§ 75.209 Automated Temporary Roof Support (ATRS) systems.

(a) Except in anthracite mines and as specified in paragraphs (b) and (c) of this section, an ATRS system shall be used with roof bolting machines and continuous-mining machines with integral roof bolters operated in a working section. The requirements of this paragraph shall be met according to the following schedule:

2. All existing machines operated in mining heights of 36 inches or more after March 28, 1989; and
3. All existing machines operated in mining heights of 30 inches or more but less than 36 inches after March 28, 1990.

(b) After March 28, 1990 the use of ATRS systems with existing roof bolting machines and continuous-mining machines with integral roof bolters operated in a working section where the mining height is less than 30 inches shall be addressed in the roof control plan.

(c) Alternative means of temporary support shall be used, as specified in the roof control plan, when—

1. Mining conditions or circumstances prevent the use of an ATRS system; or
2. Temporary supports are installed in conjunction with an ATRS system.

(d) Persons shall work or travel between the support device of the ATRS system and another support, and the distance between the support device of the ATRS system and support to the left, right or beyond the ATRS system, shall not exceed 5 feet.

(e) Each ATRS system shall meet each of the following:

1. The ATRS system shall elastically support 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.
2. The controls that position and set the ATRS system shall be—
   i. Operable from under permanently supported roof; or
   ii. 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 deadweight load of at least 18,000 pounds.
3. All jacks affecting the capacity of the ATRS system and compartment shall have check valves or equivalent devices that will prevent rapid collapse in the event of a system failure.
4. Except for the main tram controls, tram controls for positioning the equipment to set the ATRS system shall limit the speed of the equipment to a maximum of 80 feet-per-minute.
5. The support capacity of each ATRS system and the structural capacity of each compartment shall be certified by a registered engineer as meeting the applicable requirements of paragraphs (e)(1) and (e)(2) of this section. The certifications shall be made available to an authorized representative of the Secretary and representative of the miners.

§ 75.210 Manual installation of temporary support.

(a) When manually installing temporary support, only persons engaged in installing the support shall proceed beyond permanent support.

(b) When manually installing temporary supports, the first temporary support shall be set no more than 5 feet from a permanent roof support and the rib. All temporary supports shall be set so that the person installing the supports remains between the temporary support being set and two other supports which shall be no more than 5 feet from the support being installed. Each temporary support shall be completely installed prior to installing the next temporary support.

(c) All temporary supports shall be placed on no more than 5-foot centers.

(d) Once temporary supports have been installed, work or travel beyond permanent roof support shall be done between temporary supports and the nearest permanent support or between other temporary supports.

§ 75.211 Roof testing and scaling.

(a) A visual examination of the roof, face and ribs shall be made immediately before any work is started in an area and thereafter as conditions warrant.

(b) Where the mining height permits and the visual examination does not
§ 75.212 Rehabilitation of areas with unsupported roof.

(a) Before rehabilitating each area where a roof fall has occurred or the roof has been removed by mining machines or by blasting—
   (1) The mine operator shall establish the clean up and support procedures that will be followed;
   (2) All persons assigned to perform rehabilitation work shall be instructed in the clean-up and support procedures; and
   (3) Ineffective, damaged or missing roof support at the edge of the area to be rehabilitated shall be replaced or other equivalent support installed.

(b) All persons who perform rehabilitation work shall be experienced in this work or they shall be supervised by a person experienced in rehabilitation work who is designated by the mine operator.

(c) Where work is not being performed to rehabilitate an area in active workings where a roof fall has occurred or the roof has been removed by mining machines or by blasting, each entrance to the area shall be supported by at least one row of posts on not more than 5-foot centers, or equally effective support.

§ 75.213 Roof support removal.

(a)(1) All persons who perform the work of removing permanent roof supports shall be supervised by a management person experienced in removing roof supports.

(2) Only persons with at least one year of underground mining experience shall perform permanent roof support removal work.

(b) Prior to the removal of permanent roof supports, the person supervising roof support removal in accordance with paragraph (a)(1) of this section shall examine the roof conditions in the area where the supports are to be removed and designate each support to be removed.

(c)(1) Except as provided in paragraph (g) of this section, prior to the removal of permanent supports, a row of temporary supports on no more than 5-foot centers or equivalent support shall be installed across the opening within 4 feet of the supports being removed. Additional supports shall be installed where necessary to assure safe removal.

(2) Prior to the removal of roof bolts, temporary support shall be installed as close as practicable to each roof bolt being removed.

(d) Temporary supports installed in accordance with this section shall not be removed unless—
   (1) Removal is done by persons who are in a remote location under supported roof; and
   (2) At least two rows of temporary supports, set across the opening on no more than 5-foot centers, are maintained between the miners and the unsupported area.

(e) Each entrance to an area where supports have been removed shall be posted with a readily visible warning or a physical barrier shall be installed to impede travel into the area.

(f) Except as provided in paragraph (g) of this section, permanent support shall not be removed where—