

BULLETIN

NO. 446

July 11, 1972

TO: ALL MEMBERS

SUBJECT: EQUIPMENT/TRAINING FOR ASBESTOS MEASUREMENTS

At the recent Annual Membership Meeting it was brought to my attention that many members had not received information on equipment for measuring airborne asbestos in the work place. Most of the following information is a re-hash of earlier information - particularly Bulletin #428 of February 18, 1972.

OSHA STANDARDS, OTHER PAPERS RELATIVE TO ASBESTOS IN THE WORK PLACE

1. Occupational Safety & Health Administration (OSHA)
Standards per Williams - Steiger OSHA Act of 1970.
Federal Register, May 29, 1971
2. OSHA Standards for Exposure to Asbestos Dust,
Federal Register, June 7, 1972
3. "Measurement of Airborne Asbestos Fiber by the
Membrane Filter Method".
Asbestos Textile Institute
P.O. Box 239
Pompton Lakes, New Jersey 07442
(Price \$1.00/copy)

The Institute distributed copies of these to the members during the past year. The most pertinent are Item 2 (OSHA Standards for Asbestos) and Item 3 (Measurement of Airborne Asbestos...").

GENERAL METHOD (MEMBRANE FILTER METHOD)

A pick-up is worn by a worker in the area to be measured. A battery operated vacuum pump draws in air over a specified period--say 60 minutes, 90 minutes or four hours. Asbestos fiber is trapped by the filter and then sealed and sent to the laboratory. The sample is examined using an optical microscope where asbestos fibers are counted.

Details on the optical count are given in the book "Measurement of Airborne Asbestos Fiber by the Membrane Filter Method".

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EQUIPMENT & SUPPLIES

Depending on the size of operation, at least two pumps costing about \$150 each are required:

- (a) Mine Safety Appliance Co., Pittsburgh, Pa.
15208
- (b) Willson Products Div., Reading, Pa. 19603
- (c) Unico Environmental Instruments, Fall River, Mass.
02720

A battery charger (one for each 2 pumps) is suggested. The charger would cost about \$50.

Pad and filter inserted run about 70¢ a piece, and are available from the Millipore Corporation, Bedford, Mass., 01730.

A binocular microscope with phase contrast illumination set for 400/430X magnification is required. While a Bausch & Lomb microscope costing \$1,200/1,500 is basic, binocular microscopes with additional fixtures should be worth the additional cost. (Seek professional advice on this.)

Most of the above information is verbatim from the book "Measurement of Airborne Asbestos Fiber by the Membrane Filter Method."

OUTSIDE SERVICES AND TRAINING

It may be feasible to have outsiders do the full job - from sampling through examination and reporting. Others will do the analysis work only where the samples are mailed to the laboratories.

Tracerlabs in California will do analysis work for about \$50.-60. per analysis.

Johns-Manville will do the full job for a fee (Contact Mr. W. Reitze, Manager Industrial Hygiene Engineering Service, Johns-Manville Corporation, P.O. Box #5108, Denver, Colorado #80217)

George Clayton Labs, Southfield, Michigan will do the full job for a fee.

There are other labs that may do the entire package or the analysis work only.

Johns-Manville indicated it would be willing to train personnel in the technique in a two day period. They would take one trainee or at most two trainees, to one instructor for \$200. a day. These sessions would be at Phindern (Somerville) New Jersey or Waukegan, Illinois. Again, the contact would be with Mr. Reitze in Denver.

It is most important that those concerned with the OSHA Standards enforcement receive this basic information. Should additional information be required, please advise.

FMSI 06578

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Executive Director