

the capsule and the ¼-inch (inside diameter) hose mentioned in paragraph (b) (5) of this section shall be mechanically firm and shall not leak at a rate of more than 0.1 liters per hour under a vacuum of 4 inches of water.

(4) *Clamping of components.* The clamping and positioning of the cyclone body, vortex finder, and cassette shall be rigid, remain in alignment, be firmly in contact and airtight. The cyclone-cassette assembly shall be attached firmly to a backing plate or other means of holding the sampling head in position. The cyclone shall be held in position so that the inlet opening of the cyclone is pointing perpendicular to, and away from, the backing plate.

(5) *Hose.* A 3-foot long, ¼-inch (inside diameter) hose shall be provided to form an airtight connection between the inlet of the sampler pump and the outlet of the filter assembly. A device, capable of sliding along the hose and attaching to the miner's outer garment shall be provided.

(c) *Battery charger—(1) Power supply.* The battery charger shall be operated from a 117 volt, 60 Hz power line.

(2) *Connection.* The battery charger shall be provided with a cord and polarized connector so that it may be connected to the charge socket on the pump or battery case.

(3) *Protection.* The battery charger shall be fused, shall have a grounded power plug, and shall not be susceptible to damage by being operated without a battery on charge.

(4) *Charge rates.* The battery charger shall be capable of operating at either a 16-hour or a 64-hour charge rate. The battery charger shall be capable of fully charging the battery in the pump unit in the stated times and shall not overcharge a discharged battery in 16 hours when operating at the 16-hour charge rate or in 88 hours when operating at the 64-hour charge rate.

[35 FR 4326, Mar. 11, 1970, as amended at 37 FR 26712, Dec. 15, 1972; 37 FR 28294, Dec. 22, 1972; 39 FR 3677, Jan. 29, 1974]

**§ 74.4 Tests of coal mine dust personal sampler units.**

(a) The National Institute for Occupational Safety and Health, Department of Health and Human Services,

shall conduct tests to determine whether a coal mine dust personal sampler unit which is submitted for approval under these regulations meets the requirements set forth in § 74.3.

(b) The Mine Safety and Health Administration, Department of Labor (MSHA) will conduct tests, pursuant to § 18.68 of this chapter, to determine whether the pump unit of a coal mine dust personal sampler unit submitted for approval under these regulations is intrinsically safe.

[35 FR 4326, Mar. 11, 1970, as amended at 37 FR 26712, Dec. 15, 1972; 43 FR 12319, Mar. 24, 1978; 47 FR 28095, June 29, 1982]

**§ 74.5 Conduct of tests; demonstrations.**

Prior to the issuance of a certificate of approval, only personnel of MSHA and National Institute for Occupational Safety and Health, representatives of the applicant, and such other persons as may be mutually agreed upon may observe the tests conducted. The MSHA and the National Institute for Occupational Safety and Health shall hold as confidential, and shall not disclose, principles of patentable features prior to certification, nor shall MSHA or Institute disclose any details of the applicant's drawings or specifications or other related material. After the issuance of a certificate of approval, MSHA or the National Institute for Occupational Safety and Health may conduct such public demonstrations and tests of the approved coal mine dust personal sampler unit as MSHA or Institute deems appropriate. The conduct of all investigations, tests, and demonstrations shall be under the sole direction of the National Institute for Occupational Safety and Health and MSHA and any other persons shall be present only as observers.

[35 FR 4326, Mar. 11, 1970, as amended at 37 FR 26712, Dec. 15, 1972]

**§ 74.6 Applications.**

(a) Testing of a coal mine dust personal sampler unit will be undertaken by the National Institute for Occupational Safety and Health, and testing of the pump unit of such a sampler unit