

data on respirable dust samples as soon as practicable:

- (1) The mine identification number;
- (2) The mechanized mining unit, if any, within the mine from which the samples were taken;
- (3) The concentration of respirable dust, expressed in milligrams per cubic meter of air, for each valid sample;
- (4) The average concentration of respirable dust, expressed in milligrams per cubic meter of air, for all valid samples;
- (5) The occupation code;
- (6) The reason for voiding any samples; and,
- (7) The Social Security Number of the part 90 miner.

(b) Upon receipt, the operator shall provide a copy of this report to the part 90 miner. The operator shall not post the original or a copy of this report on the mine bulletin board.

§ 90.220 Status change reports.

If there is a change in the status of a part 90 miner that affects the respirable dust sampling requirements of this part (such as entering a terminated, injured or ill status, or returning to work), the operator shall report the change in the status of the part 90 miner to the MSHA District Office or to any other MSHA office designated by the District Manager. Status changes shall be reported in writing within 3 working days after the status change has occurred.

EFFECTIVE DATE NOTE: At 79 FR 24990, May 1, 2014, Subpart C was revised, effective Aug. 1, 2014. For the convenience of the user, the revised text is set forth as follows:

Subpart C—Sampling Procedures

§ 90.201 Sampling; general and technical requirements.

(a) An approved coal mine dust personal sampler unit (CMDPSU) shall be used to take samples of the concentration of respirable coal mine dust in the working environment of each part 90 miner as required by this part. On February 1, 2016, part 90 miners shall be sampled only with an approved continuous personal dust monitor (CPDM) as required by this part and an approved CMDPSU shall not be used, unless notified by the Secretary to continue to use an approved CMDPSU to conduct quarterly sampling.

(b) If using a CMDPSU, the sampling device shall be worn or carried to and from

each part 90 miner. If using a CPDM, the sampling device shall be worn by the part 90 miner at all times. Approved sampling devices shall be operated portal-to-portal and shall remain operational during the part 90 miner's entire shift, which includes the time spent performing normal work duties and while traveling to and from the assigned work location. 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) Unless otherwise directed by the District Manager, the respirable dust samples required under this part using a CMDPSU shall be taken by placing the sampling device as follows:

(1) On the part 90 miner;

(2) On the piece of equipment which the part 90 miner operates within 36 inches of the normal working position; or

(3) At a location that represents the maximum concentration of dust to which the part 90 miner is exposed.

(d) 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 date (noted on the dust data card) as the filter 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 filter used for sampling; and

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

(e) The respirable dust samples required by this part and taken with a CMDPSU shall be collected while the part 90 miner is performing normal work duties.

(f) Records showing the length of each shift for each part 90 miner shall be made and retained for at least six months, and shall be made available for inspection by authorized representatives of the Secretary and submitted to the District Manager when requested in writing.

(g) 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.

(h) Operators using CPDMs shall provide training to all part 90 miners. The training shall be completed prior to a part 90 miner wearing a 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.

(i) 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 or Secretary of HHS, 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.

(j) An anthracite mine using the full box, open breast, or slant breast mining method may use either a CPDM or a CMDPSU to conduct the required sampling. The mine operator shall notify the District Manager in writing of its decision to not use a CPDM.

§ 90.202 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 § 90.203(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.

§ 90.203 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 in 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.

§ 90.204 Approved sampling devices; maintenance and calibration.

(a) Approved sampling devices shall be maintained as approved under part 74 of this title 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 on the CPDM or the pump unit of the CMDPSU.

(b) Approved sampling devices shall be calibrated at the flowrate of 2.0 liters of air per minute (L/min) if using a CMDPSU; 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 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.

(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 device 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, 1100 Wilson Blvd., Room 2424, Arlington, Virginia 22209-3939 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.

§ 90.205 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 approved 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. This examination is not required if the sampling device is being operated in an anthracite coal mine using the full box, open breast, or slant breast mining method.

(2) The last hour of operation to assure that the sampling device 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 part 90 miner being sampled remains in compliance with the applicable standard at the end of the shift. This monitoring is not required if the sampling device is being operated in an anthracite coal mine using the full box, open breast, or slant breast mining method.

§ 90.206 Exercise of option or transfer sampling.

(a) The operator shall take five valid representative dust samples for each part 90 miner within 15 calendar days after:

(1) The 20-day period specified for each part 90 miner in §90.100; and

(2) Implementing any transfer after the 20th calendar day following receipt of notification from MSHA that a part 90 miner is employed at the mine.

(b) Noncompliance with the applicable standard shall be determined in accordance with §90.207(d) of this part.

(c) Upon issuance of a citation for a violation of the applicable standard, the operator shall comply with §90.207(f) of this part.

§ 90.207 Quarterly sampling.

(a) Each operator shall take five valid representative samples every calendar quarter from the environment of each part 90 miner while performing normal work duties. Part 90 miner samples shall be collected on consecutive work days. 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 §90.101, the new applicable standard shall become effective 7 calendar days after the date of notification of the change by MSHA.

(c) When a valid representative sample taken in accordance with this section meets or exceeds the excessive concentration value (ECV) in Table 90-1 that corresponds to the applicable standard and particular sampling device used, the operator shall:

§ Pt. 90, Subpt. C, Nf.

30 CFR Ch. I (7-1-14 Edition)

(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 part 90 miner.

(d) 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 90-1 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 90-2 that corresponds to the applicable standard and the particular sampling device used.

(e) 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 part 90 miner until the violation is abated and the citation is terminated in accordance with paragraphs (f) and (g) of this section.

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

(1) Make approved respiratory equipment available to the affected part 90 miner in accordance with §72.700 of this chapter.

(2) Immediately take corrective action to lower the concentration of respirable dust to at or below the applicable standard. If the corrective action involves:

(i) Reducing the respirable dust levels in the work position of the part 90 miner identified in the citation, the operator shall implement the proposed corrective actions and begin sampling the affected miner within 8 calendar days after the date the citation is issued, until five valid representative samples are taken.

(ii) Transferring the part 90 miner to another work position at the mine to meet the applicable standard, the operator shall comply with §90.102 of this part and then sample the affected miner in accordance with §90.206(a) of this part.

(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 part 90 miner.

(g) A citation for a 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 90-1—EXCESSIVE CONCENTRATION VALUES (ECV) BASED ON SINGLE, FULL-SHIFTCMDPSU/CPDM CONCENTRATION MEASUREMENTS

Applicable standard (mg/m ³)	ECV (mg/m ³)	
	CMDPSU	CPDM
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 90-2—EXCESSIVE CONCENTRATION VALUES (ECV) BASED ON THE AVERAGE OF 5 FULL-SHIFTCMDPSU/CPDM CONCENTRATION MEASUREMENTS

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

§90.208 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,

Cochrans Mill Road, Building 38, P.O. Box 18179, Pittsburgh, Pennsylvania 15236-0179, 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 90.205(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 part 90 miner; 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 data files. All CPDM data files transmitted electronically to MSHA shall be maintained by the operator for at least 12 months.

§ 90.209 Respirable dust samples; report to operator.

(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 locations within 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;
- (6) The reason for voiding any sample; and
- (7) The part 90 miner's MSHA Individual Identification Number (MIIN).

(b) Upon receipt, the operator shall provide a copy of this report to the part 90 miner. The operator shall not post the original or a copy of this report on the mine bulletin board.

(c) If using a CPDM, the person certified in sampling shall print, sign, and provide to each part 90 miner, a paper record (Dust Data Card) of the sample run within one hour after the start of the part 90 miner's next work shift. 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 location within the mine from which the sample was 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;
- (5) The shift length; and
- (6) The part 90 miner's MSHA Individual Identification Number (MIIN).

(d) The operator shall not post data on respirable dust samples for part 90 miners on the mine bulletin board.

§ 90.210 Status change reports.

If there is a change in the status of a part 90 miner (such as entering a terminated, injured, or ill status, or returning to work), the operator shall report the change in the status of the part 90 miner to the MSHA District Office or to any other MSHA office designated by the District Manager. Status changes shall be reported in writing or by electronic means within 3 working days after the status change has occurred.

Subpart D—Respirable Dust Control Plans

§ 90.300 Respirable dust control plan; filing requirements.

(a) If an operator abates a violation of § 90.100 (Respirable dust standard) or § 90.101 (Respirable dust standard when quartz is present) by reducing the respirable dust level in the position of the part 90 miner, the operator shall submit a written respirable dust control plan for that part 90 miner in that position within 15 calendar days after the citation is terminated to the District Manager for approval. 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