superceded 3/3/93

TITLE 36
LEGISLATIVE RULES
BOARD OF COAL MINE HEALTH AND SAFETY

SERIES 10
RULES AND REGULATIONS GOVERNING THE USE OF AUTOMATED TEMPORARY ROOF SUPPORT SYSTEMS

§36-10-1. General.

1.1. Scope. -- Rules and regulations governing the use of automated temporary roof support systems.

1.2. Authority. -- W. Va. Code §22-6-4.

1.3. Filing Date. -- January 27, 1981

1.4. Effective Date. -- March 1, 1981

§36-10-2. Effect of Regulations.

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

§36-10-3. Purpose of Rules and Regulations.

3.1. It is the purpose of this series of rules and regulations to, require the use of automated temporary roof support systems in the working places in coal mines, except where waivers are granted by the Director, for protection of miners working or traveling inby permanent roof supports.

§36-10-4. Definitions.

As used in this series:

4.1. Adopted approved roof control plan - The term "Adopted Approved Roof Control Plan" shall mean the roof control plan and revisions thereof suitable to the roof conditions and mining systems of each coal mine which has been adopted by the mine and approved by the Director pursuant to West Virginia Code, Chapter 22A, Article 2, Section 25.

4.2. Approved - The term "Approved," West Virginia Code, Chapter 22A, Article 1A, Section 1(A)(3), shall mean in strict compliance with mining law, or in the absence of law, accepted by a recognized standardizing body or organization where approval is generally recognized as authoritative on the subject.

4.3. Automated temporary roof support system - The term "Automated Temporary Roof Support" shall mean the devices and mechanisms, including the ATRS, used, and methods followed by which the ATRS is activated and set to support the roof.

4.4. Automated temporary roof support or ATRS - The term "Automated Temporary Roof Support" or "ATRS" shall mean a mechanical device used to support the roof temporarily.

4.5. Director - The term "Director" shall mean the Director of the Department of Energy as defined in West Virginia Code, Chapter 22A, Article 1A, Section 1(b)(3).

§36-10-5. Automated Temporary Roof Support Systems.

5.1. Time Requirements

(a) Twelve (12) months after the effective date of these rules and regulations all new and rebuilt, roof bolting machines and continuous mining machines with integral roof drills used in a working place in a coal mine shall be provided with an approved automated temporary roof support systems: Provided, That other methods of temporarily supporting the roof may be approved by the Director in the adopted approved roof control plan.

(b) Thirty-six (36) months after the effective date of these rules and regulations, approved automated temporary roof support systems shall be provided on all roof bolting machines and continuous mining machines with intergral roof drills used in a work place: Provided, That other methods of temporarily supporting the roof may be approved by the Director in the adopted approved roof control plan.

5.2. Approvals and Waivers

(a) Automated temporary roof support systems and all other methods of temporarily supporting the roof shall be approved on an individual mine basis by the Director and shall become part of the adopted approved roof control plan.

After the effective date of Sections 5.1. (a) and (b), respectfully, of these rules and regulations, the operator shall, prior to any automated temporary roof support system being used underground, first obtain approval from the Director or an authorized representative of the Director, such approval to be in the manner and form prescribed by the Director: Provided, That such approval shall not be unreasonably withheld and furthermore, any automated temporary roof support system that has been "Approved" prior to the effective dates of Sections 5.1 (a) and (b), respectfully, shall also be approved by the Director or his authorized representative if the automated temporary roof support system meets the minimum requirements stated in Section 5.3 of these rules and regulations.

(b) A waiver may be granted, as to the use of an automated temporary roof support system, by the Director where it has been demonstrated by the operator and determined during an investigation by an authorized representative of the Director that the use of an automated temporary roof support system would create a condition which will cause a greater hazard, to people working inby the area where permanent supports have been installed, than the method presently being employed or proposed by the operator for temporarily supporting the roof; or where the technology of an automated temporary roof support system does not exist to allow compliance with the requirements set forth in Section 5.3 of these rules and regulations. In granting a waiver as to the use of the automated temporary roof support system, the Director may approve the use of temporary jacks and posts to be used in lieu thereof.

5.3. Minimum requirements for machines using, or used as, automated temporary roof support systems.

(1) After the effective dates of Section 5.1(a) and (b), respectfully, of these rules and regulations, all machines using, or used as, an automated temporary roof support shall comply with the following minimum requirements unless a waiver has been granted or another method of temporarily supporting the roof has been approved by the Director under Section 5.2 of these rules and regulations.

(a) The necessary controls to position the machine and place the ATRS against the roof shall be operated from under permanently supported roof unless the design of the system will provide adequate protection for the miner while setting such supports.

(b) The ATRS 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.

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

(d) ATRS used conjunction with single bolt installation are required to elastically support, at a minimum, a deadweight load of eleven thousand two hundred fifty (11,250) pounds for each five (5) foot by five (5) foot square area of the roof intended to be supported.

(e) ATRS consisting of pads and/or crossbars used in single or multiple rows must elastically supports, at a minimum, a deadweight load in pounds of $450 \times \{(L + 5) \times (W + 5)\}$; where L is the length of the support structure from tip to tip and W is the width taken at the center line of a support structure to the center line of another support structure. (Refer to the diagram , Appendix I, when determining load.)

(f) The actual capacity to support elastically a deadweight load shall be certified by a registered professional engineer.

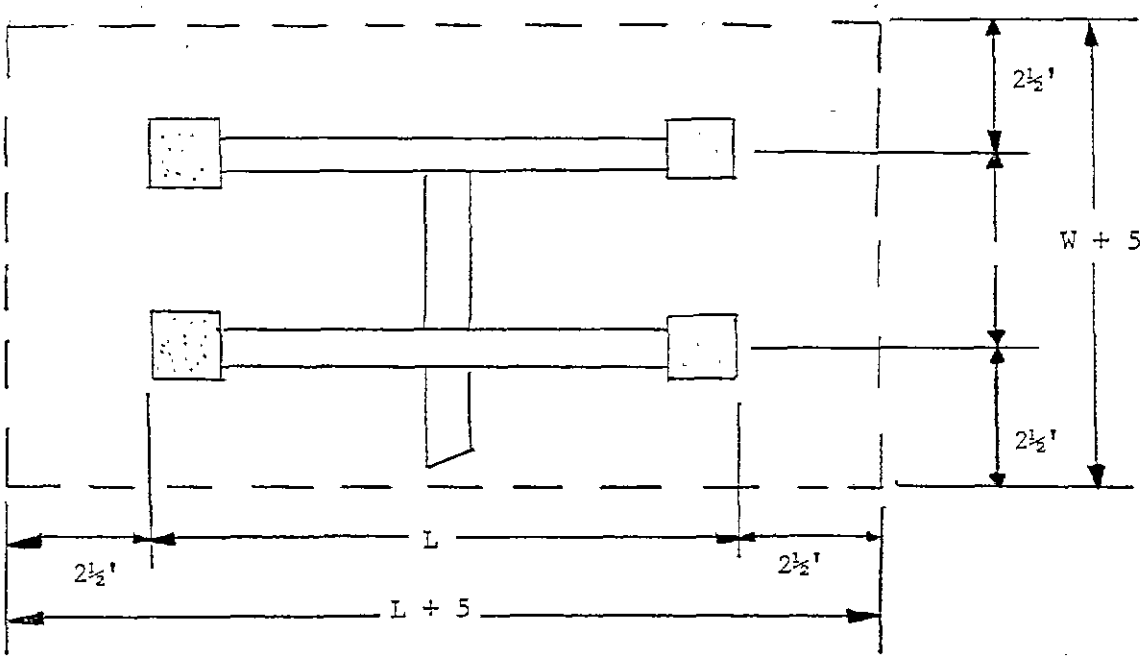
(g) The distance that the ATRS may be set inby the last row of permanent supports shall be dependent on the spacing requirements of the permanent roof supports and must be approved by the Director in the adopted approved roof control plan.

(h) No person shall work or travel beyond the ATRS unless the distance between the coal face and the ATRS is five (5) feet of 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 (5) feet of the ATRS: Provided,That when such five (5) foot limit is being determined for an ATRS consisting of a ring then said five (5) foot limit shall be determined from the center of the ring.

(i) The inch tram control speed of a roof bolting machine shall not exceed one-half (1/2) of the maximum tram control speed: Provided,That in no case shall the inch tram control speed exceed eighty (80) feet per minute when the roof bolting machine is being used to establish the ATRS.

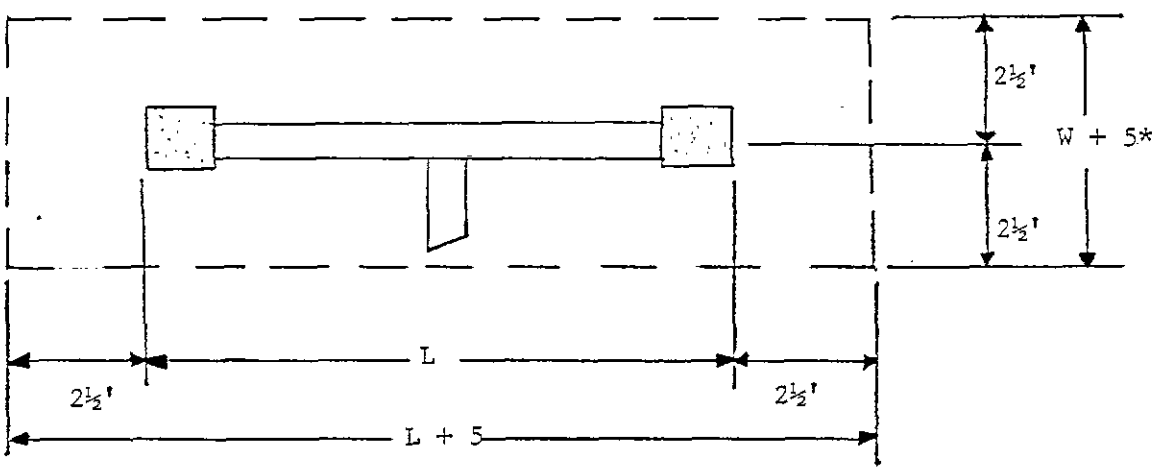
Appendix I

SUPPORT ENVELOPE



450 x [(L + 5) x (W + 5)] = Load in Pounds

SUPPORT ENVELOPE



450 x [(L + 5) x (W + 5)] = Load in Pounds

*Note: W would be 0 in this case.