WV-0088 #20

MINUTES OF MEETING

Subject: Measurement of Employee Exposure to Asbestos to Meet Requirements of Proposed OSHA Standard

Meeting Date: February 29, 1972

Present:	J. T. Brumley	-	Institute Plant
	H. H. Frazier	-	Institute Plant
	N. H. Ketcham	-	Environ. Health Laboratory, R/D
	B. L. Murray	-	South Charleston Plant
	J. E. Neff	-	Environ. Health Laboratory R/D
	R. E. Peele	-	Institute Plant
	Fred Williams	-	Technical Center (511)
Copy to:	D. E. Deese	-	Texas City Plant
	S. V. Lucas	-	Sistersville Plant
	C. S. McKinley, M.D.	-	Bound Brook Plant
	R. W. Cope	-	Environ. Health Laboratory R/D
	F. J. Garcia-Sharp	-	Ponce Plant

This meeting was held to define a plan for obtaining measurements of exposure to asbestos for typical tasks involving insulation or other uses of asbestos. Such measurements now need to be made in a manner to specifically meet the proposed OSHA requirements for sampling and counting the collected fibers. The results of exposure measurements will enable a valid assessment of our status of compliance with respect to the proposed standard (Federal Register Vol. 37 No. 7, January 12, 1972, p. 466-468).

We defined our objectives as:

1. Identify typical tasks involving handling asbestos. This listing will vary somewhat at different Group I Locations.
2. Define air sampling practice to assure that it is done in compliance with OSHA requirements and in the same manner at different Group I Locations.
3. Define the method for counting the fibers in the collected samples to assure compliance with the OSHA requirements and to attain comparable counting technique at different Group I Locations.
4. Measure the exposure of employees doing typical tasks defined in (1) above, taking air samples and counting them in the manner agreed upon in (2) and (3) above.
5. Interpret the exposure data in terms of compliance with the proposed OSHA standard.

APPENDIX I

Tasks Involving Potential Exposure to Airborne Asbestos

I. Insulation Operations
   - A. Unpacking
   - B. Forming
     1. Sawing
        a. Power
        b. Hand
     2. Preparation of mud
     3. Clean up
   - C. Transporting
   - D. Installation
     1. Dry block
        a. Assembly
        b. Cover, wiring
        c. Application of mud
     2. Dry taping
     3. Dry sleeves
     4. Wet application
        a. Mud
        b. Spray
     5. Clean up
   - E. Stripping
     1. Blocks
     2. Tape
     3. Sleeves
     4. Mud
     5. Clean up
   - F. Disposal

II. Machining and Installing High Density Blocks

III. Process Uses - Addition to Resins, etc.

Approximately 40% Asbestos

Johns-Manville

JM

Marinite® 23

Inorganic, Fireproof, Structural-Insulating Board For Industry

Caution

App 40 g

This product contains asbestos fiber.

Avoid Breathing The Dust. Inhalation of asbestos in excessive quantities over long periods of time may be harmful.

If dust is created when this product is handled, use proper protection.

If proper dust control cannot be provided, respirators approved by the U.S. Bureau of Mines for protection against pneumoconiosis-producing dusts should be worn.

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APPENDIX II

Sampling Procedures

I. Use personal samplers as the first choice to assure compliance with the OSHA requirements. Some area monitoring may be necessary, but in many instances it may not provide acceptable exposure data.

A. Fasten personal sampler to clothing, as close to the breathing zone as practical.

B. Have open face of sampler pointed down in most cases.

C. Use membrane paper, type AA, 0.8 μ pore diameter, white, 37 mm size. See Method 38C-29X4-R1.

D. Use flow rate of 2 lpm. Verify this with a calibrated flowmeter.

E. Transport the sample paper to the laboratory in the sample holder with the face cover on. Put in a box with the paper side up, and hand deliver to the laboratory if possible. Use plant delivery service only when necessary.

F. Identify the sample by plant, sample number and date, i.e., 514-No. 9-March 1972.

II. Take a 15 consecutive minute (or greater) sample whenever possible in order to comply with the proposed OSHA standard. Have short tasks extended to 15 minutes or greater when practical.

III. When impractical to obtain a 15 minute sample or when the particulate on a 15 minute sample would be too high to enable a count of the fibers:

A. Sample for the actual time of the task if it lasts less than 15 minutes and can't be extended.

B. Sample a short enough time to get a countable sample when the airborne particulate is very high.

C. When in doubt about the concentration take both a 15 minute (or greater) sample and a shorter sample.

6. Identify problems related to either:

   (a) Deficiencies in our present practices pertaining to respiratory protection, protective clothing, employee safety education, housekeeping, etc.

   (b) Terminology of the OSHA standard.

Fred Williams led a discussion of the manner in which asbestos insulation is handled in construction operations. This information, with input from the group, led to an outline suggesting the types of jobs in which asbestos exposure occurs. The outline is attached as Appendix I.

Discussion of the desired practice for taking air samples led to agreement on ground rules which are attached as Appendix II. For this discussion several documents in addition to the proposed standard offered guidance in terms of the intent of OSHA. These documents are the Compliance Operations Manual released January 4, 1972, criteria documentation for asbestos standard, OSHA Sampling Data Sheet No. 2 for asbestos, and Target Health Hazard Fact Sheet, Asbestos. The latter three documents have been published in the Occupational Safety and Health Reporter, February 3 and 10, 1972.

All samples will be collected on membrane filter paper with the slides prepared and counted in accordance with Industrial Hygiene Method 38C-29X4-R1 in the Laboratory Manual. This method was written to conform with the method developed by the U.S. Public Health Service and now specified by NIOSH.

It was agreed that those plants at which asbestos is handled should begin or continue systematic efforts to measure exposure in the manner described in these minutes. The participants in todays meeting will meet again no later than one month hence to review the data collected, to consider any problems which may have developed and to plan further efforts. Persons doing air sampling for asbestos at locations remote from Charleston are welcome to attend future meetings, as coordination of effort is desirable. However, to save travel costs it may be possible to obtain input from such locations by telephone and letter.

Minutes submitted by

N. H. Ketcham

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NHK:gk
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