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U.S. PUBLIC HEALTH SERVICE
BUREAU OF OCCUPATIONAL SAFETY AND HEALTH, EHS
Technical Assistance Branch

Report on Survey of Sager Glove Corporation, Murray, Kentucky - March 10, 1970

INTRODUCTION

An evaluation of the asbestos exposure at the Sager Glove Company, Murray, Kentucky was made on March 10, 1970, at the request of the Occupational Health Program, Commonwealth of Kentucky. The survey was conducted by Mr. Jeffrey Lee and Mr. Robert Vandervort, BOSH, with the assistance of the following:

Mr. Ray L. Dunn, Industrial Hygienist, Commonwealth of Kentucky
Mr. Ronald G. Barlow, Industrial Hygienist, Commonwealth of Kentucky
Mr. George DuBoise, Sanitarian, Calloway County Health Department

The cooperation of all parties was sincerely appreciated.

GENERAL INFORMATION

According to _____, Plant Manager, Sager Glove Corporation is headquartered at 1672 North Clairmont, Chicago, Illinois and has been making gloves for over 25 years. The plant at Murray is the only plant within the corporation presently making asbestos gloves and has been in operation for about four years. Other products such as high reflective coats are also produced at this location. The plant employs approximately 60 employees with about 12-13 females actually engaged in the sewing of asbestos gloves. The gloves represent about 25-30% of the plant's production. Neither pre-employment physical examinations nor periodic medical examinations are required by the company. The company is insured by _____.

No environmental measurements had been taken by any party prior to the survey date.

Asbestos material is obtained in roll form from _____, Palmyra, New York. According to the plant manager the material contains approximately 75-80% asbestos. Although the specific type of asbestos was not identified, it was white in color, indicating it was not crocidolite, and was most probably chrysotile. The asbestos material is cut and sewn to form gloves.

Attached is a plant sketch and a table of results.

DISCUSSION

The acceptable threshold limit value established by the American Conference of Governmental Industrial Hygienists (ACGIH) for asbestos is presently 12 fibers greater than 5 microns in length per milliliter of air. It is anticipated, however, that this acceptable limit will soon drop to 5 fibers greater than 5 microns in length per milliliter of air. These values are based on a time-weighted average concentration for a 7 or 8-hour workday and a 40-hour work week.

The results indicate that with only one exception (sample number 4) the concentrations were below the 5 fibers greater than 5 microns in length, per milliliter limit. The average concentration for personal samples on the sewing line was 1.3 fibers greater than 5 microns in length, per milliliter.

Although the results indicate that concentrations are presently below the acceptable limits it should be realized that only a limited number of samples were taken, on a specific day, and under assumed normal operating conditions.

The following is taken from a 1968 report of the British Occupational Hygiene Society:

"As long as there is any airborne chrysotile dust in the work environment there may be some small risk to health. Nevertheless, it should be realized that exposure up to certain limits can be tolerated for a lifetime without incurring risks."

RECOMMENDATIONS

The following recommendations are advised:

1. Provide yearly medical examinations for all employees, including annual chest x-ray.
2. Provide general exhaust ventilation in the areas of the sewing and cutting operations.

Jeffrey S. Lee
Industrial Hygiene Engineer

MILLIPORE FILTER RESULTS

Sample Number	Type	Nature	Job Title (If Applicable)	Fiber Concentration/ml		
				Total	>5 μ	>10 μ
1	MF	BZ	Sewer	1.0	0.6	0.5
2	MF	BZ	Sewer	1.7	0.7	0.4
3	MF	BZ	Sewer	4.3	2.4	1.7
4	MF	BZ	Sewer	8.5	5.4	3.8
5	MF	BZ	Sewer	2.8	1.7	1.4
6	MF	BZ	Misc. Worker	1.4	0.5	0.3
7	MF	BZ	Sewer	1.3	0.8	0.5
8	MF	BZ	Sewer	0.1	0.0	0.0
9	MF	BZ	Glove Presser	2.2	1.3	1.2
10	MF	BZ	Plant Foreman	0.6	0.2	0.2
11	MF	BZ	Sewer	1.1	0.3	0.3
12	MF	BZ	Sewer	1.3	0.6	0.4
13	MF	BZ	Inspector	4.5	3.3	2.5
14	MF	BZ	Clicker	1.7	0.5	0.3
15	MF	BZ	Sewer	3.1	2.1	1.7
16	MF	BZ	Sewer	0.1	0.0	0.0

IMPINGER RESULTS

Sample Number	Type	Nature	Job Title (If Applicable)	MPPCF
200	I	G	-	0.00
201	I	G	-	0.03
202	I	BZ	Sewer	0.08
203	I	BZ	Sewer	0.00
204	I	-	-	BLANK
205	I	BZ	Cutter	0.04

HIGH VOLUME SAMPLER RESULTS

Sample Number	Type	MG/M ³
100	HV-G	0.33
101	HV-R	0.11
102	HV-G	0.22
103	HV-G	0.10

NOTE: The samples were counted by the Bureau of Occupational Safety and Health with phase contrast microscope techniques, on April 13, 1970. Representatives of the Kentucky State Health Department participated in the counting evaluation.

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16. Abstract (Limit 200 words) A survey was conducted to evaluate employee exposures to asbestos (1332214) at the Sager Glove Corporation (SIC-3842) in Murray, Kentucky, on March 10, 1970. The survey was requested by the Occupational Health Program of the Commonwealth of Kentucky on behalf of approximately 60 employees; 12 to 13 workers were directly involved in sewing asbestos gloves. The gloves represented about 25 to 30 percent of the production of the facility. No preemployment or periodic physical examinations were required. Asbestos material was obtained in roll form and cut and sewn to form gloves. The material was approximately 75 to 80 percent asbestos, probably chrysotile (12001295). Air samples were taken, and with only one exception, concentrations were below the standard of 5 fibers greater than 5 microns in length per milliliter. The average concentration for personal samples in the sewing line was 1.3 fibers greater than 5 microns in length per milliliter. The authors recommend yearly medical examinations, including X-rays for all employees, and the installation of general exhaust ventilation in the sewing and cutting areas.				
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