

MEMORANDUM

TO: Services Craft Supervisors
Construction Craft Supervisors
Mr. R. W. Cope
Mr. E. B. DelGrande
Mr. J. W. Piercy

DATE: May 25, 1976

SUBJECT: Asbestos and Nuisance
Particulate Sampling

FROM: G. W. Bott
Industrial Hygiene Department

On May 13, 1976, two Services carpenters were monitored for asbestos and nuisance dust exposures while cutting GAF "stonewall" board.

The cutting and fitting was being performed on sawhorses behind Building 707 Pilot Plant. After several pieces of material were cut to size, they were loaded on a four-wheel dolly and transported to the third floor of Building 707 to be used in remodeling a laboratory.

The carpenters were taking turns sawing the "stonewall" and it was observed that the job was very dusty. Both carpenters were wearing disposable dust masks.

Asbestos and Insulating Supply Co. was contacted to question the composition of GAF "stonewall". Mr. Jeffries said the material contained asbestos and Portland cement but he did not know how much of each was present. He also did not have a technical bulletin concerning this material from GAF. The 4 x 8-ft. panels were inspected for asbestos labeling and no label could be found.

Mr. Robert Camfield of the GAF Corp., per telephone conversation, said that their product called "stonewall" contained 10-20% asbestos, Portland cement and a limestone filler.

An abbreviated portion of the asbestos standard taken from the Federal Register is listed below.

Section 1910.1001 - Effective July 7, 1972

(a) The 8-hour time-weighted average airborne concentration of asbestos dust to which employees are exposed shall not exceed 5 fibers per milliliter greater than 5 microns in length, as determined by the membrane filter method at 400-450 X magnification (4 millimeter objective) phase contrast illumination.

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PLAINTIFF'S EXHIBIT

UC-3438

(b) (3) Ceiling Concentrations. No employee shall be exposed at any time to airborne concentrations of asbestos fibers in excess of 10 fibers, longer than 5 micrometers per cubic centimeter of air.

(b) Engineering methods, such as but not limited to, enclosure, vacuum sweeping, and local exhaust ventilation, shall be used to meet the exposure limits prescribed in paragraph (a) of this section. Where such engineering methods are not feasible, or do not otherwise reduce the concentrations below those prescribed in paragraph (a) of this section, respiratory protective devices shall be provided and used in accordance with paragraph (c) of the Federal Register.

(d) (2) All hand - or power-operated tools which produce asbestos dust such as, but not limited to, saws, scorers, abrasive wheels, and drills shall be provided with local exhaust ventilation and dust collectors in accordance with the American National Standard Fundamentals Governing the Design and Operation of Local Exhaust Systems; ANSI Z9.2 - 1971.

(d) (3) Employees exposed to the spraying of asbestos or the demolition of pipes, structures, or equipment covered or insulated with asbestos shall be provided with respiratory protective devices in accordance with paragraph (c) (4) of the Federal Register.

(e) Asbestos cement, mortar, coatings, grout, and plaster shall be mixed in closed bags or other containers.

(f) Asbestos waste and scrap shall be collected and disposed of in sealed bags or other containers.

(g) All cleanup of asbestos dust and blowing shall be performed by vacuum cleaners. No dry sweeping shall be performed.

The Threshold Limit Value (TLV) for nuisance dust as taken from the Federal Register is 15 mg/M³ but for the sampling of non-respirable dust we have adopted a TLV of 10 mg/M³ set by ACGIH in 1974.

The following conditions were found during the cutting and transporting of GAF "stonewall" board on May 13, 1976 at Building 707.

<u>Name</u>	<u>Contaminant</u>	<u>Sampling Period</u>	<u>Air Concentration</u>
Jerry Naylor	Asbestos	19 min.	45.2 fibers
E. A. Maddox	Nuisance Dust	30 min.	31.3 mg/M ³

In order to protect individuals working with asbestos and to assure compliance with the Occupational Safety and Health Act, the following is recommended:

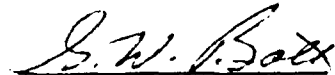
1. Notify the industrial hygienist when work with asbestos is to be performed that can create a dust, eg: sawing, grinding, blending, demolition, etc.

- (a) Air samples may be collected to evaluate potential personnel exposures to asbestos.

- (b) An evaluation will be made on the extent and type of personnel protection that will be needed.

- (c) Waste disposal arrangements can be made.

- (d) Record of personnel working with asbestos can be maintained.


G. W. Bott

GWB/mm

Reference: 8W6B-38
8W6B-40

