

MEMORANDUM

To: Mr. R. F. Hunt
Mr. R. S. Jones
Mr. G. B. Leroy
Mr. W. R. Thompson
Mr. F. A. Woods

April 26, 1972

From: Fred Williams

Subject: Machining Asbestos Materials in Building 740 - 1128

The attached memo shows results of air samples that were collected while machining 3" asbestos discs in Building 740 - 1128.

Not only do the air samples show the operation to be a potential health problem to unprotected operating personnel, but personal observations revealed that even though precautions were taken to contain the cuttings on newspapers, a serious contamination problem exists at the machine. This contamination can present a potential health hazard to others in the area.

Realizing that this is not a continuous operation and that the asbestos exposure to operating personnel may be kept within regulations that have been established which state "concentrations not to exceed 10 fibers per milliliter may be permitted up to a total of 15 minutes in an hour for up to 5 hours in an 8-hour day," the potential exists for much greater concentrations to become airborne, especially, from the contaminated machine.

If it is necessary to do asbestos machining in-house, it is recommended that a vacuum cleaner capable of containing dusts from asbestos be utilized near the cutting edge of the machine to pick up dusts during machining and to clean up after machining is finished. A wet-type collector would be highly desirable.

Plans should include isolating the asbestos cutting and machining in an area with a filter exhaust system or replace asbestos with a less hazardous insulating material.

Asbestos wastes should be put in plastic bags and sent to landfill for burial.


Industrial Hygienist

F. Williams/ebc
Att.

UCC 000327

MEMORANDUM

To: Mr. R. F. Hunt
Mr. R. S. Jones
Mr. G. B. Leroy
Mr. W. R. Thompson
Mr. F. A. Woods

April 25, 1972

From: Industrial Hygiene

Subject: Air Sampling Results During the Machining of "Marinite 23"

SUMMARY Two "personal" air samples were collected during a machining operation involving asbestos containing material. The operation was performed in the Engineering Measurement and Control Shop located in Building 740, room 1128. Both air samples show results that are in excess of the Threshold Limit Value of 5 fibers per milliliter greater than 5μ in length.

DISCUSSION On April 12, 1972, the Industrial Hygiene group monitored airborne asbestos fiber incident to a machining operation performed on a lathe in Building 740 - 1128. The methods and equipment are normally used for the machining of a metal. Due to the nature of the operation performed, the operator was required to remain in close proximity to the equipment and material being used.

The material being machined was "Marinite 23," a Johns Manville product containing asbestos. The "Marinite 23," one-inch thick, was cut into circles 3 inches in diameter on a separate piece of shop equipment. This operation may also require the monitoring of airborne particulate during the time in which it is being performed. The 3-inch diameter circles were secured in the lathe chuck and an area 1.75 inches in diameter was machined from the center. During the entire operation, a total of 41 circles were machined by [REDACTED] who wore respiratory protection.

The samples were collected by the use of "personal" air sampling equipment. The sample collecting device was suspended around the neck of the operator as close to the breathing zone as was practical. The airborne fibers were collected using membrane paper, Type AA, 0.8 μ pore diameter, white, 37 mm in size, at 2 lpm flow rate.

The samples were delivered to the R&D Environmental Health Laboratory for analysis.

RESULTS AND CONCLUSIONS

The attached data sheet shows asbestos fibers to be airborne in concentrations greater than the Threshold Limit Value of 5 fibers per milliliter of air greater than 5μ in length as a result of the machining of "Marinite 23."

The results indicate that immediate attention should be given to the continued health protection of the operator involved.



R. O. Miskiff

R.O.M./ebc
Att.

MACHINING OF "MARINITE 23"

BUILDING 740, ROOM 1128

Date: 4/12/72

Sampled by: R. O. Midkiff

<u>Sampling Time</u>	<u>Flow Rate</u>	<u>Fiber/ml $>5\mu$ in length</u>	<u>Pcs. Machined</u>
8:55 a.m. - 9:10 a.m.	2 lpm	8.7	28
9:12 a.m. - 9:18 a.m.	2 lpm	8.0	13

Operator: [REDACTED]
Respiratory Protection Worn: M-S-A Dustfoe 77 Respirator

ASBESTOS CONTAMINATED
MACHINE 740 SID SHOP
4/12/72



ASBESTOS CONTAMINATED
MACHINE 740 SID SHOP
4/12/72



MACHINING ASBESTOS
740 SID SHOP
4/12/72



ASBESTOS MACHINING
740 SID SHOP
4/12/72

Mr. J. M. Butcher
Mr. R. F. Hunt
Mr. A. C. Kemerer
Mr. A. Pauley
Mr. M. E. Perry

April 25, 1972

Gentlemen:

I am of the opinion that serious consideration should be given to replacing asbestos and fiberglass insulation in the Technical Center with less hazardous materials. The hazards associated with asbestos have been highlighted by OSHA but old, heated fiberglass is, in my opinion, almost equally as bad - especially from acute conditions created by the dusty, short fibers that become airborne during demolition.

There is an insulation "Ceramospray Bulk Fibers" that may meet most of our requirements. It contains no asbestos and I was informed by Charlie Carmon that practically no dust was observed during a demonstration at their site. Information may be obtained from:

Asbestospray Corporation
605 Broad Street
Newark, New Jersey 07102.

Yours very truly,



Industrial Hygienist

F. Williams/ebc



INTERNAL CORRESPONDENCE

UNION CARBIDE CORPORATION

270 PARK AVENUE, NEW YORK, NEW YORK 10017

To (Name)
Division
Location

Mr. N. H. Ketcham
Chemicals and Plastics
South Charleston

Date

March 16, 1972

Originating Dept.

Medical Department

Answering letter date

Copy to

Subject

J. T. Brumley
H. H. Frazier
B. L. Murray
J. E. Neff
R. E. Peele
Fred Williams
D. E. Deese
S. V. Lucas
C. S. McKinley, M. D.
R. W. Cope
F. J. Garcia-Sharp

I have received the minutes of the meeting on Measurement of Employee Exposure to Asbestos to Meet Requirements of Proposed OSHA Standard which I understand resulted from urgent requests from R. E. Peele and B. L. Murray for prompt action on the subject in question. It is appropriate that the meeting was held, but unfortunate D. E. Deese and others had no opportunity to contribute to the deliberations. While this might suggest that the decisions for action derived from the meeting really apply only to the Kanawha Valley plants, I think the decisions are sound and deserve a broad based application throughout Group I.

I would urgently advise that each location in Group I be included in this activity because I am sure it is an area which will be subject to close scrutiny in the event of any plant inspections. Careful study now and appropriate corrective action for any unsatisfactory conditions found in the study will go far toward avoiding citations by OSHA.

Very truly yours,

C. U. Dernehl, M. D.
Associate Medical Director

CUD:lk