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(c) Except as provided in §75.325(j) of this chapter, when sampling results indicate a concentration of CO and/or NO_2 exceeding an action level of 50 percent of the threshold limit values (TLV®) adopted by the American Conference of Governmental Industrial Hygienists, the mine operator shall immediately take appropriate corrective action to reduce the concentrations of CO and/or NO_2 to below the applicable action level. The publication, ''Threshold Limit Values for Substance in Workroom Air'' (1972) is incorporated by reference and may be inspected at MSHA's Office of Standards, Regulations, and Variances, 201 12th Street South, Arlington, VA 22202–5452; 202–693–9440; at any MSHA Coal Mine Safety and Health District Office; 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*. 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. In addition, copies of the document may be purchased from the American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Attn: Customer Service, Cincinnati, OH 45240; 513–742–2020; *http://www.acgih.org*.

(d) A record shall be made when sampling results exceed the action level for the applicable TLV® for CO and/or NO_2. The record shall be made as part of and in the same manner as the records for hazards required by §75.363 of this chapter and include the following:

(1) Location where each sample was collected;

(2) Substance sampled and the measured concentration; and

(3) Corrective action taken to reduce the concentration of CO and/or NO_2 to or below the applicable action level.

(e) As of November 25, 1997 exhaust gas monitoring shall be conducted in accordance with the requirements of this section.

[61 FR 55526, Oct. 25, 1996, as amended at 67 FR 38385, June 4, 2002; 71 FR 16667, Apr. 3, 2006; 80 FR 52989, Sept. 2, 2015]

PART 71—MANDATORY HEALTH STANDARDS—SURFACE COAL MINES AND SURFACE WORK AREAS OF UNDERGROUND COAL MINES

Subpart A—General

Subpart B—Dust Standards

Subpart C—Sampling Procedures

Subpart D—Respirable Dust Control Plans

Subpart E—Surface Bathing Facilities, Change Rooms, and Sanitary Flush Toilet Facilities at Surface Coal Mines

Subpart F—Sanitary Toilet Facilities at Surface Worksites of Surface Coal Mines

Subpart G—Drinking Water

Subpart H—Airborne Contaminants

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

SOURCE: 37 FR 6368, Mar. 28, 1972, unless otherwise noted.

Subpart A—General

SOURCE: 79 FR 24980, May 1, 2014, unless otherwise noted.

§ 71.1 Scope.

This part 71 sets forth mandatory health standards for each surface coal mine and for the surface work areas of each underground coal mine subject to the Federal Mine Safety and Health Act of 1977, as amended.

§ 71.2 Definitions.

The following definitions apply in this part.

Act. The Federal Mine Safety and Health Act of 1977, Public Law 91–173, as amended by Public Law 95–164 and Public Law 109–236.

Active workings. Any place in a surface coal mine or the surface work area of an underground coal mine where miners are normally required to work or travel.

Approved sampling device. A sampling device approved by the Secretary and Secretary of Health and Human Services (HHS) under part 74 of this title.

Certified person. An individual certified by the Secretary in accordance with § 71.202 to take respirable dust samples required by this part or certified in accordance with § 71.203 to perform maintenance and calibration of respirable dust sampling equipment as required by this part.

Coal mine dust personal sampler unit (CMDPSU). A personal sampling device approved under part 74, subpart B, of this title.

Concentration. A measure of the amount of a substance contained per unit volume of air.

Continuous personal dust monitor (CPDM). A personal sampling device approved under part 74, subpart C, of this title.

Designated work position (DWP). A work position in a surface coal mine and surface work area of an underground coal mine designated for sampling to measure respirable dust generation sources in the active workings. Each DWP will be assigned a four-digit number assigned by MSHA identifying the specific physical portion of the mine that is affected, followed by a three-digit MSHA coal mining occupation code describing the location to which a miner is assigned in the performance of his or her regular duties.

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

Equivalent concentration. The concentration of respirable coal mine dust, including quartz, expressed in milligrams per cubic meter of air (mg/m^3) as measured with an approved sampling device, determined by dividing the weight of dust in milligrams collected on the filter of an approved sampling device by the volume of air in cubic meters passing through the filter (sampling time in minutes (t) times the sampling airflow rate in cubic meters per minute), and then converting that concentration to an equivalent concentration as measured by the Mining Research Establishment (MRE) instrument. When the approved sampling device is:

(1) The CMDPSU, the equivalent concentration is determined by multiplying the concentration of respirable coal mine dust by the constant factor prescribed by the Secretary.

(2) The CPDM, the device shall be programmed to automatically report end-of-shift concentration measurements as equivalent concentrations.

MRE instrument. The gravimetric dust sampler with a four channel horizontal elutriator developed by the Mining Research Establishment of the National Coal Board, London, England.

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

Normal work shift. (1) A shift during which the regular duties of the DWP are performed while routine day-to-day mining activities are occurring in the rest of the mine and

(2) A shift during which there is no rain, or, if rain occurs, the rain does not suppress the respirable dust to the extent that sampling results will be measurably lower, in the judgment of the person certified under this part to conduct sampling.

Quartz. Crystalline silicon dioxide (SiO_2) not chemically combined with other substances and having a distinctive physical structure.

Representative sample. A respirable dust sample, expressed as an equivalent concentration, that reflects typical dust concentration levels in the working environment of the DWP when performing normal duties.

Respirable dust. Dust collected with a sampling device approved by the Secretary and the Secretary of HHS in accordance with part 74 (Coal Mine Dust Sampling Devices) of this title.

Secretary. The Secretary of Labor or a delegate.

Surface area. A specific physical portion of a surface coal mine or surface area of an underground coal mine. These areas are assigned a four-digit identification number by MSHA.

Surface coal mine. A surface area of land and all structures, facilities, machinery, tools, equipment, excavations, and other property, real or personal, placed upon or above the surface of such land by any person, used in, or to be used in, or resulting from, the work of extracting in such area bituminous coal, lignite, or anthracite from its natural deposits in the earth by any means or method, and the work of preparing the coal so extracted, including custom coal preparation facilities.

Surface installation. Any structure in which miners work at a surface coal mine or surface work area of an underground coal mine.

Surface work area of an underground mine. The surface areas of land and all structures, facilities, machinery, tools, equipment, shafts, slopes, excavations, and other property, real or personal, placed in, upon or above the surface of such land by any person, used in, or to be used in, or resulting from, the work of extracting bituminous coal, lignite, or anthracite from its natural deposits underground by any means or method, and the work of preparing the coal so extracted, including custom coal preparation facilities.

Surface worksite. Any area in which miners work at a surface coal mine or surface work area of an underground coal mine.

Valid respirable dust sample. A respirable dust sample collected and submitted as required by this part, including any sample for which the data were electronically transmitted to MSHA, and not voided by MSHA.

Work position. An occupation identified by an MSHA three-digit code number describing a location to which a miner is assigned in the performance of his or her normal duties.

Subpart B—Dust Standards

SOURCE: 79 FR 24981, May 1, 2014, unless otherwise noted.

§ 71.100 Respirable dust standard.

Each operator shall continuously maintain the average concentration of respirable dust in the mine atmosphere during each shift to which each miner in the active workings of each mine is exposed, as measured with an approved sampling device and expressed in terms of an equivalent concentration, at or below:

(a) 2.0 milligrams of respirable dust per cubic meter of air (mg/m^3).

(b) 1.5 mg/m^3 as of August 1, 2016.

§ 71.101 Respirable dust standard when quartz is present.

(a) Each operator shall continuously maintain the average concentration of respirable quartz dust in the mine atmosphere during each shift to which each miner in the active workings of each mine is exposed at or below 0.1 mg/m^3 (100 micrograms per cubic meter or $\mu g/m^3$) as measured with an approved sampling device and expressed in terms of an equivalent concentration.

(b) When the equivalent concentration of respirable quartz dust exceeds 100 $\mu g/m^3$, the operator shall continuously maintain the average concentration of respirable dust in the mine atmosphere during each shift to which

each miner in the active workings is exposed as measured with an approved sampling device and expressed in terms of an equivalent concentration at or below the applicable standard. The applicable standard is computed by dividing the percent of quartz into the number 10. The application of this formula shall not result in the applicable standard that exceeds the standard established by § 71.100(a) of this section.

Example: Assume the sampled DWP is on a 1.5-mg/m^3 dust standard. Suppose a valid representative dust sample with an equivalent concentration of 1.09 mg/m^3 contains 16.7% of quartz dust, which corresponds to a quartz concentration of 182 μg/m^3. Therefore, the average concentration of respirable dust in the mine atmosphere associated with that DWP shall be maintained on each shift at or below 0.6 mg/m^3 (10/16.7% = 0.6 mg/m^3).

Subpart C—Sampling Procedures

SOURCE: 79 FR 24982, May 1, 2014, unless otherwise noted.

§ 71.201 Sampling; general and technical requirements.

(a) Each operator shall take representative samples of the concentration of respirable dust in the active workings of the mine as required by this part only with an approved CMDPSU. On February 1, 2016, the operator may use an approved CPDM if the operator notifies the District Manager in writing that only an approved CPDM will be used for all DWP sampling at the mine. The notification must be received at least 90 days before the beginning of the quarter in which CPDMs will be used to collect the DWP samples.

(b) Sampling devices shall be worn or carried directly to and from the DWP to be sampled. Sampling devices shall remain with the DWP and shall be operational during the entire shift, which includes the total time spent in the DWP and while traveling to and from the DWP being sampled. If the work shift to be sampled is longer than 12 hours and the sampling device is:

(1) A CMDPSU, the operator shall switch-out the unit's sampling pump prior to the 13th-hour of operation.

(2) A CPDM, the operator shall switch-out the CPDM with a fully charged device prior to the 13th-hour of operation.

(c) If using a CMDPSU, one control filter shall be used for each shift of sampling. Each control filter shall:

(1) Have the same pre-weight data (noted on the dust data card) as the filters used for sampling;

(2) Remain plugged at all times;

(3) Be used for the same amount of time, and exposed to the same temperature and handling conditions as the filters used for sampling; and

(4) Be kept with the exposed samples after sampling and in the same mailing container when transmitted to MSHA.

(d) Records showing the length of each normal work shift for each DWP shall be made and retained for at least six months and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners, and submitted to the District Manager when requested in writing.

(e) Upon request from the District Manager, the operator shall submit the date and time any respirable dust sampling required by this part will begin. This information shall be submitted at least 48 hours prior to scheduled sampling.

(f) Upon written request by the operator, the District Manager may waive the rain restriction for a normal work shift as defined in § 71.2 for a period not to exceed two months, if the District Manager determines that:

(1) The operator will not have reasonable opportunity to complete the respirable dust sampling required by this part without the waiver because of the frequency of rain; and

(2) The operator did not have reasonable opportunity to complete the respirable dust sampling required by this part prior to requesting the waiver.

(g) Operators using CPDMs shall provide training to all miners expected to wear the CPDM. The training shall be completed prior to a miner wearing the CPDM and then every 12 months thereafter. The training shall include:

(1) The importance of monitoring dust concentrations and properly wearing the CPDM;

(2) Explaining the basic features and capabilities of the CPDM;

(3) Discussing the various types of information displayed by the CPDM and how to access that information; and

(4) How to start and stop a short-term sample run during compliance sampling.

(h) An operator shall keep a record of the CPDM 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.

§ 71.202 Certified person; sampling.

(a) The respirable dust sampling required by this part shall be performed by a certified person.

(b) To be certified, a person shall complete the applicable MSHA course of instruction and pass the MSHA examination demonstrating competency in sampling procedures. Persons not certified in sampling, and those certified only in maintenance and calibration procedures in accordance with § 71.203(b), are not permitted to collect respirable dust samples required by this part or handle approved sampling devices when being used in sampling.

(c) To maintain certification, a person must pass the MSHA examination demonstrating competency in sampling procedures every three years.

(d) MSHA may revoke a person's certification for failing to properly carry out the required sampling procedures.

§ 71.203 Certified person; maintenance and calibration.

(a) Approved sampling devices shall be maintained and calibrated by a certified person.

(b) To be certified, a person shall complete the applicable MSHA course of instruction and pass the MSHA examination demonstrating competency in maintenance and calibration procedures for approved sampling devices. Necessary maintenance of the sampling head assembly of a CMDPSU, or the cyclone assembly of a CPDM, can be performed by persons certified in sampling or maintenance and calibration.

(c) To maintain certification, a person must pass the MSHA examination demonstrating competency in maintenance and calibration procedures every three years.

(d) MSHA may revoke a person's certification for failing to properly carry out the required maintenance and calibration procedures.

§ 71.204 Approved sampling devices; maintenance and calibration.

(a) Approved sampling devices shall be maintained as approved under part 74 of this chapter and calibrated in accordance with MSHA Informational Report IR 1240 (1996) ''Calibration and Maintenance Procedures for Coal Mine Respirable Dust Samplers'' or in accordance with the manufacturer's recommendations if using a CPDM. Only persons certified in maintenance and calibration can perform maintenance work on the CPDM or on the pump unit of the CMDPSU.

(b) Sampling devices shall be calibrated at the flowrate of 2.0 liters of air per minute (L/min) if using a CMDPSU, or at 2.2 L/min if using a CPDM, or at a different flowrate recommended by the manufacturer, before they are put into service and, thereafter, at time intervals recommended by the manufacturer or prescribed by the Secretary or Secretary of HHS.

(c) If using a CMDPSU, sampling devices shall be examined and tested by a person certified in sampling or in maintenance and calibration within 3 hours before the start of the shift on which the approved sampling devices will be used to collect respirable dust samples. This is to assure that the sampling devices are clean and in proper working condition. This examination and testing shall include the following:

(1) Examination of all components of the cyclone assembly to assure that they are clean and free of dust and dirt. This includes examining the interior of the connector barrel (located between

the cassette assembly and vortex finder), vortex finder, cyclone body, and grit pot;

(2) Examination of the inner surface of the cyclone body to assure that it is free of scoring or scratch marks on the inner surface of the cyclone where the air flow is directed by the vortex finder into the cyclone body;

(3) Examination of the external hose connecting the pump unit to the sampling head assembly to assure that it is clean and free of leaks; and

(4) Examination of the clamping and positioning of the cyclone body, vortex finder, and cassette to assure that they are rigid, in alignment, firmly in contact, and airtight.

(5) Testing the voltage of each battery while under actual load to assure the battery is fully charged. This requires that a fully assembled and examined sampling head assembly be attached to the pump inlet with the pump unit running when the voltage check is made. The voltage for the batteries used in the CMDPSU shall not be lower than the product of the number of cells in the battery multiplied by the manufacturer's nominal voltage per cell value.

(d) If using a CPDM, the certified person in sampling or in maintenance and calibration shall:

(1) Follow the pre-operational examinations, testing, and set-up procedures, and perform necessary external maintenance recommended by the manufacturer to assure the operational readiness of the CPDM within 3 hours before the start of the shift on which the sampling devices will be used to collect respirable dust samples; and

(2) Perform other required scheduled examinations and maintenance procedures recommended by the manufacturer.

(e) You must proceed in accordance with ''Calibration and Maintenance Procedures for Coal Mine Respirable Dust Samplers,'' MSHA Informational Report IR 1240 (1996), referenced in paragraph (a) of this section. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy from the MSHA Web site at *http://www.msha.gov* and you may inspect or obtain a copy at MSHA, Coal Mine Safety and Health, 201 12th Street South, Arlington, VA 22202–5452; 202–693–9500; and at each MSHA Coal Mine Safety and Health District Office, 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.*

[79 FR 24982, May 1, 2014, as amended at 80 FR 52989, Sept. 2, 2015]

§ 71.205 Approved sampling devices; operation; air flowrate.

(a) Approved sampling devices shall be operated at the flowrate of 2.0 L/min, if using a CMDPSU; at 2.2 L/min, if using a CPDM; or at a different flowrate recommended by the manufacturer.

(b) If using a CMDPSU, each sampling device shall be examined each shift by a person certified in sampling during:

(1) The second hour after being put into operation to assure it is in the proper location, operating properly, and at the proper flowrate. If the proper flowrate is not maintained, necessary adjustments shall be made by the certified person.

(2) The last hour of operation to assure that it is operating properly and at the proper flowrate. If the proper flowrate is not maintained, the respirable dust sample shall be transmitted to MSHA with a notation by the certified person on the back of the dust data card stating that the proper flowrate was not maintained. Other events occurring during the collection of respirable dust samples that may affect the validity of the sample, such as dropping of the sampling head assembly onto the mine floor, shall be noted on the back of the dust data card.

(c) If using a CPDM, the person certified in sampling shall monitor the dust concentrations and the sampling status conditions being reported by the sampling device at mid-shift or more frequently as specified in the approved respirable dust control plan, if applicable, to assure: The sampling device is in the proper location and operating properly; and the work environment of

the occupation being sampled remains in compliance with the applicable standard at the end of the shift.

§ 71.206 Quarterly sampling; designated work positions.

(a) Each operator shall take one valid representative sample from the DWP during each quarterly period. The quarterly periods are:
January 1–March 31
April 1–June 30
July 1–September 30
October 1–December 31.

(b) When the respirable dust standard is changed in accordance with § 71.101, the new applicable standard shall become effective 7 calendar days after the date of the notification of the change by MSHA.

(c) Designated work position samples shall be collected at locations to measure respirable dust generation sources in the active workings. The specific work positions at each mine where DWP samples shall be collected include:

(1) Each highwall drill operator (MSHA occupation code 384);

(2) Bulldozer operators (MSHA occupation code 368); and

(3) Other work positions designated by the District Manager for sampling in accordance with § 71.206(m).

(d) Operators with multiple work positions specified in paragraph (c)(2) and (c)(3) of this section shall sample the DWP exposed to the greatest respirable dust concentration in each work position performing the same activity or task at the same location at the mine and exposed to the same dust generation source. Each operator shall provide the District Manager with a list identifying the specific work positions where DWP samples will be collected for:

(1) Active mines—by October 1, 2014.

(2) New mines—Within 30 calendar days of mine opening.

(3) DWPs with a change in operational status that increases or reduces the number of active DWPs—within 7 calendar days of the change in status.

(e) Each DWP sample shall be taken on a normal work shift. If a normal work shift is not achieved, the respirable dust sample shall be transmitted to MSHA with a notation by the person certified in sampling on the back of the dust data card stating that the sample was not taken on a normal work shift. When a normal work shift is not achieved, the sample for that shift may be voided by MSHA. However, any sample, regardless of whether a normal work shift was achieved, that exceeds the applicable standard by at least 0.1 mg/m^3 shall be used in the determination of the equivalent concentration for that occupation.

(f) Unless otherwise directed by the District Manager, DWP samples shall be taken by placing the sampling device as follows:

(1) *Equipment operator:* On the equipment operator or on the equipment within 36 inches of the operator's normal working position.

(2) *Non-equipment operators:* On the miner assigned to the DWP or at a location that represents the maximum concentration of dust to which the miner is exposed.

(g) Upon notification from MSHA that any valid representative sample taken from a DWP to meet the requirements of paragraph (a) of this section exceeds the applicable standard, the operator shall, within 15 calendar days of notification, sample that DWP each normal work shift until five valid representative samples are taken. The operator shall begin sampling on the first normal work shift following receipt of notification.

(h) When a valid representative sample taken in accordance with this section meets or exceeds the excessive concentration value (ECV) in Table 71–1 that corresponds to the applicable standard and particular sampling device used, the operator shall:

(1) Make approved respiratory equipment available to affected miners in accordance with § 72.700 of this chapter;

(2) Immediately take corrective action to lower the concentration of respirable coal mine dust to at or below the applicable standard; and

(3) Make a record of the corrective actions taken. The record shall be certified by the mine foreman or equivalent mine official, no later than the end of the mine foreman's or equivalent official's next regularly scheduled working shift. The record shall be

made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration. Such records shall be retained at a surface location at the mine for at least 1 year and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners.

(i) Noncompliance with the applicable standard is demonstrated during the sampling period when:

(1) Two or more valid representative samples meet or exceed the ECV in Table 71–1 that corresponds to the applicable standard and the particular sampling device used; or

(2) The average for all valid representative samples meets or exceeds the ECV in Table 71–2 that corresponds to the applicable standard and the particular sampling device used.

(j) Unless otherwise directed by the District Manager, upon issuance of a citation for a violation of the applicable standard, paragraph (a) of this section shall not apply to that DWP until the violation is abated and the citation is terminated in accordance with paragraphs (k) and (l) of this section.

(k) Upon issuance of a citation for violation of the applicable standard, the operator shall take the following actions sequentially:

(1) Make approved respiratory equipment available to affected miners in accordance with § 72.700 of this chapter;

(2) Immediately take corrective action to lower the concentration of respirable coal mine dust to at or below the applicable standard; and

(3) Make a record of the corrective actions taken. The record shall be certified by the mine foreman or equivalent mine official, no later than the end of the mine foreman's or equivalent official's next regularly scheduled working shift. The record shall be made in a secure book that is not susceptible to alteration or electronically in a computer system so as to be secure and not susceptible to alteration. Such records shall be retained at a surface location at the mine for at least 1 year and shall be made available for inspection by authorized representatives of the Secretary and the representative of miners.

(4) Begin sampling, within 8 calendar days after the date the citation is issued, the environment of the affected DWP on consecutive normal work shifts until five valid representative samples are taken.

(l) A citation for violation of the applicable standard shall be terminated by MSHA when the equivalent concentration of each of the five valid representative samples is at or below the applicable standard.

TABLE 71–1—EXCESSIVE CONCENTRATION VALUES (ECV) BASED ON SINGLE, FULL-SHIFT CMDPSU/CPDM CONCENTRATION MEASUREMENTS

Applicable standard (mg/m^3)	ECV (mg/m^3)	
	CMDPSU	CPDM
2.0	2.33	2.26
1.9	2.22	2.15
1.8	2.12	2.04
1.7	2.01	1.92
1.6	1.90	1.81
1.5	1.79	1.70
1.4	1.69	1.58
1.3	1.59	1.47
1.2	1.47	1.36
1.1	1.37	1.25
1.0	1.26	1.13
0.9	1.16	1.02
0.8	1.05	0.91
0.7	0.95	0.79
0.6	0.85	0.68
0.5	0.74	0.57
0.4	0.65	0.46
0.3	0.54	0.34
0.2	0.44	0.23

TABLE 71–2—EXCESSIVE CONCENTRATION VALUES (ECV) BASED ON THE AVERAGE OF 5 FULL-SHIFT CMDPSU/CPDM CONCENTRATION MEASUREMENTS

Applicable standard (mg/m^3)	ECV (mg/m^3)	
	CMDPSU	CPDM
2.0	2.15	2.12
1.9	2.05	2.01
1.8	1.94	1.91
1.7	1.84	1.80
1.6	1.74	1.70
1.5	1.63	1.59
1.4	1.53	1.49
1.3	1.43	1.38
1.2	1.33	1.27
1.1	1.22	1.17
1.0	1.12	1.06
0.9	1.02	0.96
0.8	0.92	0.85
0.7	0.81	0.75
0.6	0.71	0.64
0.5	0.61	0.53
0.4	0.51	0.43
0.3	0.41	0.32

TABLE 71–2—EXCESSIVE CONCENTRATION VALUES (ECV) BASED ON THE AVERAGE OF 5 FULL-SHIFT CMDPSU/CPDM CONCENTRATION MEASUREMENTS—Continued

Applicable standard (mg/m^3)	ECV (mg/m^3)	
	CMDPSU	CPDM
0.2	0.31	0.22

(m) The District Manager may designate for sampling under this section additional work positions at a surface coal mine and at a surface work area of an underground coal mine where a concentration of respirable dust exceeding 50 percent of the standard in effect at the time the sample is taken, or a concentration of respirable dust exceeding 50 percent of the standard established in accordance with §71.101, has been measured by one or more MSHA valid representative samples.

(n) The District Manager may withdraw from sampling any DWP designated for sampling under paragraph (m) of this section upon finding that the operator is able to maintain continuing compliance with the applicable standard. This finding shall be based on the results of MSHA and operator valid representative samples taken during at least a 12-month period.

§ 71.207 Respirable dust samples; transmission by operator.

(a) If using a CMDPSU, the operator shall transmit within 24 hours after the end of the sampling shift all samples collected to fulfill the requirements of this part, including control filters, in containers provided by the manufacturer of the filter cassette to: Respirable Dust Processing Laboratory, Pittsburgh Safety and Health Technology Center, 626 Cochrans Mill Road, Building 38, Pittsburgh, PA 15236–3611, or to any other address designated by the District Manager.

(b) The operator shall not open or tamper with the seal of any filter cassette or alter the weight of any filter cassette before or after it is used to fulfill the requirements of this part.

(c) A person certified in sampling shall properly complete the dust data card that is provided by the manufacturer for each filter cassette. The card shall have an identification number identical to that on the cassette used to take the sample and be submitted to MSHA with the sample. Each card shall be signed by the certified person who actually performed the required examinations under 71.205(b) of this part during the sampling shift and shall include that person's MSHA Individual Identification Number (MIIN). Respirable dust samples with data cards not properly completed may be voided by MSHA.

(d) All respirable dust samples collected by the operator shall be considered taken to fulfill the sampling requirements of part 70, 71, or 90 of this title, unless the sample has been identified in writing by the operator to the District Manager, prior to the intended sampling shift, as a sample to be used for purposes other than required by part 70, 71, or 90 of this title.

(e) Respirable dust samples received by MSHA in excess of those required by this part shall be considered invalid samples.

(f) If using a CPDM, the person certified in sampling shall (1) validate, certify, and transmit electronically to MSHA within 24 hours after the end of each sampling shift all sample data file information collected and stored in the CPDM, including the sampling status conditions encountered when sampling each DWP; and (2) not tamper with the CPDM or its components in any way before, during, or after it is used to fulfill the requirements of this part, or alter any sample data files. All CPDM data files transmitted electronically to MSHA shall be maintained by the operator for at least 12 months.

[79 FR 24982, May 1, 2014, as amended at 80 FR 52989, Sept. 2, 2015]

§ 71.208 Respirable dust samples; report to operator; posting.

(a) MSHA shall provide the operator, as soon as practicable, a report with the following data on respirable dust samples submitted or whose results were transmitted electronically, if using a CPDM, in accordance with this part:

(1) The mine identification number;

(2) The DWP at the mine from which the samples were taken;

(3) The concentration of respirable dust, expressed as an equivalent concentration for each valid sample;

(4) The average equivalent concentration of respirable dust for all valid samples;

(5) The occupation code; and

(6) The reason for voiding any sample.

(b) Upon receipt, the operator shall post this data for at least 31 days on the mine bulletin board.

(c) If using a CPDM, the person certified in sampling shall, within 12 hours after the end of each sampling shift, print, sign, and post on the mine bulletin board a paper record (Dust Data Card) of each sample run. This hard-copy record shall include the data entered when the sample run was first programmed, and the following:

(1) The mine identification number;

(2) The DWP at the mine from which the samples were taken;

(3) The concentration of respirable dust, expressed as an equivalent concentration reported and stored for each sample;

(4) The sampling status conditions encountered for each sample; and

(5) The shift length.

(d) The information required by paragraph (c) of this section shall remain posted until receipt of the MSHA report covering these respirable dust samples.

§ 71.209 Status change reports.

(a) If there is a change in operational status that affects the respirable dust sampling requirements of this part, the operator shall report the change in operational status of the mine or DWP to the MSHA District Office or to any other MSHA office designated by the District Manager. Status changes shall be reported in writing or electronically within 3 working days after the status change has occurred.

(b) Each specific operational status is defined as follows:

(1) Underground mine:

(i) Producing—has at least one mechanized mining unit producing material.

(ii) Nonproducing—no material is being produced.

(iii) Abandoned—the work of all miners has been terminated and production activity has ceased.

(2) Surface mine:

(i) Producing—normal activity is occurring and coal is being produced or processed or other material or equipment is being handled or moved.

(ii) Nonproducing—normal activity is not occurring and coal is not being produced or processed, and other material or equipment is not being handled or moved.

(iii) Abandoned—the work of all miners has been terminated and all activity has ceased.

(3) DWP:

(i) Producing—normal activity is occurring.

(ii) Nonproducing—normal activity is not occurring.

(iii) Abandoned—the dust generating source has been withdrawn and activity has ceased.

Subpart D—Respirable Dust Control Plans

SOURCE: 79 FR 24985, May 1, 2014, unless otherwise noted.

§ 71.300 Respirable dust control plan; filing requirements.

(a) Within 15 calendar days after the termination date of a citation for violation of the applicable standard, the operator shall submit to the District Manager for approval a written respirable dust control plan applicable to the DWP identified in the citation. The respirable dust control plan and revisions thereof shall be suitable to the conditions and the mining system of the coal mine and shall be adequate to continuously maintain respirable dust to at or below the applicable standard at the DWP identified in the citation.

(1) The mine operator shall notify the representative of miners at least 5 days prior to submission of a respirable dust control plan and any revision to a dust control plan. If requested, the mine operator shall provide a copy to the representative of miners at the time of notification;

(2) A copy of the proposed respirable dust control plan, and a copy of any

proposed revision, submitted for approval shall be made available for inspection by the representative of miners; and

(3) A copy of the proposed respirable dust control plan, and a copy of any proposed revision, submitted for approval shall be posted on the mine bulletin board at the time of submittal. The proposed plan or proposed revision shall remain posted until it is approved, withdrawn, or denied.

(4) Following receipt of the proposed plan or proposed revision, the representative of miners may submit timely comments to the District Manager, in writing, for consideration during the review process. Upon request, a copy of these comments shall be provided to the operator by the District Manager.

(b) Each respirable dust control plan shall include at least the following:

(1) The mine identification number and DWP number assigned by MSHA, the operator's name, mine name, mine address, and mine telephone number and the name, address, and telephone number of the principal officer in charge of health and safety at the mine;

(2) The specific DWP at the mine to which the plan applies;

(3) A detailed description of the specific respirable dust control measures used to abate the violation of the respirable dust standard; and

(4) A detailed description of how each of the respirable dust control measures described in response to paragraph (b)(3) of this section will continue to be used by the operator, including at least the specific time, place and manner the control measures will be used.

§ 71.301 Respirable dust control plan; approval by District Manager and posting.

(a) The District Manager will approve respirable dust control plans on a mine-by-mine basis. When approving respirable dust control plans, the District Manager shall consider whether:

(1) The respirable dust control measures would be likely to maintain concentrations of respirable coal mine dust at or below the applicable standard; and

(2) The operator's compliance with all provisions of the respirable dust control plan could be objectively ascertained by MSHA.

(b) MSHA may take respirable dust samples to determine whether the respirable dust control measures in the operator's plan effectively maintain concentrations of respirable coal mine dust at or below the applicable standard.

(c) The operator shall comply with all provisions of each respirable dust control plan upon notice from MSHA that the respirable dust control plan is approved.

(d) The approved respirable dust control plan and any revisions shall be:

(1) Provided upon request to the representative of miners by the operator following notification of approval;

(2) Made available for inspection by the representative of miners; and

(3) Posted on the mine bulletin board within 1 working day following notification of approval, and shall remain posted for the period that the plan is in effect.

(e) The operator may review respirable dust control plans and submit proposed revisions to such plans to the District Manager for approval.

Subpart E—Surface Bathing Facilities, Change Rooms, and Sanitary Flush Toilet Facilities at Surface Coal Mines

§ 71.400 Bathing facilities; change rooms; sanitary flush toilet facilities.

Each operator of a surface coal mine shall provide bathing facilities, clothing change rooms, and sanitary flush toilet facilities, as hereinafter prescribed, for the use of miners employed in the surface installations and at the surface worksites of such mine. (NOTE: Sanitary facilities at surface work areas of underground mines are subject to the provisions of §75.1712 of this chapter *et seq.*)

§ 71.401 Location of facilities.

Bathhouses, change rooms, and sanitary flush toilet facilities shall be in a location convenient for the use of the miners. Where these facilities are designed to serve more than one mine,

they shall be centrally located so as to be convenient for the use of all miners served by the facilities.

§ 71.402 Minimum requirements for bathing facilities, change rooms, and sanitary flush toilet facilities.

(a) All bathing facilities, change rooms, and sanitary flush toilet facilities shall be provided with adequate light, heat, and ventilation so as to maintain a comfortable air temperature and to minimize the accumulation of moisture and odors, and the facilities shall be maintained in a clean and sanitary condition.

(b) Bathing facilities, change rooms, and sanitary flush toilet facilities shall be constructed and equipped so as to comply with applicable State and local building codes. However, where no State or local building codes apply to these facilities, or where no State or local building codes exist, the facilities shall be constructed and equipped so as to meet the minimum construction requirements in the National Building Code (1967 edition) and the plumbing requirements in the National Plumbing Code (ASA A40.8–1955), which documents are hereby incorporated by reference and made a part hereof. These documents are available for examination at MSHA's Office of Standards, Regulations, and Variances, 201 12th Street South, Arlington, VA 22202–5452; 202–693–9440; and at every MSHA Coal Mine Safety and Health District Office. Copies of the National Plumbing Code (ASA A40.8–1955) may be purchased from the American National Standards Institute, Inc., 25 W. 43rd Street, 4th Floor, New York, NY 10036; *http://www.ansi.org*.

(c) In addition to the minimum requirements specified in paragraphs (a) and (b) of this section, facilities maintained in accordance with § 71.400 shall include the following:

(1) *Bathing facilities.* (i) Showers shall be provided with both hot and cold water.

(ii) At least one shower head shall be provided where five or less miners use such showers.

(iii) Where five or more miners use such showers, sufficient showers shall be furnished to provide approximately one shower head for each five miners.

(iv) A suitable nonirritating cleansing agent shall be provided for use at each shower.

(2) *Sanitary flush toilet facilities.* (i) At least one sanitary flush toilet shall be provided where 10 or less miners use such toilet facilities.

(ii) Where 10 or more miners use such toilet facilities, sufficient flush toilets shall be furnished to provide approximately one sanitary flush toilet for each 10 miners.

(iii) Where 30 or more miners use toilet facilities, one urinal may be substituted for one flush toilet, however, where such substitutions are made they shall not reduce the number of toilets below a ratio of two flush toilets to one urinal.

(iv) An adequate supply of toilet paper shall be provided with each toilet.

(v) Adequate handwashing facilities or hand lavatories shall be provided in or adjacent to each toilet facility.

(3) *Change rooms.* (i) Individual clothes storage containers or lockers shall be provided for storage of miners' clothing and other incidental personal belongings during and between shifts.

(ii) Change rooms shall be provided with sample space to permit the use of such facilities by all miners changing clothes prior to and after each shift.

[37 FR 6368, Mar. 28, 1972, as amended at 43 FR 12319, Mar. 24, 1978; 67 FR 38385, June 4, 2002; 71 FR 16668, Apr. 3, 2006; 80 FR 52989, Sept. 2, 2015]

§ 71.403 Waiver of surface facilities requirements; posting of waiver.

(a) The Coal Mine Health and Safety District Manager for the district in which the mine is located, after consultation with the appropriate Regional Program Director, National Institute for Occupational Safety and Health, may, upon written application by the operator, and after consideration of any comments filed within 30 days after receipt of the application, waive any or all of the requirements for §§ 71.400 through 71.402 for a period not to exceed 1 year if he determines that—

(1) The operator is providing or making available, under arrangements with one or more third parties, facilities

which are at least equivalent to those required by the standards, or

(2) It is impractical for the operator to meet the requirement(s) or provide the facility (facilities) for which the waiver is sought.

(b) The waiver shall be in writing and shall set forth the requirement(s) which the operator will not be required to meet or the facilities which the operator will not be required to provide and the specific reason or reasons for such waiver.

(c) Upon receipt of any waiver, the operator shall post a copy of the waiver for at least 30 days on the mine bulletin board required by section 107(a) of the Act.

(d) An extension of the waiver at the end of 1 year may be sought by the operator by filing an application pursuant to § 71.404 no later than 30 days nor more than 60 days prior to the expiration date of the waiver.

(Pub. L. No. 96–511, 94 Stat. 2812 (44 U.S.C. 3501 *et seq.*))

[37 FR 6368, Mar. 28, 1972, as amended at 47 FR 14696, Apr. 6, 1982; 60 FR 33723, June 29, 1995]

§ 71.404 Application for waiver of surface facilities requirements.

(a) Application for waivers of any requirements of §§ 71.400 through 71.402 shall be in writing, filed with the appropriate Coal Mine Health and Safety District Manager, and shall contain the following information:

(1) The name and address of the mine operator,

(2) The name and location of the mine, and

(3) A detailed statement of the grounds upon which the waiver is requested and the period of time for which it is requested.

(b) At the same time the application is sent to the District Manager, a copy of the application shall be forwarded to the appropriate Regional Program Director, National Institute for Occupational Safety and Health by the operator, and a copy showing the addresses of the appropriate District Manager and Regional Program Director shall be posted by the operator for at least 30 days on the mine bulletin board required by section 107(a) of the Act.

Subpart F—Sanitary Toilet Facilities at Surface Worksites of Surface Coal Mines

§ 71.500 Sanitary toilet facilities at surface work sites; installation requirements.

(a) Each operator of a surface coal mine shall provide and install at least one sanitary toilet in a location convenient to each surface work site. A single sanitary toilet may serve two or more surface work sites in the same surface mine where the sanitary toilet is convenient to each such work site.

(b) Where 10 or more miners use such toilet facilities, sufficient toilets shall be furnished to provide approximately one sanitary toilet for each 10 miners.

(c) Sanitary toilets shall have an attached toilet seat with a hinged lid and a toilet paper holder together with an adequate supply of toilet tissue.

(d) Only flush or nonflush chemical or biological toilets, combustion or incinerating toilets, sealed bag toilets, and vault toilets meet the requirements of this section. Privies are prohibited.

NOTE TO PARAGRAPH (d): Sanitary toilet facilities for surface work areas of underground mines are subject to the provisions of § 75.1712–3 of this chapter.)

[68 FR 37087, June 23, 2003]

§ 71.501 Sanitary toilet facilities; maintenance.

Sanitary toilets provided in accordance with the provisions of § 71.500 shall be regularly maintained in a clean and sanitary condition. Holding tanks shall be serviced and cleaned when full and in no case less than once each week when in use by draining or pumping or by removing them for cleaning and recharging. Transfer tanks and transfer equipment, if used, shall be equipped with suitable fittings to permit complete draining without spillage and allow for the sanitary transportation of wastes. Waste shall be disposed of in accordance with State and local laws and regulations.

Subpart G—Drinking Water

§ 71.600 Drinking water; general.

An adequate supply of potable water shall be provided for drinking purposes in each surface installation and at each surface worksite of the mine.

§ 71.601 Drinking water; quality.

(a) Potable water provided in accordance with the provisions of § 71.600 shall meet the applicable minimum health requirements for drinking water established by the State or community in which the mine is located.

(b) Where no such requirements are applicable, the drinking water provided shall conform to the Public Health Service Drinking Water Standards, 42 CFR part 72, subpart J.

§ 71.602 Drinking water; distribution.

(a) Water shall be piped or transported in sanitary containers. Water systems and appurtenances thereto shall be constructed and maintained in accordance with State and local requirements. Where no such requirements are applicable, water systems and appurtenances shall be constructed and maintained in accordance with the National Plumbing Code (ASA A40.8—1955) which is hereby incorporated by reference and made a part hereof. (For information as to the availability of this code, see § 71.402(b).)

(b) Water transported to the site shall be carried, stored and otherwise protected in sanitary containers constructed of smooth, impervious, heavy gauge, corrosion resistant materials. The containers shall be marked with the words ''Drinking Water.''

§ 71.603 Drinking water; dispensing requirements.

(a) Water shall be dispensed through a drinking fountain or from a water storage container with an adequate supply of single service cups stored in a clean, sanitary manner. Water shall not be dipped from inside water storage containers. Use of a common drinking cup is prohibited.

(b) Water containers shall remain sealed at all times during use and shall not be refilled with water for reuse without first being cleaned and disinfected with the use of heat or sanitizers.

(c) Drinking fountains from which water is dispensed shall be thoroughly cleaned once each week.

(d) Ice used for cooling drinking water shall not be immersed or in direct contact with the water to be cooled, unless it has been handled in a sanitary manner and unless the ice is made from the same source as the drinking water or from water of a quality equal to the source of the drinking water.

Subpart H—Airborne Contaminants

§ 71.700 Inhalation hazards; threshold limit values for gases, dust, fumes, mists, and vapors.

(a) No operator of an underground coal mine and no operator of a surface coal mine may permit any person working at a surface installation or surface worksite to be exposed to airborne contaminants (other than respirable coal mine dust, respirable dust containing quartz, and asbestos dust) in excess of, on the basis of a time-weighted average, the threshold limit values adopted by the American Conference of Governmental Industrial Hygienists in ''Threshold Limit Values of Airborne Contaminants'' (1972), which is hereby incorporated by reference and made a part hereof. Excursions above the listed threshold limit values shall not be of greater magnitude than is characterized as permissible by the conference. This paragraph does not apply to airborne contaminants given a ''C'' designation by the conference in the document. This document is available for examination at MSHA's Office of Standards, Regulations, and Variances, 201 12th Street South, Arlington, VA 22202–5452; 202–693–9440; and at every MSHA Coal Mine Safety and Health District Office. Copies of the document may be purchased from the American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Attn: Customer Service, Cincinnati, OH 45240; 513–742–2020; *http://www.acgih.org*.

(b) All persons, including employees, shall be withdrawn from any area in which there is a concentration of an

airborne contaminant given a ''C'' designation by the Conference which exceeds the threshold limit value (ceiling ''C'' limit) listed for that contaminant.

[37 FR 6368, Mar. 28, 1972, as amended at 39 FR 17101, May 13, 1974; 43 FR 12319, Mar. 24, 1978. Redesignated at 45 FR 80756, Dec. 5, 1980, as amended at 67 FR 38385, June 4, 2002; 71 FR 16668, Apr. 3, 2006; 80 FR 52990, Sept. 2, 2015]

§ 71.701 Sampling; general requirements.

(a) Air samples will be taken by the Secretary and will be analyzed to determine the concentrations of noxious or poisonous gases, dusts, fumes, mists, and vapors in surface installations and at surface worksites.

(b) Upon written notification by the Secretary to the operator of an underground coal mine or of a surface coal mine, the operator shall conduct any additional air sampling tests and analyses as the Secretary may from time to time require in order to ensure compliance with the standards set forth in § 71.700 in each surface installation and at each surface worksite.

(c) Where concentrations of airborne contaminants in excess of the applicable threshold limit values, permissible exposure limits, or permissible excursions are known by the operator to exist in a surface installation or at a surface worksite, the operator shall immediately provide necessary control measures to assure compliance with § 71.700 or § 71.702, as applicable.

(d) Where the operator has reasonable grounds to believe that concentrations of airborne contaminants in excess of the applicable threshold limit values, permissible exposure limits, or permissible excursions exist, or are likely to exist, the operator shall promptly conduct appropriate air sampling tests to determine the concentration of any airborne contaminant which may be present and immediately provide the necessary control measures to assure compliance with § 71.700 or § 71.702, as applicable.

[37 FR 6368, Mar. 28, 1972. Redesignated at 45 FR 80756, Dec. 5, 1980; 73 FR 11304, Feb. 29, 2008]

§ 71.702 Asbestos standard.

(a) *Definitions.* Asbestos is a generic term for a number of asbestiform hydrated silicates that, when crushed or processed, separate into flexible fibers made up of fibrils.

Asbestos means chrysotile, cummingtonite-grunerite asbestos (amosite), crocidolite, anthophylite asbestos, tremolite asbestos, and actinolite asbestos.

Asbestos fiber means a fiber of asbestos that meets the criteria of a fiber.

Fiber means a particle longer than 5 micrometers (μm) with a length-to-diameter ratio of at least 3-to-1.

(b) *Permissible Exposure Limits (PELs)*—(1) *Full-shift limit.* A miner's personal exposure to asbestos shall not exceed an 8-hour time-weighted average full-shift airborne concentration of 0.1 fiber per cubic centimeter of air (f/cc).

(2) *Excursion limit.* No miner shall be exposed at any time to airborne concentrations of asbestos in excess of 1 fiber per cubic centimeter of air (f/cc) as averaged over a sampling period of 30 minutes.

(c) *Measurement of airborne asbestos fiber concentration.* Potential asbestos fiber concentration shall be determined by phase contrast microscopy (PCM) using the OSHA Reference Method in OSHA's asbestos standard found in 29 CFR 1910.1001, Appendix A, or a method at least equivalent to that method in identifying a potential asbestos exposure exceeding the 0.1 f/cc full-shift limit or the 1 f/cc excursion limit. When PCM results indicate a potential exposure exceeding the 0.1 f/cc full-shift limit or the 1 f/cc excursion limit, samples shall be further analyzed using transmission electron microscopy according to NIOSH Method 7402 or a method at least equivalent to that method.

[73 FR 11304, Feb. 29, 2008, as amended at 73 FR 66172, Nov. 7, 2008]

PART 72—HEALTH STANDARDS FOR COAL MINES

Subpart A—General

Sec.