

Office Memorandum

From and Location) *As Listed	DATE February 2, 1978
To and Location) C. D. Barrett - Corpus Christi	REFERENCE NO. CDB-13-78

*Mr. R. E. Green - Clear Lake
 Mr. J. M. Ramey - NYO
 Mr. M. R. Stenzel - Pampa
 Mr. H. A. Thomas - Pampa

PLAINTIFF'S EXHIBIT

CEL-1006

Subject: Industrial Hygiene Evaluation of Galbestos Building Panels

Galbestos is a metal building panel that will be used extensively in the Pampa Coal Project. H. A. Thomas requested that I evaluate the panel since it contained small amounts of asbestos fiber embedded in an asphalt coat. I contacted the supplier of the panel, H. H. Robertson Company of Houston, Texas, and was assured by Mr. G. F. Reeves that free asbestos fibers would not be generated when the panel was fabricated. To determine if panel fabrication presented any asbestos hazard, I arranged for a representative of the H. H. Robertson Company to visit the Clear Lake Plant and to cut several of the panels using the required power saw. Mr. E. Green and I conducted air monitoring tests (using the official OSHA asbestos sampling method) during a ten minute cutting experiment. The experiment was conducted inside an enclosed maintenance shed without exhaust ventilation. No other dust generating operations were being performed in the area. The samples were collected adjacent to the point of operation of the saw and would approximate "worst case" exposure conditions. Furthermore, the number of panels cut during the ten minute period far exceeded the number that would be cut in the same time period under actual use conditions.

The samples were analyzed for free asbestos fibers by Kem-Tech Laboratories. The results are attached. Sample B was a blank filter and the number of counted fibers represents a background count. Samples numbers one and two are the actual test samples and are equivalent to 1.7 fibers/cc of air and 0.34 fibers/cc of air, respectively.

It should be noted that the number of fibers reported by Kem-Tech are not actual fiber counts. According to the OSHA procedure for counting asbestos fibers, only 100 fields on the millipore filter are actually counted. These actual counts are multiplied by a factor of 3400 to obtain the "total number of fibers". In other words, the actual number of fibers counted were 2, 7, 3 for samples B, 1, and 2 respectively. Thus, if the laboratory technician mistakenly identifies one or two fibers, a significant error is introduced into the calculated results.

Recommendations

Few, if any, conclusions can be drawn based on two samples. However, it appears that if free asbestos fibers are released during the fabrication process, the actual number of fibers released is quite small. The present OSHA asbestos

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standard allows only 2 fibers/cc in the operator's breathing zone as an 8-hr time-weighted-average. Both of the test samples (which again are not representative of actual exposure conditions) were below this federal limit. I do not consider the cutting of Galbestos to be a hazardous operation, requiring respirator protection or other asbestos control procedures. However, I do recommend that M. R. Stenzel monitor several employees in Pampa while actually fabricating the building panels. Similarly, I have recommended that the supplier of the panels perform similar monitoring (under laboratory controlled conditions).



C. D. Barrett, Industrial Hygienist

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ASBESTOS SAMPLES

FOR

CELANESE CHEMICAL COMPANY
POST OFFICE BOX 937
PAMPA, TEXAS 79065

OCTOBER 31, 1977

BY

KEM-TECH LABORATORIES
16550 Highland Road
BATON ROUGE, LOUISIANA 70808

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October 31, 1977

Celanese Chemical Company

Three (3) filters for asbestos fiber count and sizing were received on October 26, 1977. Asbestos fibers longer than 5µm in length were observed by transmitted light by means of a phase contract microscope at a magnification of 450X. The procedure described in NIOSH Criteria Document for Asbestos was followed.

Results are reported as number of fibers (>5 µm) per filter.

<u>Sample No.</u>	<u>No. of Field Observed</u>	<u>Total No. of Asbestos Fiber Per Filter</u>
B	100	6840
1	100	17,100 *
2	100	3,420*

*Corrected by subtracting blank value.

Sham L. Sachdev
Sham L. Sachdev, Ph.D.
Director, Industrial
Hygiene Department

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