

## § 75.223

(f) *ATRS systems in working sections where the mining height is below 30 inches.* In working sections where the mining height is below 30 inches, an ATRS system should be used to the extent practicable during the installation of roof bolts with roof bolting machines and continuous-mining machines with integral roof bolters.

(g) *Longwall mining systems.* (1) Systematic supplemental support should be installed throughout—

(i) The tailgate entry of the first longwall panel prior to any mining; and

(ii) In the proposed tailgate entry of each subsequent panel in advance of the frontal abutment stresses of the panel being mined.

(2) When a ground failure prevents travel out of the section through the tailgate side of the longwall section, the roof control plan should address—

(i) Notification of miners that the travelway is blocked;

(ii) Re-instruction of miners regarding escapeways and escape procedures in the event of an emergency;

(iii) Re-instruction of miners on the availability and use of self-contained self-rescue devices;

(iv) Monitoring and evaluation of the air entering the longwall section;

(v) Location and effectiveness of the two-way communication systems; and

(vi) A means of transportation from the section to the main line.

(3) The plan provisions addressed by paragraph (g)(2) of this section should remain in effect until a travelway is re-established on the tailgate side of a longwall section.

### § 75.223 Evaluation and revision of roof control plan.

(a) Revisions of the roof control plan shall be proposed by the operator—

(1) When conditions indicate that the plan is not suitable for controlling the roof, face, ribs, or coal or rock bursts; or

(2) When accident and injury experience at the mine indicates the plan is inadequate. The accident and injury experience at each mine shall be reviewed at least every six months.

(b) Each unplanned roof fall and rib fall and coal or rock burst that occurs

## 30 CFR Ch. I (7–1–06 Edition)

in the active workings shall be plotted on a mine map if it—

(1) Is above the anchorage zone where roof bolts are used;

(2) Impairs ventilation;

(3) Impedes passage of persons;

(4) Causes miners to be withdrawn from the area affected; or

(5) Disrupts regular mining activities for more than one hour.

(c) The mine map on which roof falls are plotted shall be available at the mine site for inspection by authorized representatives of the Secretary and representatives of miners at the mine.

(d) The roof control plan for each mine shall be reviewed every six months by an authorized representative of the Secretary. This review shall take into consideration any falls of the roof, face and ribs and the adequacy of the support systems used at the time.

[53 FR 2375, Jan. 27, 1988; 60 FR 33723, June 29, 1995]

## Subpart D—Ventilation

SOURCE: 61 FR 9829, Mar. 11, 1996, unless otherwise noted.

### § 75.300 Scope.

This subpart sets requirements for underground coal mine ventilation.

### § 75.301 Definitions.

In addition to the applicable definitions in § 75.2, the following definitions apply in this subpart.

*Air course.* An entry or a set of entries separated from other entries by stoppings, overcasts, other ventilation control devices, or by solid blocks of coal or rock so that any mixing of air currents between each is limited to leakage.

*AMS operator.* The person(s), designated by the mine operator, who is located on the surface of the mine and monitors the malfunction, alert, and alarm signals of the AMS and notifies appropriate personnel of these signals.

*Appropriate personnel.* The person or persons designated by the operator to perform specific tasks in response to AMS signals. Appropriate personnel include the responsible person(s) required by § 75.1501 when an emergency evacuation is necessary.

*Atmospheric Monitoring System (AMS).* A network consisting of hardware and software meeting the requirements of §§ 75.351 and 75.1103-2 and capable of: measuring atmospheric parameters; transmitting the measurements to a designated surface location; providing alert and alarm signals; processing and cataloging atmospheric data; and, providing reports. Early-warning fire detection systems using newer technology that provides equal or greater protection, as determined by the Secretary, will be considered atmospheric monitoring systems for the purposes of this subpart.

*Belt air course.* The entry in which a belt is located and any adjacent entry(ies) not separated from the belt entry by permanent ventilation controls, including any entries in series with the belt entry, terminating at a return regulator, a section loading point, or the surface.

*Carbon monoxide ambient level.* The average concentration in parts per million (ppm) of carbon monoxide detected in an air course containing carbon monoxide sensors. This average concentration is representative of the composition of the mine atmosphere over a period of mining activity during non-fire conditions. Separate ambient levels may be established for different areas of the mine.

*Incombustible.* Incapable of being burned.

*Intake air.* Air that has not yet ventilated the last working place on any split of any working section, or any worked-out area, whether pillared or nonpillared.

*Intrinsically safe.* Incapable of releasing enough electrical or thermal energy under normal or abnormal conditions to cause ignition of a flammable mixture of methane or natural gas and air of the most easily ignitable composition.

*Noncombustible structure or area.* Describes a structure or area that will continue to provide protection against flame spread for at least 1 hour when subjected to a fire test incorporating an ASTM E119-88 time/temperature heat input, or equivalent. The publication ASTM E119-88, "Standard Test Methods for Fire Tests of Building Construction and Materials" is incor-

porated by reference and may be inspected at any MSHA Coal Mine Safety and Health district office, or at MSHA's Office of Standards, 1100 Wilson Blvd., Room 2352, Arlington, Virginia 22209-3939, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). In addition, copies of the document can be purchased from the American Society for Testing Materials (ASTM), 1916 Race Street, Philadelphia, Pennsylvania 19103. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

*Noncombustible material.* Describes a material which when used to construct a ventilation control results in a control that will continue to serve its intended function for 1 hour when subjected to a fire test incorporating an ASTM E119-88 time/temperature heat input, or equivalent. The publication ASTM E119-88, "Standard Test Methods for Fire Tests of Building Construction and Materials" is incorporated by reference and may be inspected at any Coal Mine Health and Safety District and Subdistrict Office, or at MSHA's Office of Standards, Regulations, and Variances, 1100 Wilson Blvd., Room 2352, Arlington, Virginia 22209-3939, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). In addition, copies of the document can be purchased from the American Society for Testing Materials (ASTM), 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959; <http://www.astm.org>. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

*Point feeding.* The process of providing additional intake air to the belt air course from another intake air course through a regulator.

## § 75.302

## 30 CFR Ch. I (7-1-06 Edition)

*Return air.* Air that has ventilated the last working place on any split of any working section or any worked-out area whether pillared or nonpillared. If air mixes with air that has ventilated the last working place on any split of any working section or any worked-out area, whether pillared or nonpillared, it is considered return air. For the purposes of §75.507-1, air that has been used to ventilate any working place in a coal producing section or pillared area, or air that has been used to ventilate any working face if such air is directed away from the immediate return is return air. Notwithstanding the definition of intake air, for the purpose of ventilation of structures, areas or installations that are required by this subpart D to be ventilated to return air courses, and for ventilation of seals, other air courses may be designated as return air courses by the operator only when the air in these air courses will not be used to ventilate working places or other locations, structures, installations or areas required to be ventilated with intake air.

*Worked-out area.* An area where mining has been completed, whether pillared or nonpillared, excluding developing entries, return air courses, and intake air courses.

[61 FR 9829, Mar. 11, 1996; 61 FR 29288, June 10, 1996, as amended at 67 FR 38386, June 4, 2002; 69 FR 17526, Apr. 2, 2004; 71 FR 16668, Apr. 3, 2006]

### § 75.302 Main mine fans.

Each coal mine shall be ventilated by one or more main mine fans. Booster fans shall not be installed underground to assist main mine fans except in anthracite mines. In anthracite mines, booster fans installed in the main air current or a split of the main air current may be used provided their use is approved in the ventilation plan.

### § 75.310 Installation of main mine fans.

(a) Each main mine fan shall be—

- (1) Installed on the surface in an incombustible housing;
- (2) Connected to the mine opening with incombustible air ducts;
- (3) Equipped with an automatic device that gives a signal at the mine when the fan either slows or stops. A responsible person designated by the

operator shall always be at a surface location at the mine where the signal can be seen or heard while anyone is underground. This person shall be provided with two-way communication with the working sections and work stations where persons are routinely assigned to work for the majority of a shift;

(4) Equipped with a pressure recording device or system. Mines permitted to shut down main mine fans under §75.311 and which do not have a pressure recording device installed on main mine fans shall have until June 10, 1997 to install a pressure recording device or system on all main mine fans. If a device or system other than a circular pressure recorder is used to monitor main mine fan pressure, the monitoring device or system shall provide a continuous graph or continuous chart of the pressure as a function of time. At not more than 7-day intervals, a hard copy of the continuous graph or chart shall be generated or the record of the fan pressure shall be stored electronically. When records of fan pressure are stored electronically, the system used to store these records shall be secure and not susceptible to alteration and shall be capable of storing the required data. Records of the fan pressure shall be retained at a surface location at the mine for at least 1 year and be made available for inspection by authorized representatives of the Secretary and the representative of miners;

(5) Protected by one or more weak walls or explosion doors, or a combination of weak walls and explosion doors, located in direct line with possible explosive forces;

(6) Except as provided under paragraph (e) of this section, offset by at least 15 feet from the nearest side of the mine opening unless an alternative method of protecting the fan and its associated components is approved in the ventilation plan.

(b)(1) If an electric motor is used to drive a main mine fan, the motor shall operate from a power circuit independent of all mine power circuits.

(2) If an internal combustion engine is used to drive a main mine fan—

(i) The fuel supply shall be protected against fires and explosions;