
WEST VIRGINIA ADMINISTRATIVE REGULATIONS
DEPARTMENT OF MINES ENERGY
CHAPTER 22-41
SERIES 7
(1969)

SUBJECT: RULES AND REGULATIONS GOVERNING OPEN PIT MINES AND UNDERGROUND
LIMESTONE AND SANDSTONE MINES

INDEX

SUBJECT: SAFETY RULES AND REGULATIONS GOVERNING OPEN PIT MINES AND UNDERGROUND
LIMESTONE AND SANDSTONE MINES

References are to sections in W. Va. Adm. Reg. 22-4 1.

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1.1 Scope - These rules
govern open pit ~~and~~ underground
limestone and sandstone
mining operations.

*Title 38
Legislative Rules*

~~WEST VIRGINIA ADMINISTRATIVE REGULATIONS~~
~~DEPARTMENT OF MINES ENERGY~~
~~Chapter (22-41)~~
Series 7
(1969)

Subject: Rules and regulations governing open pit limestone and sandstone mines and underground limestone and sandstone mines.

Section 1. General

² 1.02 Authority - These rules and regulations are issued under authority of West Virginia Code Chapter 22A, Article 3 6, Section 3, in accordance with the provisions of Chapter 29A, Article 3, of the West Virginia Code.

³ 1.03 Effective Date - These rules and regulations were promulgated on the 11th day of August, 1969, and became effective on the 11th day of September, 1969.

⁴ 1.04 Filing Date - These rules and regulations were filed in the Office of the Secretary of State on the 11 day of August, 1969.

Section 2. Surface Structures

2.01. Dust shall not accumulate on roof of tipples and buildings to an excess that would endanger workmen.

2.02. Dust shall be controlled by the use of permissible dust collectors, water or other approved methods, within practicable limits.

2.03. Belt conveyors shall be equipped with side boards or other protective devices, where necessary, to protect persons from falling material.

2.04. Ladders shall be securely fastened.

2.05. Ramps shall be provided with securely anchored rubbing boards of ample dimensions.

2.06 A dumping block at least 8 inches high shall be installed at all dumping points, excluding stockpiles.

2.07 Lights shall be provided as needed in or around surface structures.

2.08 Electrical wiring in tipples and buildings shall be done in a safe and workman-like manner.

2.09 Persons working over or in open bins or silos shall use a safety harness.

2.10. Each open bin or silo shall be equipped with an inside ladder.

Section 3. Excavating

3.01. Highwall overburden shall be sloped to minimize slides and overhanging ledges and all loose material scaled.

3.02. If the highwall shows evidence of movement, or appears to be weakened in any way, the area shall be made safe, or abandoned and dangered off.

3.03. When open pit mines work at night, the vicinity in which the work is performed shall be well illuminated.

3.04. When an open pit mine is worked over an underground limestone or sandstone mine, cooperation between the underground and surface shall be established to assume the safety of persons in the mines.

3.05. When taking up the floor of an "open pit" mine over top of a limestone or sandstone mine, the opening of the mine shall be scaled and kept safe at all times.

3.06. In the event of the collapse of the floor of an open pit mine into a limestone or sandstone mine, both mines shall be immediately closed, until this condition is made safe.

3.07. Removal of any overburden from a limestone or sandstone mine within 100 feet of an active opening is prohibited while the mine is working.

3.08. The driving of coyote tunnels shall be governed as follows:

- (a) A volume of 600 cubic feet of air per minute shall be circulated to the headings.
- (b) Explosives adaptable to the general location shall be used.
- (c) Explosives shall be detonated by permissible firing devices.
- (d) Entrance to tunnel shall be kept free of loose rock and over-hanging ledges.
- (e) Roof and walls shall be properly scaled.
- (f) Work in and around the tunnel shall be done in a safe manner.

3.09. Persons scaling highwalls shall wear a safety harness that is adequately secured.

3.10. Blasted material shall be loaded in such a manner as to minimize the danger of rock slides endangering workmen.

Section 4. Drilling

4.01. While a drill is operating, the operator shall not leave the machine.

4.02. Employees shall keep in the clear of any drill stem while it is in motion.

4.03. When a churn drill or a vertical rotary drill is used, the driller shall not work under its suspended tools.

4.04. Vertical drillholes shall be blocked before moving the drill to a new location.

4.05. Drilling equipment shall be inspected daily and hazardous defects corrected promptly.

Section 5. Explosives and Blasting

5.01. Permissible explosives applicable to local conditions shall be used exclusively.

5.02. Underground storage of explosives and detonators shall be in approved magazines.

5.03. Primers shall not be made up until the charge is ready to be inserted into the hole. All holes, or series of holes, containing electric detonators shall be fired immediately after being charged or at end of shift: Provided, however, that if, for any reason, the holes cannot be fired immediately or at end of the shift, all work shall cease within a radius of 200 feet of blast area, and work shall not commence again until the holes have been fired. This rule does not apply if primacord is used.

5.04. Frozen explosives shall not be used.

5.05. The shot firer shall wait 15 minutes before returning to a misfired shot, except when using an electric blasting cap.

5.06. Extra precaution shall be taken in recovering the explosive and blasting cap from a misfired shot.

5.07. Immediately after each blast the shot firing cables shall be disconnected from the blasting unit and shunted.

5.08. The roads and entrances to any mine shall be barricaded and guarded where such roads or entrances to said mine are located within 1,000 feet of a blast. Homes within 1,000 feet shall be notified by a prearranged plan.

5.09. Explosives shall not be handled or used during an electrical storm.

5.10. Underground magazines shall be located at least three hundred (300) feet from the face and roadway and out of the line of blasting.

5.11. The maximum quantity of explosives and detonators stored underground at any time shall not exceed the amount required for one shift.

5.12. Trailer vans may be used for the temporary storing of explosives: Provided, however, that it is located in accordance with the American Table of Distances to inhabited buildings, passenger railroads and public highways. The trailer van shall be provided with substantial means for locking, and the doors shall be kept locked, except for the placement and removal of stock.

5.13. Underground temporary magazines shall be constructed to the standard of surface magazines.

5.14. When explosives and detonators are transported underground they shall be handled in either the original unopened cases or in special closed cases constructed of nonconductive material. Prills shall be in the original bag or box.

5.15. Explosives and detonators shall not be transported on drill trucks or scale cars. When explosives and detonators are transported in the same container, they shall be separated by a four inch hardwood partition or the equivalent; bodies of trucks transporting explosives shall be lined with nonconductive material.

5.16. Only competent persons designated by management shall handle explosives and do blasting.

5.17. Drill holes shall be cleaned off cuttings before being charged.

5.18. Ample warning shall be given and care taken that all persons are in the clear before firing any shot.

5.19. Shots shall not be fired if any place known to liberate explosive gas until such place has been properly examined by a competent person designated by a mine management for that purpose.

5.20. Shots shall not be fired in any place where gas is detected with a permissible flame safety lamp until such gas has been removed.

5.21. After firing a shot, the shotfirer, or any other person, shall not return to the working face until the smoke has cleared. A careful examination of the face, pillars and roof shall be made before any work is performed.

5.22. The number of holes fired in any one round shall not exceed the limit of the permissible firing unit used.

5.23. The shot firing circuit shall be tested with a galvanometer before firing.

5.24. While underground bore holes are being charged, equipment shall not be operated in the immediate area.

5.25. All underground shooting shall be done at the end of the working shift.

5.26. Two-way radios on motor vehicles shall not be used in a mine while shots are being loaded.

5.27. Tamping poles shall be made of wood or other nonsparkable material.

5.28. Shooting stations shall be kept locked when not in use and only authorized persons shall have the keys.

5.29 Prill loading machines shall be of an approved type and equipped with static strip hose and grounded.

5.30 Mudcaps (adobes) may be used in taking down loose slabs from roof and pillars.

5.31 When caps and fuses are used, an approved cap crimper shall be used.

5.32 When shots are fired by means of caps and fuses, two or more persons shall do the firing.

5.33 Premixed ammonia nitrate and prills are classified as explosives and shall be handled and stored as such.

5.34 Only electric detonators of proper strength shall be used and they must be fired with permissible shot firing units.

Section 6. Underground Workings

6.01 The superintendent or mine foreman of any limestone or sandstone mine shall be notified immediately when an open pit mine may interfere with the safe operation of the said active mine.

6.02 Precautions shall be taken to protect employees where excavating is being done in the vicinity of an abandoned limestone or sandstone mine, or portion thereof, which may contain an accumulation of water.

6.03 All cut-throughs into an abandoned limestone or sandstone mine shall be immediately closed or fenced.

Section 7. Operation of Equipment

7.01 Operators of shovels, draglines, tractors, and head-end bucket loaders shall not operate such equipment when a person or persons are within proximity to be endangered.

7.02 Operators of equipment which have a dipper or bucket shall not swing the dipper or bucket over passing haulage units.

7.03 The dipper of a shovel, dragline, or head-end bucket loader shall always be swung over the body of the truck.

7.04 No person or persons shall remain in the cab of a truck while said truck is being loaded, unless the cab is shielded.

7.05 Workmen shall not get on or off draglines or shovels without first notifying the operator.

7.06 Before greasing or repairing a boom, the boom shall be lowered to permit the work to be performed from the ground if the boom is not equipped with a handrail or ladder.

7.07 Operators shall practice good housekeeping.

7.08 Dump bodies of trucks shall be properly blocked when raised for any purpose except dumping.

Section 8. Ventilation

8.01 Natural ventilation shall provide not less than 6,000 cubic feet of air per minute through the last open crosscut, otherwise the ventilation shall be produced by a mechanically operated fan.

8.02 Air currents shall always be adequate to carry away smoke and harmful gases.

8.03 Active working places shall be ventilated with air containing a minimum of nineteen and five tenths (19.5) percent of oxygen, not containing more than one (1) percent of carbon dioxide and without harmful amounts of noxious or poisonous gases.

8.04 Auxiliary fans may be used, but recirculation of air is prohibited.

8.05 Bore holes are permitted for ventilation.

Section 9. Roof Support

9.01 Pillars shall be of adequate size to support the roof.

9.02 Pillars shall not be split without prior approval of the Director Commissioner of the Department of Mines Energy.

9.03 Roof and ribs shall be scaled in a safe manner.

9.04 Mine openings shall be kept free of fallen rocks or other objects that may endanger workmen.

9.05 A copy of the adopted roof support plan shall be posted at the mine and a copy given to the state mine inspector.

Section 10. Transportation of Men

10.01. Equipment transporting men shall always travel at a safe rate of speed.

10.02. Underground and outside mobile transportation units shall be maintained in a safe operating condition.

Section 11. Fire Protection

11.01. Fire extinguishers of correct type and ample capacity shall be kept on each piece of mobile equipment and in all buildings.

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

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

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

11.05. Flammable liquids shall not be used to clean machinery.

Section 12. Haulage

12.01. Traffic directions which differ from standard highway practice shall be posted on signs with letters at least two inches high along haulage roads at strategic points.

12.02. Safety equipment on trucks shall be maintained in a safe operating condition.

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

12.04. Haulage roads shall be constructed and maintained in a manner consistent with vehicular speed to insure safe operation.

12.05. An adequate clearance space on all haulage roads shall be kept clean.

12.06. Haulage equipment shall be maintained in good condition.

12.07. Each underground haulage unit shall be equipped with headlights and backup lights.

12.08. All underground mobile equipment shall be provided with headlights and backup lights.