



Inter Company Correspondence

Phone No.

Date

File Code

June 29, 1983

To—Name & Department

Division

Plant/Office

CIMS Number

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Plant Manager

Stamping &
DiversifiedTrenton
Chemical

453-02-0

From—Name & Department

Division

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CIMS Number

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Industrial Hygiene

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417-05-1

Subject:

PERIODIC ASBESTOS SURVEY**EXHIBIT**

CHR-57

Summary

A survey of the Trenton Chemical Friction Products Building for employee exposure to asbestos dust was conducted on May 16 and 17 by the writer. In addition, the exhaust ventilation rates on several exhaust systems in the chemical building were measured to determine capture velocity. Monitoring results indicated all employee exposure levels below the permissible exposure limit of 2 fibers/cc for asbestos dust. In the course of the investigation the exhaust ventilation systems of the equipment in the friction products building was measured and found to be adequate on a majority of the equipment evaluated, but lack of maintenance on some systems was evident (i.e. plugged duct work on #1 OEM grinder).

Housekeeping in the friction products building was evaluated. Loose piles of accumulated asbestos dust were observed in several areas.

At the plant request the exhaust ventilation on several systems were evaluated in the chemical building and five of the systems had capture velocities less than 50 fpm which is below the 100 fpm minimum recommended velocity.

The Occupational Safety and Health Administration recently has begun reviewing the asbestos standard with the intention of lowering the permissible exposure limit from 2.0 fibers/cc to 0.5 fibers/cc. The revision to the standard is being prepared for a Fall 1983 introduction as a proposed standard. The plant should begin to evaluate their operations to ensure compliance with the anticipated proposed regulation.

Discussion

The periodic asbestos survey at the Trenton Chemical Plant was completed on May 17, 1983. Air monitoring data indicated employee exposure levels to be below the current permissible

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exposure limit of 2 fibers/cc. Employees who are exposed to asbestos dust concentrations of 0.1 fibers/cc or greater are required to have an annual medical examination (ref. R. D. McIntosh, M.D., G. A. Sattelmeier Inter Company Correspondence of July 3, 1978).

As part of the investigation exhaust ventilation rates were measured on the equipment in operation. The exhaust velocities were generally found to be adequate (>150 fpm) with the exception of #2 Bipel downdraft table (<50 fpm) and #1 OEM grinder supplemental exhaust on the grinding wheel (duct was plugged). The problem with the #1 OEM grinder duct was subsequently corrected on May 17 and the ventilation rate was measured at 400-600 fpm. It is extremely important that the plant ventilation systems be properly maintained so the potential for employee asbestos dust exposure is kept at a minimum.

Housekeeping in the friction products building was evaluated. In the course of the survey piles of loose asbestos dust were observed on the floor and around several machines. The potential for employee asbestos exposure arising from the sources is increased, especially with the summer weather approaching and the overhead doors to the building remaining open thereby, introducing drafts which might allow the dust to become airborne. Management therefore must make every effort to keep the equipment and surrounding floor area as free from loose asbestos as possible thereby minimizing employee exposure from this source.

At the plant's request the writer evaluated the process exhaust ventilation in the chemical building. The majority of the capture velocities measured were 100 fpm or greater, this ventilation rate is the minimum acceptable capture velocity for the type of work performed (i.e., intermittent container filling). Several of the hoods tested had capture velocities below 100 fpm. These systems should be inspected and changes should be made to ensure a minimum capture velocity of 100 fpm. Some of the changes could be as simple as clean-up of the hood face, others might need redesign of the hood and/or an increase in fan size in order to maintain the appropriate capture velocity.

The Occupational Safety and Health Administration has recently announced intentions to lower the current asbestos

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standard from 2 fibers/cc to 0.5 fibers/cc. This reduction in the standard could have serious impact on the plant in that better engineering controls and/or use of respiratory equipment may become necessary in order for the plant to comply with the revised regulation. The plant should begin to evaluate the existing plant ventilation systems in light of the revised standard and determine what changes to the system will be necessary to ensure compliance.

If you have questions regarding this report, contact the writer.



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Industrial Hygienist

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Attachments

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Data Sheet
Trenton Chemical Plant
May 16-17, 1983

Asbestos

Permissible Exposure Limit	Concentration (fibers/cc) 2
[REDACTED]	
#1 OEM grinder operator and inspector	0.6
Repeat	0.7
Time-weighted average	0.7
[REDACTED]	
Unload pads from chop saw	0.4
[REDACTED]	
K-Car pad grinder operator and inspector	<0.1
[REDACTED]	
K-Car pad grinder operator and inspector, wearing respirator	<0.1
[REDACTED]	
South rivet machine operator	0.2
[REDACTED]	
Gardner grinder operator, wearing respirator	0.6
[REDACTED]	
Grinder area truck driver	<0.1
[REDACTED]	
Mixer/weigh-up operator, wearing respirator	0.3
Repeat	0.4
Time-weighted average	0.3

Data Sheet
Trenton Chemical Plant
May 16-17, 1983

Asbestos

Permissible Exposure Limit	Concentration (fibers/cc) 2
 Cycle weld assembly D-4439, wearing respirator	< 0.1
 #14 press and #2 Bipel operator	0.6
 #22 press and #5 Bipel operator	1.5
 #13 press and #2 Bipel operator	0.5
 #5 and 6 Barker bonder operator	0.1
 Oven #32 unloader backplate	0.3
Area sample - friction products Building - Cafeteria	0.1
 #2 prooftester operator and inspector	0.1
 #2 prooftester operator and inspector	0.2
 Saw line conveyor operator	0.7

Asbestos

Permissible Exposure Limit	Concentration (fibers/cc) 2
[REDACTED] North Rivet machine operator , wearing respirator	0.2
[REDACTED] Friction Products Building - sweeper operator	<0.1
[REDACTED] Millwright - saw line	0.7

All samples were collected on cellulose ester filters using MSA Model G Pumps and analyzed by phase contrast microscopy.

Data Sheet
Trenton Chemical Plant
May 16-17, 1983

Ventilation

<u>Description</u>	<u>Exhaust Ventilation Rate (fpm)</u>
Weigh-up Mixer (at 1' from hood)	~ 150
#1 Ball Mill Mixer (at 1')	70
#2 Ball Mill Mixer (at 1')	~ 100
#3 Ball Mill Mixer (at 1')	~ 150
Redco #1 and #2 (at 1')	200-250
Redco #3 (at 1')	125-150
#1 Paint Mix Room (outside edge)	130-160
HT 01 (at 18")	100
#3 and #4 Churn (middle of access)	50-70
Plasticizer Exhaust	110-120
CH 21 (at 3')	150
#5 Churn(inside edge)	500
(outside edge)	< 50
BT 12 Drum off (at 18")	100
2000 Gal. Drum off (at 18")	120
#5 Churn Drum off (at 18")	100
#4 Churn Drum off (at 18")	160-170
#1 and #2 Baker Perkins	< 50
TL 16	150
Day Mixer (at 18")	< 50