

work area of an underground coal mine where miners are normally required to work or travel.

(c) *Certified person* means an individual certified by the Secretary in accordance with § 71.202 (Certified person; sampling) to take respirable dust samples required by this part or certified in accordance with § 71.203 (Certified person; maintenance and calibration) to perform the maintenance and calibration of respirable dust sampling equipment as required by this part.

(d) *Concentration* means a measure of the amount of a substance contained per unit volume of air.

(e) *Designated work position* means a work position designated under § 71.208 (Bimonthly sampling; designated work positions).

(f) *District Manager* means the manager of the Coal Mine Safety and Health District in which the mine is located.

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

(h) *MSHA* means the Mine Safety and Health Administration of the Department of Labor.

(i) *Normal work shift* means (1) a shift during which the regular duties of the designated work position 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.

(j) *Quartz* means crystalline silicon dioxide (SiO₂) not chemically combined with other substances and having a distinctive physical structure.

(k) *Respirable dust* means dust collected with a sampling device approved by the Secretary and the Secretary of Health and Human Services in accordance with part 74 (Coal Mine Dust Personal Sampler Units) of this title. Sampling device approvals issued by the Secretary of the Interior and Secretary of Health, Education and Welfare are continued in effect.

(l) *Secretary* means the Secretary of Labor or a delegate.

(m) *Surface area* means 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.

(n) *Surface coal mine* means 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.

(o) *Surface installation* means any structure in which miners work at a surface coal mine or surface work area of an underground coal mine.

(p) *Surface work area of an underground coal mine* means 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.

(q) *Surface worksite* means any area in which miners work at a surface coal mine or surface work area of an underground coal mine.

(r) *Valid respirable dust sample* means a respirable dust sample collected and submitted as required by this part, and not voided by MSHA.

(s) *Work position* means an occupation identified by an MSHA code number describing a location to which a miner is assigned in the performance of his or her normal duties.

Subpart B—Dust Standards

AUTHORITY: Secs. 101 and 103(h), Federal Mine Safety and Health Act of 1977, Pub. L.

§ 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