

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

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will be undertaken by MSHA, only pursuant to a written application in duplicate, each copy accompanied by complete scale drawings, specifications and description of materials. The applications, together with the drawings and specifications and any other related documents shall be sent to National Institute for Occupational Safety and Health, Department of Health and Human Services, Box 4256, 944 Chestnut Ridge Road, Morgantown, WV 26505, and MSHA Approval and Certification Center, RR 1, Box 251, Industrial Park Road, Triadelphia, WV 26059.

(b) Ten complete coal mine dust personal sampler units must be sent to the National Institute for Occupational Safety and Health in connection with an application. One pump unit must be sent to MSHA in connection with an application.

(c) Drawings and specifications shall be adequate in number and fully detailed to identify the design of the coal mine dust personal sampler unit or pump unit thereof and to disclose the dimensions and materials of all component parts.

(d) An application shall describe the way in which each lot of components will be sampled and tested to maintain their quality prior to assembly of each sampler unit. In order to ensure that the quality of the coal dust personal sampler unit will be maintained in production through adequate quality control procedures, the National Institute for Occupational Safety and Health and MSHA reserve the right to have their qualified personnel inspect each applicant's control-test equipment procedures, and records and to interview the employees who conduct the control tests. Two copies of the results of any tests made by the applicant on the coal mine dust personal sampler unit or the pump unit thereof shall accompany an application.

[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; 52 FR 17516, May 8, 1987; 60 FR 35695, July 11, 1995]

### § 74.7 Certificate of approval.

(a) Upon completion of the testing of a coal mine dust personal sampler unit or the pump unit thereof, the National Institute for Occupational Safety and

Health or MSHA, as appropriate, shall issue to the applicant either a certificate of approval or a written notice of disapproval, as the case may require. The National Institute for Occupational Safety and Health shall not issue a certificate of approval for a coal mine dust personal sampler unit unless MSHA has issued a certificate of approval for the pump unit thereof. No informal notification of approval will be issued. If a certificate of approval is issued, no test data or detailed results of tests will accompany such approval. If a notice of disapproval is issued, it will be accompanied by details of the defects, resulting in disapproval, with a view to possible correction.

(b) A certificate of approval will be accompanied by a list of the drawings and specifications, covering the details of design and construction of the coal mine dust personal sampler unit or the pump unit thereof upon which the certificate of approval is based. The applicant shall keep exact duplicates of the drawings and specifications submitted to the National Institute for Occupational Safety and Health and to MSHA relating to the sampler unit or pump unit thereof which has received a certificate of approval. The approved drawings and specifications shall be adhered to exactly in the production of the certified sampler unit, including the pump unit thereof, for commercial purposes. In addition, the applicant shall observe such procedures for, and keep such records of, the control of component parts as either MSHA or Institute may in writing require as a condition of certification.

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

### § 74.8 Approval labels.

(a) Certificates of approval will be accompanied by photographs of designs for the approval labels to be affixed to each coal mine dust personal sampler unit.

(b) The labels showing approval by the National Institute for Occupational Safety and Health and by MSHA shall contain such information as MSHA or Institute may require and shall be reproduced legibly on the outside of a sampler unit as directed by the appropriate bureau.