

FILE NAME: John Crane (JC)

DATE: 1978 Sept 12

DOC#: JC043

DOCUMENT DESCRIPTION: Field Visit Report - Ontario

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416/ 965-4066

September 19, 1978

Mr. R. Mellikow
Plant Superintendent
Crane Packing Company Limited
423 Green Road
Stoney Creek, Ontario

Dear Mr. Mellikow:

Enclosed is a copy of the Field Visit Report prepared by
Mr. D.A. Brown, P.Eng., following a visit to your plant
on September 6, 1978.

Yours truly,

GSR:lm
Encl.

G.S. Rajhans, M.Sc.(Eng.), P.Eng.
Chief
Occupational Health Engineering



Occupational Health Branch

FIELD VISIT REPORT

416/ 965-4066

Date: September 12, 1978

From: D.A. Brown, P.Eng.

Plant:	Crane Packing Company Limited	Requested by:	O.H.B.
Address:	423 Green Road Stoney Creek, Ontario	Date of Request:	
Contacts:	Mr. R. Mellikow - Plant Superintendent	Accompanied by:	Mr. R. Sales, I.H.S.B.
Hazard:	Asbestos Dust (Crocidolite & Chrysotile)	Date of Visit:	September 6, 1978
		Copies to:	Dr. G. Debow Mr. J. McNair (3) Dr. J. Vingilis Mr. R. Mellikow

Abstract: In the packing department gaskets are made from materials which in some cases contain blue asbestos (crocidolite). The braiding operation as well as the machining of couplings containing white asbestos (chrysotile) expose workers to dust since neither operation is provided with any local mechanical exhaust. It appears at present that the exposure to asbestos dust (chrysotile and crocidolite) is not above the suggested threshold limit values.

Recommendations are made, but no directions are suggested.

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During the last air sampling survey (A.Q.A. Report #791 dated July 28, 1978) it was observed that blue asbestos was being used. This visit was made to evaluate exposure to blue asbestos.

In the packing department custom gaskets are produced from felt and compressed sheets which both contain blue asbestos. These gaskets are used mainly in the chemical industry where acid resistance is required. For other applications the following materials may be used:

Chrysotile (white asbestos)
Buna - N
Neoprene
Cork
Butyl Rubber

The blue asbestos felt sheets (from which the gaskets are cut) measure 68" x 71" and come in widths of 1/8" and 1/16". In 1977 1100 lbs of this material was used and for 1978 1200 lbs is expected to be used. The compressed sheets of blue asbestos measure 50" x 50" with the most common width 1/16". The estimated usage of this material for 1978 is 1,200 lbs.

The small gaskets are cut using a dye and a punch press with the larger sizes (up to 60") hand cut on a large table. There is no local exhaust to control the dust produced during mechanical or hand cutting. The scrap sheets of asbestos are stored in open racks next to the cutting table.

In the teflon department, envelopes for covering gaskets are produced. The operator who carries out this job also works as a lathe machine operator. To produce a teflon envelope a piece of teflon tape is cut on a special dye and then welded together and inserted around the gasket. This envelope gives the gasket chemical inertness. The gasket could be of any material but at the present time blue asbestos is very prominent.

In the teflon department, occasionally bushings are made from white asbestos as follows. The asbestos cloth is first soaked in teflon, placed in a dye, compressed, sintered in an oven and finally machined on a lathe. There is no local mechanical exhaust provided to control dust at any of the operations involved in the production of asbestos bushings.

Comments

1. In Ontario, occupational exposure (based on a 8 hour day or 40 hour week) to asbestos is acceptable up to the following limits:
 - for chrysotile (white asbestos) - 2 fibres greater than 5 micrometers in length per cc of air.
 - for crocidolite (blue asbestos) - 0.2 fibers greater than 5 micrometers in length per cc of air.
2. During the last sampling survey the gasket operator was cutting sheets containing blue asbestos. In order to determine the appropriate threshold limit value for this sampling result, the following information must be taken into consideration.
 - i) About 65% of the gaskets he produces contain asbestos and this is divided between the blue and white variety.
 - ii) Since the gasket operation is not segregated from the braiding machines (which processes chrysotile asbestos) he could be exposed to background dust from this operation.

2. Cont'd.

- iii) When the asbestos fibres are counted under phase contrast microscope it is not possible to distinguish between chrysotile and crocidolite asbestos.

Based on the above, the gasket operator is therefore subjected to a mixed asbestos exposure. If we assume he is exposed to crocidolite 50% of his working time and 50% chrysotile then the appropriate threshold limit value for assessing his asbestos exposure would be 1.1 fibres/cc. Since the last air sampling shows this operator is exposed to 0.5 fibres/cc then his exposure to asbestos is within acceptable limits.

- 3. The braiding machine operator has a continual exposure to chrysotile asbestos. However, since this operation is about 50' - 60' away from the gasket operation he could be exposed to some background crocidolite. It is felt that if his exposure to asbestos is kept below 1.0 fibre/cc then this would be acceptable. The last air sampling survey showed that this operator is exposed to 0.3 fibres/cc.
- 4. The teflon envelope operator is exposed to blue asbestos as he wraps the envelopes around the formed gasket, however, not all the gaskets he works with contain blue asbestos. Since he is not required to cut the gasket (this is done by gasket machine operator) his exposure to crocidolite asbestos should be minimal. His major source of exposure to asbestos is more likely to be from two nearby dust producing operations. The soaking of white asbestos cloth in teflon is carried out about 10' from his envelope table. Also the nearby lathes (10'-15' away) which can be used to machine asbestos to produce couplings generate white asbestos, as none of these machines contain any local exhaust. This envelope maker also works as a lathe operator.

Apparently, the envelope production does not take more than two hours per day and since the machining of asbestos is also intermittent, it is likely to be less than 3-4 hours per shift. Thus in the teflon room, the appropriate threshold limit value is likely to be about 1.5 fibres/cc. Both samples in this room were well below this limit.

- 5. The results of recent air sampling show that none of the workers sampled are exposed to levels of asbestos that exceed the estimated threshold limit values. However, the goal should always be to reduce exposure to asbestos dust (especially crocidolite) to the lowest possible level and in order to do this recommendations are suggested at the end of the report.

Conclusion

It appears that at the present time the exposure to asbestos dust (chrysotile and crocidolite) is not excessive and thus no directions are suggested but recommendations are made. If however, the use of asbestos increases (especially the crocidolite) then the exposure will have to be re-evaluated and directions may be necessary.

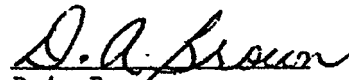
Recommendations

1. Operations involving the use of blue asbestos (crocidolite) should be isolated (i.e.-seperate room) so that nearby or neighbourhood workers are not exposed.
2. The scrap asbestos sheets in the packing department should be stored in such a manner so as to prevent the dissemination of loose dust.
3. Asbestos dust should only be cleaned up using a vacuum or wet mop, never dry sweeping as this stirs up settled dust and causes unnecessary exposure.
4. The use of materials containing blue asbestos (crocidolite) should be curtailed or eliminated if possible.

Directions to be Issued

None at this time.

DAB:lm


D.A. Brown



Labour

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BRANCH

400 UNIVERSITY AVENUE
TORONTO, ONTARIO
M7A 1T7 (965-4125)

SIC	REGIS NO	DIV
3535	20003	0000

PLEASE QUOTE FILE
NUMBER ON ALL INQUIRIES
OR CORRESPONDENCE

CRANE PACKING CO LTD.

ADDRESS

P.O. Box 3248 STN C

CITY

HAMILTON

POSTAL CODE

L8H 7L3

REG DIST

07 29

MONTH DUE

LOCATION OF PREMISES

423 GREEN ROAD

PRIORITY

2

AGEMENT NAME

J.M. PENTON

STANDARD GEOGRAPHICAL
CLASSIFICATION

3535030CS

TRIGGER

OUT STD

T6

DR

TELEPHONE NO.

T

3X

46

662

6191

LOCATION OF PREMISES

CRANE PACKING CO LTD

MAILING ADDRESS

P.O. Box 3248 STN C

CITY

HAMILTON

POSTAL CODE

L8H 7L3

PROV./STATE

ONT

ACTIVITY OF EMPLOYER - COMPLETE WHEN SIC NUMBER TO BE CHANGED OR FOR NEW EMPLOYER

COPY TO:

CSB

HEALTH

PUNCH DATA

FILE NUMBER		INSPECTOR NUMBER	INSPECTION DATE			INSP. CODE	CYCLE	NUMBER OF EMPLOYEES			
			DAY	MONTH	YEAR			29 PRODUCTION 3334 ADMINISTRATIONS			
5500003		00002	73	06	9782	5	12	0004400040			
T/G NEW DURATION		45	NEW MANAGEMENT				64	65	NEW TELEPHONE NO.		
									74		

ES:

SPECIAL VISIT BY MR D.A. BROWN, O.H.B. RE BLUE ASBESTOS

SECTION NUMBER	E OR D	A R	ACT OR REG SEC	Take notice that you are required to comply with the following directions under ☐ The Industrial Safety Act, 1971. ☐ The Loggers Safety Act. ☐ Canada Labour Code Part IV	Please notify the Branch by letter upon completion
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CONTACTS MR K. MELLIKOW, PLANT. SUPT.
MR W. TURNER, FOREMAN.

REPORT RECEIVED BY

INSPECTOR