

RECOMMENDED WORK PRACTICES

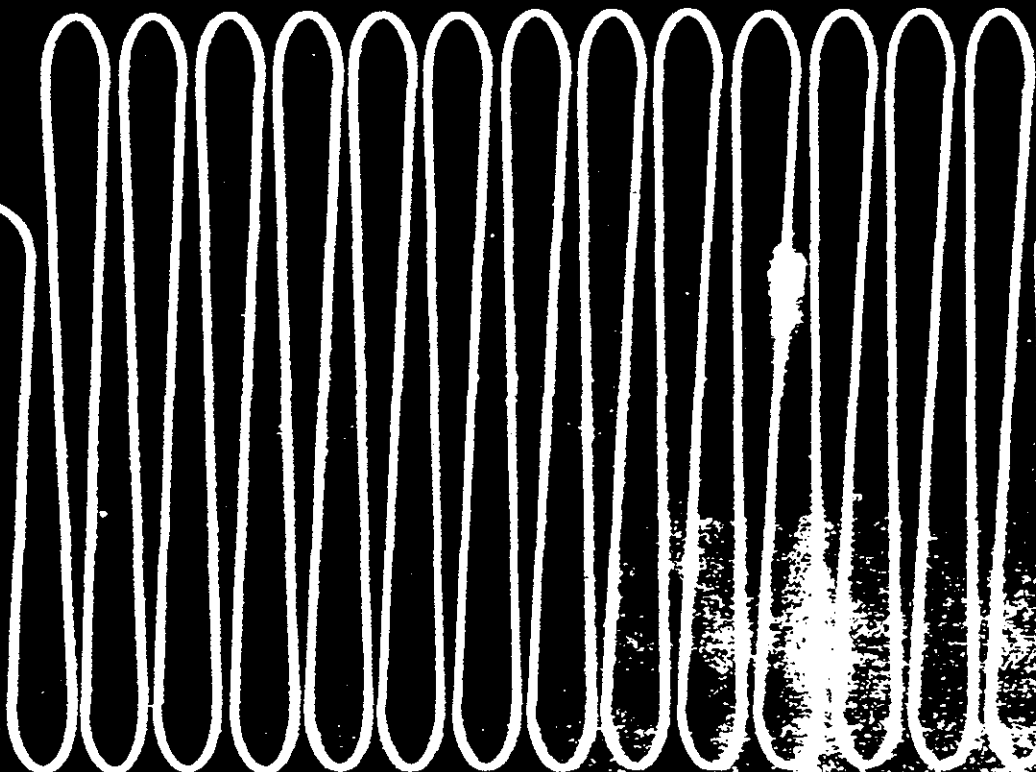
Use And Handling Of Asbestos Textile Products

EXHIBIT

WILLIAMS

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ASBESTOS INFORMATION ASSOCIATION

PLAINTIFF'S
EXHIBIT

AIA-29

For recommendations on housekeeping procedures, see "Housekeeping" section under General Recommendations.

7. Recordkeeping (1910.1001 (i))

Every employer shall maintain records of personal and environmental monitoring required by the standard. Records shall be maintained for a period of at least three years.

8. Medical Examinations (1910.1001 (j))

Preplacement, annual, and termination medical examinations must be provided or made available by the employer for any employee engaged in occupations exposed to airborne concentrations of asbestos fibers. These medical records must be kept for 20 years and are available to the employee's physician.

General Recommendations

Exhaust and Dust Collection Systems

The OSHA Asbestos Standard requires that exhaust and dust collection systems be designed and maintained in accordance with American National Standard Fundamentals Governing the Design and Operation of Local Exhaust Systems (ANSI Z9.2-1971). This publication is available from:

American National Standards Institute
1430 Broadway
New York, NY 10018

The National Emissions Standards for Hazardous Air Pollutants (NESHAPS) as published by the Environmental Protection Agency in the Federal Register, Vol. 38, No. 86, dated April 6, 1973, and amended October 14, 1975, state that there must be no visible emissions to the outside air from asbestos mills or from buildings in which commercial asbestos is used in the manufacture of:

- textile materials
- cement products
- fireproofing and insulating materials
- friction products
- paper, millboard and felt
- floor tile
- plastics and rubber materials
- chlorine
- shotgun shells

asphalt concrete
paints, coatings, caulks,
adhesive and sealants

Visible emissions are defined as emissions which contain asbestos and which are visually detectable without the aid of instruments. Rather than meet the no-visible-emission requirement, air cleaning procedures using a fabric filter collector may be employed. When the use of fabric filters creates a fire or explosion hazard, use of a high energy wet collector may be authorized by EPA.

For small and intermittent production and fabrication operations, major dust collection systems of the high volume, low velocity type design described in the references above may not be necessary. Instead, systems of the low volume, high velocity type utilizing as their exhaust air source a high efficiency vacuum cleaner could be suitable. For design information on these systems, attention is directed to the AIA/NA booklets, Recommended Work Practices on Sheet and Rigid Fabrication of Asbestos Sheet Products. This booklet is available on request to AIA/NA.

All exhaust and dust collection systems should be inspected periodically for proper

functioning. For continuous operations, it is recommended that the system operation and the interior of the baghouse be checked daily. A scheduled maintenance program that includes bag replacement should be prepared and followed.

Wherever possible, operations involving asbestos-containing materials should be isolated from other work areas by partitions, curtains or other means. If central exhaust systems are utilized, the work areas should be maintained under a slight negative pressure.

Housekeeping

Housekeeping is an essential part of any manufacturing operation. It is even more essential in an asbestos-using plant because airborne dust created by lack of good housekeeping has the potential for harm to employees.

The OSHA Asbestos Standard stipulates that "all external surfaces in any place of employment shall be maintained free of accumulations of asbestos fiber if, with their dispersion, there would be excessive concentration."

Surface cleaning should be accomplished by a vacuum process. Portable vacuum cleaning units should be equipped with internal filtration and disposable dust bags. Single or multi-hose stationary vacuum cleaning systems designed for use with asbestos-containing dusts are available. Vacuum cleaning stations can be added to existing dust collection systems as shown in Appendix C.

Loose material should never be dry swept. Water or other dust suppressants should be applied in those circumstances where brooms are used.

Information and Training

Employees assigned to a work area where exposure to airborne concentrations of asbestos fibers may exceed the maximum permissible limits should be fully informed of the possible hazards to health associated

with asbestos dust. It is important that both new employees and employees with tenure have information concerning the safe use of asbestos brought to their attention at periodic intervals. Each employee should be informed of:

- a. Operations which could result in exposure to excessive asbestos fibers
- b. Engineering controls and workplace practices for employee protection
- c. Purpose and proper use of respiratory equipment
- d. Medical examination requirements and
- e. Provisions of the OSHA asbestos standard

A copy of the OSHA Asbestos Standard should be available to employees. The AIA/NA pamphlet, "What Every Employee Should Know About Asbestos and Health," is recommended for distribution to employees. The pamphlet is available at minimal cost from the Association. Posters may be effectively used to inform. A series of asbestos health hint posters designed for this purpose are also available from AIA/NA.

A record of employee training should be kept. The record may appropriately include for each employee: name, social security number and job title, along with the date and description of training including materials distributed.

Waste Disposal

Generators of asbestos wastes resulting from manufacturing, fabrication, demolition, renovation and spraying operations are responsible for ensuring that the waste is disposed of in a properly operated disposal site as described in the NESHAPS amendment dated October 14, 1975. The OSHA Asbestos Standard requires that asbestos waste which when handled or transported could generate airborne fibers in excess of the permissible exposure limits be disposed of in sealed bags or closed containers impermeable to asbestos fibers.

No visible emissions to the outside air may result from collection, processing, packaging, transporting or deposition of any asbestos-containing waste material. Alternatively, wastes may be mixed with water

and sealed in a labeled, leak-tight container and deposited at a disposal site or they may be formed into non-friable forms and deposited at a disposal site.

Specific Recommendations

Wherever possible, asbestos textiles that have been specially treated to reduce dust emissions should be used.

Cut and/or sewn pieces should be handled carefully to minimize dust emission.

Asbestos textiles should be mechanically cut, sliced or sheared to avoid tearing and/or fraying. Rotary knives and shears are recommended for cutting operations.

Cutting and sewing edges or surfaces should be dampened to reduce dust generation during handling.

Tables and other working surfaces where asbestos textiles are fabricated or handled should be kept smooth and clean. Exhaust hoods are recommended on cutting tables and sewing machines.

Asbestos textiles in storage should be kept in sealed containers or dust-tight wrappings.

All forms of processing waste from asbestos textiles shall be disposed in accordance with "Housekeeping" paragraph in the General Recommendations.

Asbestos textiles should be removed gently from spools, coils, mandrels, cones and/or tubes. Avoid pulling from a free standing supply or roll and avoid jerking of the material during unrolling.

All dust control systems which discharge exhaust air to atmosphere must be equipped with fabric filter collection devices (U.S. Environmental Protection Agency "National Emission Standards for Hazardous Air Pollutants—Asbestos," *Federal Register*, Vol. 38, No. 66, dated April 6, 1973).



Personal Hygiene

In the preparation of asbestos-containing products, unless good procedures are followed, dust conditions can result. Employees must be aware that inhalation of asbestos dust may be a serious risk to health. Every effort should be made to eliminate dust conditions and avoid exposure to dust.

Good personal hygiene practices are important in every working situation. When working with asbestos, workers are urged to observe the following personal hygiene practices for their own health protection, their families, and those with whom they work.

- Do not smoke
- Wash before eating
- Shower after work
- Respirators and special clothing are provided for worker protection under certain excessive dust level conditions. These items of personal protective equipment deserve the highest respect of the worker and should be worn properly, when required.
- Change to work clothes upon arrival at work and change from work clothes at conclusion of work. Use change rooms for this purpose.
- If work clothing is taken home, carry in a bag impermeable to asbestos fibers and wash separately from other clothing. Never shake dusty clothing. Use a washing machine.