FILE NAME: Garlock (GAR)

DATE: 1976 Sept 13

DOC#: GAR054

DOCUMENT DESCRIPTION: Field Visit Report

Ministry of Health

Ontario

355-00002-0001
I.S.B. File No. :
O.H.P.B. File No. : 7E-53

OCCUPATIONAL HEALTH PROTECTION BRANCH

FIELD VISIT REPORT

416/965-4066

Date: September 13, 1976

From: J. Toth, P.Eng.

Plant: Garlock of Canada Ltd.
Address: 66 Jutland Rd.
Etobicoke, Ontario

Contacts: ~~Mr. W.J. Woods,~~
Manager of Engineering

MR. KEN SIBBALD

Hazard: Asbestos and Jute

Requested by: OSB

Accompanied by:

Date of Visit: August 16, 1976

Copies to: Dr. V.L. Tidey
Mr. K. Cleverden
Dr. J.J. Vingilis
Mr. S. Morton ✓
Mr. W.J. Woods

Abstract: A visit was made to review the working environment in the asbestos braiding in the asbestos sheet production and in the gasket departments. Control appears to be adequate at almost all dust producing operations.

Recommendations are suggested.

* * * *

The plant was previously visited by Mr. S.J. Bell on November 7, 1975 and air sampling was carried out by Mr. M. Polny at the same time. The plant was not in full operation during the air sampling and hence the A.Q.A. #49 report represents conditions which are less than full production. The plant is located in a building of about 200' x 450' x 16' high and about 150 persons are employed on 3 shifts/day, 5 days/week basis. The departments visited are as follows.

. . . 2.

Black Braid Department

This department is located in a room of about 100' x 70' x 16' high. The machines operating there are:

7 braiding machines
1 spooler
2 twisters

Air velocity measurements were made and the results obtained are:

	Machine	Air Velocity	FPM	Remarks
1.	Braider	front	300	
		die	300	
2.	Braider	front	500	
		die	600	
3.	Spooler	front	75 - 200	area 46" x 78"
		back	200	area 16" x 78"
4.	Braider	front	500 - 600	
		die	500	
5.	Braider	front	200	
		die	200	
6.	Braider	front	500	
		die	200	
7.	Braider	front	600	
		die	400	
8.	Braider	front	700	
		die	1400	

The twisters are not mechanically exhausted.

White Braid Department

This area is about 50' x 40' x 16' high. The machines operating there are:

1 drying oven
5 braiding machines
1 winding machine
1 twister
1 spooler
4 spiral woven gasket machines
1 dusting cabinet
1 press
1 roll
1 shear
1 calender

Air velocity readings were found to be as shown in the following table.

. . . 3.

	Machine	Air Velocity	FPM	Remarks
1.	Drying oven	gap between the doors	200	fully enclosed
2.	Braider	back side	600 1100	
3.	Winding Machine	front opening of 13" x 12"	200	
4.	Braider	front back	400 1000	
5.	Braider	front opening	900	
6.	Twister for hemp and jute	front	100	asbestos is twisted occasionall
7.	Spooler	dust generation point	50	10" x 35" canopy hood is above the spooler
8.	Braider	front die	800 400	
9.	Dusting Cabinet	front opening of 24" x 26"	100 - 150	talc is used

The spiral woven gasket machines (4), the press, the rolls, the shear and the calender are not exhausted.

Local exhaust capacity in the two braiding areas is about 11,000 cfm.

Paint Mixing Area

This area is a 50' x 20' x 16' high room, exhausted by a combination of local and general mechanical exhaust. If the flexible duct is attached to the roof fan, the exhaust can be localized. The fan capacity is estimated to about 1,600 cfm. Fluid paints are mixed and discharged to 1-5 gallon pails. No dust is generated at this place.

Asbestos Sheet Production

This room is about 60' x 80' x 16' high. Asbestos is mixed with additives and with toluen in a mixer, discharged to 6' x 5' x 4' deep metal containers and dumped to a 10' long enclosed sheeter.

A booth of 20" x 40" x 25" is used for bag splitting over the mixer. A hole of 15" diameter is left in the bottom of the booth for discharging the empty bags to a plastic bag attached to the hole. Inward air velocity of 200 fpm was measured at the booth face.

. . . 4.

Inward air velocity was about 150 fpm at the 3' x 11' booth opening over the sheeter.

An old mixer is used occasionally for reclaiming scraps. The mixer is exhausted through an overhead 5' x 5' canopy hood placed about 9' above the floor level.

No respirators are used in the plant. Medical supervision is carried out by the Industrial Chest Disease Service.

Comments

1. The front enclosures on the braiders appear to provide a good dust control. Inward air velocities measured at any opening were at least 200 fpm.
2. The spooler in the black braid department is exhausted but the open area at the front and at the back of the machine is unnecessarily large.
3. The twister in the white braid department is used occasionally for asbestos. Air velocity measured at the front of the twister (100 fpm) is not adequate.
4. The spooler in the white braid department is exhausted by a 10" x 35" canopy hood, but the air velocity at the possible dust generation point (50 fpm) is not adequate.
5. The spiral woven gasket machines (4) are not locally exhausted. However, some settled dust has been accumulated on the machines and generated during their operation. An air sampling will show the airborne fibre concentration and the need (if any) for local exhaust.
6. The fan installed in the paint mixing room provides 6 air changes per hour of this area. When the fan capacity (1,600 cfm) is applied for local exhaust, it appears to be adequate for eliminating the solvent vapours generated during the mixing and discharging process.
7. In the asbestos sheeting department, a booth of about 20" x 40" x 25" deep is used for splitting the plastic bags, containing asbestos. It was mentioned by Mr. Woods that the hole in the bottom of the booth is not used any more for collecting the empty bags. At present, the bags are folded in the booth and collected as garbage. In this case, the hole in the bottom of the booth should be liquidated.

Recommendations

1. Air sampling should be made for asbestos and for toluene in the plant. Further comments will follow the air sampling report.
2. The front and back openings at the spooler in the black braid department should be reduced as much as possible.

. . . 5.

3. The twister in the white braid department should be more enclosed. Inward air velocity to the enclosure should be not less than 200 fpm.
4. The spooler in the white braid department should be enclosed and exhausted at a rate of at least 200 fpm at the possible dust generation point.

Directions to be Issued

None are suggested at this time.

J. Toth

J. Toth

JT:df