

PART 70—MANDATORY HEALTH STANDARDS—UNDERGROUND COAL MINES

1. The authority citation for part 70 is revised to read as follows:

Authority: 30 U.S.C. 811, 813(h), 957 and 961.

2. Subpart A is revised to read as follows:

Subpart A—General

Sec.

70.1 Scope.

70.2 Definitions.

§ 70.1 Scope and purpose.

This part sets forth mandatory health standards for each underground coal mine subject to the Federal Mine Safety and Health Act of 1977.

§ 70.2 Definitions.

Act. The Federal Mine Safety and Health Act of 1977, Public Law 95-173, as amended by Public Law 95-164, 30 U.S.C. 801 *et seq.*

Active workings. Any place in a coal mine where miners are normally required to work or travel.

Administrative controls. Methods of controlling the respirable dust exposure of an individual miner assigned to a specific work position or occupation by job rotation, altering the way in which the assigned work is performed, providing time periods away from dust-generating sources. These procedures must be:

- (1) Capable of being reviewed to confirm their proper implementation,
- (2) Clearly understood by the affected miners, and
- (3) Applied consistently over time.

Approved sampling device. A sampling device of the constant-flow type:

- (1) Approved by the Secretary and the Secretary of Health and Human Services under part 74 of this title; or
- (2) Approved by the Secretary when it has been determined that the measured concentration of respirable dust can be converted to an equivalent concentration as measured with a sampling device approved under part 74 of this title.

Certified person. An individual certified by the Secretary to take respirable dust samples and/or to perform the maintenance and calibration of approved sampling devices.

Citation threshold value (CTV). The lowest equivalent concentration measurement demonstrating that the applicable dust standard has been exceeded at a confidence level of at least 95 percent.

Concentration. The amount of respirable dust contained per unit volume of air.

Control filter. An unexposed filter cassette of the same design and material as the filter cassette used for sampling that is pre- and post-weighed on the same day as the exposed filters.

Critical value. The highest equivalent concentration measurement demonstrating that the applicable verification limit has been met at a confidence level of at least 95 percent.

Designated area (DA). An area of a mine identified by the operator under § 75.371(t) of this title and approved by the district manager, or identified by the Secretary. Each DA is identified by a four-digit identification number assigned by MSHA.

Designated occupation (DO). The occupation or work location on a mechanized mining unit that has been determined by results of respirable dust samples to exhibit the greatest respirable dust concentration.

District manager. The manager of the Coal Mine Safety and Health District in which the mine is located.

Dust control parameters. Specific engineering or environmental controls, maintenance procedures, and other measures specified in the approved mine ventilation plan for controlling respirable dust in the mine atmosphere of the active workings.

Engineering or environmental controls. Methods of controlling the level of respirable dust by reducing the quantity released into the work environment, by diluting, capturing or diverting the generated dust.

Equivalent concentration. The concentration of respirable coal mine dust, as measured by an approved sampling device, converted to an MRE 8-hour equivalent as follows:

- (1) Multiply the concentration measured by the approved sampling device by the constant factor prescribed by the Secretary for that device and then apply criteria in paragraphs (2) and (3) of this definition if applicable.

- (2) If the sampled shift is longer than 8 hours, multiply the concentration obtained in paragraph (1) of this definition by $t/480$ where t is the length of the sampled work shift in minutes.

- (3) If using PAPRs, divide the concentration obtained in paragraph (1) or (2) of this definition (whichever is applicable) by the protection factor assigned to the mechanized mining unit.

Material produced. Coal and/or any other substance(s) extracted by a mechanized mining unit during any production shift.

Mechanized mining unit (MMU). A set of mining equipment, including hand

loading equipment, used for the production of material; or a specialized set which utilizes mining equipment other than specified in § 70.206(d) for the production of material. Each MMU is assigned a four-digit identification number by MSHA. The identification number is retained by the MMU regardless of where the unit relocates within the mine. When two sets of mining equipment are provided in a series of working places and only one production crew is employed at any given time on either set of mining equipment, the two sets of equipment are identified as a single MMU. When two or more sets of mining equipment are simultaneously engaged in the production of material within the same working section, each such mechanized mining unit is identified separately.

MRE. The Mining Research Establishment of the National Coal Board, London, England.

MRE instrument. A gravimetric dust sampler with a four channel horizontal elutriator developed by the MRE.

MSHA. The Mine Safety and Health Administration of the Department of Labor.

Personal continuous dust monitor (PCDM). An instrument that monitors the concentration of respirable dust on a continuous basis and displays in real-time the measured dust exposure information.

Powered air-purifying respirator (PAPR). A type of air-purifying respirator that uses a blower to force ambient air through the air-purifying elements to the inlet covering (a visor), which forms a partial seal with the face, to deliver filtered air into the miner's breathing area.

Protection factor (PF). A measure of the level of respiratory protection that would be expected in the workplace from a properly functioning PAPR when correctly worn and used. The protection factor is the ratio of the respirable dust concentration outside the respirator facepiece to the concentration inside the facepiece. For MMUs with average air velocity in the working face:

- (1) <400 feet per minute (fpm), PF = 4;
- (2) >800 fpm, PF = 2; and
- (3) between 400 fpm and 800 fpm, the applicable PF is determined by the following formula: $2 \times (800 \text{ fpm} / \text{actual air velocity})$.

Production shift.

- (1) With regard to a MMU, a shift during which material is produced; or
- (2) With regard to a DA, a shift during which material is produced and routine day-to-day activities occur in the DA.

Quartz. Crystalline silicon dioxide (SiO₂) as measured by: