

Virginia Administrative Code

Chapter 110. Regulations Governing Blasting in Surface Mining Operations

4VAC25-110-10. Definitions.

The following words and terms when used in this chapter shall have the following meanings, unless the context clearly indicates otherwise:

"Actual distance" means the distance in feet from the blast location to the nearest dwelling house, public building, school, church, or commercial or institutional building neither owned nor leased by the person conducting the blast.

"DMLR" means the Division of Mined Land Repurposing of the Department of Energy.

"Fly rock" means uncontrolled material generated by the blast traveling along the ground and shall not be cast from the blasting vicinity more than half the distance to the nearest dwelling or other occupied structure and in no case beyond the Division of Mined Land Repurposing (DMLR) permit boundary.

"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, 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.

"Mudcapping," also known as bulldozing, adobe blasting or dobying, means a method of blasting by placing a quantity of explosives in contact with a rock, boulder, or other object without confining the explosives in a drill hole.

"Person" means and includes individuals, firms, partnerships, associations, corporations, receivers, or any officer of the Commonwealth, or any agent or officer of the above-mentioned classes employing any person in this Commonwealth.

"Stemming" means that inert material placed in a borehole after the explosive charge for the purpose of confining the explosion gases in the borehole or that inert material used to separate the explosive charges (decks) in decked holes.

Statutory Authority

§ 45.2-103 of the Code of Virginia.

Historical Notes

Derived from VR480-05-97, Part I, eff. December 11, 1985; amended, Virginia Register [Volume 15, Issue 22](#), eff. August 18, 1999; [Volume 38, Issue 13](#), eff. March 31, 2022.

4VAC25-110-20. Certification.

A. All blasters performing blasting at Virginia surface coal mines and the surface at underground coal mines shall be certified by the Board of Coal Mining Examiners (BCME) and meet DMLR recertification

requirements.

B. As stated in [4VAC25-20-40](#) of the BCME certification requirements, the board may grant certificates by reciprocity.

Statutory Authority

§§ 45.1-161.3, 45.1-161.254 and 45.1-161.286 of the Code of Virginia.

Historical Notes

Derived from VR480-05-97, Part II, eff. December 11, 1985; amended, Virginia Register [Volume 15, Issue 22](#), eff. August 18, 1999.

4VAC25-110-30. [Reserved]. (Reserved)

4VAC25-110-60. (Repealed.)

Historical Notes

Derived from VR480-05-97, Part III, eff. December 11, 1985; repealed, Virginia Register Volume 15, Issue 22, eff. August 18, 1999.

4VAC25-110-70. [Reserved]. (Reserved)

4VAC25-110-130. (Repealed.)

Historical Notes

Derived from VR480-05-97, Part IV, eff. December 11, 1985; repealed, Virginia Register Volume 15, Issue 22, eff. August 18, 1999.

4VAC25-110-140. [Reserved]. (Reserved)

4VAC25-110-170. (Repealed.)

Historical Notes

Derived from VR480-05-97, Part V, eff. December 11, 1985; repealed, Virginia Register Volume 15, Issue 22, eff. August 18, 1999.

4VAC25-110-180. [Reserved]. (Reserved)

4VAC25-110-200. Records.

A record of each blast shall be kept. All records including seismograph reports shall be retained at least three years and shall be available for inspection by the Division of Mines and shall contain the data required in DMLR regulations, [4VAC25-130-816.68](#):

1. Name of the operator conducting the blast;
2. Location, date and time of blast;
3. Name, signature, and certification number of the blaster conducting the blast;

4. Type of material blasted;
5. Sketches of the blast pattern, including number of holes, burden, spacing, decks, and delay interval;
6. Diameter and depth of holes;
7. Types of explosives used;
8. Total weight of explosives used per hole;
9. Maximum weight of explosives detonated in an eight-millisecond period;
10. Initiation system;
11. Identification, direction and distance, in feet, from the nearest blast hole to the nearest dwelling, public building, school, church, community or institutional building outside the mine area, except those structures owned by the operator and not leased to another person, if a written waiver by the lessee is submitted to the division before blasting;
12. Weather conditions including those which may cause adverse blasting effects;
13. Type and length of stemming;
14. Mats or other protections used;
15. Seismographic and airblast records, if required, which shall include:
 - a. Name of person and firm taking the reading;
 - b. Name of person and firm analyzing the seismographic record;
 - c. Vibration or airblast level recorded;
 - d. Type of instrument, sensitivity, and calibration signal or certification of annual calibration; and
 - e. Exact location of instrument and the date, time and distance from the blast; and
16. Reasons and conditions for each unscheduled blast.

Statutory Authority

§§ 45.1-161.3, 45.1-161.254 and 45.1-161.286 of the Code of Virginia.

Historical Notes

Derived from VR480-05-97, Part VI, eff. December 11, 1985; amended, Virginia Register [Volume 15, Issue 22](#), eff. August 18, 1999.

4VAC25-110-210. Blasting safety.

- A. When operating within 1,000 horizontal feet of a highway, traffic must be stopped at a safe distance and the blasting area shall be posted with warning signs.
- B. Where a blasting operation is conducted in the vicinity of an active deep mine, the blaster shall observe all procedures necessary to secure the health and safety of the deep mine workers. The operator of the affected deep

mine shall be notified of planned blasting activities to coordinate necessary precautions for underground workers.

C. When blasting operations, other than those conducted at a fixed site as a part of any industry or business operated at such site, are to be conducted within 200 feet of a pipe line or high voltage transmission line, the blaster or person in charge of the blasting operations shall take due precautionary measures for the protection of the line, and shall notify the owner of the line or his agent at least 48 hours in advance that such blasting operations are intended.

D. When an operator applies for a mine license, he shall indicate on the application the actual distance to the nearest inhabited building.

E. Before a blast is fired, a loud warning signal, audible within a range of ½ mile, shall be given by the blaster in charge, who has made certain that all surplus explosives are in a safe place and all employees, vehicles, and equipment are at a safe distance or under sufficient cover.

F. Fly rock as defined in [4VAC25-110-10](#) shall not be allowed.

G. Blasting operations shall be conducted during daylight hours (sunrise to sunset) unless authorized by the Chief or his authorized representative.

H. Misfires, hangfires, etc., shall be handled in accordance with § 45.2-932 of the Code of Virginia.

I. Mudcapping in blasting operations shall be permitted only where the driller would be in a hazardous position in attempting to drill the rock or material to be blasted.

Statutory Authority

§ 45.2-103 of the Code of Virginia.

Historical Notes

Derived from VR480-05-97, Part VII, eff. December 11, 1985; amended, Virginia Register [Volume 15, Issue 22](#), eff. August 18, 1999; [Volume 38, Issue 13](#), eff. March 31, 2022.

4VAC25-110-220. [Reserved]. (Reserved)

4VAC25-110-320. (Repealed.)

Historical Notes

Derived from VR480-05-97, Parts VIII to XV, eff. December 11, 1985; repealed, Virginia Register Volume 15, Issue 22, eff. August 18, 1999.

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