be used.

(b) All electric wiring shall be adequately protected and securely fastened. Damaged insulated wiring shall be repaired or replaced immediately.

(c) Chassis, engine, pan and bottom of vehicle body shall be reasonably clean and free of oil and grease.

(d) Fuel tanks and lines shall have no leaks.

(e) Safety devices including but not limited to lights, horn, brakes, windshield wipers, and steering apparatus shall be functioning properly.

(f) The vehicle cargo space shall be lined with wood or approved non-sparking material.

(g) The vehicle shall be plainly marked to indicate the nature of the cargo.

(h) Vehicles used to transport explosives, other than blasting agents, shall be substantially constructed with no sparking metal exposed in the cargo space. The vehicle shall be equipped with suitable side and tail gates. The explosives shall not be piled higher than the side or end.

8.02 Transportation of Explosives - Precautions

(a) Explosives and detonators shall not be transported in the same vehicle unless separated by a substantially fastened four-inch hardwood partition or equivalent approved material.

(b) Explosives and/or detonators shall be transported promptly without undue delays.

(c) Only those person necessary shall be permitted to ride on or in vehicles containing explosives and/or detonators.

(d) When vehicles containing explosives or detonators are parked on a grade, the parking brakes shall be set and the vehicle blocked securely against rolling.

(e) Vehicles containing explosives and/or detonators shall not be taken to a repair garage or shop.

8.03 General Requirements - Explosives

(a) All handling and transporting of explosives shall be under the direct supervision of a designated blaster or certified foreman.

(b) Previously frozen explosives of nitro-glycerin base shall not be used.

(c) Open fires and flames are prohibited within 100 feet of the area where explosives are being stored, handled or used.

(d) Explosives, blasting caps and electric blasting caps shall not be carried in pockets of clothing or left lying around unguarded.

(e) The use of explosives and all handling incident thereto, will be discontinued during the approach of and during thunderstorms and/or electrical storms.

(f) All runways, chutes and conveyors used for unloading of explosives shall have no exposed sparking metal parts.

(g) Explosives and detonators shall be kept a safe distance from the highwall and spoil bank.

(h) Driving vehicles or dragging boxes over firing lines, detonator wires, explosives, blasting agents, and detonators shall be prohibited. The backing of drills over loaded holes shall be prohibited.

(i) Deteriorated or damaged explosives and detonators shall be destroyed by an authorized representative of the manufacturing company.

(j) Explosives and/or detonators shall not be transported in a bucket of a dragline or like equipment.

8.04 Shooting Preparation

(a) Primers shall not be made up until ready to be inserted in the hole.

(b) Two (2) way radio equipment shall be turned off prior to the handling and use of electric detonators for a proposed shot. This rule does not apply to radios operating beyond the distances shown on the following table:

Transmitter Power (Watts) (except FM mobile)	Minimum Distance (Feet)
5 - 25	100
25 - 50	150
50 - 100	220
100 - 250	350
250 - 500	450
500 - 1,000	650
1,000 - 2,500	1,000
2,500 - 5,000	1,500
5,000 - 10,000	2,200
10,000 - 25,000	3,500
25,000 - 50,000	5,000
50,000 - 100,000	7,000

Transmitter Power (Watts) (FM Mobile)	Minimum Distance (Feet)
1 - 10	5
10 - 30	10
30 - 60	15
60 - 250	30

Adequate warning signs shall be located on all travelroads, a distance of not less than 100 feet from the minimum transmitting distance.

(c) No equipment except the drill and explosive truck other than necessary equipment for road repairs to remove the drill or explosive truck shall be permitted to work within fifty (50) feet of loaded holes or holes being loaded. Equipment powered by external electrical sources and power cables shall be prohibited from being within 100 feet of loaded holes or holes being loaded; where such equipment is being used and electrical detonators are being used, stray current tests shall be made on the bench prior to commencing the loading of holes, if current is detected, such power cables be moved to a safe distance or the power cables shall be de-energized.

(d) Holes shall not be drilled if there is a danger of intersecting a loaded or a misfired hole.

(e) Only wooden or other approved non-sparking implements shall be used to punch holes in an explosive cartridge.

(f) Tamping poles shall be blunt and squared at the end and made of wood or other, non-sparking approved material.

(g) Tamping shall not be performed directly on a capped primer.

(h) When a surface mine has cut into a known active underground mine, the surface mine inspector of the disctrict and an official representative of the deep mine shall be notified before any blasting is performed. The surface mine inspector, deep mine representative and surface mine representative shall determine and agree during what hours blasting shall be performed.

(i) Misfires shall be handled only by or under the direction of a designated blaster or certified foreman.

(j) Blasting caps shall be crimped to fuses only with implements designed for that specific purpose.

(k) In no case shall any 40-second-per-foot safety fuse less than 36 inches long or any 30-second-per-foot fuse less than 48 inches long be used.

(l) Nothing except a safety fuse is to be inserted in the open end of a blasting cap.

(m) No detonators, detonating cord, ignited cord, safety fuse, or any explosives shall be used if they have been water soaked.

(n) Electric blasting caps shall be fired with an approved blasting device.

(o) Explosives shall be kept separated at least 15 feet from detonators until loading is started, unless an approved container is utilized.

(p) Ample warning shall be given by an approved audible warning device before blasts are fired. All persons shall be removed from the blasting area.

(q) Detonating caps taken into a pit prior to being used shall be kept in a wooden box or other approved suitable container.

(r) At least a five-foot air gap shall be provided between the blasting circuit and the power circuit when the hole or series of holes are being connected.

8.05 Shooting Cables

(a) Shooting cables shall be well insulated and 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.

(b) Shooting cables shall be kept away from power wires and all other sources of electric current.

(c) When shooting highwall and overburden, the shooting cable shall be at least 500 feet in length when new and never less than 450 feet.

(d) The shooting cable for use in popping coal shall be of sufficient length to assure the safe location of person participating in the blasting and in no event less than 100 feet in length.

(e) The shooting cable shall be kept shunted until connected to the approved blasting device.

(f) Except when being tested with a blasting galvanometer, or other approved device, electric detonators shall be kept shunted until they are connected to the blasting line or wired into a blasting round.

(g) A wired round shall be kept shunted until connected to the shooting cable.

8.06 Blasting

(a) Any area in which loaded holes are prepared to be fired shall be guarded by a barricade and danger signs, or by a person physically present to prevent unauthorized entry.

(b) The blaster shall make sure that all person are in a safe place before firing a shot.

(c) The blaster performing the blasting shall be the person who makes the detonating cord connections or connects the leg wires of the detonating caps to the shot cable.

(d) All holes or series of holes containing detonators shall be fired immediately upon completion of loading. However, after connecting the loaded holes, if for any reason the holes cannot be fired immediately, all work shall cease within a radius of 300 feet of the blasting area and work shall not commence again until the holes have been fired.

(e) The firing of holes shall be conducted during daylight hours.

(f) After a blast, the blaster shall examine the area and pronounce it safe before others enter.

8.07 Post Firing

(a) Shooting cables shall be disconnected immediately from the blasting unit after each blast and shunted.

(b) No person shall return to the area where blasting has been performed until the dust has settled and the area cleared of smoke.

8.08 Misfires

(a) When electric blasting caps have been used, the blaster shall not return to misfired holes for at least 15 minutes. Misfires shall be handled only by a designated blaster in the presence of the mine/pit foreman.

(b) When a shot has misfired, extra precaution shall be taken in the handling of the misfire.

(c) The blaster shall wait 30 minutes before returning to a misfired shot, when using blasting caps and fuse.

(d) After shooting a misfired shot, the blasting cable shall be disconnected from the source of power and the battery ends short circuited before electric connections are examined.

(e) If explosives or blasting agents are suspected of burning in a hole, all persons in the blasting area shall move to a safe location and no person shall return to the hole for at least one (1) hour.

8.09 Storage of Explosives

(a) After loading boreholes all unused explosives shall be returned to the proper explosive storage magazine.

(b) The storage of explosives and the construction, location, illumination and maintenance of magazines shall be in accordance with Federal regulations as promulgated by the Internal Revenue Service, Bureau of Alcohol, Tobacco and Firearms.

(c) Explosive magazines shall be located at least 100 feet away from power lines and fuel storage areas.

(d) Cases or boxes containing explosives shall not be stored on their ends or sides in magazines nor stacked more than six (6) feet high.

(e) An area of 25 feet around magazines shall be kept clear of dry leaves, grass, undergrowth, trash and debris.

(f) Detonator and explosive storage magazines shall be separated by at least 25 feet.

(g) Ground rods shall be properly installed and secured on explosive storage magazines so as to provide sufficient electrical ground.

(h) Semi-trailer van(s) used for highway or on-site transportation of blasting agents are satisfactory for storing these materials, provided they are located according to the American Table of Distance with respect in inhabited buildings, passenger railroads and public highways. Trailers will be provided with substantial means for locking, and the trailer doors shall be kept locked except during time of placement and removal of blasting agents.

Section 9. Underground Workings

(a) The official representative of any known underground mine shall be notified immediately when a surface mine operation may in any way interfere with the safe operation of the active underground mine.

(b) Special precautions shall be taken to protect the employees where excavating is being performed in the vicinity of a known abandoned underground mine which may contain a dangerous accumulation of water and/or gas.

(c) All cut-throughs into underground mine workings shall be closed immediately.

Section 10. Equipment

10.01 Examination by equipment operators

(a) Prior to a piece of equipment being put into operation, the equipment operator shall examine it for safety and mechanical defects and record his findings in ink or indelible pencil on a form approved by the Director, such form shall be given to the foreman prior to the equipment being put into service. A record of all such

examinations shall be kept on file for 30 days and made available to an authorized representative of the Director and to the miners at the mine.

(b) Equipment defects affecting safety shall be corrected before the equipment is used.

10.02 Operation of Shovel, Draglines, Tractors, Backhoes Loaders, Etc.

(a) Equipment Operators of shovels, draglines or tractors shall cease operating their equipment when any person is within such proximity as to be endangered.

(b) Operators of shovels, draglines, and backhoes shall sound a signal distinguishable from the surrounding noise level such as a whistle, bell horn or other approved device, before moving forward or backward, and all men persons not in the clear shall respond immediately.

(c) Equipment Operators shall not leave their cabs without lowering all raised equipment to the ground.

(d) When the equipment operator is present, men shall notify him before getting on or off his equipment.

(e) Men persons shall not be permitted in the immediate vicinity of shovels, or draglines, and backhoes unless in the line of duty.

(f) Walkways and platforms on shovels, draglines and backhoes shall be maintained in safe condition and shall be equipped with safe handrails, toe boards, walkways and platforms.

(g) Equipment that revolves in a horizontal arc on a turntable shall have a minimum clearance of four feet from the highwall or other obstructions.

(h) The operator of shovels, draglines, and backhoes shall have a general knowledge of the location of his oiler at all times.

(i) Operators of shovels and draglines shall not leave their cabs to set the digging brake or dog, unless the master clutch is in the "off" position. Operators of shovels and draglines shall have visual contact, when possible with the person assigned to setting the digging brake or dog.

(j) Operators shall not leave the cab of a shovel dragline or crane without throwing placing the controls into the off

position. Likewise if the power should fail, the controls shall be place in the off position until orders are given to resume operation.

(k) All ropes shall be securely attached to the drum and the dipper by at least four (4) suitable wire rope clips or properly wedged. Drums shall have at least three wraps of cable on at all times.

(l) Riding in a dipper or bucket shall be prohibited.

10.03 Maintenance and Repairs

(a) All safety equipment on all machinery shall be maintained in a safe operating working condition.

(b) Mobile and stationary equipment shall be maintained in safe operating condition and equipment in unsafe condition shall be removed from service immediately.

(c) Good housekeeping shall be practiced on all equipment. All heavy duty equipment shall be steam cleaned as necessary to maintain the equipment reasonably free of combustible substances.

(d) Men shall not work on or from a piece of mobile equipment in a raised position until it has been securely blocked in place.

(e) No work shall be performed under machinery or equipment that has been raised until such machinery or equipment has been securely blocked in place.

(f) While greasing or doing repair work on a boom of a shovel, dragline, or backhoe, the boom shall be lowered to a position whereby the work can be done from the ground or the workman shall use safety belts. This does not apply on shovels, draglines, or backhoes that are equipped with safe handrails or ladders.

(g) Dippers or buckets of shovels, draglines and backhoes shall be lowered for repairs.

(h) Repairs or maintenance shall not be performed on equipment until the power is off and the equipment is blocked against motion, except where the movement of the machine or parts is necessary to make adjustments.

10.04 Warning Devices, Lights, Brakes.

(a) Dump trucks used to haul coal or other material shall be equipped with an approved automatic warning device which shall give a clearly distinguishable alarm when such equipment is in reverse.

(b) Equipment such as forklifts, front-end loaders, tractors, dozers, and graders shall be provided with an approved audible warning device.

(c) Six months after the effective date of these rules and regulations all equipment because of existing conditions that is required by the Department of Mines shall have adequate lights. Lights shall be provided on both ends of equipment when required by the Department of Mines.

(d) Power driven mobile equipment shall be equipped with adequate brakes. All trucks and front-end loaders shall be equipped with adequate parking brakes.

10.05 Dump Trucks and Dumping

(a) Dump bodies of trucks shall be properly blocked when raised for any purpose except dumping of load.

(b) No person shall be permitted in or on the cargo space of dump trucks while being loaded with coal or other material.

(c) No person shall be allowed in the cab or on the truck while the truck is being loaded with power shovel, front-end loader or backhoe unless the cab is shielded.

(d) Truck cabs where rear vision is impaired shall be equipped with rear view mirrors on both sides.

(e) The dipper of a loading shovel shall be swung over the body of the truck and not the cab.

10.06 Dippers

(a) Riding in a dipper or bucket shall be prohibited.

(b) Workmen shall keep out from under suspended dippers at all times.

(c) Trailing cables on shovels shall not be moved with the shovel dipper unless cable slings or sleds are used.

(d) Operators ~~of surface mining equipment~~ shall not swing a dipper or bucket over passing haulage equipment.

10.07 Equipment Generally

(a) Road maintenance equipment normally used shall be equipped with roof mounted approved flashing lights.

(b) All equipment, when equipped with a safety bar for automatic transmission, shall be set in locked position before the operator leaves the cab. Operators of dozers that are equipped with standard transmission, shall lock the park brake, place the transmission in a neutral position, and lock the clutch in before leaving the cab.

(c) All steps and handrails on surface mining equipment shall be maintained in a safe condition.

(d) Electrically powered mobile equipment shall not be left unattended unless the master switch is in the off position, All operating controls shall be placed in neutral position, and the brakes set or other equivalent precautions taken against rolling.

(e) A tow bar or other approved device shall be used for towing equipment. A safety chain shall be used in conjunction with a tow bar.

(f) All exhaust tail pieces shall be positioned and properly maintained to prevent carbon monoxide and other toxic fumes from entering an operator's compartment.

10.08 Glass and Doors

(a) Cab windows of glass on equipment shall be safety glass or equivalent material with good visibility, in good condition, not broken or cracked to such extent that it can be felt, and kept clean.

(b) All equipment provided with a windshield shall be provided with windshield wipers and such wipers shall be maintained in good operating condition.

(c) All doors on mobile equipment shall be maintained in good operating condition.

10.09 Guards

(a) Fan blades, shafts, gears, flywheels, coupling, and similar exposed moving machine parts which may be contacted by persons shall be adequately guarded.

(b) Guards installed on equipment to prevent accidental contact with moving parts shall: (1) be of substantial construction; (2) not have openings large enough to admit a persons hand; (3) be firmly bolted or otherwise installed in stationary position; (4) be of sufficient dimension to exclude the possibility of bodily contact while in motion.

10.10 Operation of Mobile Equipment

(a) Mobile equipment operators shall have full control of the equipment while in motion.

(b) The type of equipment and posted operating speeds shall be prudent and consistent with conditions of roadways, grades, clearance, visibility and traffic.

(c) All mobile equipment shall be completely stopped before a person gets on or off.

(d) No person other than the operator shall be permitted to ride in or on equipment unless in line of duty and only then when adequate safe seating facilities are provided.

(e) Cabs of mobile equipment shall be kept free of extraneous materials and adequately ventilated.

(f) When necessary to protect the operator of the equipment, all rubber-tired or crawler mounted self-propelled scrapers, front-end loaders, dozers, graders, and tractors that are used on surface coal mines shall be provided with substantial falling object protective structures.

(g) Equipment shall be operated only by persons trained in the use of and authorized to operate such equipment.

(h) ~~The Bulldozer~~ operators of all equipment shall ~~at all times~~ keep a reasonable safe distance from the edge of all vertical or abrupt excavations or fills.

10.11 Loads

(a) Equipment which is to be hauled shall be secured.

(b) Any load extending more than 4 feet beyond the rear of the vehicle body shall be marked clearly with a red flag.

(c) Dump trucks shall be trimmed properly when they have been loaded higher than the confines of their cargo space.

10.12 Track Type Dozers - Track type dozers shall meet the following standards:

(a) Adequate fan blade guards.

(b) Track brakes shall be working properly.

(c) Steering clutches shall be in operating condition.

(d) Portable-fire extinguisher of at least 5 pounds.

(e) If the dozer is provided with a glass windshield type cab, windshield wipers shall be provided.

(f) All floor boards shall be kept secured in place.

(g) Safety bar lever for automatic transmission shall be in working condition.

(h) Approved warning device which the operator can operat manually.

(i) Cab protection when the dozer is being operated near the highwall or where there is a hazard from falling material.

(j) Adequate lights where required.

10.13 Front End Loaders - Rubber tire front-end loaders shall meet the following standards.

(a) Portable fire extinguishers, of at least 5 pounds.

(b) Fan blade guards.

(c) Adequate lights.

(d) Approved warning devices.

(e) If loader is provided with a windshield type cab, the windshield shall be of safety type glass, or the equivalent with good visibility and shall be equipped with windshield wipers.

(f) Steering apparatus shall be functioning properly.

(g) Adequate foot brakes - Each individual wheel brake shall be working properly.

(h) The parking brake shall have capability equivalent to hold the vehicles stationary on the 12% dry swept concrete grade under all conditions.

(i) The service breaking system using stored energy shall be equipped with a warning device that activates when the system energy drops below 50% of the manufacturer's specified minimum operating energy level.

10.14 Machinery

(a) All overhead belts shall be adequately guarded if the whipping action from a broken belt could be hazardous to a person below, or if within 7 feet of a person's work area or where persons may pass.

(b) Belt conveyors in locations where fire would create a hazard to personnel shall be provided with switches to stop the drive pulley automatically in the event of excessive slippage.

(c) Unguarded conveyor belt walkways, less than 5 feet in width, shall be equipped with emergency stop switches or pull cord along their entire length.

10.15 Hand-held tools, power tools, and safety devices.

(a) Conditions of tools - All hand tools, power tools and

similar equipment shall be maintained in a safe condition.

(b) Hand-held power tools shall be equipped with controls requiring constant hand or finger pressure to operate the tools or shall be equipped with friction or other equivalent safety device.

(c) Employers shall not issue or permit the use of unsafe hand tools.

(d) Adjustable, pipe, end and socket wrenches shall not be used when jaws are sprung to the point that slippage occurs.

(e) Impact tools such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.

(f) The wooden handles of tools shall be kept tight and free of splinters or cracks and shall be kept tight in the tool.

(g) Electric power operated tools shall be approved double-insulated or grounded type.

(h) Only proper hoisting equipment shall be used for hoisting or lowering tools. The use of hoses or electric cords for such purpose is prohibited.

(i) Pneumatic power tools shall be secured to the hose by some positive means to prevent the tool from becoming accidentally disconnected.

(j) Safety clips or retainers shall be securely installed and maintained on pneumatice impact (percussion) tools.

(k) The manufacturer's safe operating pressure for hoses, pipes, valves, filters, and other fittings shall not be exceeded.

(l) All fuel powered tool engines shall cease operation while bei refueled, serviced, or maintained.

(m) When fuel powered tools are used in enclosed spaces, the applicable requirements for concentrations of toxic gases and use of personal protective equipment shall apply.

(n) Only approved fuel containers shall be used, and such containers shall be safely stored.

10.16 Jacks

(a) The manufacturer's rated capacity shall be legibly marked on all lifting jacks and shall not be exceeded.

(b) All lifting jacks shall have a positive stop to prevent over-travel.

(c) Blocking - When it is necessary to provide a firm foundation, the base of the lifting jack shall be blocked or cribbed. Where there is a possibility of slippage of the metal cup on the jack, a wood block shall be placed between the cap and the load. Work shall not be performed under any machinery until the proper blocking is in place and, with the exception of a jack, tight.

10.17 Stationary grinding machines, protective devices

(a) Mechinically operated grinding wheels shall be equipped with safety washers, substantial retaining hoods and goggles or approved eye shields.

(b) Adjustable tool rests shall be set as close as required to manufactures' specifications.

(c) Grinding wheels shall be operated according to the specification of the manufacturer.

10.18 Stationary Grinding Machines

(a) Grinding wheels shall be equipped with (1) safety washers of adequate size; (2) substantial retaining hoods with maximum angular exposure of the grinding wheel periphecy and sides of not more than 90 degrees except that when work requires contact with the wheel below the horizontal plane of the spindle, an angular exposure shall begin not more than 45 degrees above the horizontal plane of spindle, which safety guards shall be strong enough to withstand the effect of a bursting wheel; (3) face shields or goggles, in good condition, to be worn by all operators; (4) work rests on floor and bench mounted grinders which are ridigly supported, readliy available, and which shall be kept at a distance not to exceed one-eighth inch from the surface of the wheel; (5) all other applicable requirements of the America National Standards Institute Safety Code for the use, care, and protection of abrasive wheels; and (6) dust collectors or exhaust ventilation systems vented to the outside of the building. Safety hoods, (guards or flanges shall be mounted so as to maintain proper alignment with the wheel, and shall be of sufficient strength to retain fragments of the wheel in the case of accidental breakage. All abrasive wheels shall be ring-tested before mounting to insure they are free from cracks or

defects, and shall fit freely on the spindle and not be forced on.

(b) All grinding wheels shall be operated in accordance with the manufacturer's specifications.

10.19 Protective Structures Falling Object and Roll Over Protective Structur

All rubber tired or crawler mounted self-propelled scrapers, front-end loaders, dozers, graders, loaders, and tractors, with or without attachments, shall be provided with substantial falling objects and roll over protective structures.

10.20 Tires and repairs.

(a) A safety tire rack, cage, or equivalent protection shall be provided when inflating tires installed on split or rims equipped with locking rings or similar devices.

(b) Heat shall not be applied to lug bolts, rims or wheels while tires are inflated.

(c) When work is being performed on models that are equipped with dual wheels both tires must be deflated for heating lugs before repair work begins.

(d) No person shall be permitted in front of a tire being inflated either on or off equipment and persons engaged in inflating or deflating tires shall perform such work in an area isolated from other persons.

(e) When forklift trucks are used in mounting or transporting of tires, adequate means shall be taken to assure that tires are secured properly. No person shall be permitted to stand between the hub of a vehicle and forklift truck when used to change a tire.

(f) A clip-on-air chuck shall be provided at all tire airing stations. At least six feet of air hose shall be provided between the valve stem and inflation gauge.

(g) All tires shall be maintained in a safe condition. Any tire with a defect which could be a hazard to the safe operations of a vehicle or to other persons shall be replaced immediately.

Section 11. Compressed Gases and Welding.

11.01 Handling and Use of Welding or Cutting Equipment Generally

(a) The clothing of any person using ~~compressed-gas~~ any welding or cutting equipment in or about surface mine shall be reasonably free of petroleum products. When handling oxygen cylinders or apparatus the use of oily hands or gloves is prohibited.

(b) Compressed gases shall not be used under direct

pressure from tanks or cylinders but must be used under reduced pressures not exceeding that recommended by the manufacturers.

(c) At no time shall compressed air be directed toward a person when is use.

(d) A suitable wrench designed for compressed tanks shall be in the possession of the person authorized to use the equipment.

(e) ~~Tanks-or-cylinders-of-"compressed-gases"~~ oxygen and g cylinders and their contents ~~must~~ shall be used solely for their intende purposes.

(f) Only an approved type of spark-lighter shall be used for lighting torches.

(g) All welding and cutting equipment shall be continuousl maintained in a safe condition.

11.02 Storage of Compressed Gas Cylinders.

(a) Cylinders shall be securely stored in an upright position with valve protections caps hand tight. The storage area shall be well ventilated, protected and at least twenty feet from highly combustible materials such as oil or other flammables.

(b) Signs at storage areas of cylinders shall be conspicuously posted, Danger No Smoking, Matches or Open Flame.

(c) When storing oxygen cylinders and acetylene or other fuel gas cylinders inside buildings, a minimum distance of twenty feet or a non-combustible barrier at least five feet high having a fire resistance rating of at least one-half hour shall be maintained between the oxygen cylinders and other fuel gas cylinders.

11.03 Transportation of Compressed Gas Cylinders

(a) When tanks and cylinders are not used and when they are being transported, valve protection caps and plugs shall be placed on all tanks or cylinders. Oxygen tanks, gas tanks, or cylinders shall not be transported with the hoses or gauges attached.

(b) When transporting cylinders, they shall be securely mounted with regulators removed, cylinder valves closed and protective valve caps replaced.

(c) Gas cylinders shall not be transported on vehicles used to transport employees unless separate approved compartments are provided.

11.04 Welding Preparations

(a) Person or persons assigned to use and work with welding and cutting tools shall be properly instructed of their uses and fully understand the danger of their misuse.

(b) All persons welding, cutting, heating brazing or soldering shall be provided with goggles or shields, gloves, safe type spark lighter and proper torch tip cleaner.

(c) Prior to welding cutting, heating, brazing or soldering in areas likely to contain methane, an examination shall be made by a qualified person with an approved device. Examinations for methane shall be made immediately before and periodically during welding, cutting, heating, brazing or soldering and such work shall not commence or continue in air which contains 1% or more methane.

(d) Printed rules and instructions covering operation of welding equipment shall be provided by the employer and strictly followed by the employee.

(e) Welding operations shall be shielded when necessary and the area shall be well ventilated.

(f) Fire watchers shall be used whenever welding, cutting, heating, brazing or soldering is performed at locations where a fire hazard exists.

(g) Adequate fire protection shall be provided at the location where welding, cutting, heating, brazing and soldering is performed.

11.05 Acetylene Welding

(a) Only approved apparatus such as torches, regulators, pressure reducing valves, hoses, back flow check valves and gas cylinders shall be used.

(b) Back flow check valves shall be attached to the exhaust side of a regulator before using.

(c) Repairs involving the pressure system of compressors, receivers, or compressed-air-powered equipment shall be prohibited until the pressure has been relieved from that part of the system to be repaired.

(d) Gas cylinders shall be protected from contacting sparks, hot slag or flame during welding, cutting, heating, brazing or soldering.

(e) Regulators shall be adequately attached to the cylinders before using their contents.

(f) The cylinder valve shall be opened partially for an instant, then closed before connecting a regulator. Such person performing said act shall stand to one side (not in front) of the outlet when opening the cylinder valve.

(g) When removing a regulator from a cylinder bottle valve, such valve shall be closed and the gas released from the regulator.

(h) Empty cylinders shall be marked as such and removed from the work area immediately.

(i) Oxygen and acetylene tanks or cylinders of compressed gases shall be protected from power lines or energized electrical machinery or equipment. These tanks or cylinders shall be kept away from the place where the cutting is being done in order to prevent damage or accident and to prevent heat from affecting such tanks or cylinders.

11.06 Electrical Welding

(a) All connections at the welding machine shall be checked before starting such operations.

(b) The ground lead shall be adequately attached to the work.

(c) Magnetic work clamps shall be free of adherent metal particles of spattex on contact surfaces.

(d) Coiled welding cable shall be adequately separated to avoid serious over-heating and damage to cable insulation.

(e) The welding machine frame shall be adequately grounded and insulated from any gas or oxygen cylinders.

(f) The welding machine shall be free of leaks, cooling water, shielding gas and engine fuel.

(g) Proper switches shall be provided for de-energizing the welding machine.

(h) Electrode holders shall be located so they do not make electrical contact with persons, conducting objects, fuel or compressed gas cylinders. Energized electrode holders may be laid down or placed only in approved non-conductive trays or holders.

(i) There shall be splice-free cables within ten feet of the electrode holder.

(j) The welding cable shall not coil or loop around parts of the welder's body.

(k) When welding has ceased for any substantial period of time all electrodes shall be removed from holders. Holders shall be located so that accidental contact cannot occur.

(l) Where work permits, arc welders shall be enclosed by individual booths or non-combustible screens painted with a finish of low reflectivity such as zinc oxide or lamp black.

11.07 Safety Hazards

(a) Welding, cutting, and burning shall be prohibited in dusty areas.

(b) After welding operations, the area where metal particles could come into contact with other workers, shall be posted with signs to provide warning.

(c) Welders shall report any equipment defect or safety hazard to their supervisor and discontinue welding until safety has been assured.

11.08 Maintenance and Repairs

(a) Cylinders, valves, couplings, regulators, hoses and apparatus shall be kept free from oil, dirt, greasy substances, and maintained in good condition.

(b) Test for leaks on hoses, valves, or gauges shall be made ~~only~~ with a soft brush and soapy water or soap suds.

(c) Welding machines, electrodes, and cables shall be examined weekly for wear and/or damage.

Section 12. Electricity

12.01 Performance of Electrical Work

(a) 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 person who performs such work, except that in cases where locking out is not possible, such devices shall be open

and suitably tagged by such person. They shall be removed only by the person who installed them or if such person is unavailable, by a qualified person authorized by the operator or his agent. Suitably tagged, as used in this section means that a sign such as, "DANGER, HANDS OFF, DO NOT CLOSE, MEN WORKING ON LINE", shall be attached to the locked switches. The signs or tags shall bear the name, date, and certification of the workman who installed the tag. Keys used to lock out switches shall be kept only on the person who is performing the work on the equipment and his immediate supervisor. Such locks shall be provided by the operator.

(b) All power circuits and electrical equipment shall be de-energized before work is performed on such circuits and equipment, except when necessary for troubleshooting or testing.

12.02 Transformers

(a) All surface transformers unless of the constructio which will eliminate shock hazard, 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.

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

(c) Danger high voltage signs with voltage indicated shall be posted conspicuously at all transformer enclosures, high potential switch boards, and other high potential installations.

12.03 Electrical equipment generally

(a) Capacitors used for power factor connections shal have suitable drain off resistors or other means to protect workmen against electrical shock following removal of power.

(b) Dry insulated platforms of rubber or other suitab non-conductive material shall be kept in place at each switchboard and at stationary machinery where shock hazards exists.

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

(d) All electric conductors shall be sufficient in size and have adequate current carrying capacity and be of such constru tion that a rise in temperature resulting from normal operation will n damage the insulating materials. In no case will the requirements be less than set forth in the current National Electric Code.

(e) All electrical connections or splices and conduc

shall mechanically and electrically efficient and suitable connectors shall be used. All electric connections or splices and insulated wires shall be re-insulated at least to the same degree of protection as the remainder of the wire. Splices made shall provide continuity of all components.

(f) All power wires except trailing cables on mobile equipment, specially designed cables conducting high voltage power shall be supported on well installed insulators and shall not contact combustible material. In places where cables having voltages of different potentials passes within eighteen inches of each other, such cables shall be insulated to the potential of the highest voltage wire or cable.

(g) All electrical equipment shall be provided with switches or controls that are safely designed, constructed, and install Power cable, trailing cable or conductor couplings or connections cannot be connected or disconnected while under load.

(h) Single phase loads such as transformer primaries shall be connected phase to phase.

12.04 Testing Maintenance and Repair of Electrical Equipment

(a) All electrical equipment except circuit breakers shall be examined weekly, tested and properly maintained by a qualific person to assure safe operating condition. When a potential dangerous condition is found on electrical equipment, such equipment shall be removed from service until the condition is corrected. A record of such examination and the action taken when the potential dangerous condition is found shall be kept and made available to an authorized representative of the Director of the Department of Mines and to the miners at such mine.

(b) Circuit breakers and their auxiliary devices shall be tested and examined at least once each month by a qualified person and a record of such examination shall be kept and made availabl to an authorized representative of the Director and to the miners at such mine. Circuit breaker tests shall include: (i) Breaking continuity of the ground check conductor where ground check monitoring is used and (ii) actuating all of the auxiliary protective relays and (iii) visual observation of all components of the circuit breaker and its auxiliary devices. Such repairs or adjustment as are indicated by such tests and examination shall be carried out immediately.

12.05 Circuit Breakers

(a) Automatic circuit breaking devices or fuses of the

correct type and capacity shall be installed so as to protect all electrical equipment and circuits against short circuit and overload. Three phase motors on electrical equipment shall be provided with overload protection that will de-energize all three phases in the event that any phase is overloaded. As used in this section, adequate current interrupting capacity requires that the fuse or circuit breaker is capable of interrupting the maximum short circuit current that the circuit may conduct without destruction to the device.

(b) Electric equipment shall be provided with devices that will permit the equipment to be de-energized quickly in the event of an emergency.

(c) One circuit breaker may be used to protect two or more branch circuits if the circuit breaker is adjusted to afford over current protection for the smallest conductor.

(d) When not in use power circuits shall be de-energiz on idle days and idle shifts except that rectifiers and transformers may remain energized.

(e) Power circuits serving three phase alternating current equipment serving portable or mobile equipment shall be protecte by suitable circuit breakers of adequate interrupting capacities 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 over current.

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

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

12.06 Cables

(a) Cables shall enter metal frames of motors, splice boxes and electrical compartments only through proper fittings. When insulated wire other than cables pass through metal frames the hole shal be substantially bushed with insulated bushings.

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

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

(d) 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 and shall be labeled to show which unit they control.

(e) Cable couplers shall be constructed so that the ground check continuity conductor shall be broken first and the ground conductor shall be broken last when the coupler is being uncoupled.

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

(g) 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 the section, the term splice means a mechanical joining of one or more conductors that have been severed.

(h) When permanent splices in trailing cables are mad they shall be: (i) mechanically strong with adequate electrical conductivity and flexibility, (ii) effectively insulated and sealed so as to exclude moisture, (iii) vulcanized or otherwise treated with suitable materials to provide flame-resistant qualities and good bondin to the outer jacket and (iv) made in accordance with the manufacturers specifications.

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

12.07 Grounding

(a) All metallic shields, armours and conduits enclosing power conductors will be electrically continuous throughout and shall be grounded by method approved by an authorized electrical representative of the Director. Where grounding wires are used to ground metallic shields, armours, conduits, frames, casings and other metallic enclosures such grounding wire will be approved if: (i) where the power conductor used is #6AWG or larger the cross sectional area of the grounding wire is at least one half the cross sectional area of the power conductor. (ii) Where the power conductor used is less the #6AWG, the cross sectional area of the grounding wire is equa

to the cross sectional area of the power conductor.

(b) The attachment of grounding wires to other grounded power conductors will be approved if separate clamps, suitable for such purpose, are used and installed to provided a solid connection.

(c) Metallic frame, casing, and other enclosures of electrical equipment tha can become alive through failure of insulation or by contact with energized parts shall be grounded, and shall have a ground monitoring system, to monitor continuously the grounding circuit, to assure continuity, such 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 authorized electrical representative to assure such continuity, except a temporary waiver may be permitted by the Director of the Department of Mines, on a mine to mine basis if he determines that such equipment is not available.

(d) In instances 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 or other enclosures of such equipment to a separate grounding conductor which established a continuous connection to a grounded center tap of the transformer.

(e) Where batteries are being charged without removing them from mobile equipment, or are sitting on wooden blocks, the frames of the machine or battery case shall be grounded to the grounded frame of the charger to prevent the machine from becoming alive through failure of insulation in the charger. All ground conductor connections shall clamped or bolted connections.

(f) All buildings and structures shall be earth grounded if they are constructed of metal. Also, any building or structures which could become alive with electrical energy shall be effectively grounded.

(g) Guy wires from poles supporting high voltage power lines shall be securely connected to the system grounding medium or shall be provided with insulators rated at the highest voltage installed near the pole end.

12.08 Energized lines generally

(a) All guy wires shall be marked or flagged when equipment is working in the area.

(b) Energized power lines crossing an access road or work area shall be identified by warning signs visible from each direction. Warning signs shall include height of lines for clearance and made of reflective material. In no event shall any high voltag power line be installed less than fifteen feet above ground, walkways, or working areas.

(c) All equipment near energized power lines with the following voltages shall maintain the following clearances: 100 to 69,000 - 10 feet; 69,000 to 114,000 - 12 feet; 115,000 to 229,000 - 15 feet; 230,000 to 344,000 - 20 feet; 345,000 to 499,000 - 25 feet; 500,000 or more - 35 feet.

(d) All personnel except those directly involved in the operation shall stay clear of the equipment working near energized lines.

(e) If equipment comes in contact with an energized line, the operator shall stay in the equipment until notified by a certified electrician or foreman that the line is de-energized.

(f) All electrical wiring and equipment installed shall meet the requirements of the current National Electric Code.

12.09 High Voltage

(a) High voltage lines on the surface shall be de-energized 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 wit the procedures and safe-guards, including, but not limited to, a requirement that the operator of such mine provide tests, and maintain protective devices in making such repairs. No work shall be performed on any high voltage line on the surface which is supported by any pole or structure which also supports other high voltage lines until all lines supported on that pole are de-energized and grounded.

(b) No high voltage lines shall be regarded as de-energized for the purpose of performing work on it until it has been determined by a qualified person that such high voltage line has been de-energized and grounded. Such qualified person shall by visual observation determine that the connecting devices on the high voltage circuit are in open position and insure that each ungrounded conductor of the high voltage circuit upon which work is to be done is properly connected to the system grounding medium.

(c) An energized high voltage line may be repaired only when the operator has determined that such repairs cannot be scheduled during a period when the power circuit could be properly de-energized and grounded. Such repairs will be performed on power circuits with a phase to phase nominal voltage no greater than 15,000 volts. The weather conditions shall be noted so that it would not interfere with such repairs or expose those persons assigned to such work to an imminent danger. The operator shall designate a person qualified to perform such work as the person responsible for carrying out such repairs. In order to insure protection for himself and

other interested persons assigned to perform such repairs from the hazards of said repairs, he must prepare and file with the operator (i) a general description of the nature and location of the damage or defect to be repaired; (ii) the general plan to be followed in making of such repairs; (iii) a statement that a briefing of all qualified persons assigned to make such repairs was conducted informing them of the general plan, their individual assignments, and the dangers inherent in such assignments; (iv) a list of proper protective equipment and clothing that will be provided and such other information as the person designated by the operator feels necessary to describe properly the means or methods to be employed in such repairs. All statements obtained by the operator shall be recorded and contain a notation of the time, date, location and general nature of the repairs

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

(e) All persons performing work on energized surface high voltage lines shall wear protective rubber lineman's 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 work on high voltage surface lines shall be worn continuously from the time he leaves the ground until he returns to the ground and if such device are employed for extended periods, such persons shall visually inspect the equipment asigned him for defects before each use and in no case, less than twice each day.

(f) All rubber protective equipment used for work on energized high voltage surface lines shall be electrically tested by the operator in accordance with ASTM Standards part 28 published February, 1968.

(g) 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 is exposed. When such switches are operated from the ground the person operating such devices shall wear protective rubber gloves.

(h) No new additional circuits may be tied to a high voltage surface line when such line is energized.

(i) Solely for purposes of grounding ungrounded high voltage power systems grounded messenger wires used to suspend the cable of such system may be used as a grounding medium.

(j) All high voltage circuits supplying portable mobile or stationary equipment shall contain either a direct or

derived neutral which shall be grounded through a suitable resistor at the source transformer and a grounding circuit originating at the grounded side of the grounding resistor shall extend along the power conductors and serve as a grounding conductor for the frames which receives power from that circuit. The grounding resistor 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 volt current continuously and insulated from ground for a voltage equal to the phase to phase voltage of the system.

(k) High voltage resistant grounded system 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 circu 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 authorized representative to assure such continuity.

(l) High voltage cables used in resistant 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 #10AWG for the ground continuity check circuit.

12.10 Movement of Electrical Equipment

(a) Power centers, portable transformers, cable couplings and enclosures shall be de-energized before they are moved from one location to another. Except that when equipment powered by source other than such centers or transformers is not available the director may permit such centers or transformers to be moved while energized if he determines that such 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 hazard to the miner. A record shall be kept of such examination.

(b) High voltage cables other than trailing cables shall not be moved or handled at anytime while energized as permitted under this section.

(c) Energized high voltage trailing cables may be moved only by a qualified person and the operator of such mines shall require that such person wear approved and tested insulated workmen's gloves.

12.11 Other electrical apparatus or areas.

(a) Ladders for electrical work shall be of non-metal type.

(b) No electrical machinery or apparatus shall have unguarded exposed energized parts.

(c) Lighting plants shall be located so as not to obstruct or be a safety or health hazard to any part of the mining operation or miners.

(d) Employees performing work that requires them to come in contact with electrical equipment involving shock hazards shall be provided with suitable insulating gloves. Suitable insulation shall be of approved type that will protect such persons from voltage to which he is exposed. All such protective equipment shall be furnished by the operator.

(e) Rooms in which circuit breakers or controls are installed shall have two separate and distinct travelable passageway designated as escapeways.

(f) Open flame in or about surface structures shall be restricted to locations where it will not cause fire or an explosion.

(g) All lights with less than eight feet overhead clearance shall be guarded and the lamps be installed in weather proof sockets. Lamps installed in a hazardous area must be of substantial construction and fitted with a glass enclosure.

Section 13. Ramps, Tipples, Cleaning Plants, and other Surface Areas

13.01 Surface installations generally

(a) Surface installations; General - All mine structures, enclosures, and other facilities (including custom coal preparation) shall be maintained in good condition.

(b) In unusually dusty locations, electric motors, switches and controls shall be of dust-tight construction, or enclosed with reasonable dust-tight housings or enclosures.

(c) Opening in surface installations through which men or material may fall shall be protected by railings, barriers, covers or other protective devices.

(d) Illumination sufficient to provide safe working conditions shall be provided in and on all surface structures, paths, walkways, switch panels, loading and dumping sites, working areas and parking areas.

(e) Materials shall be stored and/or stacked in a manner to prevent stumbling or falling.

(f) Compressed and liquid gas cylinders shall be secured in a safe manner.

13.02 Machinery Guards

(a) Gears; sprockets; chains; drive, head, tail and takeup pulleys; flywheels; couplings; shafts; sawblades; fan inlets; and similar exposed moving machine parts which may be contacted by persons, shall be guarded adequately.

(b) Except when testing is necessary, machinery guards shall be secured in place while being operated.

13.03 Ramps and Dumping

(a) Both sides of any ramp shall be provided with securely anchored rubbing boards of ample dimensions. and they shall be securely anchored.

(b) An adequate dumping block at least 8 inches high shall be installed at all dumping points, excluding stockpiles.

(c) Adequate protection shall be provided at dumping locations where persons may be endangered by falling material.

(d) Dust control measures shall be taken where dust significantly reduces visibility of equipment operators.

(e) After the effective date of these regulations, all power lines in dumping areas shall, be maintained at least a minimum of six feet above the largest piece of equipment used at such facility, including a dump truck in a raised position.

(f) All dumping ramps shall be of a sufficient width to insure safe operation of vehicles used thereon.

(g) At no time shall any person be permitted to enter onto any coal bin, coal crusher, or any other coal dumping facility for means of breaking or removing coal or other materials that is of such a size that it will not drop through the grizzley, or screening device of said dumping facility, unless the equipment has been tagged out, de-energized, and locked out with a key and other approved adequate safeguards are provided.

(h) Ramps and dumps shall be of solid construction and have ample width, clearance and head room and be kept reasonably free of accumulations of material and spillage.

(i) Truck spotters shall be used when required by an authorized representative of the director and shall be in the clear while trucks are backing into dumping position and dumping; lights shall be used at night to direct trucks.

13.04 Fire Protection

(a) Where cutting or welding is performed at any location, means of prompt extinguishment of any fire accidentally started shall be provided.

(b) Adequate fire-fighting facilities, required by the department of mines, shall be provided on all floors. At least two exits shall be provided for every floor of tipples and cleaning plants constructed after the effective date of these regulations.

(c) Signs warning against smoking and open flames shall be posted so they can be readily seen in areas or places where fire or explosion hazards exist.

(d) Smoking or open flame in or about surface structures shall be restricted to locations where it will not cause fire or an explosion.

13.05 Repairs of Machinery

(a) Machinery shall not be lubricated or repaired while in motion, except where safe remote lubricating devices are used. Machinery shall not be started until the person lubricating or repairing it has given a clear signal.

(b) Means and methods shall be provided to assure that structures and the immediate area surrounding the same shall be reasonably free of coal dust accumulations.

(c) Where repairs are made to tipples, or cleaning plants, proper scaffolding and proper overhead protection shall be provided for workmen when necessary.

(d) Where overhead repair work is being performed at surface installations adequate protection shall be provided for all persons working or passing below.

13.06 Stairs, platforms, etc.

(a) Stairways, elevated platforms and runways shall be equipped with handrails. Railroad car trimmer platforms are exempted from such requirements.

(b) Where required, elevated platforms and stairways shall be provided with toeboards. They shall be kept clear of refuse and ice and maintained in good condition.

13.07 Belts, etc.

(a) Drive belts shall not be shifted while in motion unless such machines are provided with mechanical shifters.

(b) Belt dressing shall not be applied while in motion.

(c) Belt, chains and ropes shall not be guided onto power-driven moving pulleys, sprockets, or drums with the hand except equipment especially designed for hand feeding.

13.08 Conveyors and Crossovers

(a) When the entire length of a conveyor is visible from the starting switch, the operator shall visually check to make certain that all persons are in the clear before starting the conveyor. When the entire length of the conveyor is not visible from the starting switch, a positive audible or visible warning system shall be installed and operated to warn persons when the conveyor will be started.

(b) Crossovers shall be provided where necessary to cross conveyors. All crossovers shall be of substantial constructio with rails and maintained in good condition. Moving conveyors shall b crossed only at designated crossover points.

(c) A positive audible or visible warning system shall be installed and operated to warn persons that a conveyor or other tipple equipment is to be started.

(d) Pulleys of conveyors shall not be cleaned manually while the conveyor is in operation.

(e) Guards, nets, or other suitable protection shall be provided where tramways pass over roadways, walkways or buildings.

(f) Where it is required to cross under a belt, adequate means shall be taken to prohibit a person from making contact with a moving part.

13.09 Tipple or Cleaning Operation

(a) At least two persons shall be continuously employed in the operation of a tipple or cleaning plant.

(b) Good housekeeping shall be practiced in and arou tipples and cleaning plants. Such practices include cleanliness order storage of materials, and the removal of possible sources of injury, such as stumbling hazards, protruding nails and broken glass.

(c) Adequate ventilation shall be provided in tipple and preparation plants.

(d) Coal dust in or around tipples or cleaning plant shall not be permitted to exist or accumulate in dangerous amounts.

13.10 Travelways

(a) Safe means of access shall be provided and maintained to all working places.

(b) Travelways, platforms and other access to areas where persons are required to travel or work, shall be kept free of all extraneous material and other stumbling or slipping hazards.

(c) Inclined travelways shall be constructed of nonskid material or equipped with cleats.

(d) Regularly used travelways shall be salted, sanded or cleared of snow and ice as soon as practicable.

13.11 Ladders

(a) All ladders shall be securely fastened. Permanent ladders more than 10 feet in height shall be provided with backguards.

(b) Ladders shall be of substantial construction and maintained in good condition.

(c) Wooden ladders shall not be painted.

(d) Fixed ladders shall not incline backward at any point unless equipped with backguards.

(e) Fixed ladders shall be anchored securely and installed with at least 3 inches of toe clearance.

(f) Side rails of fixed ladders shall project at least 3 feet above landings, or subsntial handholds shall be provided above the landing.

13.12 Hoisting

(a) Hitches and slings used to hoist materials shall be suitable for handling the type of material being hoisted.

(b) Persons shall stay clear of hoisted loads.

(c) Tag lines shall be attached to hoisted materials that require steadying or guidance.

(d) A hoist shall not lift loads greater than the rated capacity of the hoist being used.

13.13 Drawoff Tunnels

(a) When it is necessary for a tunnel to be closed at one end, an escapeway not less than 30 inches in diameter (or of the equivalent, if the escapeway does not have a circular cross section) shall be installed which extends from the closed end of the tunnel to a safe location on the surface; and, if the escapeway is inclined more than 30 degrees from the horizontal it shall be equipp with a ladder which runs the full length of the inclined portion of the escapeway.

(b) Tunnels located below stockpiles, and coal storage silos shall be adequately ventilated to maintain concentrations of methane below 1% per centum.

13.14 Ventilation and Methane

(a) Tests for Methane - Tests for methane in structures, enclosures, or other facilities where coal is handled or stored shall be conducted by a qualified person with an approved methane detector at least once during each operating shift, and immediately prior to any repair work in which welding or an open flame is used, or a spark may be produced.

(b) Methane Content in Surface Structures - If, at any time, the air in any structure, enclosure, or other facility contains 1.0 percent or more of methane changes or adjustments in the ventilation of such installation shall be made at once so that the air shall contain less than 1.0 percent methane.

(c) Dust Accumulation in Surface Installations - Coal dust on surface structures, enclosures, or other facilities shall not be permitted to exist or accumulate in dangerous quantities.

13.15 Boilers

(a) Boilers shall be equipped with well guarded, adequately maintained water gauges and pressure gauges located where they can be observed easily. Water guages and pipe lines to gauges shall be kept clean and free of scale and rust.

(b) Boilers shall be equipped with automatic pressure relief valves.

(c) Blowoff valves shall be piped to the outside of buildings. They shall have outlets located or protected, so persons passing by or near them will not be scalded.

(d) Boiler installations shall be provided with safety devices, acceptable to the Department of Mines. They shall protect against hazards of flame outs, fuel interruptions and low water level.

(e) Boilers shall be inspected internally at least once each year by a licensed inspector. A certificate of inspection signed by the inspector shall be displayed in the vicinity of the boiler.

13.16 Thermal Dryers

(a) Dryer systems used for drying coal at high temperatures, hereinafter referred to as thermal dryers, including rotary dryers, continuous carrier dryers, vertical tray, and cascade

dryers, multi-louver dryers, suspension or flash dryers, and fluidized bed dryers, shall be maintained and operated in accordance with the applicable provisions of this article.

(b) Dryer Heating Units - Dryer heating units shall be operated to provide reasonable complete combustion before heated gases arepermitted to enter hot gas inlets.

(c) Bypass Stacks - Thermal dryer systems shall inclu a bypass stack, relief stack or individual discharge stack provided with automatic venting which will permit gases from the dryer heating unit to bypass the heating chamber and vent to the outside atmosphere during any shutdown operation.

(d) Explosion Release Vents - Drying chambers, dry-dust collectors, ductwork connecting dryers to dust collectors, and ductwork between dust collectors and discharge stacks shall be protecte with explosion release vents which open directly to the outside atmosphere, and all such vents shall be: (i) hinged to prevent dislodgment; (ii) designed and constructed to permit checking and testing by manual operation; and (iii) equal in size to the cross-sectional area of the collector bortex finder when used to vent dry dust collectors.

(e) Control Panels - All thermal dryer system control panels constructed after the effective date of these Rules and Regulations, shall be located in an area which is relative free of moisture and dust and shall be installed in such a manner to minimize vibration.

(f) Each instrument on the control panel shall be identified by a name plate or equivalent marking.

(g) A plan to control the operation of each thermal dryer system shall be posted at or near the control panel showing a sequence of start-up, normal shut down, and emergency shut down proced

(h) Alarm Systems - Thermal dryer systems shall be equipped with both audible and visual alarm devices which are set to operate when safe dryer temperatures are exceeded.

(i) Automatic temperature control instruments for thermal dryer systems shall be of the recording type.

(j) Automatic temperature control instruments shall be set above the maximum allowable operating temperature.

(k) All dryer control instruments shall be inspected and calibrated at least once every 3 months and a record or certificat of accuracy, signed by a trained employee or by a servicing agent, sha be kept at the plant.

13.17 Railroad equipment

(a) Railroad cars shall be maintained under control at all times. Cars shall be dropped at a safe rate of speed and in such a manner that will insure that the car dropper maintains a safe position while working and traveling around the cars. The car dropper shall control the trip from one location and not drop more cars than can be controlled from such location.

(b) Railroad cars shall not be coupled or uncoupled manually from the inside of curves unless the railroad and cars are so designed to eliminate any hazard from coupling or uncoupling cars from inside curves.

(c) No person shall ride the drawhead or coupler of a railroad car. No person other than the car dropper shall ride cars. No car dropper shall ride the end of a car about to be coupled with another car if other brakes are available.

(d) Employees handling railroad cars shall have access to and use an approved distinct audible signaling device to give warning when cars are in motion. A car dropper shall only in case of an emergency, get on or off a moving car.

(e) Rail cars shall not be left on side tracks unless ample clearance is provided for traffic on adjacent tracks. Parked rail cars, unless held effectively by brakes, shall be blocked securely.

(f) Railroad cars shall be trimmed properly when they have been loaded higher than the confines of their cargo space.

(g) A minimum of 30 inches continuous clearance from the farthest projection of moving railroad equipment shall be provided on at least one side of the tracks; all places where it is not possible to provide 30 inch clearance shall be marked conspicuously.

(h) Roadbeds, rails, joints, switches, frogs, and other elements on railroads shall be designed, installed and maintained in a safe manner consistent with the speed and type of haulage.

(i) Positive - acting stopblocks, derail devices, track skates, or other adequate means shall be installed wherever necessary to protect persons from runaway railroad equipment.

(j) Switch throws shall be installed so as to provide adequate clearance for switchmen.

(k) Where necessary, bumper blocks or the equivalent shall be provided at all track dead ends.

(l) Cars shall be inspected for broken steps, platforms and brake wheels and for defective brakes before dropping.

(m) Equipment operating speeds shall be consistent with conditions of roadways grades, clearance, visibility, traffic and the type of equipment used.

(n) Safety belts shall be worn and properly attached by all car droppers handling railroad cars. Six months after the effective date of this section, all such belts shall be of a design to allow maximum safety to provide for immediate uncoupling.

13.18 Railroad Track Construction and Maintenance.

(a) All parts of the track haulage road under the ownership or control of the operator shall be strictly constructed and maintained. Rails shall be secured at all points by means of plates or welds. When plates are used, plates conforming with the weight of the rail shall be installed and broken plates shall be replaced immediately. Appropriate bolts shall be inserted and maintained in all bolt holes. The appropriate number of bolts conforming with the appropriate rail plate for the weight of the rail shall be inserted, tightly secured, and maintained.

(b) All points shall be installed and maintained so as to prevent bad connections. Varying weights of rail shall not be joined without proper adapters. Tracks shall be blocked and leveled and so maintained so as to prevent high and low joints.

(c) Tracks shall be gauged so as to conform with the track mounted equipment. Curves shall not be constructed so sharp as to put significant pressure on the trucks of the track mounted equipment.

(d) Severely worn or damaged rails and ties shall be replaced immediately.

(e) When mining operations are performed within any 24 hr. perio All track required to be maintained by the operators shall be inspected at least every twenty-four hours to assure safe operation and compliance with the law and regulations. the results of which inspection shall be recorded.

Section 14 Fire Protection

14.01 Fire extinguishers

(a) A portable fire extinguisher of-correct-type-and-ampl eapaeity containing a nominal weight of at least five pounds shall be ke on each piece of mobile equipment and in all buildings.

(b) All portable fire extinguishers on equipment shall be properly secured.

(c) Portable fire extinguisher shall be provided near each above ground or unburied combustible liquid storage station; and near the transfer pump of each buried combustible liquid storage tank.

14.02 Flammable liquids.

(a) Flammable liquids, such as oils, greases, gasoline and such other like materials, shall be stored in buildings, compartments or closed containers used for this purpose only.

(b) The storage of surplus gasoline, oil, or other fuels, other than that which is in the fuel tank, shall be prohibited on any piece of equipment except for diesel equipment using gasoline starting engines, in this instance one extra gallon of gasoline in an approved safety can (flash arresting screen with self-closing lid) may be stored on the equipment securely fastened in a specific location on equipment out of the way of moving objects.

(c) Flammable liquids shall not be used to clean machinery.

(d) Combustible materials, grease, lubricants, paints, flammable liquids shall not be permitted to accumulate where fire hazards exists.

1.403 Fueling and Storage

(a) Internal combustion engines, except diesels, shall be shut off and stopped before being fueled.

(b) Areas surrounding flammable liquid storage tanks, electric substations and transformers shall be kept free from grass, (dry) weeds, underbrush, and other combustible materials, for at least 25 feet in all directions.

(c) Fuel lines on fuel storage tanks shall be equipped with valves to cut off fuel at the source and shall be located and maintained to minimize fire hazard.

(d) Smoking and use of open lights are prohibited in all places in which flammable materials are stored and in other places where there is a fire hazard.

14.04 Maintenance of Firefighting Equipment

(a) Firefighting equipment shall be continuously maintained in a usable and operative condition. Fire extinguishers shall be examined at least once every 6 months. The date of such examination shall be recorded on a permanent tag attached to the extinguisher.

14.05 Warnings - Warning signs prohibiting smoking and open flames shall be posted where they can be readily observed in areas or locations where fire or explosion hazards exist.

14.06 Drills - Fire drills and demonstrations with various types of available firefighting equipment shall be held for employees at least once annually. A record of such demonstrations shall be recorded.

Section 15. Protective Equipment and Clothing

15.01 Eye Protection

(a) Welders and helpers shall use adequate shields or goggles to protect their eyes.

(b) All employees shall have approved goggles or shields and use the same where there is a hazard from flying particles, or other eye hazards.

15.02 Clothing

(a) Employees engaged in haulage operations and all other persons employed around moving equipment shall wear snug-fitting clothing.

(b) Protective gloves shall be worn when material which may injure hands is handled. Gloves with gauntleted cuffs shall not be worn around moving equipment.

(c) Safety hats and safety-toed shoes shall be worn by all persons while in or around a surface mine, tipple or cleaning plant.

15.03 Life Jackets and Belts

(a) Persons shall wear safety belts and lifelines where there is a danger of falling. A person shall continuously tend the lifeline when bins, tanks, auger holes, or other dangerous areas are entered.

(b) Lifejackets or belts shall be worn where there is a danger from falling into water.

Section 16. First-Aid Equipment

16.01 First Aid Stations and Equipment

(a) Each operator of a surface coal mine, tipple, and preparation plant shall maintain a supply of first-aid equipment. First Aid Equipment shall be located within 1,000 feet of the working pit, unless a ten unit first-aid kit is provided in the pit. When ten unit kits are not provided in the pit, such first-aid equipment shall be maintained within 2,000 feet of the pit area.

First-aid equipment shall contain the following:

(1) one stretcher
(2) one broken-back board, or approved combination stretcher
(3) twenty-four triangular bandages
(4) eight four inch bandage compresses
(5) sixteen two inch bandage compresses
(6) twelve one inch adhesive compresses
(7) one foille
(8) two approved blankets
(9) one rubber blanket
(10) two tourniquets
(11) one one-ounce bottle of aromatic spirits of ammonia
(12) two inflatable plastic leg splints
(13) two inflatable plastic arm splints
(14) six small splints, metal or wooden
(15) two cold packs

16.02 Proper Storage of First Aid Supplies

All first-aid supplies required to be maintained shall be stored in suitable sanitary, dust-tight, moisture-proof containers. First-aid supplies shall be accessible to the miners.

16.03 Emergency Arrangements

(a) Each operator of a mine shall make arrangements with a licensed physician, medical service, medical clinic, or hospital to provide emergency medical assistance while any person is on duty at a mine.

(b) Each operator of a mine shall make arrangements with an approved ambulance service or otherwise provide for an approved emergency transportation while any person is on duty at a mine.

(c) Each operator shall have arrangements made with an ambulance service, or other emergency transportation facilities for injured persons to be transported from the work site to a licensed physician, medical service, medical clinic, or hospital provided pursuant to sub-section (b) above, while people are actually employed at the operation.

(d) Emergency medical personnel shall be employed in every surface mine in the state having more than ten employees. At least one emergency medical attendant as defined in section two, article four-c Chapter sixteen of the code, paramedic as defined in Section two, Article three-b, Chapter thirty of this code, or physician assistant as defined in Section one, Article three-a, Chapter thirty of this code, shall be employed at a mine for every seventy employees or any part thereof who are engaged at one time, in the extraction, production or preparation of coal. Said emergency attendants shall be employed at their regular duties at

a central location convenient for quick response to emergencies, and further shall have available to them at all times such equipment as is necessary to respond to emergencies.

(e) Each operator of a surface coal mine shall immediately after making arrangements required under this section, or immediately after any change of such agreement, post at the appropriate places at the mine the names, titles, addresses, and telephone numbers of all persons and/or services currently available under such arrangements to provide medical assistance and transportation of injured persons at the mine.

16.04 Emergency Communications

(a) Each operator of a surface mine shall provide two-way communication at all times miners are present between all work sites at the mine and an emergency communication center which may be at the mine office or elsewhere at the mine.

(b) Each operator of a surface coal mine shall establish and maintain a direct two-way communication system from such emergency communication center at the mine to the nearest point of medical assistance for use in an emergency. Except as hereinafter provided, such emergency communication system shall be by telephone. If telephone communication from the emergency communication center to the nearest point of medical assistance is not possible at any one mine, the Director may allow by permit such communication by radio transmission to any emergency assistance facility (e.g. state police, sheriff, local hospital) which has available the means of communication with the person or persons providing the requisite emergency medical assistance or transportation.

Section 17. First-Aid Training of Coal Mine Employees

Each coal mine operator shall provide every new employee within six months of the date of his employment with the opportunity for first-aid training as prescribed by the Director unless such employee has previously received such training. Each coal mine employee shall be required to take refresher first-aid training of not less than five hours within each twenty-four months of employment. The employee shall be paid regular wages, or overtime pay if applicable, for all periods of first-aid training.

Section 18. Haulage

18.01 Roads - Traffic Directions and Warning Signs

(a) Traffic directions which differ from standard highway practice shall be posted on signs along the haulage roads at strategic points in letters at least two, three inches high.

(b) Well marked signs conspicuously placed, shall be properly located to alert drivers to existing danger areas. Such as the approach to a dangerous curve or extreme grade.

(c) Traffic rules, signals, and warning signs shall be standardized at each mine.

(d) Where side or overhead clearances on haulage roads or loading or dumping locations are hazardous to mine worker, such areas shall be conspicuously marked and warning devices shall be installed when necessary to insure the safety of the workers.

(e) Flashers, flares, or other means of signaling shall be used to warn approaching drivers of a hazard created by an obstruction in the roadway.

(f) Regulatory signs shall be used to indicate required method of traffic movement (Example: "Stop", "Yield", "One Way".

(g) Posted Warning signs shall be used to indicate potential hazardous conditions, (Example: "Hill, "Curve", "Truck Crossing")

(h) Object marking shall be used to mark physical obstruction in or near the haulage way that presents possible hazards (Example: - Reflectors and high visibility paint.)

(i) All signs and markings shall be displayed and utilized so as to be effective as possible.

(j) Where side or overhead clearance on any haulage road or at any loading or dumping location at a surface mine is hazardous to any person, such hazard shall be corrected immediately, and all necessary precautions taken while such hazard is being corrected.

18.02 Haulage Roads - Construction and Maintenance

(a) Haulage roads shall be located an adequate distance from highwalls and spoil banks to minimize the danger of falling material onto personnel and equipment.

(b) When dust created by haulage is thrown into suspension in such quantities that may obscure the vision of the operators of vehicles, an adequate means shall be taken to allay such dust.

(c) Only authorized persons shall be permitted on haulage roads and at loading or dumping locations.

(d) Berms or guards shall be provided where required on the outer bank of elevated roadways.

(e) The width and grade to be utilized in haulage road construction shall be determined for each specific situation based upon terrain configuration, vehicle characteristics, and driver visibility for safe haulage.

(f) Haulage roads shall be constructed of sufficient width to permit the driver to manuever his vehicle to avoid striking unexpected obstacles on the roadway where reclamation regulations permit.

(g) Provisions shall be made to adequatley drain and remove excess water from the haulage roads through the use of road crown and perimeter drainage ditches.

(h) Roads shall be maintained in good condition, free of ruts, bumps, holes, and accumulations of ice or dust which could be hazardous to the safety of the haulage operation.

(i) Haulage operations shall be stopped when the haulage surface deteriorated to the extent that it presents a danger to the safety of the haulage operation.

(j) All haulage vehicles placed into service after the effective date of these Rules and Regulations shall be equipped with an approved supplementary emergency breaking system.

(k) All power lines constructed over haulage roads after the effective date of this section shall be maintained a minimum of twelve feet above all equipment used on haulage roads including dump trucks in a raised position.

18.03 Haulage Equipment - Construction and Maintenance

(a) Haulage trucks shall not be operated with dirty windshields, cracked, dirty, or broken rear view mirrors.

(b) Supplies, materials, and tools other than small hand tools shall not be transported with persons in vehicles unless such vehicles are specifically designed to make such transportation safe.

(c) All new haulage vehicles placed into service shall be equipped with an emergency steering and braking system.

(d) Where required by the director, trucks used for haulage of coal, men or supplies shall be equipped with two way communication instruments.

(e) Where required by the director or his authorized representative runaway roads or "J" roads at intervals of not more than one thousand feet shall be provided on all haulage roads on which coal

is first hauled from such surface mine after the effective date of this section.

18.04 Haulage Equipment - Operation

(a) Haulage truck operators shall make sure their truck path is unobstructed, especially when starting or moving the trucks forward or backward.

(b) Radio or visual contact shall be made with an operator of a haulage truck to insure that it is safe to approach the truck.

(c) Vehicles shall follow at a safe distance: passing shall be limited to areas of adequate clearance and visibility.

(d) Men shall not work or pass under the buckets or booms of loaders in operation.

(e) Drivers shall drive their trucks according to the condition of the road and the weather. At no time shall truck speeds exceed the safe pre-determined speed limit that has been established on that haul road.

(f) Haulage trucks traveling in the same direction, shall not pass any vehicle until signals have been exchanged between both drivers and the vehicle to be passed pulls to the right side of the road.

(g) Haulage trucks shall maintain a safe distance between the truck they are following. Other vehicles shall maintain a minimum of one car length for each 10 m.p.h. of travel in back of the vehicle they are following.

(h) When approaching a state or county road, drivers shall maintain their trucks under control to stop, yield right of way, or obey the signals of a flagman.

(i) When the body of a haulage unit is being raised, no person will be permitted in close proximity where they may be endangered.

(j) Materials or equipment required in the cab of haulage equipment shall be adequately secured.

18.05 Parked Vehicles

(a) Lights, flares, or other approved warning devices shall be adequately located when parked equipment creates a hazard to vehicular traffic.

(b) Mobile equipment shall not be left unattended unless the brakes are set, the wheels shall be turned into a bank or berm, or shall be blocked, when such equipment is parked on a grade.

18.06 Employee Parking and Mantrips

(a) On all active surface mines, a designated area shall be provided for parking of employees' vehicles.

(b) No vehicle or other conveyance used to transport persons to and from work areas at surface mines shall be over-crowded and all persons shall ride in a safe position. Vehicles provided by the operator to transport persons to and from work areas shall be covered so as to protect persons from the weather and be adequately heated and ventilated.

Section 19. Auger Mining

19.01 Proximity to Underground Workings

(a) Auger mining should not be done in proximity to active underground workings unless the work is coordinated with the underground plan of workings. Auger holes should not be drilled so as to: (1) disrupt the ventilation systems of active underground mines; (2) create inundation hazards to active underground mines; or (3) cause damage to the roof and ribs of active and underground roadways.

(b) Auger holes should not intersect underground mine workings known to contain or suspected to contain dangerous quantities of impounded water, except to de-water such areas under controlled conditions and then only after all necessary precautions have been taken to safeguard life and property.

19.02 Safeguards - Auger areas generally

(a) Adequate approved means shall be provided to prevent unauthorized persons from entering areas where coal has been removed.

(b) Warning signs shall be posted conspicuously at the entrances to abandonded auger operations ~~and at strategic locations along the out crop line where coal has been auger mined~~.

(c) Completed auger holes shall be blocked with highwall spoil to a minimum height of one foot above the coal bed and to within 1,000 feet of the active holes.

(d) Adequate precaution shall be taken when any auger hole or holes are not blocked with highwall spoil to insure unathorized entry.

(c) All haulroads entering auger pit shall be barricaded to insure against unathorized vehicles when auger holes are left unguarded.

19.03 Protection of workers

(a) No person or persons shall enter an auger hole until a qualified employee has determine by recognized means of detection whether the air within the hole is of good quality and does not contain methane or is deficient in oxygen. The examiner ~~should~~ shall wear a lifeline that extends to the hands of a person on the surface.

(b) Persons entering an auger hole should examine and test its walls for danger from falling materials. Any hazardous conditions found should be corrected before any other work is done or the hole vacated and suitable danger board placed across its entrance.

(c) Augers which are provided with walkways or platforms, where practicable shall be equipped with safe handrails.

19.04 Auger Operations

(a) Haulage trucks awaiting loading shall park a safe distance from the highwall and spoil bank.

(b) No person or person other than the auger crew shall be allowed on or around the auger when in operation unless in line of duty.

(c) Only the truck being loaded and one other truck shall be in the auger pit.

(d) Open lights and smoking materials are prohibited in auger holes.

(e) "No Smoking" signs shall be posted in close proximity where auger holes are being drilled.

(f) When auger holes first penetrate abandoned or mine-out underground workings, and as frequently thereafter as these workings are penetrated, a qualified employee should determine, by recognized means of detection, whether or not methan or oxygen deficient air is present or is being emitted in dangerous quantities.

(g) The operator ~~should~~ shall not leave the controls whil the auger is being operated.

(h) No person or persons shall be allowed to be on the top of the cab of the carriage engine for any reason while it is moving, or when the auger train is in motion.

(i) Partitions of coal between auger holes shall be adequate enough to support highwall when augering operations are being performed.

(j) Partitions of coal between auger holes shall not be recovered by other methods of mining without the approval of the Director of the Department of Mines.

(k) Adequate illumination shall be provided for work areas after dark.

(l) Persons ~~should~~ shall keep clear of the auger train while it is in motion and shall not pass under or over an auger train, except where suitable crossing facilities are provided. Persons shall keep clear of auger sections being swung into position.

(m) Where practicable, no persons ~~including the auger machine operator should~~ shall be in a direct line with the boreholes during mining operations ~~in case explosive gas or dust is ignited by the auger~~.

19.05 Methane and Oxygen

(a) Auger mining equipment shall not be operated in the vicinity of auger holes emitting dangerous quantities of methane or ~~oxygen deficient~~ air until the atmosphere has been rendered harmless.

(b) Internal combustion engines in the vicinity of auger holes ~~should~~ shall be stopped while auger holes are being inspected.

(c) Combustible materials, dinner pails, or other supplies ~~should~~ shall not be stored in auger holes.

(d) Auger mining machines shall be equipped with a permissible flame safety lamp or other detector approved by the Director.

(e) In each auger mining crew there shall be a person ~~man~~ qualified in the care and use of a permissible flame safety lamp or other approved oxygen detecting measuring device.

(f) Test for oxygen deficiency shall be conducted with a permissible flame safety lamp or other means approved by the director and all tests for methane shall be conducted with an approved methane detector.

(g) When an auger hole penetrates an abandoned or mined out area of an underground mine, test for methane and oxygen deficiency shall be made at the collar of the hole by a qualified person, using approved devices to determine if dangerous quantities

of methane or oxygen deficient air are present or being emitted. If such is found no further work shall be performed until the atmosphere has been made safe.

19.06 Inspections

(a) Auger operators shall inspect their machine before starting and operating to determine such machine is in a safe operating condition and all safety equipment is provided.

(b) No work shall be performed under any overhang. When a crew is engaged in connecting or disconnecting auger sections for maintenance, repair, or other reasons besides regular operations, at least one person shall be assigned to observe the highwall for possible movement.

(c) The face of all highwalls, for a distance of 100 feet on both sides of each drilling site, shall be inspected by the auger operator and the foreman before any augering operation is performed. All loose hazardous material shall be removed from the highwall before persons are permitted to enter the drilling area.

Section 20. General Provisions

20.01 Horseplay

Horseplay, practical jokes, wrestling, fighting or other actions which threaten persons with personal injury, causing them to fear for their personal safety or causing damage resulting in interference with safe operations shall be prohibited.

20.02 Alcohol and Drugs - Persons under the influence of alcohol or drugs shall not be permitted on a surface mine or attendant facility.

20.03 Fire Arms - No person shall carry illegal fire arms on a surface mine operation.

20.04 Housekeeping - Paths, walkways, stairways, and roadways shall be kept free of obstructions. Structures and inside work areas shall be kept free of oil, coal spillage, litter, and coal dust accumulations.

20.05 Smoking - Smoking or open flames shall not be permitted in the following areas:

Within 50 feet of explosive storage areas;
Within 150 feet of flammable liquid storage areas;
Within 150 feet of liquified and non-liquified gas storage areas
Within 150 feet of the proximity of auger holes

20.06 When Coal Operator to File Maps and Plans as Prequisite to Extension of Coal Operations; Petition for Leave to Conduct Operations Within Two Hundred Feet of Well; Proceedings Thereon.

Before hereafter removing any coal or other material, or driving any entry or passageway within less than five hundred feet of any well, and also before hereafter extending the workings in any coal mine beneath any tract of land on which wells are already drilled, or within five hundred feet of any well, or under tract of land in visible possession by a well operator for the purpose of drilling for oil or gas, the coal operator shall forward, by registered mail to, or file a copy of the parts of its maps and plans which it is required by law to prepare and file and bring to date from time to time, showing its mine workings and projected mine workings beneath such tract of land and within five hundred feet of the outer boundaries thereof, simultaneously, with the well operator and the department of mines, accompanying each of said copies with a notice (form of which shall be furnished on request by the department of mines), addressed to the well operator and to the department of mines at their respective addresses, informing them that such plans or maps and notice are being mailed by registered mail to them, or are being filed and served upon them respectively, pursuant to the requirements of section eleven of this article. Following the filing of such parts of said plans or maps as aforesaid, the coal operator may proceed with its mining operations in the manner and as projected on such plans or maps, but shall not remove any coal or other material or cut any passageway nearer than two hundred feet of any completed well, or well that is being drilled, or for the purpose of drilling which a derrick is being constructed, without the consent of the department of mines, and the coal operator shall, at least every six months, bring such plans or maps so filed with the department to date, or file new plans and maps complete to date.

Application may be made at any time to the department of mines by the coal operator for leave to mine or remove coal or conduct its mining operations within two hundred feet of any well, by petition, duly verified, showing the location of the well, the workings adjacent to the well and any other material facts, and what further mining operations within two hundred feet of the well are contemplated, and praying the approval of the same by the department, and naming the well operator as a respondent. The coal operator shall file such petition with, or mail the same by registered mail to, the department and shall at the same time serve upon or mail by registered mail a true copy to the well operator. The department of mines shall, forthwith upon receipt of such copy, notify the well operator that it may answer the petition within five days, and that in default of an answer the department may approve the proposed operations as requested, if it be shown by the petitioner or otherwise to the satisfaction of the department that such operations are in accordance with law and with the provisions of this article. At the expiration of suh five day period, the department, whether an answer be filed or not filed, shall fix a time and place of hearing with ten days, or which it shall give the coal operator and the well operator five days written notice by

registered mail, and after a full hearing, at which the well operator and coal operator, as well as the department of mines, shall be permitted to offer any competent and relevant evidence, the department shall grant the request of the coal operator or refuse to grant the same, or make such other decision with respect to such proposed further operations in the vicinity of any such well as in its judgment is just and reasonable under all the circumstances and in accordance with law and the provisions of this article. The department of mines shall docket and keep a record of all such proceedings substantially as required in the last paragraph of section three of this article, and from any such final decision or order of the department of mines, either the well operator or coal operator or both, may within ten days, appeal to the circuit court of the county in which the well about which approval of such further operations is involved is located. The procedure in the circuit court shall be substantially as provided in section four, the department being named as respondent. From any final order or decree of the circuit court, an appeal may be taken to the supreme court of appeals as heretofore provided.

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

20.08 Compressed air or gases

(a) Safety chains or suitable locking devices shall be used at connections to machines or high-pressure hose lines where a connection failure would create a hazard.

(b) Compressors and compressed-air receivers shall be equipped with automatic pressure relief valves, pressure, gauges, and drain valves.

(c) All hoses exceeding 1/2 inch inside diameter shall have a safety device at the surface of supply at the branch line to reduce pressure in case of hose failure.

20.09 No working alone - No person shall be assigned, or allowed, or be required to perform work along in any area where hazardous conditions exist that would endanger his safety unless he can communicate with others, can be heard, or can be seen.

20.10 Stockpiles - Coal shall not be stockpiled at or near exposed or buried gas lines.

20.11 Reclaiming hazards - No persons shall be permitted to walk or stand immediately above a reclaiming area at or near a surage or storage pile where the reclaiming operations may expose him to a hazard.

20.12 Monthly Report by Operator - the operator of every surface mine shall, on or before the end of each calendar month, file with the director of mines a report covering the preceding calendar month on forms furnished by the director. Such reports shall state the number of accidents which have occurred, the number of persons employed, the days worked and the actual tonnage mined.

20.13 Request for Inspection - the representative of the miners or any individual miner may at any time request an inspection of any surface mine or part thereof. Upon receiving such a request one or more of the inspectors shall inspect the mine. At least one representative of the miners shall be permitted to accompany the inspector during an inspection so requested and additionally any other inspection conducted by the division of mines.

20.14 Accidents

(a) Fatal accidents - the scene of a fatal accident shall be left unchanged until an investigation is completed by the West Virginia Department of Mines. In case of a fatality at a mine, the owner or operator shall notify the director of the Department of Mines and the District Inspector in charge of the District by telephone or telegraph, and within 24 hours after the accident, send a written report to the Director of the Department of Mines specifying the character and cause of the accident, names of the persons killed and the nature of injuries that caused death.

(b) Accident reports - Whenever any accident occurs in or about any surface mine to any employee or person connected with the mining operation, resulting in personal injury or death, the operato shall, within twenty-four hours, report the same in writing to the director of the Department of Mines and to the district mine inspector of the district in which the accident occurs. A copy shall be provided to the representaive of the miners at the mine. The report shall give full detail of the accidents and what measures will be taken to prevent future occurrences.