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GUIDELINES FOR
COMPLIANCE WITH
OSHA
ASBESTOS STANDARDS

GYPSUM ASSOCIATION
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M E M B E R S

O F T H E

G Y P S U M A S S O C I A T I O N

American Gypsum Company

The Celotex Corporation

The Flintkote Company

Georgia-Pacific Corporation
Gypsum Division

Grand Rapids Gypsum Company

Kaiser Cement and Gypsum Corporation

Gold Bond Building Products
Division of National Gypsum Company

Temple Gypsum, Inc.

United States Gypsum Company

This booklet presents guidelines to Federal OSHA Asbestos Standards in effect at the time of publication. The information contained in this booklet is not intended to be a legal interpretation of the OSHA Standards. While every effort has been made to verify the accuracy of this material, the Gypsum Association cannot be held responsible for corrections to or omissions from this publication.

The Act specifies that the employer must inform whoever launders the contaminated clothing of the requirement that the clothing be laundered in such a way that the release of airborne asbestos fibers is prevented. Clothing must be transported to the laundry in sealed, impermeable containers bearing the asbestos warning label.

RECORDKEEPING

Under the terms of the Act, every employer is required to keep accurate records of the plant fiber concentration monitoring program and of employee medical examinations.

Records of personal and environmental monitoring results must be maintained for a minimum of three years, while results of employee medical examinations must be retained on file for at least 20 years.

These records must be made available to the Assistant Secretary of Labor for Occupational Safety and Health or to The Director of the National Institute for Occupational Safety and Health on request. In addition, every employee or former employee should be given reasonable access to records indicating his own exposure to asbestos, and the results of his own medical examinations. An employee may also request that his medical records be released to his physician.

The Act requires that all employees exposed to hazardous concentrations of asbestos fibers be informed in writing within 5 days after the hazardous condition is discovered. Employees must also be kept advised of the corrective action being taken.

MAXIMUM PERMISSIBLE EXPOSURE LEVELS

The Act specifies certain maximum permissible concentrations of airborne asbestos fibers to which an employee may be exposed. These maximum concentrations are expressed as an 8 hour time weighted average of the number of fibers exceeding 5 micrometers in length, per cubic centimeter of Air.

These maximum permissible concentrations are:

1. Until July 1, 1976: 5 Fibers per Cubic Centimeter.
2. After July 1, 1976: 2 Fibers per Cubic Centimeter.

In addition, a concentration of 10 fibers per cubic centimeter of air has been established as a ceiling concentration. No employee can be exposed to a concentration in excess of this amount At Any Time.

MONITORING REQUIREMENTS

A monitoring program to determine every employee's exposure to asbestos fibers is required by the Act. The Act specifies that air samples be analyzed using membrane filters of 0.3 micrometer porosity mounted in an open face filter holder. The samples are then examined under a 400-450 power microscope using phase contrast illumination to determine the concentration of airborne asbestos fibers.

The Act states that every employer must measure the concentration of asbestos fibers in

all areas where asbestos fibers are released to determine whether the maximum permissible exposure levels are exceeded. Samples must be taken within the breathing zone of employees ("personal Monitoring") and within the general work area ("Environmental Monitoring") to determine both the 8-hour time weighted average and ceiling concentrations of asbestos fibers.

In all areas where the maximum permissible exposure limits are exceeded, the employer must immediately undertake an asbestos abatement program to comply with the Act. In addition, concentration samplings in these areas must be taken at no longer than six month intervals.

Affected employees, or their representatives, have the right to observe any monitoring procedures.

ENGINEERING CONTROLS

If the concentration of airborne asbestos fibers is found to be in excess of the maximum permissible exposure levels established by the Act, an employer will be required to take various steps to reduce the number of fibers to within the accepted limits. The Act recommends that the following Engineering Controls be employed:

- A. Isolating the work area
- B. Enclosing the asbestos materials whenever practicable
- C. Installing an exhaust ventilation system
- D. Installing dust collectors

REVISED WORK PRACTICES

In order to prevent or reduce the emission of airborne fibers, the Act specifies that all asbestos must be handled or worked in a wet state. All asbestos products in powdered form cannot be removed from bags, cartons, or other shipping containers without being either wetted, enclosed, or ventilated to prevent the release of asbestos fibers into the atmosphere.

The Act stresses the importance of good housekeeping in all areas where asbestos is used. According to the Act, all external surfaces must be free of accumulations of asbestos dust.

Because of the danger that further handling may release hazardous levels of airborne asbestos, all asbestos scrap, debris, containers, contaminated clothing or equipment must be disposed of in sealed, impermeable containers. Each container must bear an approved warning label.

CLOTHING

Because of the danger that asbestos dust may be carried home in an employee's clothing, special arrangements must be made to ensure that an employee's street clothes do not become contaminated by airborne asbestos fibers if the employee is exposed to concentrations of asbestos fibers exceeding the threshold limit value (TLV).

The employer must provide special work clothing such as overalls, hats, gloves, and foot coverings for any employee exposed to hazardous concentrations of asbestos fibers. The employer also must provide change rooms containing separate lockers for contaminated clothing and street clothes for each employee. These lockers must be separated or isolated to prevent dust from the work clothes contaminating the street clothes.

concentrations of asbestos fibers may be in excess of the exposure limits. Signs must be posted at all approaches to these locations, so that employees can take necessary protective actions before entering the hazardous areas.

Exact specifications for the 20" x 14" signs are given in Section 1910.93a (g) ii of the Act. Each sign must state:

ASEESTOS DUST HAZARD

Avoid Breathing Dust

Wear Assigned Protective Equipment

Do Not Remain In Work Area Unless Your Work Requires It

Breathing Asbestos Dust May Be Hazardous To Your Health

All raw materials, mixtures, scraps, debris, products containing unbonded asbestos, contaminated work clothes, and containers for these materials must contain a clearly legible warning label which states:

CAUTION

CONTAINS ASBESTOS FIBERS

Avoid Creating Dust

Breathing Asbestos Dust May Cause Serious Bodily Harm

These labels must be printed in letters of sufficient size and contrast as to be readily visible.

The Act cites "American National Standard Fundamentals Governing the Design and Operation of Local Exhaust Systems" (ANSI Z9.2-1972) as a useful reference.

The Act permits acceptable respirators (as discussed later) to be worn only as a temporary measure until the Engineering Controls are installed.

MEDICAL EXAMINATIONS

The Act requires that each employee who is exposed to airborne asbestos must be given a comprehensive medical examination paid for by the employer at the following times:

1. Within 30 days of initial placement in a job requiring exposure to asbestos
2. At least once every twelve months
3. Within 30 days of termination of employment or transfer to a job no longer requiring exposure to asbestos

The medical exam must include, as a minimum, a

1. Chest X-Ray
2. Pulmonary Function Tests
 - a. Forced Vital Capacity
 - b. Forced Expiratory Volume at 1 Second

3. Medical history to determine whether the employee has ever had any respiratory diseases.

Records of all such medical examinations must be retained by the employer for a minimum of 20 years.

RESPIRATORS

The use of respirators to protect employees from concentrations of asbestos fibers exceeding the maximum exposure levels is not permitted except in cases where it is not technically feasible to reduce the concentration to a safe level, or in emergencies. Respirators may, however, be used as an interim measure during the period necessary to install the proper engineering controls to reduce the concentrations, or to institute the work practices required by the Act. In these cases, personnel rotation (administrative controls) shall be used in preference to respirators if it is practicable.

The Act requires the employer to establish a respirator program in accordance with the "American National Standards Practices for Respiratory Protection" (ANSI Z88.2-1969) if respirators are to be used.

The Act also specifies that, if a physician determines that an employee will be unable to function normally, or that the health or safety of the employee or his fellow workers will be impaired by wearing a respirator, the employee must be rotated to another job or given the opportunity to transfer to a different job with the same seniority and rate of pay.

The type of respirator used will depend on the maximum concentration of fibers to which the employee is expected to be exposed. All respirators must be approved by either the Bureau of Mines, The Department of the Interior, or The National Institute for Occupational Safety and Health.

The following respirator types may be used at the maximum fiber concentrations specified:

1. Concentrations up to 50 fibers per cubic centimeter (After July 1, 1976, the maximum will be 20 fibers) - a reusable or single use air purifying respirator, or any of the respirators listed below;
2. Concentrations of between 50 and 500 fibers (After July 1, 1976, between 20 and 200) - A full face-piece powered air purifying respirator, or the respirator described below;
3. Concentrations exceeding 500 fibers per cubic centimeter (After July 1, 1976, 200 fibers) - A type "C" continuous flow or pressure-demand, supplied-air respirator.

In all cases, the respirator must be capable of reducing the inhaled fiber concentration to a level below the maximum permissible exposure concentration.

CAUTION SIGNS AND LABELS

The Act specifies that caution signs must be posted at each location where airborne