



INTERNAL CORRESPONDENCE

CHEMICALS AND PLASTICS

INSTITUTE PLANT P. O. BOX 2831, CHARLESTON, WEST VIRGINIA 25330

To (Name) Distribution Lists - C - 6 and 7;
Division E - 12
Location

Date January 13, 1975

Originating Dept. Employee Relations Department -
Industrial Hygiene

Answering letter date

Copy to

Subject Checklist for Protection
Against Inhalation of
Asbestos Fibers

Mr. W. A. Burnette of the Central Insulation Group has prepared a checklist for insulators to use as protection against inhalation of asbestos fibers. This checklist with a summary of the reasons for protection and the effect on the body if exposures to asbestos occur is applicable for all personnel working with this material in the Institute Plant. The checklist should be followed for protection of personnel and complying with OSHA regulation 1910.93a.

The tags are not yet stocked in stores and personnel are requested to write information on yellow "Caution" tags until a supply of tags is available. These have been ordered.

Air sampling will be performed by the Industrial Hygiene Department both for asbestos and other insulation nuisance dusts at the discretion of the industrial hygienist and/or during jobs involving large quantities of asbestos demolition.

Fred Williams
Industrial Hygienist

FW:11h

Attachment

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INSTITUTE PLANT

INSULATORS' CHECKLIST FOR HANDLING ASBESTOS CONTAINED MATERIALS

Understanding the few facts and observing the few common sense practices that follow will keep insulators and their co-workers safe and healthy as they work with asbestos.

Asbestos harms people in those rare instances when asbestos fibers that are small enough⁽¹⁾ have entered their lung sacs in quantities great enough ⁽¹⁾ to accumulate through years of continued inhalation and take up substantial space normally used for air; and a much higher than normal incidence of lung cancer exists for those engaged in asbestos work. Apparently the fibers, in combination with the unique body chemistry that some people have, is responsible for this; however, no conclusive evidence has been established.

The reason and way in which asbestos is more harmful than other foreign particles that enter the lung sacs is that it is not dissolved and absorbed into body waste streams to be carried away and discharged from the body as the others are, but remains in the lungs. Membranes then grow around each fiber resulting in a fibrosis of the lung sacs -- fiber by fiber over the years, causing Asbestosis.

Normally asbestos does not harm people because it is not in fiber form ⁽¹⁾ small enough to be airborne in a person's breathing zone and small enough to pass through the nasal filtering system of hair and mucous that filters out all but the very finest fibers. Those longer than 5 micrometers entering the lung are considered to be the culprits that cause asbestosis.

Risks of harm to insulators and their co-workers at Institute from asbestos is slight because non-asbestos insulation materials are used almost exclusively now. The only exception to this is woven asbestos tape which presents no problem because very little dust and airborne fibers result when it is cut and applied. Personal sampling of the breathing zone air of employees indicates that allowable limits are seldom reached even when asbestos fibers are present in any type material or activity provided normal precautions are observed.

The potential harm to employees at Institute lies almost exclusively in the removal, clean up and disposal of materials containing some asbestos which were applied during earlier years.

Finally, protection from potential harm is assured by following the few precautionary measures as required by OSHA entered in the checklist that follows. Each insulator is urged to diligently and reasonably apply them in his work.

- (1) OSHA allowable limit: 8 hour time-weighted average shall not exceed 5 fibers, longer than 5 micrometers, per cc of air, effective July 7, 1972. (The number of fibers changes from 5 to 2 effective July 1, 1976.)

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CHECKLIST

1. Wear respirators ⁽²⁾ during removal and cleanup of insulation materials which bear asbestos fibers. Also wear them during excessively dusty activities whether asbestos is present or not. See Item (2)B for respirators to be used during dry demolition work.
2. Wet clean or vacuum clean ⁽³⁾ only for cleanup work. NEVER BROOM, BRUSH, OR AIR BLOW.
3. Bag, seal and label ⁽⁴⁾ all waste, scraps and dust containing asbestos fibers. Use dustproof poly bags, twist ties, and tags ⁽⁴⁾ cautioning people about the asbestos contents. Bag, seal and label all soiled clothing contaminated with asbestos.
4. Rope off work area and post signs ⁽⁵⁾ to warn passersby when asbestos dust may be present in their breathing zone.
5. Store work clothing and street clothing in separate lockers. Do not air blow dust from clothing.

(2) Respirators:

- A. Normal dust exposures - 3M respirator, No. 8710 respirator
- B. Heavy dust exposures - Type "C" supplied air respirator

(3) Vacuum Cleaner:

General description: The equipment must be a lightweight portable model with explosion-proof motor, highly maneuverable, to go in tight places. Equipment similar to that manufactured by Vortex of St. Albans, W. Va., that converts dust into water slurry and then settles dust as solid residue for disposal is desirable.

- (4) Tags for containers with materials bearing asbestos are available from Stores. The label statement:

CAUTION
Contains Asbestos Fibers
Avoid Creating Dust
Breathing Asbestos Dust May Cause
Serious Bodily Harm

- (5) Signs, warning of asbestos hazards nearby, are available from Safety Supply. The sign statement:

Avoid Breathing Dust.
Wear Assigned Protective Equipment.
Do Not Remain In Area Unless Your Work Requires It.
Breathing Asbestos Dust May Be Hazardous To Your Health.

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