

APRIL 1973

MEASUREMENT AND CONTROL
OF ASBESTOS DUST EXPOSURE

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5.3 Powered filter-type respirators are required when the TWA or ceiling concentrations are reasonably expected to exceed 10 times, but not 100 times, the limits in section 3.

5.3.1 These filters are seldom used on Company plants and those of 5.4 are substituted.

5.4 Atmosphere supplying respirators (Type "C" supplied air or self-contained) are required when the TWA or ceiling concentrations are reasonably expected to exceed 100 times the limits in section 3. Also, they are required for the spraying of asbestos and for the demolition and removal of asbestos insulation.

5.4.1 Filters shall meet Bureau of Mines Schedule 19B.

5.5 Respiratory Equipment Use and Testing. A respirator program in accordance with the requirements of ANSI Z88.2 Practices for Respiratory Protection shall be established.

5.5.1 Each employee who may use a respirator shall be instructed in its use and in testing it for proper fit. He shall test it for proper fit prior to each use.

5.5.2 Respirators shall be cleaned and disinfected regularly. Those issued for the exclusive use of one worker should be cleaned at least after each day's work.

6. HYGIENE

6.1 A change room, and duplicate lockers must be provided for employees exposed to concentrations which exceed either the TWA or the ceiling limit in section 3. This is to prevent contamination of employees' street clothes from their work clothes.

6.2 Special clothing shall be provided for employees exposed to concentrations which exceed the ceiling limit in section 3, and for those employees engaged in the spraying of asbestos and the demolition and removal of asbestos insulation.

6.3 Food, gum, tobacco, or other material placed in the mouth shall not be kept or consumed in work areas where asbestos is being handled or fabricated.⁴

6.4 Medical examinations, controls, and records relative to asbestos dust exposure are directed by the Employee Relations Department, Medical Division.

7. SAMPLING

7.1 Monitoring is required where employees are exposed to asbestos dust to determine the employee's exposure.

7.1.1 Sampling of each operation must be taken in a frequency and pattern to represent accurately the employee's exposure over his work period. If results indicate a level of asbestos dust in excess of the limit, the operation shall be reviewed to reduce exposure, see 4.1, and resampled. The initial sampling program must determine the 8-hour time weighted average. Intervals between samples shall not exceed six (6) months. The duration of each sampling should be at least 15 minutes.

7.2 Equipment. Samples may be taken with a portable battery-operated air sampler attached to an employee's belt or placed in the work area.

CAUTION: Unless specifically approved for use in hazardous atmospheres, air samplers shall not be used in hazardous areas, as defined in DE1D, without a permit to use a spark-producing device.

7.2.1 Pumps recommended Model C115 or Micronaire (Bendix) supplied through:

E. I. du Pont de Nemours & Co
Polymer Intermediates Department
Explosives Products Division
Industrial Products Section
Wilmington, DE 19898
(or District Sales Offices)

or

Gravimetric
Mine Safety Appliances Co
230 N. Braddock Ave
Pittsburgh, PA 15208

Either unit must include battery charger and battery; carrying case is optional, cyclone is not to be used.

7.2.2 Filter cassettes are available from:

Millipore Corporation
Bedford, MA 01730

DU 062119

Specify:

Millipore No. MAWP-037-AO filter,
0.8 micron pore (white, nongridded)

(Nongridded are preferred but gridded are available.)
The following adapter is recommended to ensure tight connection between the cassette and the 1/4-inch tubing:

Catalog No. 8960-045 syringe needle
adapter to 1/4-inch tubing
A. H. Thomas Co
Philadelphia, PA 19105

⁴ Exceeds OSHA requirements, section 1910.141
Portions printed in red meet OSHA requirements,
Section 1910.93a.



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