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Ontario

MINISTRY OF HEALTH

OCCUPATIONAL HEALTH PROTECTION BRANCH

FIELD VISIT REPORT

965-4066

Date: April 8,1975

From: G. S. Rajhans, P. Eng.

Plant: Garlock of Canada Ltd.

Address: 66 Jutland Road
Toronto, Ontario

Contacts:

Mr. S. Popowich, Chief Chemist
Mr. P. Rostas, Senior Plant Engineer

Hazard: ASBESTOS AND TALC

Requested by: Mr. W. Cotton, ISB

Accompanied by: Mr. W. Cotton, ISB

Date of Visit: March 11,1975

Copies to:

Dr. V. L. Tidey
Mr. J. McNair (3)
Dr. J. Vingilis
Mr. H. Wall

APR 10 1975
PROTECTION BRANCH

Abstract: Asbestos and talc exposures were re-assessed. The company is still handling the blue asbestos rather carelessly. Two directions were issued by Mr. Cotton during the visit. Other directions and recommendations are suggested in this report.

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The above mentioned company has been visited several times in the past. The last ventilation survey was made in August 1971 (see the report dated September 1,1971). Since then the company has installed a new mixer in the sheeter room. The mixer called "Eirich" would eventually replace the old "Darling" mixer which may be used as a standby. The company is also experimenting with a new system which might eliminate the hammer mill altogether. The new system would allow the scraps to be dumped into the mixer directly. Any successful outcome of the experiment should be known in about 6 months. The company has stopped hammer milling the loose asbestos fibres. Only the scrap is milled now. The mill is operated on an average of about an hour every two days. As the loose fibres are no longer handled in the canopy enclosure, the use of the canopy as described in my last report dated September 1,1971 has been eliminated. The trimmings are fed directly into the hammer mill. The face opening of the mill room is 84" x 78" with an average face velocity of 150 fpm. A man wears an approved respirator while feeding the trimmings.

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The new mixer has a face opening of 36" x 9" with a face velocity of about 50 fpm. The scrap bin located beside the mixer is entered once in two days.

The man entering the bin spends about an hour inside the bin. His job is to take a pail full of the scrap, weigh it and dump into the mix. According to the company the man wears an approved respirator. The company is contemplating to do away with the man entering the scrap bin.

The "Darling" mixer is provided with a canopy 5' x 4' located at about 4' above the mixer. The capture velocity was found to be <50 fpm.

The enclosure for the sheeter roller has an opening of 10' x 3' with a face velocity of 150 fpm. At the back of the sheeter roller a small amount of talc is used as a dusting compound. The talc has been analysed by the Occupational Health Lab and the report No. 16,203 dated March 11,1975 indicates that the talc is of non fibrous variety. The same variety of talc is also used in a talc dip for asbestos gaskets. The dip is provided with an enclosure with an opening 2' x 16" having a face velocity of 100 fpm.

In addition to the above described equipment, the company also has several braiding machines fitted with local mechanical exhausts. The capacities of the exhaust systems are shown below:

	MACHINE OR OPERATION	TYPE OF EXHAUST	SIZE OF FACE	FACE VELOCITY FPM
1.	36 Carrier White Lattice Braider	Enclosure with front doors	26" x 50" (Doors open)	<100 800 (Doors close)
2.	20 Carrier White Lattice Braider	"	"	"
3.	8 Carrier long and 8 Carrier small braiders	No ventilation		
4.	16 Carrier round braider	Enclosure with side doors	12" x 30" (Doors open)	100
5.	24 Carrier round braider	"	16" x 36"	400
6.	26 Carrier Black Lattice Braider	"	24" x 48"	<100 (Doors open)
7.	20 Carrier Black Lattice Braider	"	25" x 42"	300

	MACHINE OR OPERATION	TYPE OF EXHAUST	SIZE OF FACE	FACE VELOCITY FPM
8.	8 Carrier Black Lattice Braider	Enclosure with side doors	Plugged	———
9.	Bench Braider	Fully enclosed	———	———
10.	Spooler	Enclosure front opening	69" x 43"	200

Comments:

1. Blue Asbestos: The company claims that they have not used the blue asbestos (crocidolite) since October 1974. However, the writer and Mr. Cotton found several blue asbestos braider spools lying uncovered in various cartons at the back of the 8 carrier heavy braider. This indicates one of the two things:

   (a) The company has used the blue asbestos at a later stage than they admit.
   or
   (b) The blue asbestos bobbins have been left in the work area uncovered and thus exposing the employees to this highly toxic material since October 1974.

   As it is generally agreed that there is really no exposure limit to the blue asbestos because of its highly toxic quality, it was instructed to the company to immediately dispose of the spools or stop the working in the area. Mr. Cotton wrote a direction to this effect.

   In 1974 the company used a total of 4000 lbs of blue asbestos yarn, about 500 lbs 8 times. The same amount may be used this year. A great deal of discussion was held with the company on the measures to be taken to reduce the exposure to blue asbestos to a minimum. It was indicated to the company that adequate local mechanical exhaust at the braider alone is not going to eliminate all the exposures. Handling and storing of blue asbestos could also create a significant exposure. It is therefore imperative that as soon as the blue asbestos is braided, the bobbins should be stored in an air-tight container.

   It was also indicated to the company that considerations should be given towards the use of an air supplied helmet by the operator working with blue asbestos. It is recommended that air sampling be done during the use of the blue asbestos yarn.

2. Local exhausts: The face velocities at the "Eirich" and "Darling" mixers are not adequate. These mixers should be enclosed as much as possible and exhausted at the rate of at least 150 cfm/sq. ft. of the opening area.

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All the braiders are equipped with well designed enclosures but the front doors at all the braiders are left open and thus the efficiencies of the exhaust systems drop down considerably. This is demonstrated in the above table. Some of the enclosures were also found to have holes in the back located very closely to the back draft exhausts. This creates a short circuiting.

Some of the braiders where jute and hemp are occasionally used, are not provided with local mechanical exhausts. In my opinion these braiders should also be equipped with local ventilation as the exposure to jute and hemp could cause a respiratory disease.

3. Air Sampling results The last asbestos counts were taken on March 7,1975 and reported in the lab report dated March 12,1975. The counts ranged from 1.8 to 4.7 f/cc with 7 of the 8 counts below 3 f/cc. The highest count 4.7 f/cc was obtained at the hammer mill. The operator of the hammer mill wears an approved respirator. Furthermore, the hammer mill is operated only for about an hour every two days.

Although the other counts are not too far above the TLV of 2 fibres/cc, it is desirable to keep the counts below the TLV. It is also suggested that the company acquire their own sampling apparatus to monitor the environment on a regular basis.

It is hoped that when the directions suggested in this report are complied with, the counts would be lower.

Directions to be Issued:

1. Adequate control measures shall be taken to eliminate the exposure to blue asbestos. These control measures shall include:

   a) Adequate local mechanical exhausts at the braiders.

   b) The use of air supplied hoods by the operator.

   c) The properly controlled storing and handling facilities.

   and

   d) An attempt to find a viable alternative.

2. The existing local mechanical exhausts at the braiding machines and the mixers shall be so improved as to provide adequate asbestos dust control measures.

3. The braiders where jute and hemp are used shall be provided with adequate local mechanical exhausts.

Recommendation:

Air sampling for asbestos should be done when the company is handling blue asbestos yarn.

G S Rajhans

GSR:SY G. S. Rajhans, P. Eng.

Ministry of Labour
Ontario

MEMORANDUM

Date: March 27, 1975

File: 355-00002-0001

To:
Dr. V.L. Tidey, Chief
Occupational Health Service
Environmental Health Services Branch
Ministry of Health
15 Overlea Blvd., 5th Floor
Toronto, Ontario.

From:
Industrial Safety Branch

INSPECTION REQUEST

PROBLEM: Company once again said they use no blue asbestos. However, three open barrels and one open carton of Crocidolite (blue asbestos)found behind a braiding machine.

(Joint inspection with Mr. G.S. Rajhans of O.H.P.B.)

66-71

EMPLOYER: Garlock of Canada Ltd.
66 Jutland Rd.
Toronto, Ontario

I.S.B. FILE NO.: 355-00002-0001

COMPLAINT NO.:

PRIME CONTACT: E. Chapman, Manager Region 07

SECONDARY CONTACT: R. Turton, Training Manager

REPORT DATED: March 18, 1975

INDUSTRIAL SAFETY OFFICER: W. Cotton

J. McNair, P. Eng.
Director

DIRECTOR
OCCUPATIONAL HEALTH
APR 1 1975
PROTECTION BRANCH