

§ 71.100

91-173 as amended by Pub. L. 95-164, 91 Stat. 1291 and 1299 (30 U.S.C. 811 and 813(h)).

SOURCE: 45 FR 80757, Dec. 5, 1980, 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 is exposed at or below 2.0 milligrams of respirable dust per cubic meter of air. Concentrations shall be measured with an approved sampling device and expressed in terms of an equivalent concentration determined in accordance with § 71.206 (Approved sampling devices; equivalent concentrations).

§ 71.101 Respirable dust standard when quartz is present.

When the respirable dust in the mine atmosphere of the active workings contains more than 5 percent quartz, the operator shall continuously maintain the average concentration of respirable dust in the mine atmosphere during each shift to which each miner is exposed at or below a concentration of respirable dust computed by dividing the percent of quartz into the number 10. Concentrations shall be expressed in milligrams per cubic meter of air as measured with an approved sampling device and in terms of an equivalent concentration determined in accordance with § 71.206 (Approved sampling devices; equivalent concentrations).

Example: The respirable dust associated with a designated work position contains quartz in the amount of 20%. Therefore, the average concentration of respirable dust in the mine atmosphere associated with that designated work position shall be continuously maintained at or below 0.5 milligrams of respirable dust per cubic meter of air ($10/20=0.5$ mg/m³).

Subpart C—Sampling Procedures

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

SOURCE: 45 FR 80757, Dec. 5, 1980, unless otherwise noted.

§ 71.201 Sampling; general requirements.

(a) Each operator shall take respirable dust samples of the concentra-

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tion of respirable dust in the active workings of the mine as required by this part with a sampling device approved by the Secretary and the Secretary of Health and Human Services under part 74 (Coal Mine Dust Personal Sampler Units) of this title.

(b) Sampling devices shall be worn or carried directly to and from the designated work position to be sampled and shall remain operational during the entire shift or for 8 hours, whichever time is less.

(c) Upon request from the District Manager, the operator shall submit the date on which collecting any respirable dust samples required by this part will begin.

(d) During the time for abatement fixed in a citation for violation of § 71.100 (Respirable dust standard) or § 71.101 (Respirable dust standard when quartz is present), the operator shall take corrective action to lower the concentration of respirable dust to within the permissible concentration and then sample each normal work shift until five valid respirable dust samples are taken.

(e) Upon written request by the operator, the District Manager may waive the rain restriction for a normal work shift as defined in § 71.2 (Definitions) 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.

§ 71.202 Certified person; sampling.

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

(b) To be certified, a person shall pass the MSHA examination on sampling of respirable coal mine dust.

(c) A person may be temporarily certified by MSHA to take respirable dust samples if the person receives instruction from an authorized representative of the Secretary in the methods of collecting and submitting samples under

this rule. The temporary certification shall be withdrawn if the person does not successfully complete the examination conducted by MSHA on sampling of respirable coal mine dust within six months from the issue date of the temporary certification.

§ 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 pass the MSHA examination on maintenance and calibration procedures for respirable dust sampling equipment.

(c) A person may be temporarily certified by MSHA to maintain and calibrate approved sampling devices if the person receives instruction from an authorized representative of the Secretary in the maintenance and calibration procedures for respirable dust sampling equipment under this rule. The temporary certification shall be withdrawn if the person does not successfully complete the examination conducted by MSHA on maintenance and calibration procedures within six months from the issue date of the temporary certification.

§ 71.204 Approved sampling devices; maintenance and calibration.

(a) Approved sampling devices shall be maintained as approved under part 74 (Coal Mine Dust Personal Sampler Units) of this chapter and calibrated in accordance with MSHA Informational Report IR 1240 (1996) "Calibration and Maintenance Procedures for Coal Mine Respirable Dust Samplers (supersedes IR 1121)" by a person certified in accordance with § 71.203 (Certified person; maintenance and calibration).

(b) Approved sampling devices shall be calibrated at the flowrate of 2.0 liters of air per minute, or at a different flowrate as prescribed by the Secretary and the Secretary of Health and Human Services for the particular device, before they are put into service and at intervals not to exceed 200 hours of operating time thereafter.

(c) A calibration mark shall be placed on the flowmeter of each approved sampling device to indicate the proper position of the float when the

sampler is operating at a flowrate of 2.0 liters of air per minute or other flowrate prescribed by the Secretary and the Secretary of Health and Human Services for the particular device. The standard to denote proper flow is when the lowest part of the float is tangent to the top of the calibration mark.

(d) Approved sampling devices shall be tested and examined immediately before each sampling shift and necessary external maintenance shall be performed to assure that the sampling devices are clean and in proper working condition by a person certified in accordance with § 71.202 (Certified person; sampling) or § 71.203 (Certified person; maintenance and calibration). This testing and examination shall include the following:

(1) Testing the voltage of each battery while under actual load to assure the battery is fully charged. The voltage for nickel cadmium cell batteries shall not be lower than the product of the number of cells in the battery pack multiplied by 1.25. The voltage for other than nickel cadmium cell batteries shall not be lower than the product of the number of cells in the battery pack multiplied by the manufacturer's nominal voltage per cell value;

(2) Examination of all components of the cyclone to assure that they are clean and free of dust and dirt;

(3) Examination of the inner surface of the cyclone on the approved sampling device to assure that it is free of scoring;

(4) Examination of the external tubing on the approved sampling device to assure that it is clean and free of leaks; and,

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

(e) MSHA Informational Report IR 1240 (1996) referenced in paragraph (a) of this section is incorporated-by-reference. 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. Copies may be inspected or obtained at MSHA,