

Insulation Hygiene Progress Reports

Vol. 5, No. 3

Fall 1973

from the

Insulation Industry Hygiene Research
Program

Editor: W. J. Nicholson, Ph.D., Published at the Environmental Sciences Laboratory (Irving J. Selikoff, M.D., Director), Mount Sinai School of Medicine of the City University of New York, N.Y. 10029

Advisory Council of IIHRP

Irving J. Selikoff, M.D. Program Director
and Chairman

E. Cuyler Hammond, Sc.D., Vice President,
American Cancer Society, New York, N.Y.

Andrew Haas, General President, International Association of Heat and Frost Insulators and Asbestos Workers,
Washington, D.C.

Fred L. Pundsack, Ph.D. Vice President,
Research and Development, Johns-Manville Corporation, Denver, Colo.

PURPOSES OF THE INSULATION INDUSTRY HYGIENE RESEARCH PROGRAM

1. To develop improved methods for minimizing exposure of insulation workers to dusts and fumes encountered in their work.
2. To disseminate knowledge of these improved methods of dust control wherever they may be applied advantageously and to offer cooperation, advice and assistance toward their universal adoption.

(Continued from first page)

highly efficient in the respirators tested, the face seals that can be obtained are much less effective. These respirators passed an approval schedule that required only 90% of the dust to be excluded by the face seal. Your choice of a respirator should thus be based on the fit that can be achieved on your face and comfort during use. You don't have to worry about fibers penetrating the filter.



Mrs. Anne Mackler of the Environmental Sciences Laboratory of Mount Sinai School of Medicine collecting settled dust from the stairway near which asbestos contaminated work clothes were hung in this home. Above her shoulder is located an air sampling unit.

Household Contamination is a Serious Problem

Control of insulation dusts on the job site is necessary to protect, not only insulation workers, but also members of their families.

Special concern for the family members of insulators has recently developed because of the finding of a lung tumor in the nine year old daughter of a New Jersey Union member. The tumor was localized and successfully removed by surgery.

Asbestos Found in Lung

Electron microscopic analysis at the Environmental Sciences Laboratory of Mount Sinai School of Medicine of the tissue removed from the lung showed significant amounts of chrysotile asbestos and diatomaceous earth to be present, much in excess of what is typically found in a child of nine. Both chrysotile and diatomaceous earth are common components of insulation material.

The existence of the tumor and the finding of insulation material in the lung in this isolated case does not demonstrate that these fibers and particles necessarily caused the tumor. Chrysotile asbestos, albeit in lower amounts, is found in the lungs of many individuals, children, as well as adults, who have had no direct or indi-

rect association with asbestos products.

Nevertheless, because of the rarity of such tumors in children, this particular case does give one pause. It was a similar single isolated case of lung cancer described in the medical literature in 1935 that first pointed to the risk of such disease in asbestos workers.

Air Samples Collected

Samples of the air and specimens of settled dust from the room of the child and elsewhere in the home were collected by Mrs. Anne Mackler and Dr. Arthur Rohl of the Environmental Sciences Laboratory. The analysis of these samples showed significant amounts of asbestos to be present in the child's bedroom and in the basement play area near where the husband's work clothes were hung and where these clothes were laundered.

In a more extensive sampling program of a variety of asbestos workers' homes, including those of mill workers, asbestos has universally been found to be present, usually in concentrations much higher than those of the above case. Chrysotile air concentrations may range from 100 times to over 1000 times those found in general city air.

PRODUCED BY FORD