

DUPONT CHAMBERS WORKS CONSTRUCTION DEPARTMENT

AIR SURVEY

1.
Z-13

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Problem:

To determine:

- A. Whether or not the total air-borne asbestos dust count generated during the fabrication and installation of asbestos containing insulating materials exceeds, either at the source or in the breathing zone, the Threshold Limit Value of 5 million particles per cubic foot (m.p.p.c.f.) established by the American Conference of Governmental Industrial Hygienists (ACGIH).
- B. Extent of air-borne asbestos contamination of the general shops area, surrounding grounds, and installation sites.
- C. Total dust count for use in the evaluation of over-all atmospheric dust loading and for detection of other potential dust problems.

Note: Item C will involve little additional cost as the differential counting of the sample is nominal compared to the cost incurred in procuring the sample particularly where special set-ups of work, tools, and materials are involved.

Procedure:

I. Collection

Two methods will be used for the initial survey:

A. Station sampling - portable.

The "Unico Constant Rate Uni-Jet" "Freon - 12" powered sampler equipped with the improved standard midjet impinger ("Unico 2000") followed by an 0.8 micron, pore size millipore filter (Cat. No. MAWG037D) will be used. The dust collected in "dust-free" distilled water in the impinger will be counted at the University of Pittsburgh Graduate School of Public Health by the method approved by the Asbestos Textile Institute. The dust collected on the back-up filter will be counted also at the University of Pittsburgh. This filter will collect the particles in the size range below 3 microns which is not retained in the first stage as well as larger particulate which might carry over from the impinger. The limit of resolution in counting is 1.3 microns.

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