

§ 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).

EFFECTIVE DATE NOTE: At 79 FR 24981, May 1, 2014, Subpart B was revised, effective Aug. 1, 2014. For the convenience of the user, the revised text is set forth as follows:

Subpart B—Dust Standards

§ 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/m³).
- (b) 1.5 mg/m³ 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/m³ (100 micrograms per cubic meter or µg/m³) 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 µg/m³, 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/m³ dust standard. Suppose a valid representative dust sample with an equivalent concentration of 1.09 mg/m³ contains 16.7% of quartz dust, which corresponds to a quartz concentration of 182 µg/m³. 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/m³ (10/16.7% = 0.6 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 concentration 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.