AU4068

Mr. P. H. Day

July 9, 1976

ER - Industrial Hygiene

Mr. J. E. McDermott, Jr.
Dr. R. J. Sexton
Mr. F. Williams

Employee Exposure to Asbestos - Plant Stores Building 330

In response to questions by Plant Stores Employees, you have asked for asbestos exposure levels to be determined at certain locations within Building 330. Evaluation of storage conditions and dispensing methods has been made together with appropriate area and personal sample collection. The conditions of sampling and results are reported as follows:

SAMPLE DATE	TYPE SAMPLE	SPECIFIC LOCATION AND/OR CONDITIONS	ASBESTOS FIBERS/ML AIR COUNT	TLV
6-7-76	Area	Asbestos rope storage and dispensing.	0.13	2.0
6-16-76	Personal*	employee untangled and prepared 10# of 3/4" Asbestos Rope for dispensing.	0.76	2.0
6-16-76	Personal*	Employee replaced rope in bin and swept aisle of fallen fibers - five minutes.	0.0	2.0
6-16-76	Area	3' above rope storage Bin - during two five-minute sampling periods above.	0.35	2.0
6-16-76	Personal*	During five-minute sampling period, Employee Simulated filling gasket orders from Row 43, 44, and 51 bins.	1.0	2.0
6-16-76	Area	4 1/2 feet above Row 43 gasket bins during personal sampling above.	0.0	2.0
6-16-76	Area	6" above floor during above sampling--includes three passages through aisle and two trips on transporter.	0.0	2.0

*All personal samples were collected on the person of and with the cooperation of Mr. R. O. Hanna. A 3M respirator was worn by Mr. Hanna, at our request

The potential for excessive employee exposure to asbestos fibers is apparent at the different storage bin locations and especially at the asbestos rope dispensing bin. Each time rope or gaskets are removed from the storage bin, asbestos fibers are released and are plainly visible. Liberated fibers are deposited and/or are accumulated on the floor with the potential of becoming airborne due to sweeping or generated air currents.

Although the potential for excessive exposure appears to be serious, the results obtained during our sampling evaluation are well within the limits of the new TLV of two fibers greater than five micrometers per milliliter of air. One reasonable explanation for the lower than expected values is that fibers being liberated are large and of sufficient density that they do not easily become airborne. Asbestos must, nevertheless, be controlled wherever possible.

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Ideally, asbestos containing materials would be stored in a separate room, having proper ventilation, at locations such as Plant Stores. Our measurements, however, do not indicate exposure levels of a magnitude to justify isolated storage as a requirement. We do offer recommendations for your consideration, as follows:

FIRST: Relocate the storage area of 3/4" asbestos rope to a more remote area of the building where there is less order filling activity. Provide a partially enclosed spool type dispenser to avoid work with an entangled mass of material, which appears to be encountered each time an order is filled. Another option would be to have employees wear 3M Respirators and prepare pre-weighed or lengths of rope in plastic bags for ready order filling.

SECOND: Consideration be given to individual and/or count numbers of metal reinforced gaskets being stored and dispensed in plastic bags. This practice would avoid possible exposure of employees other than Stores personnel to asbestos liberated from the gaskets through handling until final application.

THIRD: Make 3M Respirators readily available to all Stores personnel for use during asbestos and other job tasks where need for a respirator is apparent.

Please inform Mr. Hoffman and Mr. Carey of the results of the above listed samplings and should there be further questions, please call me.

H. H. Frazier

HHF/kjs