Missouri Mine Inspection Laws and Regulations



MISSOURI DEPARTMENT OF LABOR & INDUSTRIAL RELATIONS

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LABOR RULES AND REGULATIONS OF MISSOURI

(Title 8 – Department of Labor and Industrial Relations, Division 30 – Division of Labor Standards)

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LABOR LAWS OF MISSOURI

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LABOR RULES AND REGULATIONS OF MISSOURI as published in the Missouri Code of State Regulations

Title 8 – Department of Labor and Industrial Relations Division 30 – Division of Labor Standards

Chapter 2 Mining Rules

8 CSR 30-2.010 Definitions

PURPOSE: This rule defines those terms used by the inspection section, Division of Labor Standards in the rules establishing standards for safe practices in the mining industry.

- (1) Active workings means any place in any mine where miners are normally required to work or travel.
- (2) ANFO means ammonium nitrate-fuel oil mixtures.
- (3) Approved means tested and accepted for a specific purpose by a nationally recognized safety agency.
- (4) Barricaded means obstructed to restrict the passage of persons, vehicles, or flying materials.
- (5) Berm means a pile or mound of material capable of restraining a vehicle; also a shelf, ledge, or material placed to contain loose slope material.
- (6) Blasting agent means a cap insensitive chemical composition or mixture consisting of fuel and oxidizer and no explosive ingredient but which can be made to detonate when initiated with a high strength explosive primer.
- (7) Blasting area means the area near blasting operations in which concussion or flying material can reasonably be expected to cause injury.
- (8) Blasting cap means a detonator containing a charge of detonating compound, which is ignited by electric current or the spark of a fuse; used for detonating explosives.
- (9) Blasting circuit means electric circuits used to fire electric detonators or to ignite an igniter cord by means of an electric starter.

- (10) Blasting switch means a switch used to connect a power source to a blasting circuit.
- (11) Box-type magazine means a small, portable magazine used to store limited quantities of explosives or detonators for short periods of time in locations at the mine which are convenient to the blasting sites at which they will be used.
- (12) Capped fuse means a length of safety fuse to which a detonator has been attached.
- (13) Capped primer means a package or cartridge of explosives which is specifically designed to transmit detonation to other explosives and which contains a detonator.
- (14) Combustible means capable of being ignited and consumed by fire.
- (15) Director means director of the Division of Labor Standards.
- (16) Company official means a member of the company supervisory or technical staff.
- (17) Competent person means a person having abilities that fully qualify him/her to perform the duty to which s/he is assigned.
- (18) Department means Department of Labor and Industrial Relations.
- (19) Detonating cord or detonating fuse means a flexible cord containing a core of high explosive.
- (20) Detonator means a device containing a small detonating charge that is used for detonating an explosive, including, but not limited to, blasting caps, exploders, electric detonators, and delay electric blasting caps.
- (21) Distribution box means a portable apparatus with an enclosure through which an electric circuit is carried to one (1) or more cables from a single incoming feedline; each cable circuit being connected through individual overcurrent protective devices.
- (22) Electric blasting cap means a blasting cap designed for and capable of being ignited by means of an electric current.

- (23) Electric grounding means to connect with the ground to make the earth part of the circuit.
- (24) Employee means a person who works for wages or salary in the service of an employer.
- (25) Employer means a person or organization employing one (1) or more persons to work for wages or salary.
- (26) Explosives means any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion. Explosives include, but are not limited to, black powder, dynamite, nitroglycerin, fulminate, and ammonium nitrate when mixed with a hydrocarbon plus high explosive ingredients.
- (27) Face-to-wall means that part of any mine where excavating is progressing or was last done.
- (28) Flammable means capable of being easily ignited and of burning rapidly as defined by the National Fire Protection Association.
- (29) Highway means any public road or travelway used by the general public.
- (30) Igniter cord means a fuse, cordlike in appearance, which burns progressively along its length with an external flame at the zone of burning and is used for lighting a series of safety fuses in the desired sequence.
- (31) Inhabited building means a building regularly occupied in whole or in part as a habitation for human beings or any church, schoolhouse, railroad station, store, factory, or other structure where people are accustomed to assemble except any building or structure occupied in connection with the manufacture, transportation, storage, or use of explosives.
- (32) Low voltage means electric potential up to and including 660 volts, medium voltage means voltages from 661 to 1000 volts, and high voltage means more than 1000 volts.
- (33) Magazine means a storage place for explosives or detonators.
- (34) Major electrical installation means an assemblage of stationary electrical equipment for the generation, transmission, distribution, or conversion of electric power.

- (35) Misfire means the complete or partial failure of a blasting charge to explode as planned.
- (36) Overburden means material of any nature, consolidated or unconsolidated, that overlies a deposit of useful materials or ores that are to be mined.
- (37) Primer or booster means a package or cartridge of explosives which is designed specifically to transmit detonation to other explosives and which does not contain a detonator.
- (38) Reverse-current protection means a method or device used on direct current circuit equipment to prevent the flow of current in the reverse direction.
- (39) Roll protection means a framework or safety canopy to protect the vehicle operator if equipment should overturn.
- (40) Safety can means an approved container, of not over five (5) gallon capacity having a spring-closing lid and spout cover.
- (41) Safety fuse means a train of powder enclosed in cotton, jute yarn, and water-proofing compounds which burn at a uniform rate; used for firing a cap containing the detonating compound which in turn sets off the explosive charge.
- (42) Safety switch means a sectionalizing switch that also provides shunt protection in blasting circuits between the blasting switch and the shot area.
- (43) Scaling means removal of insecure material from a face or highwall.
- (44) Secondary safety connection means a second connection between a conveyance and rope, intended to prevent the conveyance from running away or falling in the event the primary connection fails.
- (45) Semiconductive hose means hose having an electrical resistance of not less than five thousand (5000) ohms per foot and not more than two (2) megohms for its total length, used in pneumatic placement of blasting agents in boreholes.
- (46) Sprung hole means a blasting hole chambered or enlarged to take an increased charge of explosives.

- (47) Stemming means the inert material and the placing of such material, on top of any charge of explosives.
- (48) Stray current means that portion of a total electric current that flows through paths other than the intended circuit.
- (49) Substantial construction means construction of such strength, material, and workmanship that the object will withstand all reasonable shock, wear, usage, and deterioration to which it will normally be subjected.
- (50) Suitable means that which fits and has the qualities or qualifications to normally meet a given purpose, occasion, condition, or function or circumstance.
- (51) Travelway means a passage, walk, or way regularly used and designated for persons to go from one (1) place to another while at work.
- (52) Wet drilling means the continuous application of water to the back or bottom of the drill holes while drilling.
- (53) Working place means any place in or about a mine where work is being performed.

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*Original authority: 286.060, RSMo 1945, amended 1947, 1980, 1995, 2011 and 293.630, RSMo 1959.

8 CSR 30-2.020 Standard Practices for Safety and Operation

PURPOSE: This rule sets forth the specific safety and operating standards for the mining industry relative to specific areas of operation including ground control, fire prevention and control, explosives, drilling for blasting, loading, hauling, dumping, travelways, electricity, use of equipment, personal protection, and general.

PUBLISHER'S NOTE: The secretary of state has determined that publication of the entire text of the material that is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule

shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.

- (1) Practices and standards acceptable to the director for the safe control of surface mine walls, including the overall slope of the mine wall, shall be established and followed by the operator. Such standards shall be consistent with sound engineering, the nature of the ground and the mine seams, and the ensuring of safe working conditions according to the degree of slope. Mining methods shall be selected which shall provide wall stability, including benching, if necessary, to obtain a safe overall slope.
- (2) All loose and hazardous material shall be stripped for a safe distance from the edge of the highwall.
- (3) The width and height of benches shall be governed by the type of equipment to be used and the operation to be performed.
- (4) Safe means of scaling walls shall be provided. Loose material or trees on exposed wall areas shall be removed before any other work is performed in the exposed wall area.
- (5) Miners shall not work under dangerous walls. Hazardous overhanging walls shall be taken down immediately and other unsafe ground conditions shall be corrected promptly, or the areas shall be barricaded or posted.
- (6) When removing rock by hand, miners shall approach loose rock and areas on walls to be scaled from above and shall scale from a safe location.
- (7) The supervisor or a competent person designated by the supervisor shall examine working areas and faces of walls for unsafe conditions at least at the beginning of each shift, during the shift while miners are working, and after blasting. Any unsafe conditions found shall be corrected before any further work is performed at the immediate area or face at which the unsafe condition exists.
- (8) Miners shall examine their working places before starting work and frequently thereafter, and any unsafe conditions shall be report-

- ed immediately to the supervisor and documented before any other work is performed.
- (9) Large boulders requiring secondary blasting shall be in a safe location before they are drilled or broken.
- (10) Miners shall not be permitted to work between equipment and the mine wall, highwall, or bank where the equipment may hinder escape from falls or slides of the wall, unless special safety precautions are taken in advance.
- (11) No person shall smoke or use an open flame where flammable or combustible liquids or greases are stored or in areas or places where fire or explosion hazards exist.
- (12) Signs warning against smoking and open flames shall be posted so they can readily be seen in areas or places where fire or explosion hazards exist.
- (13) Areas surrounding flammable-liquid storage tanks and electric substations and transformers shall be kept free from grass (dry), weeds, underbrush, and other combustible materials for at least twenty-five feet (25') in all directions.
- (14) Fires used for warming purposes shall be enclosed to prevent persons from coming in contact with flame or coals which would ignite clothing. Oily or easily ignited clothing shall not be worn where ignition hazards are present.
- (15) Buildings or rooms in which oil, grease, flammable liquids, or similar flammable materials are stored shall be of fire- resistant construction and well ventilated. Provisions shall be made to control spilled flammable liquids.
- (16) Abandoned electrical circuits shall be de-energized and isolated so that they cannot become energized inadvertently. If no further use is intended, they shall be removed.
- (17) Combustible materials, grease, lubricants, or flammable liquids shall not be allowed to accumulate where they can create a fire hazard.
- (18) Materials, such as oily waste and rags, which are subject to spontaneous combustion shall be placed in tightly covered metal containers until disposed of properly.

- (19) When flammable solvents are used for cleaning, such solvents shall be transported in safety cans of not over five- (5-) gallon capacity. When solvents are used to clean parts, the containers used shall have tight fitting covers. No cleaning may be done with flammable solvents near a possible source of ignition.
- (20) Oxygen cylinders shall not be stored near oil or grease.
- (21) Gauges and regulators used with oxygen or acetylene cylinders shall be kept clean and free of oil and grease.
- (22) Valves on oxygen, acetylene, and other compressed gas cylinders shall be kept closed and protected from damage when they are not in use, stored, or transported.
- (23) Battery-charging stations shall be located in well ventilated areas and in the clear of other equipment.
- (24) Internal combustion engines, except diesels, shall be shut off and stopped before being fueled.
- (25) Each mine shall have available or be provided with, appropriate types of firefighting equipment adequate for the size of the mine.
- (26) Firefighting equipment shall be strategically located, readily accessible, plainly marked, properly maintained, and inspected periodically, and records shall be kept of such inspections.
- (27) Fire extinguishers shall be adequate in number and size and of the appropriate type for each particular fire hazard involved.
- (28) Fire extinguishers shall be replaced immediately with fully charged extinguishers of the same capability after any discharge is made from the extinguishers.
- (29) Fire extinguishers shall be visually inspected monthly, tested at least once each year, and maintained according to the manufacturer's recommendation. Each extinguisher shall bear a tag showing the date of inspection and testing and the initials or name of the person making the examination.
- (30) Fire extinguishers shall be approved by Underwriters' Laboratories, Inc., or Factory Mutual Research Corporation.

- (31) When welding or cutting near combustible materials, precautions shall be taken to ensure that smoldering metal or sparks do not result in fire.
- (32) Belt conveyors in locations where fire would create a hazard to personnel shall be provided with safety switches to stop the drive pulley automatically in the event the belt stalls or there is excessive slippage.
- (33) Detonators and other cap sensitive high explosives shall be stored in magazines provided for that purpose.
- (34) Blasting agents may be stored in van type trailers, provided that they are well ventilated, kept clean, and free of extraneous material that could create a fire hazard.
- (35) Blasting agents, safety fuse, or detonating cord may be stored with explosives, but blasting agents must be kept physically separated from the fuse, detonators, and explosives.
- (36) Magazines shall be visibly marked and—
- (A) Detached structures located away from power lines, fuelstorage areas, and other possible sources of fire;
- (B) Constructed substantially of noncombustible material or covered with fire-resistant material;
- (C) Electrically bonded and grounded if constructed of metal;
- (D) Made of non-sparking materials on the inside including floors;
- (E) Provided with adequate and effectively screened ventilation openings near the floor and ceiling;
- (F) Kept locked securely when unattended;
- (G) Used exclusively for storage of blasting agents, explosives, or detonators and kept free of all extraneous materials;
- (H) Kept clean and dry in the interior and in good repair; and
- (I) Unheated, unless heated in a manner that does not create a fire or explosion hazard. Electrical heating devices shall not be used inside a magazine.
- (37) Only permissible lights worn or carried shall be used inside magazines.

- (38) Area surrounding magazines not less than twenty-five feet (25') in all directions shall be kept free of rubbish and other combustibles.
- (39) Smoking and open flames shall not be permitted within twenty-five feet (25') of explosives and detonator-storage magazines.
- (40) Cases of explosives shall be stored in such a manner to assure the use of the oldest stock first.
- (41) Ammonium nitrate-fuel oil (ANFO) mixtures and emulsions shall be physically separated from dynamite stored in the same magazine and in such a manner that oil does not contaminate the dynamite.
- (42) Cases of explosives shall not be stored on their ends or sides nor in stacks over six feet (6') high.
- (43) Explosives and detonators shall be transported in separate vehicles unless separated by four inches (4") of hardwood or the equivalent.
- (44) Self-propelled vehicles used to transport explosives or detonators shall be equipped with suitable fire extinguishers and marked with proper warning signs.
- (45) When vehicles containing explosives or detonators are parked, the brakes shall be set, the motor power shut off when not in use, and the vehicle shall be blocked securely against rolling when parked on an incline.
- (46) Vehicles containing explosives or detonators shall not be left unattended except in blasting areas where loading or charging is in progress.
- (47) Vehicles containing explosives or detonators shall not be taken to a repair garage or shop for any purpose.
- (48) Vehicles used to transport explosives or detonators shall be maintained in good condition and shall be operated at a safe speed and in accordance with recognized safe operating practices.
- (49) Vehicles used to transport explosives other than ANFO mixtures, shall have substantially constructed bodies, no sparking metal exposed in the cargo space, and shall be equipped with suitable

- sides and tail gates; explosives shall not be piled higher than the side or end enclosures.
- (50) Explosives shall be transported at times and over routes that expose a minimum number of persons.
- (51) Other materials or supplies shall not be placed on or in the cargo space of a conveyance containing explosives or detonators.
- (52) No person shall smoke while transporting or handling explosives or detonators.
- (53) Only the necessary attendants shall ride on or in vehicles containing explosives or detonators.
- (54) Explosives shall be transported promptly without undue delays in transit.
- (55) Nonconductive containers with tight-fitting covers shall be used to transport or carry capped fuses and electric detonators to blasting sites.
- (56) Substantial nonconductive closed containers shall be used to carry explosives to blasting sites.
- (57) Persons who use explosives, blasting agents, or detonators shall be competent and understand the hazards involved; trainees shall do such work only under the supervision of and in the immediate presence of competent miners or supervision.
- (58) Blasting operations shall be under the direct control of competent persons designated by the operator for that purpose.
- (59) Damaged or deteriorated explosives, blasting agents, and detonators shall be disposed of in a safe manner and as soon as possible.
- (60) Explosives or detonators shall not be taken to the face or the immediate vicinity (within twenty-five feet (25')) of the blasting site until all other work has been completed.
- (61) Holes to be blasted shall be charged as near to blasting time as practical and such holes shall be blasted as soon as practicable after charging has been completed.
- (62) No person shall smoke within twenty-five feet (25') of explosives, blasting agents, or detonators.

- (63) Explosives and blasting agents shall be kept separated from detonators until charging of holes is started.
- (64) Primers shall be made up at the time of charging and as close to the blasting site as conditions allow.
- (65) Only wooden or other nonsparking devices shall be used to punch holes in explosives' cartridges.
- (66) Tamping poles shall be blunt and squared at one (1) end and made of wood or other nonsparking material.
- (67) No tamping shall be done directly on primer cartridges.
- (68) Unused explosives and detonators shall be moved back to magazine as soon as charging operations are completed.
- (69) Approaches to areas in which charged holes are awaiting firing shall be guarded, or barricaded and posted, or flagged against unauthorized entry. If blasting is done after dark, red flashing lights shall be used at the approaches to the blasting area.
- (70) When a blast is about to be fired, ample warning shall be given to allow all persons to retreat to a safe place. Each mine shall have a definite plan of warning signals that can be clearly seen or heard by anyone in the blasting area. The operator shall inform all employees at the local mine as to the established procedure.
- (71) When safety fuse has been used, miners shall not return to misfired holes for at least thirty (30) minutes.
- (72) When electric blasting caps have been used, miners shall not return to misfired holes for at least fifteen (15) minutes.
- (73) Blasted materials shall be examined for undetonated explosives after each blast and undetonated explosives found shall be disposed of safely.
- (74) Misfires shall be reported to the proper supervisor and shall be disposed of safely before any other work is performed in the blasting area.
- (75) Blast holes in hot-hole areas and holes that have been sprung shall not be charged before tests have been made to ensure that the heat has been dissipated to a safe level.

- (76) If explosives are suspected of burning in a hole, all persons in the endangered area shall move to a safe location until the danger has passed.
- (77) Holes shall not be drilled where there is danger of intersecting a charge or misfired hole.
- (78) Fuse and igniters shall be stored in a cool, dry place away from oils or grease.
- (79) Fuse shall not be kinked, bent sharply, or handled roughly.
- (80) Fuses shall be cut and capped in safe, dry locations posted with No Smoking signs.
- (81) Blasting caps shall be crimped to fuses only with devices designed for that specific purpose.
- (82) Fuse length, depending on the burn rate, must allow for at least two (2) minutes of burning time.
- (83) At least two (2) competent miners shall be present when lighting fuses and no competent miner shall light more than fifteen (15) individual fuses. If more than fifteen (15) holes per competent miner are to be fired, igniter cord and connectors or electric blasting shall be used.
- (84) A safe interval of time shall be allowed to light a round and evacuate the blasting area.
- (85) Fuse shall be ignited with hot-wire lighters, lead splitters, igniter cord, or other such devices designed for this purpose.
- (86) Fuse shall not be ignited before the primer and the entire charge are securely in place.
- (87) Electric detonators of different brands shall not be used in the same round.
- (88) Electric detonators shall remain shunted until they are being wired into the blasting circuit. Lead lines and wired rounds shall be kept shunted until immediately before blasting.
- (89) Completely wired round shall be tested with a blasting galvanometer before connections are made to the blasting line.
- (90) Lead wires and blasting lines shall not be strung across power

- conductors, pipelines, or within twenty feet (20') of bare power lines. They shall be protected from sources of static or other electrical contact.
- (91) Permanent blasting lines shall be properly supported, insulated, and kept in good repair.
- (92) Charging shall be stopped immediately when the presence of static electricity or stray current is detected; the condition shall be corrected before charging is resumed.
- (93) Charging of holes shall be suspended and the miners withdrawn to a safe location upon the approach of an electrical storm.
- (94) Safety switches and blasting switches shall be labeled, encased in boxes, and arranged so that the covers of the boxes cannot be closed with the switches in closed position.
- (95) Blasting switches shall be locked in the open position, except when closed to fire the blast. Lead wires shall not be connected to the blasting switch until the shot is ready to be fired.
- (96) The key to a blasting switch shall be entrusted only to the person designated to fire blast.
- (97) Electrical circuits from the blasting switches to the blast area shall not be grounded.
- (98) At least a five foot (5') air gap shall be provided between the blasting circuit and the power circuit.
- (99) Where electric blasting is to be performed, electric circuits to equipment within twenty-five feet (25') of a hole that is to be charged with an electric blasting cap shall be de-energized before electric detonators are brought into the immediate area or the electric equipment shall be moved out of the immediate area.
- (100) Power sources shall be suitable for the number of electric detonators to be fired and for the type of circuits used.
- (101) When instantaneous blasting is performed, the double-trunkline or loop system shall be used in detonating cord blasting.
- (102) When instantaneous blasting is performed, trunklines in multiple-row blasting shall make one (1) or more complete loops, with crossties between loops at intervals of not over two hundred feet (200').

- (103) All detonating-cord knots shall be tight and all connections shall be kept at right angles to the trunklines.
- (104) Delay connectors for firing detonating cord shall be treated and handled with the same safety precautions as blasting caps and electric detonators.
- (105) Detonating cord shall not be kinked, bent, or otherwise handled in such a manner that the train of detonation may be interrupted.
- (106) Sensitized Ammonium Nitrate Blasting Agents.
- (A) When used, the same precautions shall be taken as for high explosives.
- (B) Adequate priming shall be employed to guard against misfires, increased toxic fumes, and poor performance.
- (C) Where pneumatic loading is employed, before any type of blasting operations using blasting agents is put into effect, an evaluation of the potential hazard of static electricity shall be made. Adequate steps, including the grounding of the conductive parts of pneumatic loading equipment, shall be taken to eliminate the hazard of static electricity before blasting agent preparation is commenced.
- (D) Pneumatic loading equipment shall not be grounded to waterlines, airlines, rails, or other permanent electrical grounding systems.
- (E) Hoses used in connection with pneumatic loading machines shall be of the semiconductive type, having total resistance low enough to permit the dissipation of static electricity and high enough to limit the flow of stray electric currents to a safe level. Wirecountered hose shall not be used because of the potential hazard from stray electric currents.
- (F) Plastic tubes shall not be used to protect pneumatically loaded blasting agent charges against water unless a positive grounding system is provided to drain electrostatic charges from the holes.
- (107) Equipment for drilling and blasting shall be inspected each shift by a competent person designated by the operator. Equipment defects affecting safety shall be reported immediately.
- (108) Equipment defects affecting safety shall be corrected before the equipment is used.

- (109) The drilling area shall be inspected by a competent person designated by the operator for hazards before drilling operations are started.
- (110) Miners shall not be on the mast while the drill is in operation.
- (111) Drill crews and others shall stay clear of augers or drill stems that are in motion. Persons shall not pass under or step over a moving stem or auger.
- (112) Receptacles or racks shall be provided for drill steel stored on drills.
- (113) Tools and other objects shall not be left loose on the mast or drill platform.
- (114) When drill is being moved from one (1) drilling area to another, drill steel, tools, and other equipment shall be secured and the mast placed in a safe position.
- (115) In the event of power failure, drill controls shall be placed in the neutral position until power is restored.
- (116) While in operation, drills shall be attended at all times.
- (117) Drill holes large enough to constitute a hazard shall be covered or guarded.
- (118) Miners shall not drill from positions that hinder their access to the control levers, or from insecure footing or staging, or from atop equipment not designed for this purpose.
- (119) Bit wrenches or bit knockers shall be used to remove detachable bits from drill steel.
- (120) Starter steels shall be used when collaring holes with handheld or feed-leg drills.
- (121) Miners shall not hold the drill steel while collaring holes or rest their hands on the chuck or centralizer while drilling.
- (122) Air shall be turned off and bled from the hose before handheld drills are moved from one (1) working area to another.
- (123) Equipment used for loading, hauling, and dumping shall be inspected each shift by a competent person designated by the operator. Equipment defects affecting safety shall be reported immediate-

ly.

- (124) Equipment defects affecting safety shall be corrected before the equipment is used.
- (125) Powered mobile equipment shall be provided with adequate brakes.
- (126) Equipment operators shall be certain, by signal or other means, that all persons are in the clear before starting or moving equipment.
- (127) 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 warning system shall be installed and operated to warn persons that the conveyor will be started.
- (128) Trucks, shuttle cars, and front-end loaders shall be equipped with emergency brakes separate and independent of the regular braking system.
- (129) Operators' cabs shall be constructed to permit operators to see without difficulty and should be reasonably comfortable.
- (130) Cab windows shall be of safety glass or equivalent, in good condition and shall be kept clean.
- (131) Cabs of mobile equipment shall be kept free of extraneous materials.
- (132) Adequate back stops or brakes shall be installed on inclined conveyor drive units to prevent conveyors from running in reverse if a hazard to personnel will result.
- (133) No person shall be permitted to ride a power driven chain, belt, or bucket conveyor, unless specifically designed for the transportation of persons.
- (134) Equipment operating speeds shall be prudent and consistent with conditions of roadway, grades, clearance, visibility, traffic, and the type of equipment used.
- (135) Dust control measures shall be taken where dust significantly reduces visibility. Haulage roads shall be wet down as necessary unless dust is controlled adequately by other methods.

- (136) Mobile equipment operators shall have full control of the equipment while it is in motion.
- (137) Dippers, buckets, loading booms, or heavy suspended loads shall not be swung over the cabs of haulage vehicles until the drivers are outside of the cabs and in safe locations, unless the trucks are designed specifically to protect the drivers from falling material.
- (138) Only authorized persons shall be present in areas of loading or dumping operations.
- (139) Unless safe provisions are made for persons to mount or leave equipment while it is in operation, the operator shall be notified of their intentions before getting on or off.
- (140) Operators shall assume the normal operating position at all times while the vehicle is in motion and shall sit facing the direction of travel while operating equipment with dual controls.
- (141) Miners shall not work or pass under the buckets or booms of loaders in operation.
- (142) When traveling between work areas, the equipment shall be secured in the travel position.
- (143) Dippers, buckets, scraper blades, and similar movable parts shall be secured or lowered to the ground when not in use.
- (144) Miners shall not ride in dippers, buckets, forks, clamshells, or other parts of any equipment not specifically designed for the transportation of persons.
- (145) Loaded cars or trucks shall not be moved until the loads are trimmed properly.
- (146) Electrically powered mobile equipment shall not be left unattended unless the master switch is in the off position, all operating controls are in the neutral position, and the brakes are set or other equivalent precautions are taken against rolling.
- (147) Mobile equipment shall not be left unattended unless the brakes are set. The wheels shall be turned into a bank or wall or shall be blocked when such equipment is parked on a grade.
- (148) Miners shall not ride on top of loaded haulage equipment.

- (149) Miners shall not ride outside the cabs and beds of mobile equipment.
- (150) Equipment which is to be hauled shall be properly loaded and secured.
- (151) Dumping locations and haulage roads shall be kept reasonably free of water, debris, and spillage.
- (152) Berms, bumper blocks, safety hooks, or similar means shall be provided to prevent overtravel and overturning at dumping locations. Berms must be mid-axle height of the largest vehicle traveling a roadway where drop-offs exist.
- (153) If truck spotters are used, they shall be well in the clear while trucks are backing into dumping position and dumping lights shall be used at night to direct trucks.
- (154) When overhead clearance is restricted, warning devices shall be installed, and the restricted area shall be conspicuously marked.
- (155) Ramps and dumps shall be of solid construction, of ample width, have ample side clearance and headroom, and be kept reasonably free of spillage.
- (156) Lights, flares, or other warning devices shall be posted when parked equipment creates a hazard to vehicular traffic.
- (157) Tires shall be deflated before repairs on them are started and adequate means shall be provided to prevent wheel- locking rims from creating a hazard during tire inflation.
- (158) Any load extending more than four feet (4') beyond the rear of the vehicle body shall be marked clearly with a red flag by day and a red light by night.
- (159) A tow bar shall be used to tow heavy equipment. A safety chain shall be used in conjunction with the tow bar.
- (160) When heavy equipment is to be towed, the towing vehicle shall be of suitable weight and strength to maintain safe control of the load.
- (161) Safe means of access shall be provided and maintained to all working places.

- (162) Crossovers, elevated walkways, elevated ramps, and stairways shall be of substantial construction, provided with handrails and maintained in good condition. Where necessary, toeboards shall be provided.
- (163) Ladders shall be of substantial construction, maintained in good condition, and regularly inspected.
- (164) Portable straight ladders shall be provided with nonslip bases, shall be placed against a safe backing at the proper angle, and set on secure footing.
- (165) Fixed ladders shall be anchored securely and installed to provide at least three inches (3") of toe clearance.
- (166) Fixed ladders shall have substantial railed landing at least every twenty feet (20') unless backguards are provided.
- (167) Steep fixed ladders (seventy degrees to ninety degrees (70°–90°) from the horizontal) twenty feet (20') or more in length shall be provided with backguards, cages, or equivalent protection, starting at a point not more than seven feet (7') from the bottom of the ladder
- (168) Fixed ladders shall project at least three feet (3') above landings or substantial handholds shall be provided above the landings.
- (169) Wooden members of ladders shall not be painted.
- (170) Ladderways, stairways, walkways, and ramps shall be kept free of loose rock and extraneous materials.
- (171) Miners climbing or descending ladders shall face the ladders and have both hands free for climbing.
- (172) Railed walkways shall be provided wherever persons are regularly required to walk along conveyor belts. Inclined railed walkways shall be nonskid or provided with cleats.
- (173) Openings above, below, or near travelways through which miners or materials may fall shall be protected by railings, barriers, or covers. Where it is impractical to install such protective devices, adequate warning signals shall be posted.
- (174) Scaffolds and working platforms shall be of substantial construction and provided with handrails and maintained in good

- condition. Floorboards shall be laid properly and the scaffolds and working platforms shall not be overloaded. Working platforms shall be provided with toeboards where necessary.
- (175) Crossovers shall be provided where it is necessary to cross conveyors.
- (176) Moving conveyors shall be crossed only at designated cross-over points.
- (177) Slippery walkways shall be provided with cleats and handrails or ropes, or both.
- (178) Regularly used walkways and travelways shall be sanded, salted, or cleared of snow and ice as soon as practicable.
- (179) Electric circuits shall be protected against excessive overloads by fuses or circuit breakers of the correct type and capacity.
- (180) Power lines and telephone circuits shall be protected against short circuits and lightning.
- (181) Electric equipment and circuits shall be provided with switches or other controls. Such switches or controls shall be of approved design and construction and shall be properly installed.
- (182) Individual overload protection or short circuit protection shall be provided for the trailing cables of mobile equipment.
- (183) Power wires and cables shall have adequate current- carrying capacity and shall be protected from mechanical injury.
- (184) Mobile equipment shall not run over power cables unless properly bridged or otherwise protected.
- (185) Distribution boxes shall be provided with disconnect switches.
- (186) Trailing cable and power-cable connections to junction boxes shall not be made or broken under load.
- (187) Power wires and cables shall be insulated adequately where they pass into or out of electrical compartments.
- (188) Power wires and cables which present a fire hazard shall be well installed on acceptable insulators.

- (189) Where metallic tools or equipment can come in contact with bare power lines, the line shall be guarded or de-energized.
- (190) Telephone and low-potential electric signal wires shall be protected from contacting energized power lines.
- (191) High-potential transmission cables shall be covered, insulated, or placed according to acceptable electrical codes to prevent contact with low-potential circuits.
- (192) The potential on bare signal wires accessible to personal contact should not exceed forty (40) volts.
- (193) Splices in power cables, including ground conductor, where provided, shall be—
- (A) Mechanically strong with adequate electrical conductivity;
- (B) Effectively insulated and sealed to exclude moisture; and
- (C) Provided with mechanical protection and electrical conductivity as near as possible to that of the original.
- (194) Shovel trailing cables shall not be moved with the shovel dipper unless cable slings or sleds are used.
- (195) Energized high-potential cables shall be handled with insulated hooks or tongs.
- (196) Electrical equipment shall be de-energized before work is done on such circuits unless hot line tools are used. Switches shall be locked out and suitable warning signs posted by the individuals who are to do the work; locks shall be removed only by authorized persons.
- (197) Principal power switches shall be labeled to show which units they control, unless identification can be made readily by location.
- (198) At least three feet (3') of clearance shall be provided around all parts of stationary electric equipment or switchgear where access or travel is necessary.
- (199) Suitable danger signs shall be posted at all major electrical installations.
- (200) Areas containing major electrical installations shall be entered only by authorized personnel.

- (201) Electrical connections and resistor grids that are difficult or impractical to insulate shall be guarded, unless protection is provided by location.
- (202) Reverse-current protection shall be provided at storage battery charging stations.
- (203) All metal enclosing or encasing electrical circuits shall be grounded or provided with equivalent protection. (This requirement does not apply to battery-operated equipment.)
- (204) Buildings enclosing transformers and switchgear shall be grounded.
- (205) Frame grounding or equivalent protection shall be provided for mobile equipment powered through trailing cables.
- (206) Continuity and resistance or grounding systems shall be tested immediately after installation, following repairs or modifications, and annually thereafter.
- (207) Electric equipment and wiring shall be inspected by a competent person as often as necessary to assure safe operating conditions.
- (208) When a potentially dangerous condition is found, it shall be corrected before equipment or wiring is energized.
- (209) Inspection and cover plates on electrical equipment shall be kept in place at all times, except during testing or repairs.
- (210) Circuits shall be de-energized before fuses are removed in medium or high voltage circuits.
- (211) Fuse tongs or hot line tools shall be used when fuses are removed in medium or high voltage circuits.
- (212) Trailing cables shall be clamped to machines in a manner to protect the cables from damage and to prevent strain on the electrical connections.
- (213) Surplus trailing cables to shovels, cranes, and similar equipment shall be stored in cable boots or on reels mounted on the equipment or otherwise protected from mechanical damage.

- (214) Operating controls shall be installed so that they can be operated without danger of contact with energized conductors.
- (215) Equipment with booms or masts which are not properly protected shall not be operated where the booms or masts can come within ten feet (10') of an energized overhead power line.
- (216) Overhead high-potential power lines shall be installed as specified by the National Electrical Safety Code.
- (217) When equipment must be moved under energized power lines and the clearance is less than ten feet (10'), the power lines shall be de-energized or other precautions shall be taken.
- (218) Guy wires from poles supporting high voltage transmission lines shall be securely connected to the system ground or be provided with insulators installed near the pole end.
- (219) Telegraph, telephone, or signal wires shall not be installed on the same crossarm with power conductors. When carried on poles supporting power lines, they shall be installed as specified by the National Electrical Safety Code.
- (220) Transformers shall be totally enclosed or shall be placed at least fifteen feet (15') above the ground, or installed in a transformer house or surrounded by a substantial fence at least six feet (6') high and at least three feet (3') from any energized parts, casings, or wiring.
- (221) Transformer enclosures shall be kept locked against unauthorized entry.
- (222) Tools and supplies shall be carried in the hands and not on the shoulders when miners travel near bare power conductors.
- (223) Unguarded conveyors with walkways shall be equipped with emergency stop devices or cords along their full length.
- (224) Use of Equipment—Guards.
- (A) Gears, sprockets, chains, drive, head, tail; and take-up pulleys, flywheels, couplings, shafts, sawblades, fan inlets; and similar exposed moving machine parts or pinch points which may cause injury to persons shall be guarded.

- (B) Overhead belts shall be guarded if the whipping action from a broken belt would be hazardous to persons below.
- (C) Guards at conveyor drive, head, and tail pulleys shall be sufficient to prevent a person from reaching behind the guard and becoming caught between the belt and the pulley.
- (D) Protruding set screws on revolving parts shall be guarded.
- (E) Except when testing the machinery, guards shall be securely in place while machinery is being operated.
- (F) Guards shall be sufficiently strong and maintained to provide the required protection.
- (G) Stationary grinding machines other than special bit grinders shall be equipped with—
- 1. Peripheral hoods (less than ninety degrees (90°) throat openings) capable of withstanding the force of a bursting wheel;
- 2. Adjustable tool rests set as close as practical, but no more than one-eighth inch (1/8) opening, to the wheel; and
 - 3. Safety washers.
- (H) Face shields or goggles, in good condition, shall be worn when operating a grinding wheel.
- (I) Handheld power tools, other than rock drills, 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 devices.
- (J) Guards or shields shall be provided in areas where flying or falling materials present a hazard.
- (K) Vehicles such as forklifts, trucks, front-end loaders, and bull-dozers shall be provided with rollover protective structure (ROPS) protection when necessary to protect the operator.
- (L) Forklift trucks, front-end loaders, and bulldozers shall be provided with substantial canopies when necessary to protect the operator against falling material.
- (M) Unsafe equipment or machinery shall be removed from service immediately.
- (N) Machinery and equipment shall be operated only by authorized, trained, and experienced persons.
- (O) Repairs or maintenance shall not be performed on machinery until the power is off, the systems are de-energized, the machin-

- ery is prevented from unintentional startup, and the machinery is blocked against motion, except where machinery motion is necessary to make adjustment or where non-energized components of large machinery can be safely repaired while the machine is operating.
- (P) Miners shall not work on mobile equipment in a raised position until it has been blocked in place securely. This does not preclude the use of equipment specifically designed, such as elevated mobile work platforms.
- (Q) Drive belts shall not be shifted while in motion unless the machines are provided with mechanical shifters.
- (R) Belts, chains, and ropes shall not be guided onto power-driven moving pulleys, sprockets, or drums with the hands except on slow-moving equipment especially designed for hand feeding.
- (S) Pulleys or conveyors shall not be cleaned manually while the conveyor is in motion.
- (T) Belt dressing shall not be applied manually while belts are in motion unless an aerosol-type dressing is used.
- (U) Machinery shall not be lubricated while in motion where a hazard exists, unless equipped with extended fittings or cups.
- (V) Compressed and liquid gas cylinders shall be secured in a safe manner.
- (225) Adequate first-aid materials, including stretchers and blankets, shall be provided at places convenient to all working areas. Persons trained in administering first aid must be available on all shifts. Water or neutralizing agents shall be available where corrosive chemicals or other harmful substances are stored, handled, or used.
- (226) Safety belts and lines shall be worn when miners work where there is danger of falling; a second person shall tend the lifeline when bins, tanks, or other dangerous areas are entered.
- (227) Life jackets or belts shall be worn where there is danger of falling into water.
- (228) Adequate protective clothing, gloves, goggles, and/or face shields shall be worn by persons handling substances that are corrosive, toxic, or injurious to the skin.

- (229) Loose-fitting clothing including but not limited to open pockets, tassles, lanyards, draw strings, hoods, and frayed cuffs shall not be worn by persons working around moving equipment and machinery.
- (230) Protective gloves shall be worn by employees handling materials which may cause injury.
- (231) Gloves shall not be worn where they could create a hazard by becoming entwined or caught in moving parts of machinery.
- (232) Effective hearing protection shall be wornwhere noise levels may cause permanent ear damage or hearing loss, or noise shall be reduced to safe levels, unless the wearing of the protective devices would create a greater danger to the employee.
- (233) Each place of work shall be visited by a supervisor or a competent person at the beginning of and at least once each shift and more frequently as necessary to ensure that work is being done in a safe manner.
- (234) No employee shall be assigned or allowed or be required to perform work alone in any area where hazardous conditions exist that would endanger their safety unless they can communicate with others, can be heard, or can be seen.
- (235) When work is performed after dark, the area of drilling, blasting, stripping, and loading shall be properly illuminated.
- (236) An authorized competent person shall be in charge, at all times, when miners are working.
- (237) Arrangement shall be made in advance for obtaining emergency medical assistance and transportation for injured persons.
- (238) At all mining operations—
- (A) Working places, passageways, store rooms, and service rooms shall be kept clean and orderly;
- (B) The floor of every work place shall be maintained in a clean and, so far as possible, dry condition. Where wet processes are used, drainage shall be maintained and false floors, flat forms, mats, or other dry standing places shall be provided where practical; and
- (C) Every floor, working place, and passageway shall be kept free from protruding nails, splinters, holes, or loose boards, as practical.

- (239) Operators must mark temporary portable containers with its content if not emptied by end of shift and anytime when miners would be unable otherwise to identify the chemical contained within and its Safety Data Sheets (SDS) warnings.
- (240) Flammable liquids stored in a safety can must be metal with a spring-loaded lid and appropriately labeled.
- (241) All miners must be trained according to Mine Safety and Health Administration (MSHA) training standards.

AUTHORITY: sections 286.060 and 293.630, RSMo 2016.* Original rule filed Dec. 18, 1975, effective Dec. 28, 1975. Amended: Filed June 19, 2018, effective Jan. 30, 2019. Amended: Filed Jan. 2, 2024, effective June 30, 2024.

*Original authority: 286.060, RSMo 1945, amended 1947, 1980, 1995, 2011, and 293.630, RSMo 1959.

Op. Atty. Gen. No. 320, Davis (9-3-68). The scope of authority of the Division of Mine Inspection to inspect plants operated in conjunction with the mining of certain minerals is as follows: Lead ore—all operations prior to shipment to the smelter which includes taking the ore from the ground and reducing it to a concentrate; clay—all operations at the minesite prior to shipment to the kilns or refractories; shale—all operations at the minesite prior to shipment to the cement plants or other available markets; iron ore—all operations prior to shipment to the steel mills which includes reduction to concentrate and formation of pellets; and silica sand—all mining and crushing operations at the minesite.

Due to similarity of statutes with some rules, see RSMo, section 293.010 for further annotations on related matters.

LABOR LAWS OF MISSOURI

Chapter 293 Revised Statutes of Missouri Mining Regulations

General Provisions

- **293.010. Definitions.** Unless the context clearly requires otherwise, as used in this chapter, the following terms have the following meanings:
- (1) "Adit", any practically horizontal way in or to a mineral deposit to be used for the same purposes as a shaft;
- (2) "Coal mine", any strip mine or underground excavation from which coal or lignite is extracted for commercial purposes and including the mining plant and all parts of the property of such mine, on the surface or underground;
- (3) "Director", the director of the division of mine inspection of the state of Missouri;
- (4) "Mine inspectors", those persons employed by the division of mine inspection, including the director, who are charged with the inspection of coal and noncoal mines in this state;
- (5) "Mineral", any metalliferous element or ore, coal or lignite, or any nonmetalliferous element or ore, except barite, marble, limestone, and sand and gravel;
- (6) "Noncoal mine", any open pit or underground excavation from which minerals, as defined in this section, except coal are extracted for commercial purposes, including the mining plant and all parts of the property of such mine, on the surface or underground;
- (7) "Operator", the person, firm, or body corporate who or which is the immediate proprietor, as owner or lessee, of the mine and, as such, responsible for the condition and management thereof;
- (8) "Shaft", any vertical or near-vertical opening through the strata which is to be used for ventilation or escapement, or for the hoisting and lowering of men, ore or material in connection with the mining of minerals;

- (9) "Slope", any inclined shaft or way in or to a mineral deposit to be used for the same purposes as a shaft;
- (10) "Strip mine", any excavation in which the superincumbent strata are removed, exposing the mineral so that it may be extracted and loaded by hand or mechanical equipment in open working;
- (11) "Working place", any room, face, crosscut, or pillar where a mineral is being mined or extracted and where one or more miners per working shift of the mine are regularly employed until the place is stopped.
 (L. 1959 S.B. 188 § 1)
- **293.020. Applicability of law**. Unless indicated otherwise, this chapter applies to all mines in this state engaged in the mining or extraction of minerals for commercial purposes, except barite, marble, limestone, and sand and gravel, or the prospecting for or the production of petroleum or natural gas; but does apply insofar as shale is mined or extracted for the purpose of recovering oil. (L. 1959 S.B. 188 § 2)
- 293.030. Mine inspection fees, report, payment fund created records subject to inspection late fee, amount court action, when. 1. Every operator engaged in this state in the mining or production of minerals for commercial purposes shall, within thirty days after the end of each quarter-annual period, file with the director and with the division of taxation and collection of the department of revenue a statement, under oath, on forms to be prescribed by the director, showing the total amount of minerals sold, shipped or otherwise disposed of during the last preceding quarter-annual period; and shall, at the same time, pay on the primary products of his operations sold, shipped or otherwise disposed of for profit to the division of taxation and collection of the department of revenue mine inspection fees which shall include, but not be limited to:
- (1) On lead concentrates or galena, seven and three-tenths cents per ton;
- (2) On zinc ore or concentrates thereof, seven and three-tenths cents per ton;
- (3) On lead carbonate or concentrates thereof, three and seven-tenths cents per ton;
- (4) On zinc carbonate or concentrates thereof, three and seven-tenths cents per ton;

- (5) On zinc silicate or calamine or concentrates thereof, three and seven-tenths cents per ton;
 - (6) On all coal, four and nine-tenths mills per ton;
 - (7) On all clays, four and nine-tenths mills per ton;
 - (8) On shale, two and four-tenths mills per ton;
 - (9) On copper concentrates, seven and three-tenths cents per ton;
- (10) On iron ore or concentrates thereof, four and nine-tenths mills per ton;
 - (11) On silica, two and four-tenths mills per ton;
 - (12) On granite, two and four-tenths cents per ton;
 - (13) On rhyolite, two and four-tenths cents per ton;
 - (14) On manganese, seven and three-tenths cents per ton;
 - (15) On cobalt, seven and three-tenths cents per ton.
- 2. In the event a new mineral is mined that is a chemical equivalent of a mineral listed in this section, the director shall announce the addition of the mineral and its associated fee by publishing a notice. Publication of the notice is contingent upon approval of the mineral's addition to the section by the labor and industrial relations commission. The additional mineral and fee shall take effect sixty days after publication of such notice and be added to a regulation.
- 3. The provisions of subsections 1 and 2 of this section to the contrary notwithstanding, every operator engaged in mining or production of minerals for commercial purpose in this state shall pay to the division of taxation and collection within thirty days after the end of each quarter-annual period a minimum mine inspection fee of twenty-five dollars.
- 4. These fees shall be deposited in the state treasury and credited to the "State Mine Inspection Fund", which is hereby created.
- 5. The director and the division of taxation and collection of the department of revenue shall, for the purpose of verifying the statement required in this section, have access to the tonnage and footage records of production, shipments and sales records of all persons, firms and corporations subject to the provisions of this chapter, and of their respective vendees and agents of such vendees, and of carriers of the products herein enumerated.
- 6. Failure to pay a fee listed in this section within the thirty days after the end of each quarter-annual period may result in the imposition of a late fee equal to ten percent of the unpaid amount.

The director may bring an action in the appropriate circuit court to collect any unpaid fee, late fee, interest, or attorney's fees and costs incurred directly in fee collection. Such action may be brought in the circuit court of the county in which the mine is located or in the circuit court of Cole County.

(L. 1959 S.B. 188 § 5, A.L. 1984 H.B. 1317, A.L. 2023 S.B. 109)

- **293.040. Maps of mine, when made, contents.** The operator of each mine in this state shall on request of the director make, or cause to be made by a competent engineer, an accurate map of the underground workings of his mine. The map shall bear the name of the mine, its location, the name of the operator, and such other information requested by the director as is necessary for the administration of this chapter.
 (L. 1959 S.B. 188 § 6)
- 293.050. Hours of work safety rules posting of law and rules. 1. It is unlawful for any operator engaged in mining or prospecting for minerals to work any employee at such labor longer than eight hours in a day of twenty-four hours, without his consent, and it is declared that eight hours constitute a day for any employee engaged in such labor.
- 2. It is the duty of operators and employees to comply with the provisions of this chapter and to cooperate with the division of mine inspection in carrying out its provisions. Reasonable safety rules and regulations for the protection of employees and preservation of property that are in harmony with the provisions of this chapter shall be complied with.
- 3. For the purpose of making known the provisions of this chapter and the rules and regulations authorized by this chapter, an abstract of the law and rules shall be furnished by the director and posted in conspicuous places at or near mines where they may be conveniently read by the persons there employed. It is unlawful to remove or deface such abstract, and so often as they become obliterated or destroyed, the operator shall cause them to be renewed. (L. 1959 S.B. 188 § 7)
- **293.070. Limits on visitors.** Strangers or visitors shall not be allowed underground in any mine, unless accompanied by the operator or his deputy. (L. 1959 S.B. 188 § 7)

- **293.080. Mine owner to report, when.** Every operator shall submit a report to the director during the month of January of each year, which report shall include the name of the person or firm engaged in mining, the location of the mines, the number of acres of land owned or leased, the number of shafts, adits, slopes or open pits operated, the number of men employed in and about the mines, average wages paid employees, the amount of mineral produced, the number and description of all accidents resulting in serious personal injury and the number and description of all fatal accidents. (L. 1959 S.B. 188 § 9)
- **293.090. Director's report, contents.** The director shall compile and make an annual report to the governor on the first day of May setting forth the extent of workable mining lands in the state by counties, the type and manner of mining, the number of mines in operation, the number of men employed therein, and the number and description of fatal mine accidents.

 (L. 1959 S.B. 188 § 9)

293.100. Washrooms, dressing rooms, first aid equipment.

- 1. The operator of every mine employing twenty-five or more men underground, for the purpose of improving the sanitation of his mine and preserving the health of his employees, shall provide and maintain at a convenient point near the principal entrance of his mine an adequate and sanitary washroom and dressing room for the use of the employees, and such other sanitation facilities as may be required by the director.
- 2. Every mine shall have an adequate supply of first aid equipment to be used in case of injury to employees, and such supplies shall be located on the surface and at other strategic places within the mine. The first aid supplies shall be encased in suitable sanitary receptacles designed to be reasonably dust tight and moisture proof. (L. 1959 S.B. 188 § 10)

293.110. Working places, shafts — drinking devices. — 1.

All working places shall be secured sufficiently to protect employees working at the face from falls of roof, ribs, or face. Loose top and overhanging or loose faces and ribs shall be supported adequately or taken down.

2. The bottom of every shaft shall be supplied with a traveling way, to enable men to pass from one side of the shaft to the other, and without passing under or over the cages.

- 3. Every owner, agent or operator of any mine in this state, employing ten or more men, shall provide sanitary drinking devices for the use of their employees. (L. 1959 S.B. 188 § 12)
- **293.120. Air safety requirements.** Air in which men work or travel in mines shall be improved when:
 - (1) It contains less than nineteen and five-tenths percent oxygen;
- (2) It contains more than one-hundredth percent carbon monoxide;
 - (3) It contains more than five-tenths percent carbon dioxide;
 - (4) It contains more than one percent methane; or
- (5) Is contaminated with dust or with noxious or poisonous gases in excess of accepted limits as established by the director of the division of mine inspection.
 (L. 1959 S.B. 188 § 13)
- 293.130. Mine railroad equipment and operating requirements gasoline engines limited. 1. The roadbed, rails, and all other elements of the track of all haulage roads in mines shall be constructed, installed, and maintained in a manner consistent with speed and type of haulage operations being conducted to insure safe operation. Mine locomotives must be maintained so that brakes are adequate and in good order, sand riggings are operative and locomotives in safe operating condition. An audible warning device and headlights shall be provided on each locomotive and shuttle car and truck. A trip-light or reflecting signal shall be used on the rear of trips pushed or pulled by a locomotive and on the front of trips lowered into slopes. Other rolling stock must be maintained so that its condition does not entail undue hazards to transportation crews or to workmen whose duties require them to work around the haulage.
- 2. Gasoline engines shall not be used underground unless equipped with proper safeguards to prevent the emission of gases that cause a contamination of the air beyond the limits set forth in section 293.120.
- 3. Other than the motorman and trip rider, no person shall ride on a locomotive unless authorized by the mine foreman, and no person shall ride on loaded cars or between cars of any trip, except that the trip rider may ride on the last car.

- 4. Man trips shall not be run in excess of the speed determined by the director nor shall more men ride in any one car than the number ordered by the director.
- 5. Uniform haulage signals and a traffic control system shall be adopted for each mine or mines operated, and shall be complied with by all haulage crews.
 (L. 1959 S.B. 188 § 14)
- **293.140.** Escapement shafts, how equipped. Any new escapement shaft constructed or opened for operation after the effective date of this chapter, shall be equipped with a substantial hoist or stairway. Such stairway shall be constructed at an angle not greater than forty-five degrees, and shall be provided with handrails and platform or landing at each turn of stairway. (L. 1959 S.B. 188 § 15)

293.150. Electrical wiring and equipment requirements. —

- 1. Surface overhead high-potential power lines shall be placed at least fifteen feet above the ground and twenty feet above driveways and haulageways. The power lines shall be installed on insulators, and shall be supported and guarded to prevent contact with other circuits.
- 2. Surface overhead power circuits shall be protected against lightning and voltage surges, and high-potential power lines shall be protected adequately by circuit breakers, fuses, or both.
- 3. Electric wiring, electrical stationary machinery, and electric lights, in mines and surface buildings, shall be installed and maintained so as to present minimum fire and contact hazards.
- 4. Systematic, periodic examinations and reports of the conditions of all wiring and electrical equipment and apparatus shall be required by the division of mine inspection, to be made by the operator, in all mines. (L. 1959 S.B. 188 § 16)
- **293.160.** Electrical equipment requirements. 1. Metal conduit and metallic coverings and armor of cables shall be grounded and shall be electrically continuous to afford a conductor path for the ground circuit.
- 2. Metallic frames, casings, and other electrical equipment that can become "alive" through failure of insulation by contact with energized parts shall be grounded.

- 3. Casings of transformers shall be grounded unless protected by isolation or freedom from contact hazard by position.
- 4. Mining equipment mounted on rubber tires or caterpillar treads receiving power through a trailing cable shall be grounded effectively.
- 5. All trolley and positive feed wires crossing places where persons or animals are required to travel shall be safely guarded or protected.
- 6. Dry wooden platforms, rubber mats, or other electrically nonconductive material shall be kept in place at each switchboard and power control switch, and at stationary machinery where shock hazards exist.
- 7. Readily accessible fuses or equivalent protective devices of the correct type and capacity shall be installed on electric equipment to protect against excessive overload. Wires or other conducting materials shall not be used as a substitute for properly designed fuses, and where circuit breakers are used, they shall be maintained in good operating condition and adjusted so that equipment cannot be overloaded.

(L. 1959 S.B. 188 § 17)

- **293.170.** Fire safety requirements. 1. Each mine shall be provided with suitable firefighting equipment, adequate for the size of the mine and the type of operations conducted.
- 2. Underground storage places for highly combustible material, lubricating oil and grease shall be of fireproof construction. Lubricating oil and grease kept in face regions or other working places shall be in portable, closed, metal containers.
- 3. Underground structures, transformer stations, battery-charging stations, substations, and permanent pumprooms shall be of fire-proof construction. (L. 1959 S.B. 188 § 17)

(L. 1757 S.B. 100 § 17)

293.180. Protective clothing and devices to be worn. — 1. All persons shall wear protective hats while underground and also while on the surface where falling objects may cause injury, except where conditions are such that the wearer would be subjected to physical hardship.

2. Protective footwear shall be worn by employees, officials, and others while on duty in and around a mine where falling objects

may cause injury, except where conditions are such that the wearer would be subjected to physical hardship.

- 3. All employees in or around the mines shall wear approved type goggles where there is a hazard from flying particles.
- 4. Welders and helpers shall use proper shields or goggles to protect their eyes.
- 5. Miners exposed for short periods to gas, dust, fumes, and mist inhalation hazards shall wear permissible respiratory equipment. When the exposure is for prolonged periods, other measures to protect workmen or to reduce the hazard shall be taken. (L. 1959 S.B. 188 § 18)

293.190. Accident reports, investigation, powers of inspector — failure to report, penalty. — Whenever loss of life or serious personal injury shall occur by reason of any explosion or of any accident whatsoever, in or about any mine, it shall be the duty of the person having charge of such mine to report the facts thereof without delay to the director or an inspector of the division of mine inspection, and if any person is killed thereby, to notify the coroner of the county also, or in his absence or inability to act, any associate circuit judge of said county; and the said director or inspector shall, if he deem it necessary from the facts reported, immediately go to the scene of said accident and make suggestions and render such assistance as he may deem necessary for the safety of the men; and the director or inspector shall investigate and ascertain the cause of such explosion or accident and make a report thereof, which he shall preserve with the other records of his office; and to enable him to make such investigation, he shall have the power to take depositions, compel the attendance of witnesses and administer oaths or affirmations to them; and the cost of such investigation shall be paid by the county commission of the county in which such accident shall have occurred, in the same manner as costs of coroners' inquests are now paid. And a failure on the part of the person having charge of any mine in which any such accident may have occurred to give notice to the director or inspector or coroner, as provided for in this section, shall subject such person to a fine of not less than one hundred nor more than three hundred dollars, to be recovered of him in the name of the state of Missouri, before any associate circuit judge of such county wherein the mine is situate and the accident occurred.

(L. 1959 S.B. 188 § 19) CROSS REFERENCES: Workers' compensation law, Chap. 287 Wrongful death actions, generally, 537.080 to 537.100

COAL MINES

293.200. Shaft coal mine outlets and escapement shaft requirements — penalty. — 1. It is unlawful for any owner, agent or operator of any coal mine worked by shaft to employ or permit any person to work therein unless there are to every seam of coal worked in each mine at least two separate outlets, separated by natural strata of not less than three hundred feet in breadth, by which shafts or outlets distinct means of ingress and egress are always available to the persons employed in the mine; but it is not necessary for the two outlets to belong to the same mine if the persons employed therein have safe, ready and available means of ingress and egress by not less than two openings; the communication or roadway between the two openings, or the two openings furnished by a connection between two distinct mines, shall at all times be kept clean and of such width and height as to make the same safe and available for a speedy exit in case of accident.

- 2. The escapement shaft shall be fitted with safe and available appliances by which the persons employed in the mine may readily escape in case an accident occurs deranging the hoisting machinery at the main outlets, and such means or appliances for escape shall always be kept in a safe condition, and in no case shall an air shaft with a ventilating furnace at the bottom be construed to be an escapement shaft within the meaning of this section. The cage or cages and other means of egress shall at all times be available for the persons employed when there is no second outlet.
- 3. To all other coal mines, whether slopes or drifts, two such openings or outlets must be provided within twelve months after shipments of coal have commenced from such mine, and in case such outlets are not provided as herein stipulated, it shall not be lawful for the owner, agent or operator of such slope or drift to permit more than five persons to work therein at any one time.
- 4. Any owner, agent or operator of a coal mine in this state violating the provisions of this section shall be deemed guilty of a misdemeanor, and for each offense, on conviction, shall be fined not less than fifty nor more than two hundred dollars, or by impris-

onment in the county jail not less than three nor more than twelve months, or by both such fine and imprisonment.

(L. 1959 S.B. 188 §§ 20, 21)

293.210. Shaft coal mines, ventilation requirements. — 1.

The owner, agent or operator of every coal mine, whether operated by shaft, slope or drift, shall provide and maintain for every such mine a good and sufficient amount of ventilation for such men as may be employed therein, the amount of air in circulation to be in no case less than one hundred cubic feet for each man per minute, measured at the foot of the downcast, and the same to be increased at the discretion of the director of the division according to the character and extent of the workings, or to the amount of powder used in blasting and said volume of air shall be forced and circulated to the face of every working place throughout the mine, so that such mine shall be free from standing powder smoke and gases of every kind.

- 2. All doors set on main entries for the purpose of conducting the ventilation shall be so constructed and hung as to close of themselves when opened, and shall be made sufficiently tight to effectually obstruct the air currents. In all mines employing fifty or more men a trapper shall be kept in attendance upon such doors to see that they are kept securely closed and the air currents properly controlled.
- 3. Whenever the director shall find men working without sufficient air, or under any unsafe conditions, he shall first give the operator a reasonable notice to rectify the same, and upon his refusal to do so, may himself order them out until said portions of said mine shall be put in proper condition.
- 4. The ventilation required by this section may be produced by any suitable appliances, but in case a furnace shall be used for ventilating purposes, it shall be built in such a manner as to prevent the communication of fire to any part of the works, by lining the upcast with incombustible material for a sufficient distance up from said furnace.
- 5. The currents of air in coal mines shall be so split as to give a separate current to at least every fifty men at work, and the director shall have discretion to order a separate current for a smaller number of men, if special conditions render it necessary. (L. 1959 S.B. 188 §§ 22, 23)

293.220. Daily examination of coal mines generating explosive gas, record. — All coal mines generating explosive gas in which men are employed shall be examined every morning by a practical and duly authorized agent of the proprietor, to determine whether there are any dangerous accumulations of gas, or lack of proper ventilation, or obstructions to roadways, or any other dangerous conditions and no person shall be allowed to enter the mine until the examiner shall have reported all of the conditions safe for beginning work. Such examiner shall make a daily record of the condition of the mine, in a book kept for that purpose, which shall be open at all times to the examination of the director of the division of mine inspection.

(L. 1959 S.B. 188 § 24)

293.230. Experienced coal miner to handle explosives or gases. — It shall be unlawful for any operator or agent of a coal mine to employ persons underground whose duties may involve contact with inflammable gases, or the handling of explosives, who have not had experience in such duties, unless all such employees are placed under the immediate charge and control of some competent and experienced miner, so as to secure the safety of other persons employed in the same mine. (L. 1959 S.B. 188 § 25)

293.240. Blasting cartridge requirements. — It shall be unlawful for coal miners in any mine to charge a blasting hole with loose powder, or otherwise than with a properly constructed cartridge; and in dry and dusty mines, it shall be unlawful to load cartridges in the mines except with a powder can constructed for the purpose.

(L. 1959 S.B. 188 § 26)

293.250. Violation of coal mining safety laws, penalty. — Every owner, agent or operator of any coal mine in this state, employing five or more persons, violating any of the provisions of sections 293.210 to 293.240, shall be deemed guilty of a misdemeanor, and on conviction shall be fined for each offense not less than fifty nor more than two hundred dollars, or by imprisonment in the county iail not less than three nor more than twelve months, or by both such fine and imprisonment.

(L. 1959 S.B. 188 § 27)

- 293.260. Explosive strongbox required employment of shot firers, duties penalty. 1. All owners, agents or operators of coal mines shall require of all miners or other persons employed in and about a mine, using gun or blasting powder or other explosives, to have and keep a strongbox in which all surplus gun and blasting powder or other explosives in the mine shall be kept, excepting so much as is necessary for immediate use. These boxes shall be kept locked and not opened unless it be to put in or take out powder. Nor must these strong (or powder) boxes be kept nearer than one hundred feet to the place of blasting.
- 2. And in all dry and dusty coal mines discharging light carbonated hydrogen gas, or in mines where the coal is blasted off the solid, shot firers must be employed by the operator of said mine or mines, to fire all shots after the employees and other persons have retired from the mine.
- 3. And all shots prepared by the miner for the extraction of coal from off the solid must be so placed, drilled and charged that the same, when fired, shall perform safely the duty required of such shots; but if the shot firers find or discover that a drill hole is gripping too much, or that it is drilled too much into what the miners term "the tight", and as may in the judgment of the shot firers prove a windy, blown-out or otherwise dangerous shot, said shot firers shall there and then condemn such shot as too dangerous to fire and pass the same without firing it.
- 4. It shall also be the duty of the shot firers to notify the mine foreman as soon as practicable, when a shot is condemned, who shall in turn attract the attention of the miner or miners responsible for the preparation of said condemned shot, and said miner or miners shall immediately after returning to work provide the necessary remedy to render the said condemned shot harmless.
- 5. Any agent, owner or operator of any coal mine in this state violating the provisions of this section shall be deemed guilty of a misdemeanor, and for each offense, on conviction, shall be fined not less than one hundred dollars nor more than two hundred and fifty dollars, or by imprisonment in the county jail not less than six months nor more than one year, or by both such fine and imprisonment, proceedings to be instituted in any court having competent jurisdiction.

(L. 1959 S.B. 188 §§ 28, 29)

293.270. Storage of over daily supply of explosives in mine prohibited. — No person, partnership or corporation, nor any agent of any such person, partnership or corporation, engaged in mining for coal, shall permit any blasting powder or any high explosive containing nitroglycerine, to be stored in any such mine; provided, however, that nothing in this section shall be construed to prevent the storing in any such mine of sufficient blasting powder or other high explosive to meet the estimated requirements of such mine during the succeeding twenty-four hours; and provided further, that such temporary supply shall not be kept at any place within such mine, where its accidental discharge would cut off the escape of miners working therein. (L. 1959 S.B. 188 § 30)

293.280. Location of explosive storage magazines, ventilation. — All blasting powder, or other high explosive, in excess of the temporary supply required in such mine as designated in section 293.270, shall be stored in a magazine, placed not less than three hundred feet distant from any shaft, habitation, public highway, public railway, or from the boundary line of any mining property; provided, however, that in cases where the location of any mining property makes it impossible to comply with the provisions of this section, the director of the division of mine inspection may grant permission, in writing, to the operator of such mining property, or such operator's agent, to place such magazine in some other place on such mining property, if, in the opinion of such director, such location shall not be dangerous to the safety of those employed within such mine; and provided further, that every magazine, where powder or other high explosive is stored, as provided in this section, shall be ventilated. (L. 1959 S.B. 188 § 31)

293.290. Detonators or caps not kept in magazine in coal mine. — No detonators or explosive caps shall be kept in the same magazine in a coal mine with any blasting powder or other high explosive. (L. 1959 S.B. 188 § 32)

293.300. Explosives not to be prepared in storage magazine. — No person, partnership or corporation, nor any agent of any such person, partnership or corporation engaged in mining as defined in section 293.270, shall permit any blasting powder or other high

explosive to be prepared for firing or blasting in any magazine in which such blasting powder or other high explosive shall be stored. (L. 1959 S.B. 188 § 33)

293.310. Violations of law as to explosive storage, penalty.

- Any person, partnership or corporation, or the agent of any such person, partnership or corporation, who shall violate any of the provisions of sections 293.270 to 293.300, shall be guilty of a misdemeanor and shall, upon conviction, be fined not more than five hundred dollars and not less than one hundred dollars. (L. 1959 S.B. 188 § 34)
- **293.320. Bore holes required, when, where.** The owner, agent or operator of any coal mine shall provide that bore holes shall be kept twenty feet in advance of the face of each and every working place, and, if necessary, on both sides, when driving toward an abandoned mine and part of a mine suspected to contain inflammable gases or to be inundated with water. (L. 1959 S.B. 188 § 35)
- 293.340. Coal mines with twenty-five miners, signalmen required — hoisting cages furnished, when — penalty. — 1. The owner, agent or operator of all coal mines employing twenty-five or more men, shall cause a competent person to be stationed at the top of the shaft, and a competent person to be stationed at the bottom of the shaft, whose duties shall be to answer all signals for the lowering or hoisting of men in the shaft, and to keep watch over, and control of, such signals while men are being lowered or hoisted in the shaft; the persons so appointed to look after said signals shall be at their posts of duty at least thirty minutes before the hoisting of coal has commenced in the morning, and shall remain after the hoisting of coal has ceased in the evening at least thirty minutes. Whenever eight persons shall present themselves at the bottom of the shaft and after having finished their day's work, or otherwise having been prevented from working, an empty cage shall be furnished the same on which to ascend.
- 2. Any owner, agent or operator of coal mines in this state, who shall knowingly violate any provisions of this section, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine of not less than one hundred dollars nor more than three hundred dollars for each offense, or by imprisonment in the

county jail for not less than thirty days nor more than ninety days, or by both such fine and imprisonment. (L. 1959 S.B. 188 § 37)

293.350. Hoisting equipment, operating requirements (coal mines). — No owner, agent or operator of any coal mine operated by shaft or slope shall place in charge of any engine whereby men are lowered into or hoisted out of the mines any but an experienced, competent and sober person not under eighteen years of age; nor shall such engineer be permitted to operate the hoisting machinery unless he be located in such close proximity to the engine and drum as will enable him to continuously have supervision and control of both engine and drum and no person shall be permitted to ride upon a loaded cage or wagon used for hoisting purposes in any shaft or slope, and in no case shall more than twelve persons ride on any cage or car at any one time nor shall any coal be hoisted out of any mine while persons are descending into such mine, and the number of persons to ascend out of or descend into any mine on one cage shall be determined by the director; the maximum number so fixed shall not be less than four nor more than twelve, nor shall be lowered or hoisted more rapidly than five hundred feet to the minute. (L. 1959 S.B. 188 § 38)

293.360. Inspection of hoisting equipment, records — penalty (coal mines). — 1. Every owner or operator, or the agent of such owner or operator of any coal mine in this state, who shall employ twenty-five or more miners or mine laborers, where any mechanical device is or shall be used for the lowering or hoisting of men into or out of such mine, shall have some experienced practical person to inspect all ropes, cages, safety catches, shive wheels and drum brakes at least twice in each week while such mine shall be in operation. And every such owner or operator, or the agent of such owner or operator of such mine, is hereby required to furnish a book of suitable kind in which the results of each inspection are hereby required to be entered and recorded by the person making such inspection as soon and as often as the same shall be made, always reciting in such book also the day and date of such inspection; and such book shall be kept at such mine, and shall, on all working days, be open for the information of all employees of such mine.

2. Every owner or operator, or the agent of such owner or operator of any coal mine in this state of the kind mentioned in

subsection 1, who shall fail to comply with the provisions of said subsection, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars, or by imprisonment in the county jail not less than thirty days nor more than ninety days, or by both such fine and imprisonment for each and every separate offense. And every failure to have made such inspection and to have entered and recorded the results of such inspection as provided in subsection 1 on any day when the same should have been done, shall constitute a separate offense. (L. 1959 S.B. 188 §§ 39, 41)

293.370. State inspector to post statement of mine condition and hoisting rules (coal mines). — The director of the division of mine inspection shall post up in some conspicuous place at the top of each coal mine visited and inspected by him, a plain statement of the conditions of such mine, showing what in his judgment is necessary for the better protection of the lives and health of the persons employed in such mine; such statement shall give the date of inspection and be signed by the said director, and he shall also record a copy of said notice in the book required to be kept at such mine by section 293.360. He shall also post a notice at the landing used by the men, stating what number of men may be permitted to ride on the cage, car or cars, at one time, while being lowered into or hoisted out of said mine, and what rate of speed men may be hoisted or lowered on the cage, car or cars as provided for in this chapter.

(L. 1959 S.B. 188 § 40)

293.380. Coal mine operated, how — abandoned workrooms sealed, penalty. — 1. The owner, agent or operator of any coal mine in this state, employing five or more persons, if said mine is worked on the room and pillar plan, shall cause the work in such mine to be prosecuted in the following manner, and none other, to wit: Two entries must be driven parallel for the ingress and egress of the air, and crosscuts must be made at intervals not to exceed fifty feet apart, and no rooms, entries or other openings shall be allowed to start inside of the last crosscut until the next one be made; and further, that it shall be unlawful for any owner, operator or agent for any person, persons, corporation or company to permit the mouth or mouths of worked-out or abandoned rooms or entries

in any coal mine to remain open for a period exceeding one month from the date of abandonment of any such room, rooms, entry or entries.

- 2. All such abandoned work as designated must be securely sealed in such manner as will effectually prevent the escape of all gases or other impurities calculated to vitiate the ventilative current of a mine; provided, that the sealing of rooms and entries herein provided for shall only be required in such mines and places therein as the director of the division of mine inspection shall in his discretion deem necessary for insuring the health and safety of workmen therein.
- 3. Any owner, agent or operator in charge of any coal mine worked on the room and pillar plan failing to comply with the provisions of this section shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine of not less than one hundred dollars nor more than one thousand dollars, or by imprisonment in the county jail not less than six months nor more than one year, or by both such fine and imprisonment and every day that the mine is operated contrary to the provisions of this section, after the owner, agent or operator in charge thereof shall have been convicted for a first offense under this section, shall be and constitute a separate and distinct subsequent offense, and shall be punished as such.

(L. 1959 S.B. 188 §§ 42, 43)

- **293.390. Standards for roof control supply of materials required (coal mines).** 1. The operator of every coal mine shall compile or have compiled a set of minimum standards for systematic roof control suitable to the roof conditions and mining system of his mine. After written approval by the director, the minimum standards shall be placed in effect and complied with by employees and officials, and additional supports shall be installed wherever it is necessary to afford adequate protection.
- 2. At all coal mines, the operator shall provide an ample supply of timber and cap pieces or wedge of proper size, roof-bolting materials, or other proper devices with which to secure all places in a safe manner.

(L. 1959 S.B. 188 § 44)

293.400. Coal dust controls. — 1. The operator of a coal mine shall not permit excessive accumulation of coal dust in any part of

the mine. Where mining operations raise an excessive amount of dust, water or water with a wetting agent added to it or other effective methods shall be used to allay such dust at its source.

- 2. All coal mines, except those mines or those locations in a mine in which dust is too wet or too high in incombustible content to propagate an explosion, shall be rock-dusted to within forty feet of all active working faces and all open crosscuts within the forty-foot zone shall be rock-dusted. If the dust in a mine or any part of it is wet but becomes dry, the mine or any portion of the mine so affected shall be rock-dusted as soon as it becomes dry.
- 3. Where rock dust is applied it shall be distributed upon the top, floor and sides of all open places and maintained in such quantity that the incombustible content of the mine dust will not be less than sixty-five percent.
 (L. 1959 S.B. 188 § 45)
- **293.410.** Welding and cutting operations, ventilation, rock-dusting. In coal mines welding and cutting with electricity or flame shall be restricted to places where trolley locomotives are permitted to operate. Where it is necessary to do welding and cutting in face regions, perceptible ventilation is required, and such work shall be under the direct supervision of a mine official, who shall test for explosive gas before starting operations and frequently thereafter. In all welding and cutting operations, precautions shall be taken against starting a fire, and the area shall be rock-dusted. (L. 1959 S.B. 188 § 46)
- **293.420.** Weighing regulations where coal miners paid by weight. 1. In all coal mines, the miners shall be paid by weight, and the operator of every coal mine shall provide and hereafter maintain suitable and accurate scales, which scales shall be examined, tested, and kept in thorough repair by a competent person employed by the operator, at least once in every six months; a correct record shall be kept of all coal so weighed, which record shall be open at all reasonable hours to the inspection of miners employed at the mine. The operator shall keep at the mine weighhouse such standard United States test weights as may be prescribed by the director, for use in testing such scales; except that this section shall not apply to any operator who does not employ more than three men at any one time. The word "miners" as used in this section shall not be construed to include those persons who mine coal me-

- chanically and who are paid a day rate for their services, in accordance with the terms and provisions of any collective bargaining agreement between the operator and such employees.
- 2. The operator of every such coal mine shall not, before weighing the coal, pass the coal over any screen or other device which shall take any part from the value thereof, or otherwise remove any of the coal; and shall duly credit the just and merchantable weight thereof to the employee sending the coal to the surface.
- 3. The person authorized to take such weight and keep such record shall, before entering upon his duties, satisfy the mine inspector that he understands the operations and adjustment of mine scales; and shall, before entering upon his duties take and subscribe before a person authorized to administer oaths, an affidavit that he has not, and will not have while so employed any financial interest, direct or indirect, in such mine and that he will accurately weigh and carefully keep a record of all coal so weighed. The affidavit shall be filed in the office of the clerk of the circuit court for the county, and a copy thereof kept conspicuously at the place of weighing.
- 4. Miners employed in any coal mine have the power, if they desire, of employing at their own expense, a check-weighmaster, who shall have the right to be present and observe the weighing of coal by the weighmaster, to examine and test the scales, to inspect the records made by the weighmaster; and to be subject to the same qualifications, oath and penalties as the weighmaster. (L. 1959 S.B. 188 § 47)
- 293.430. State inspectors to check scales refusal to allow test and fraudulent weighing, penalties. 1. The division of mine inspection is the inspector of weights and measures at all coal mines in this state, and all inspectors thereof are authorized, empowered and directed to conduct frequent inspections of all scales, measuring instruments, cars, and containers, and to determine their condition, accuracy, correct branding, weight, use and operation, to assure the proper use thereof and the competency of any person authorized to use them.
- 2. If the owner, agent or operator of any coal mine in this state shall refuse to allow such inspector to properly test the scales used at such mine or mines, or shall fail or refuse to put such scales in proper adjustment and condition, so that the same shall correctly

weigh the coal mined after being notified by said inspector so to do, such owner, agent or operator shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined not exceeding five hundred dollars, or be confined in the county jail not exceeding six months, or both, in the discretion of the court, and it shall be the duty of the prosecuting attorneys in the respective counties to prosecute any person, firm or corporation violating the provisions of this section the same as in other misdemeanor cases.

3. Any owner, agent, operator, person, or persons having or using any scales or scale for the purpose of weighing the product of the coal miners' labor, who so arranges or constructs said scale or scales, or by any contrivance therewith connected causes the fraudulent weighing of such coal or said product, or who shall knowingly resort to, permit or employ any person or means whatsoever, by reason of which said product of the mine is not correctly weighed and reported in accordance with the true weight and the provisions of section 293.420 and this section, shall be deemed guilty of a misdemeanor, and shall, upon conviction for each and every offense, be punished by a fine of not less than two hundred dollars, nor more than five hundred dollars, or by imprisonment in the county jail for a period not to exceed ninety days, or by both such fine and imprisonment; proceedings to be instituted in any court of competent jurisdiction.

(L. 1959 S.B. 188 § 47)

293.440. Weighing laws apply to "loaders", when. — The manner of weighing, as herein provided for, shall apply to the class of workers in mines known as "loaders", engaged in mines wherein the mining is done by machinery, whenever the workmen are under contract to load coal by the bushel, ton, or any quantity the settlement of which is had by weight. (L. 1959 S.B. 188 § 48)

293.450. Coal miners to be brought to surface for lunch period of hour, penalty. — 1. On and after the passage and taking effect of this section all owners, lessees and operators of any coal mine in this state, the work of which is located below the surface of the ground, entrance to which is had by any shaft, cut or tunnel, shall allow the laborers and miners in the several mines to come to the surface of the ground for the purpose of eating their noonday meal or any other meal for which, under the rules of any mine a

time is set apart; and that at least one hour shall be allowed any miner or laborer for that purpose, and for rest after he reaches the surface of the ground, and before reentering into any mine where he may be engaged as laborer or miner. Also, that the owner, lessee or operator of any coal mine in this state is hereby required to run his cage or hoisting apparatus to the surface of the ground for the purpose of carrying any such miner or laborer, who may be going to or returning from any such aforementioned meal and rest, free of cost to any such miner or laborer.

2. Any owner, lessee or operator of any coal mine in this state who shall fail or refuse to carry out any of the provisions of this section shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined in a sum not less than one dollar nor more than twenty-five dollars; and each failure or refusal shall constitute a separate offense.
(L. 1959 S.B. 188 §§ 49, 50)

293.460. Coal miner to prove qualifications before working alone — penalty. — Any person desiring to perform the work of a coal miner and for himself to conduct room, entry or other underground mining in coal mines of this state, shall, before being permitted to engage in such work, produce evidence of a satisfactory nature that he has for one year worked in coal mines with or as a practical miner; such applicant to furnish evidence of his experience and qualifications to the director of the division of mine inspection, or to the person designated by said director to pass upon the competency of such applicant, and until said applicant shall have fully satisfied the director or the party designated by the said director at the mine, wherein such employment is sought of his fitness to perform the duties as above mentioned, he shall not be permitted to mine coal unless associated with a practical miner for such length of time as will qualify said applicant to safely for himself and others perform underground work; and any owner, agent or operator of any coal mine in this state who shall knowingly violate any of the provisions of this section shall be deemed guilty of a misdemeanor, and, upon conviction, shall be punished by a fine of not less than fifty dollars nor more than two hundred dollars for each and every offense, or by imprisonment in the county jail for a period of not less than thirty days nor more than sixty days, or both such fine

and imprisonment, proceedings to be instituted by any court having competent jurisdiction.

(L. 1959 S.B. 188 § 51)

293.470. Division to close coal mine, when — penalty. — The director of the division of mine inspection and his assistants shall have the power, and it is hereby made their duty, to stop the operation of and close any coal mine or part thereof where poisonous damps exist, where rotten ropes or unsafe cages are used, or where a safe escape way is not provided, for all employees. Any person or persons violating the provisions of this section, and any member or stockholder or officer of any company or corporation who shall violate the provisions of this section, shall be deemed guilty of a misdemeanor, and on conviction thereof be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars. or imprisonment in the county jail thirty days nor more than ninety days, or by both such fine and imprisonment for each and every separate offense.

(L. 1959 S.B. 188 § 52)

- **293.480.** Coal miners paid wages, when penalty. 1. All persons or corporations engaged in or operating any coal mines in this state shall pay their employees once in every fifteen days in lawful money of the United States, and at no payday shall there be withheld any of the earnings due any such employee; provided, persons or corporations operating coal mines may withhold not to exceed five days of the earnings of employees.
- 2. Any such operator or employer failing or refusing to pay his employees, their agents or assigns or anyone duly authorized to collect such wages as in this section provided, shall become immediately liable to such employee, his agent, assigns or anyone authorized to collect such wages for an amount double the sum due such employees at the time of such failure or refusal to pay the amount due, to be recovered by civil action in any court of competent jurisdiction within this state.

(L. 1959 S.B. 188 § 53)

293.490. Coal miner's lien for wages. — All employees of coal mines have, as security for work performed, a lien upon all property of the person owning, constructing or operating the mine, used in construction or operation, including real estate, building, machinery, and all other personal property, to satisfy in full the amount due for labor performed. The lien shall be enforced and secured upon the same general terms and after the manner of procedure in granting mechanics' liens.

(L. 1959 S.B. 188 § 54)

293.500. Applicability of sections **293.200** to **293.490.** — The provisions of sections 293.200 through 293.490 are applicable only to coal mines.

(L. 1959 S.B. 188 § 55)

MINES OTHER THAN COAL MINES

293.510. Dangerous mines to be closed by state, expenses.

- When any mine except a coal mine is so operated that, in the opinion of the mine inspector, there is imminent danger to the lives, health or safety of the miners or employees, the inspector shall at once instruct the person in charge of the mine in which the dangerous condition exists to remove it immediately. The inspector also shall order the immediate evacuation of the mine or the dangerous portions thereof by all persons other than those he deems actually necessary and competent to remove or care for the dangerous conditions. On closing any mine or dangerous part of a mine under this section the inspector shall at once notify the director, and on receipt of such notification, the director shall sustain or reverse the closure action and, if he deems it necessary, order the inspector to place a competent person at the mine, who shall remain there until the dangerous condition is removed. The person so placed has the power to prevent anyone from entering the mine or the dangerous portion of the mine other than those permitted by the inspector. The expense of such competent person shall be paid by the operator; except that the operator always has the privilege to apply to the circuit court for a writ of injunction to enjoin the director from continuing to prevent operation of the mine.

(L. 1959 S.B. 188 § 56)

293.520. Experience required for miners, except trainees.

— No person is permitted to engage in underground mining operations, except coal mining, for himself or for another unless he is to be employed by an operator as a trainee or to work under the supervision of an experienced miner for such length of time as will qualify said person to safely, for himself and others, perform underground work, or unless he offers satisfactory evidence that he has for one year worked in mines with or as a practical miner. (L. 1959 S.B. 188 § 57)

- **293.550. Ventilation of mines.** 1. The operator of every underground mine except coal mines shall provide and maintain an air current sufficient to remove smoke and noxious gases and to insure the health and safety of every employee.
- 2. The ventilation required by this section shall be controlled by natural or mechanical appliances; or both if the director deems it to be necessary. (L. 1959 S.B. 188 § 59)

293.560. State inspections for health safety — procedure when ventilation inadequate. — The director or state mine inspectors are hereby authorized, empowered and directed to thoroughly inspect all underground excavations in all mines other than coal, as often as the director of the division of mine inspection may deem proper, from and after the passage and approval of this chapter, and ascertain the condition of such underground excavations with respect to the health of employees engaged in working in such underground excavations; and if after such examination, the inspector shall find that the health of the employees is impaired by reason of there not being sufficient circulation of air or ventilation for such employees, it shall be the duty of such inspector to immediately notify the owner, agent or operator of such mine, in writing, specifying the underground excavations so found to be unhealthful, and direct such owner, agent or operator of such mine to, within fifteen days after receiving such written notice, commence to drill a sufficient number of air holes for such underground excavation, or to sink a shaft to connect with such underground excavation, or to make drift connection with a contiguous mine, at some point or points to be agreed to by such inspector, as may in the discretion of the inspector furnish sufficient ventilation for such mine, and to prosecute the work of correcting such defect in ventilation, as directed by the inspector, with all due diligence until completed. And the inspectors shall have the power, if they deem it for the interest of the employees engaged in working in such underground excavations, so affected by such notice to require all work and operations in such mine or mines to cease until such defect in ventilation shall have been corrected, or until further notified by such inspector. (L. 1959 S.B. 188 § 60)

293.570. State inspection for dust — waterlines to be installed, when, sprinkling. — The director of the division of mine inspection and the inspectors are hereby authorized, empowered and directed to thoroughly inspect all underground excavations in all mines other than coal mines, as often as the director of the division of mine inspection may deem proper, for the purpose of ascertaining or discovering in the air in any such mine or mines the presence of dust in such quantities as shall be injurious to the health of employees engaged in working in such underground excavation; and upon finding dust in the air of any such mine in such quantities as shall tend to injure the health of the employees of such mine, such director or inspector shall immediately notify the owner, managing agent or operator of such mine, in writing, specifying the underground excavation so found to contain dust particles as aforesaid in the air thereof, and such owner, agent or operator of such mine shall within fifteen days after receiving such written notice, provide, install, equip, and thereafter at all times, maintain in such mine an independent waterline, fully equipped and in good serviceable working order and repair, leading up to the face of any and all drifts where such dust is produced, or so close to the face of said drifts so that by the use of suitable hose extension or sprinkling attachments to be supplied by the owner or owners of said mine, the mineral or earth in and adjoining the face of the drift or drifts of such mine can be sprinkled or wet by water from said pipeline, thereupon and thereafter every person drilling, squibbing or blasting in said mine shall keep the face, surface and drill holes in said drift or drifts wet or moist by the use of water from said waterline to such an extent and in such a way as shall prevent, as far as possible, any dust raising from the working of any such face or from the drilling, "blowing" or "shooting" of any hole or holes; and the ground boss in charge of the underground in any such mine, so equipped with a waterline, shall require all ground or dirt after being shot or blasted to be thoroughly wet or sprinkled to such an extent as shall prevent, as far as possible, any dust from arising therefrom while the employees are at work therein. (L. 1959 S.B. 188 § 61)

293.580. Explosives, storage, handling and use. — 1. When used in or about mines other than coal mines, explosives and detonators shall be stored in separate surface magazines reasonably bul-

letproof and adequately constructed of incombustible material, with no metal exposed inside the magazine and equipped with doors constructed of three-eighths inch steel plate lined with a two-inch thickness of wood, or the equivalent. Such magazines shall be provided with no opening except for entrance and ventilation, shall be kept locked securely when unattended, and shall be provided with suitable warning signs. The location of permanently constructed surface magazines shall be not less than two hundred feet from any mine opening, unless effectively barricaded.

- 2. Underground section boxes or magazines shall be of substantial construction and placed in a crosscut or idle room neck at least twenty-five feet from roadways or trolley wires and at least two hundred feet from an active working place, and in a reasonably dry place. Explosives and detonators shall be stored underground in separate section boxes or magazines.
- 3. The transportation, storage or use of black blasting powder in underground mines is prohibited.
- 4. The operator of a noncoal mine shall determine the maximum supply of explosives that may be stored in his mine, not to exceed an amount to meet the estimated requirements of the succeeding fourteen days; except that a lesser or greater amount may be stored in the mine on approval of the director, or on order of the director.
- 5. No explosives shall be stored in any place in any mine where its accidental discharge would cut off or obstruct the escape of miners working therein.
- 6. The method of storing, keeping, moving, charging and firing, or of using explosives or detonators in a mine, except as otherwise provided in this section, shall be in accordance with rules prescribed by the director. (L. 1959 S.B. 188 § 62)

293.590. Hoisting equipment and operating regulations. — 1. A qualified hoisting engineer shall be on duty continuously when men are underground at noncoal mines where men are transported by hoists. Hoists used for handling men shall be equipped with overspeed, overtravel and automatic stop controls and shall be equipped with brakes capable of stopping and holding the fully loaded unbalanced cage or trip at any point in the shaft or slope. An accurate and reliable indicator, showing the position of the cage

or trip, shall be so placed as to be in clear view of the engineer, unless the position of the cage or trip is clearly visible to the engineer at all times.

- 2. Hoisting ropes on all cages or trips shall be adequate in size to handle the load and have a proper factor of safety as defined in the America Standard Association's Wire Rope Standards and shall be replaced when it shows more than six broken wires in any single pitch length or lay of rope. On conventional drum type hoists only, as distinguished from friction type hoists, the rope shall have at least three full turns on the drum when it is extended to its maximum working length and shall make at least one full turn on the drum shaft or around the spoke of the drum, in case of a free drum, and be fastened securely by means of clamps. A hoisting rope shall be fastened to its load by a zinc-filled socket or by a thimble and clamps. No spliced hoisting rope or cable shall be used.
- 3. Hoisting equipment shall be inspected daily by a trained inspector and a record made of such inspection. The record book shall be made open for the information of all employees at the mine.
- 4. Cages or similar devices used for hoisting men shall be of substantial construction with adequate steel bonnets, with enclosed sides, with gates across the ends of the cage when men are being hoisted or lowered, and with sufficient handholds or chains for all men on the cage to maintain their balance. Cage floors shall be constructed so that they will be adequate to support the load, and where only one cable is used such cage shall be furnished with spring catches or such other or different safety device approved by the director, intended and provided, as far as possible, to prevent the consequences of cable breaking or the loosening or disconnecting of the machinery.
- 5. The director or a mine inspector shall determine the number of men that may be lowered or hoisted at any one time and a notice of the number shall be posted by him in a conspicuous place at the top and bottom of the shaft and at all other landings. In no case shall the total weight of the cage and men, estimated at one hundred sixty pounds per man, exceed one-fifth of the minimum breaking strength of the brakes, ropes, links, and other connections bearing the cage.

- 6. No person other than an attendant shall be lowered or hoisted in or on any cage or trip or other hoisting apparatus carrying explosives, steel, equipment or material. All small hand tools, lunch containers and small parts shall be adequately secured to the approval of the director.
- 7. The director of the division of mine inspection shall determine the safe speed of the cage in a shaft or slope where men are being lowered into or hoisted out of a mine when a speed in excess of five hundred feet per minute is requested by the operator. The mine inspector shall make a thorough inspection of the equipment to be used and cause two test runs at full load to be made before any person is permitted to ride on the cage at the increased speed. When major repairs are made or new or used equipment is installed, the same test shall be made by the operator and a record of such test shall be recorded in a book kept for that purpose and such record book shall be made open for the information of all employees at the mine. In no event shall the speed of the cage where men are lowered or hoisted be in excess of one thousand five hundred feet per minute. The mine inspector shall post a notice at the top and bottom landings of the shaft and at all other landings of the safe speed of the cage on which men are permitted to ride.
- 8. An adequate signaling code shall be adopted, subject to the approval of a mine inspector, in every mine hoisting or lowering men underground.
- 9. The owner, agent or operator of all mines employing twenty-five or more men, at the beginning and end of a shift, shall cause a competent person to be stationed at the top of the shaft, and a competent person to be stationed at the bottom of the shaft, whose duties shall be to answer all signals for the lowering or hoisting of men in the shaft, and to keep watch over, and control of, such signals while men are being lowered or hoisted in the shaft.
- 10. The provisions of this section shall not apply to mines employing fewer than sixteen men underground. (L. 1959 S.B. 188 § 63, A.L. 1967 p. 407)
- **293.600. Director may require crossheads in shaft sinking operations.** When necessary in shaft sinking operations, the director of the division of mine inspection shall order crossheads attached to the rope for the purpose of guiding the descent or ascent

of the bucket or cage in the shaft, provided that such crossheads shall not be required until a depth of five hundred feet has been reached. All sinking crossheads shall be provided with a safety appliance of a design approved by the director for attaching the bucket or cage to the crosshead. (L. 1959 S.B. 188 § 64)

293.610. Applicability of sections 293.510 to 293.600. — The provisions of sections 293.510 through 293.600 shall apply to all mines except coal mines. (L. 1959 S.B. 188 § 65)

CAVES

- **293.620.** Caves, inspection, to provide map inspection fees. 1. The division of mine inspection, in addition to other duties provided by law, is authorized and directed to inspect at least once a year all caves in the state held open to the public, to make rules and regulations providing for the necessary precautions to secure the health and safety of the visiting public and employees in any such cave in this state, to require every cave owner, operator or agent of any cave held open to the visiting public to provide necessary safety guard rails, bridges, ladders, entrances, platforms, walkways, safety barriers, rails, paths and other safety measures, in and about any such cave before it may be opened to the public, and to file a complete and true plan map of such cave with the division of mine inspection and a copy at the office of the entrance of the cave.
- 2. Every cave owner, operator or agent of any cave held open to the public shall, before opening the cave to the visiting public, send written notification to the division and pay an annual inspection fee of thirty-five dollars payable to the state treasurer and to be collected by the department of revenue and deposited in the state treasury to the credit of the state mine inspection fund. When the owner, operator or agent of any cave in this state, held open to the visiting public, shall have complied with all the necessary requirements of the division of mine inspection and shall have paid the inspection fee herein mentioned, he shall be provided with a certificate of inspection furnished by the division of mine inspection showing that

the cave has been duly inspected and approved and such certificate shall be conspicuously displayed at or near the main entrance to the cave.

(L. 1959 S.B. 188 § 66)

ADMINISTRATION

293.630. Rules and regulations. — The director shall make and publish necessary rules and regulations which shall become effective only on approval by the labor and industrial relations commission as provided in section 286.060. (L. 1959 S.B. 188 § 3)

293.640. Inspectors and employees — appointment, salaries.

- 1. The director shall appoint two coal mine inspectors and four noncoal mine inspectors, each of whom shall have had at least five years' experience and one year of practical mine safety training in the type of mining for which he is appointed, but in no case shall an inspector be interested in or receive any economic favors from any interested party in any mine. Each inspector shall receive an annual salary of eight thousand four hundred dollars. The director shall classify, supervise, and direct the work of the inspectors who, at all times, shall be amenable to him.
- 2. The director may appoint a secretary, one clerk, and such clerical employees as may be necessary to the efficient operation of the inspection section. The director shall determine the annual salaries of the secretary and clerical employees within the limits of the appropriations for the inspection section.
- 3. All appointees in each classification shall be selected as nearly as practicable in equal numbers from each of the two political parties casting the highest and next highest number of votes for governor at the last preceding state election. (L. 1959 S.B. 188 § 4, A.L. 1967 p. 383, A.L. 1971 S.B. 65)
- **293.650.** Expenses of director and inspectors. The director and mine inspectors shall be allowed actual and necessary expenses including office and clerical expenses for the division which together with all salaries shall be paid out of the general revenue and the mine inspection fund.

(L. 1959 S.B. 188 § 4, A.L. 1967 p. 383)

293.660. Inspection of mines, when — rights and duties of inspectors — reports. — 1. Each mine in this state shall be exam-

ined by a mine inspector at least twice in every calendar year, and more frequently if it is deemed necessary or desirable in order to enforce the provisions and fulfill the intent of this chapter.

- 2. Mine inspectors shall make examinations of all mines to determine that applicable requirements of this chapter are strictly observed and enforced. Mine inspectors may enter and inspect mines at all reasonable times, day or night, but so as not to obstruct or hinder the necessary operations of any mine. The operator of the mine is required to furnish all necessary facilities for its entry and inspection; and if the operator refuses to permit or furnish these necessary facilities, the mine inspector shall file his affidavit setting forth such refusal before the judge of the circuit court in the county in which the mine is located, and obtain an order on the operator commanding the operator to permit and furnish facilities for inspection of the mine, or to be adjudged to stand in contempt of court and punished accordingly.
- 3. Mine inspectors shall examine into the state of mines as to escapements, transportation, ventilation, circulation, and conditions of air, electricity, explosives, roof control, drainage, mine operations and practices, and general security; and perform such other duties as are required by the director.
- 4. The director shall require mine inspectors to submit to him a report of all examinations of mines, the form and content of which shall be prescribed by the director. (L. 1959 S.B. 188 § 8)

293.670. Complaints as to dangerous conditions, procedure.

— 1. Whenever the inspectors of mines receive a complaint in writing, signed by one or more persons, employed in a mine, or the certified collective bargaining agent of the employees, setting forth that the mine in which he is employed is being operated contrary to law, and is dangerous in any respect to the health or lives of those employed therein, the inspector must examine such mine as soon as possible. The names of the persons making such complaint shall not, under any circumstances, be divulged to any person by said inspector except such action be necessary in the administration of justice in the courts of the state; provided, however, that such complaint shall in all cases set forth the alleged violation of law observed, the nature of the danger existing at the mine, and shall distinctly set forth whether or not any notice of such defect or

danger has been given by the complainants, or anyone else, to their knowledge to the superintendent or other person in charge of the mine.

- 2. If, after such inspection, the inspector finds the conditions, in his opinion, dangerous to the health and lives of those employed in such mine, he shall serve a notice in writing, setting forth fully the facts upon which his opinion is based, upon the operator or any person having charge of such mine, and shall thereafter take such steps to remedy such danger and to compel compliance with the provisions of this chapter, as the inspector could take in any case arising under section 293.660.
- 3. It shall be the duty of the inspector to forward every such original complaint, so received, to the division of mine inspection, where it shall be indexed and filed among the official papers of the said division.
 (L. 1959 S.B. 188 § 11)

293.680. Judicial review of orders of director — effect of filing on order, procedure. — 1. Any person may appeal to the circuit court of the county in which the mine is situated or to the circuit court of Cole County, at the option of appellant, from any order, rule, regulation or determination of the director of the division of mine inspection or of a mine inspector by filing with the clerk of such court a petition setting forth a copy of the order, rule, regulation or determination, if it was made in writing, or by setting forth the terms and conditions of the order, rule, regulation or determination if it was not in writing and stating the reasons or grounds of complaint against the order, rule, regulation or determination. Such petition shall be filed within thirty days after notice of the order, rule, regulation or determination has been given. The filing of the petition or appeal stays the enforcement or effectiveness of the order, rule, regulation or determination appealed. Notice of the appeal shall be given by mailing a copy of the petition to the director of the division of mine inspection or mine inspector by the clerk of said court, who shall file proof of such mailing.

2. The matter shall be tried de novo by the court, without a jury, not sooner than thirty days after the mailing of the petition, and the court shall either sustain the director of the division of mine inspection or mine inspection or shall direct him to take such action as the court may deem proper. An appeal from the circuit court in such

case shall be allowed as in civil action. (L. 1959 S.B. 188 § 67)

293.690. Violations of law, penalty. — Any person violating any provision of this chapter for which a punishment is not otherwise provided shall be adjudged guilty of a misdemeanor, and each violation shall be a separate offense. (L. 1959 S.B. 188 § 68)

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