

## PART 72—HEALTH STANDARDS FOR COAL MINES

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AUTHORITY: 30 U.S.C. 811, 813(h), 957.

SOURCE: 59 FR 8327, Feb. 18, 1994, unless otherwise noted.

### Subpart A—General

#### § 72.1 Scope.

The health standards in this part apply to all coal mines.

### Subpart B—Medical Surveillance

SOURCE: 79 FR 24986, May 1, 2014, unless otherwise noted.

#### § 72.100 Periodic examinations.

(a) Each operator of a coal mine shall provide to each miner periodic examinations including chest x-rays, spirometry, symptom assessment, and occupational history at a frequency specified in this section and at no cost to the miner.

(1) Each operator shall use facilities approved by the National Institute for Occupational Safety and Health (NIOSH) to provide examinations specified in paragraph (a) of this section.

(2) The results of examinations or tests made pursuant to this section shall be furnished only to the Secretary, Secretary of Health and Human Services (HHS), and at the request of the miner, to the miner’s designated physician.

(b) *Voluntary examinations.* Each operator shall provide the opportunity to have the examinations specified in § 72.100(a) at least every 5 years to all miners employed at a coal mine. The examinations shall be available during a 6-month period that begins no less than 3.5 years and not more than 4.5 years from the end of the last 6-month period.

(c) *Mandatory examinations.* For each miner who begins work at a coal mine for the first time, the operator shall provide examinations specified in § 72.100(a) as follows:

(1) An initial examination no later than 30 days after beginning employment;

(2) A follow-up examination no later than 3 years after the initial examination in paragraph (c)(1); and

(3) A follow-up examination no later than 2 years after the examinations in paragraph (c)(2) if the chest x-ray shows evidence of pneumoconiosis or the spirometry examination indicates evidence of decreased lung function. For this purpose, evidential criteria will be defined by NIOSH.

(d) Each mine operator shall develop and submit for approval to NIOSH a plan in accordance with 42 CFR part 37 for providing miners with the examinations specified in § 72.100(a) and a roster specifying the name and current address of each miner covered by the plan.

(e) Each mine operator shall post on the mine bulletin board at all times

the approved plan for providing the examinations specified in § 72.100(a).

**Subpart C [Reserved]**

**Subpart D—Diesel Particulate Matter—Underground Areas of Underground Coal Mines**

SOURCE: 66 FR 5704, Jan. 19, 2001, unless otherwise noted.

**§ 72.500 Emission limits for permissible diesel-powered equipment.**

(a) Each piece of permissible diesel-powered equipment introduced into an underground area of an underground coal mine after May 21, 2001 must emit no more than 2.5 grams per hour of diesel particulate matter.

(b) As of July 19, 2002, each piece of permissible diesel-powered equipment operated in an underground area of an underground coal mine must emit no more than 2.5 grams per hour of diesel particulate matter.

[66 FR 5704, Jan. 19, 2001, as amended at 66 FR 15033, Mar. 15, 2001; 66 FR 27866, May 21, 2001]

**§ 72.501 Emission limits for nonpermissible heavy-duty diesel-powered equipment, generators and compressors.**

(a) Each piece of nonpermissible heavy-duty diesel-powered equipment (as defined by § 75.1908(a) of this part), generator or compressor introduced into an underground area of an underground coal mine after May 21, 2001 must emit no more than 5.0 grams per hour of diesel particulate matter.

(b) As of July 21, 2003, each piece of nonpermissible heavy-duty diesel-powered equipment (as defined by § 75.1908(a) of this part), generator or

compressor operated in an underground area of an underground coal mine must emit no more than 5.0 grams per hour of diesel particulate matter.

(c) As of January 19, 2005, each piece of nonpermissible heavy-duty diesel-powered equipment (as defined by § 75.1908(a) of this part), generator or compressor operated in an underground area of an underground coal mine must emit no more than 2.5 grams per hour of diesel particulate matter.

(d) Notwithstanding the other provisions of this section, a generator or compressor that discharges its exhaust directly into intake air that is coursed directly to a return air course, or discharges its exhaust directly into a return air course, is not subject to the applicable requirements of this section.

[66 FR 5704, Jan. 19, 2001, as amended at 66 FR 15033, Mar. 15, 2001; 66 FR 27866, May 21, 2001]

**§ 72.502 Requirements for nonpermissible light-duty diesel-powered equipment other than generators and compressors.**

(a) Each piece of nonpermissible light-duty diesel-powered equipment (as defined by § 75.1908(b) of this chapter), other than generators and compressors, introduced into an underground area of an underground coal mine after May 21, 2001 must emit no more than 5.0 grams per hour of diesel particulate matter.

(b) A piece of nonpermissible light-duty diesel-powered equipment must be deemed to be in compliance with the requirements of paragraph (a) of this section if it utilizes an engine which meets or exceeds the applicable particulate matter emission requirements of the Environmental Protection Administration listed in Table 72.502-1, as follows:

TABLE 72.502-1

EPA requirement	EPA category	PM limit
40 CFR 86.094-8(a)(1)(i)(A)(2) .....	light duty vehicle .....	0.1 g/mile.
40 CFR 86.094-9(a)(1)(i)(A)(2) .....	light duty truck .....	0.1 g/mile.
40 CFR 86.094-11(a)(1)(iv)(B) .....	heavy duty highway engine .....	0.1 g/bhp-hr.
40 CFR 89.112(a) .....	Tier 2 nonroad .....	Varies by power:
	kW<(hp<11) .....	0.80 g/kW-hr (0.60 g/bhp-hr).
	8≤kW<19 (11≤hp<25) .....	0.80 g/kW-hr (0.60 g/bhp-hr).
	19≤kW<37 (25≤hp<50) .....	0.60 g/kW-hr (0.45 g/bhp-hr).
	37≤kW<75 (50≤hp<100) .....	0.40 g/kW-hr (0.30 g/bhp-hr).
	75≤kW<130 (100≤hp<175) .....	0.30 g/kW-hr (0.22 g/bhp-hr).
	130≤kW<225 (175≤hp<300) .....	0.20 g/kW-hr (0.15 g/bhp-hr).

TABLE 72.502–1—Continued

EPA requirement	EPA category	PM limit
	225≤kW<450 (300≤hp<600) .....	0.20 g/kW-hr (0.15 g/bhp-hr).
	450≤kW<560 (600≤hp<750) .....	0.20 g/kW-hr (0.15 g/bhp-hr)
	kW≥560 (hp≥750) .....	0.20 g/kW-hr (0.15 g/bhp-hr)

NOTES: “g” means grams; “kW” means kilowatt; “hp” means horsepower; “g/kW-hr” means grams/kilowatt-hour; “g/bhp-hr” means grams/brake horsepower-hour.

(c) The requirements of this section do not apply to any diesel-powered ambulance or fire fighting equipment that is being used in accordance with the mine fire fighting and evacuation plan under § 75.1502.

[66 FR 5704, Jan. 19, 2001, as amended at 66 FR 15033, Mar. 15, 2001; 66 FR 27866, May 21, 2001; 70 FR 36347, June 23, 2005]

**§ 72.503 Determination of emissions; filter maintenance; definition of “introduced”.**

(a) MSHA will determine compliance with the emission requirements established by this part by using the amount of diesel particulate matter emitted by a particular engine determined from the engine approval pursuant to § 7.89(a)(9)(iii)(B) or § 7.89(a)(9)(iv)(A) of this title, with the exception of engines deemed to be in compliance by meeting the EPA requirements specified in Table 72.502–1 (§ 72.502(b)).

(b) Except as provided in paragraph (c) of this section, the amount by which an aftertreatment device can reduce engine emissions of diesel particulate matter as determined pursuant to paragraph (a) must be established by a laboratory test:

(1) on an approved engine which MSHA has determined, pursuant to paragraph (a) of this section, to emit no more diesel particulate matter than the engine being used in the piece of diesel-powered equipment in question;

(2) using the test cycle specified in Table E-3 of § 7.89 of this title, and following a test procedure appropriate for the filtration system, by a laboratory capable of testing engines in accordance with the requirements of Subpart E of part 7 of this title; and

(3) with an aftertreatment device representative of that being used on the piece of diesel-powered equipment in question.

(c) In lieu of the laboratory tests required by paragraph (b), the Secretary

may accept the results of tests conducted or certified by an organization whose testing standards are deemed by the Secretary to be as rigorous as those set forth by paragraph (b) of this section; and further, the Secretary may accept the results of tests for one aftertreatment device as evidencing the efficiency of another aftertreatment device which the Secretary determines to be essentially identical to the one tested.

(d) Operators must maintain in accordance with manufacturer specifications and free of observable defects, any aftertreatment device installed on a piece of diesel equipment upon which the operator relies to remove diesel particulate matter from diesel emissions.

(e) For purposes of §§ 72.500(a), 72.501(a) and 72.502(a), the term “introduced” means any piece of equipment whose engine is a new addition to the underground inventory of engines of the mine in question, including newly purchased equipment, used equipment, and equipment receiving a replacement engine that has a different serial number than the engine it is replacing. “Introduced” does not include a piece of equipment whose engine was previously part of the mine inventory and rebuilt.

**§ 72.510 Miner health training.**

(a) Operators must provide annual training to all miners at a mine who can reasonably be expected to be exposed to diesel emissions on that property. The training must include—

(1) The health risks associated with exposure to diesel particulate matter;

(2) The methods used in the mine to control diesel particulate matter concentrations;

(3) Identification of the personnel responsible for maintaining those controls; and

(4) Actions miners must take to ensure the controls operate as intended.

(b)(1) An operator must keep a record of the training at the mine site for one year after completion of the training. An operator may keep the record elsewhere if the record is immediately accessible from the mine site by electronic transmission.

(2) Upon request from an authorized representative of the Secretary of Labor, the Secretary of Health and Human Services, or from the authorized representative of miners, mine operators must promptly provide access to any such training record. Whenever an operator ceases to do business, that operator must transfer the training records, or a copy, to any successor operator who must maintain them for the required period.

**§ 72.520 Diesel equipment inventory.**

(a) The operator of each mine that utilizes diesel equipment underground, shall prepare and submit in writing to the District Manager, an inventory of diesel equipment used in the mine. The inventory shall include the number and type of diesel-powered units used underground, including make and model of unit, type of equipment, make and model of engine, serial number of engine, brake horsepower rating of engine, emissions of engine in grams per hour or grams per brake horsepower-hour, approval number of engine, make and model of aftertreatment device, serial number of aftertreatment device if available, and efficiency of aftertreatment device.

(b) The mine operator shall make changes to the diesel equipment inventory as equipment or emission control systems are added, deleted or modified and submit revisions, to the District Manager, within 7 calendar days.

(c) If requested, the mine operator shall provide a copy of the diesel equipment inventory to the representative of the miners within 3 days of the request.

**Subpart E—Miscellaneous**

**§ 72.610 Abrasive blasting.**

(a) *Surface and underground mines.* When an abrasive blasting operation is performed, all exposed miners shall

properly use respirators approved for abrasive blasting by NIOSH under 42 CFR part 84, or the operation shall be performed in a totally enclosed device with the miner outside the device.

(b) *Underground areas of underground mines.* Silica sand or other materials containing more than 1 percent free silica shall not be used as an abrasive substance in abrasive blasting.

[59 FR 8327, Feb. 18, 1994, as amended at 60 FR 30401, June 8, 1995]

**§ 72.620 Drill dust control at surface mines and surface areas of underground mines.**

Holes shall be collared and drilled wet, or other effective dust control measures shall be used, when drilling non-water-soluble material. Effective dust control measures shall be used when drilling water-soluble material.

**§ 72.630 Drill dust control at underground areas of underground mines.**

(a) Dust resulting from drilling in rock shall be controlled by use of permissible dust collectors, or by water, or water with a wetting agent, or by ventilation, or by any other method or device approved by the Secretary that is as effective in controlling the dust.

(b) *Dust collectors.* Dust collectors shall be maintained in permissible and operating condition. Dust collectors approved under Part 33—Dust Collectors for Use in Connection with Rock Drilling in Coal Mines of this title or under Bureau of Mines Schedule 25B are permissible dust collectors for the purpose of this section.

(c) *Water control.* Water used to control dust from drilling rock shall be applied through a hollow drill steel or stem or by the flooding of vertical drill holes in the floor.

(d) *Ventilation control.* To adequately control dust from drilling rock, the air current shall be so directed that the dust is readily dispersed and carried away from the drill operator or any other miners in the area.

**§ 72.700 Respiratory equipment; respirable dust.**

(a) Respiratory equipment approved by NIOSH under 42 CFR part 84 shall be

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made available to all persons as required under parts 70, 71, and 90 of this chapter. Use of respirators shall not be substituted for environmental control measures in the active workings. Each operator shall maintain an adequate supply of respiratory equipment.

(b) When required to make respirators available, the operator shall provide training prior to the miner's next scheduled work shift, unless the miner received training within the previous 12 months on the types of respirators made available. The training shall include: The care, fit, use, and limitations of each type of respirator.

(c) An operator shall keep a record of the training at the mine site for 24 months after completion of the training. An operator may keep the record elsewhere if the record is immediately accessible from the mine site by electronic transmission. Upon request from an authorized representative of the Secretary, Secretary of HHS, or representative of miners, the operator shall promptly provide access to any such training records. The record shall include:

- (1) The date of training;
- (2) The names of miners trained; and
- (3) The subjects included in the training.

[79 FR 24986, May 1, 2014]

### § 72.701 Respiratory equipment; gas, dusts, fumes, or mists.

Respiratory equipment approved by NIOSH under 42 CFR part 84 shall be provided to persons exposed for short periods to inhalation hazards from gas, dusts, fumes, or mists. When the exposure is for prolonged periods, other measures to protect such persons or to reduce the hazard shall be taken.

[79 FR 24986, May 1, 2014]

### § 72.710 Selection, fit, use, and maintenance of approved respirators.

As of April 14, 2025: Approved respirators shall be selected, fitted, used, and maintained in accordance with the provisions of a written respiratory protection program consistent with the requirements of ASTM F3387-19. ASTM F3387-19, *Standard Practice for Respiratory Protection*, approved August 1, 2019, is incorporated by reference into

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this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. This incorporation by reference (IBR) material is available for inspection at the Mine Safety and Health Administration (MSHA) and at the National Archives and Records Administration (NARA). Contact MSHA at: MSHA's Office of Standards, Regulations, and Variances, 201 12th Street South, Arlington, VA 22202-5450; (202) 693-9440; or any Mine Safety and Health Enforcement District Office. For information on the availability of this material at NARA, visit [www.archives.gov/federal-register/cfr/ibr-locations](http://www.archives.gov/federal-register/cfr/ibr-locations) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov). The material may be obtained from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959; [www.astm.org](http://www.astm.org).

[89 FR 28479, Apr. 18, 2024]

### § 72.800 Single, full-shift measurement of respirable coal mine dust.

The Secretary will use a single, full-shift measurement of respirable coal mine dust to determine the average concentration on a shift since that measurement accurately represents atmospheric conditions to which a miner is exposed during such shift. As of April 14, 2025, noncompliance with the respirable dust standard, in accordance with this subchapter, is demonstrated when a single, full-shift measurement taken by MSHA meets or exceeds the applicable ECV in table 1 to § 70.208, table 1 to § 70.209, table 1 to § 71.206, or table 1 to § 90.207 of this chapter that corresponds to the particular sampling device used. Upon issuance of a citation for a violation of the standard, and for MSHA to terminate the citation, the mine operator shall take the specified actions in this subchapter.

[89 FR 28479, Apr. 18, 2024]

## PART 74—COAL MINE DUST SAMPLING DEVICES

### Subpart A—General

Sec.

74.1 Purpose.

74.2 Definitions.