

Virginia Administrative Code

Chapter 60. Rules and Regulations Governing the Installation and Use of Automated Temporary Roof Support Systems

4VAC25-60-10. Definitions.

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

"Approved roof control plan" means the roof control plan and revisions suitable to the roof conditions and mining systems of each coal mine.

"Automated temporary roof support system" or "ATRS system" means a device to provide temporary roof support from a location where the equipment operator is protected from roof falls.

Statutory Authority

§§ 45.1-161.3, 45.1-161.106 and 45.1-161.114 of the Code of Virginia.

Historical Notes

Derived from VR480-05-03, Part I, eff. December 11, 1985; amended, Virginia Register [Volume 15, Issue 22](#), eff. August 18, 1999.

4VAC25-60-20. General requirements.

Unless an exemption has been obtained in accordance with [4VAC25-60-40](#), roof bolting machines and continuous mining machines with integral roof drills used in a working face in a coal mine shall have an approved ATRS system. Alternative methods of temporarily supporting the roof may be approved by the Chief.

Statutory Authority

§§ 45.1-161.3, 45.1-161.106 and 45.1-161.114 of the Code of Virginia.

Historical Notes

Derived from VR480-05-3, Part II, eff. December 11, 1985; amended, Virginia Register [Volume 15, Issue 22](#), eff. August 18, 1999.

4VAC25-60-30. [Reserved]. (Reserved)

4VAC25-60-40. Approval and waivers.

A. ATRS systems and all other methods of temporarily supporting the roof shall be approved on an individual mine basis by the Chief or his authorized representative and shall become part of the approved roof control plan. Such approval of the ATRS system is not necessary if it has already been approved for the machine for which it was designed and meets the requirements in [4VAC25-60-70](#).

B. Before an ATRS system is used underground, the operator shall obtain approval from the Chief or his authorized representative. Approval shall be in a form prescribed by the Chief and where conditions warrant shall address the need for and availability of ATRS mounted deflector pads or equivalent protective devices which promote safety for drill operators by reducing exposure to rock falling inby and deflecting back under the installed ATRS. Any ATRS system that has been approved prior to the effective date of this chapter shall also be deemed approved by the Chief or his authorized representative, provided such an ATRS system meets the minimum requirements set forth in this chapter.

C. The Chief may grant a waiver for an ATRS system where it has been proposed and proven effective by the operator and the Chief has determined that:

1. The use of an ATRS system would create a condition which will cause a greater hazard than the method presently being employed or proposed by the operator for temporarily supporting the roof; or
2. Where the technology of an ATRS system does not exist to allow compliance with the requirements set forth in this chapter.

In granting a waiver the Chief may approve the use of alternative methods of temporary roof support.

Statutory Authority

§§ 45.1-161.3, 45.1-161.106 and 45.1-161.114 of the Code of Virginia.

Historical Notes

Derived from VR480-05-3, Part III, eff. December 11, 1985; amended, Virginia Register [Volume 15, Issue 22](#), eff. August 18, 1999.

4VAC25-60-50. [Reserved]. (Reserved)

4VAC25-60-70. Minimum requirements for machines using, or used as, automated temporary roof support systems.

A. All machines using, or used as, an ATRS system shall comply with the following minimum requirements unless a waiver has been granted by the Chief.

B. The controls to position the machine and place the ATRS system against the roof shall be operated from under permanently supported roof, or the controls may be located in a compartment which includes a deck that provides the equipment operator with overhead and lateral protection, and has the structural capacity to elastically support a dead weight load of at least 18,000 pounds.

C. The ATRS system shall be placed firmly against the roof before any work is performed inby permanent roof supports and shall remain against the roof while work is being done.

D. All hydraulic jacks affecting the support capacity of an ATRS system shall have check valves or equivalent protection to prevent support failure in the event of a sudden loss of hydraulic pressure.

E. ATRS systems used in conjunction with single bolt installation are required to elastically support, at a minimum, a deadweight load measured in pounds of at least 450 times each square foot of roof intended to be supported, but in no case less than 11,250 pounds.

F. The actual capacity to elastically support a deadweight load shall be certified by a registered engineer. Documentation of the certification of the ATRS system shall be made available to the Chief or his authorized

representative.

G. The distance that the ATRS system may be set in by the last row of permanent supports shall be dependent on the spacing requirements of the permanent roof supports and must be approved by the Chief or his authorized representative in the approved roof control plan.

H. No person shall work or travel beyond the ATRS system unless the distance between the coal face and the ATRS system is five feet or less. In addition, no person shall work or travel left or right of the ATRS unless a coal rib, a permanent support, or a temporary support is within five feet of the ATRS system. The only exception is that when a five foot limit is being measured from an ATRS system consisting of a ring, then the five foot limit shall be determined from the outside of the ring.

I. In no case shall the inch tram control speed exceed 80 feet per minute when the roof bolting machine is being used to establish the ATRS system.

Statutory Authority

§§ 45.1-161.3, 45.1-161.106 and 45.1-161.114 of the Code of Virginia.

Historical Notes

Derived from VR480-05-3, Part IV, eff. December 11, 1985; amended, Virginia Register [Volume 15, Issue 22](#), eff. August 18, 1999.

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