



Intercompany Correspondence

To-Name & Department		File Code	Date	CIMS Number
S. C. Enders		Stamping and Assembly	October 21, 1977 Trenton Chemical	453-00-00
From-Name & Department		Division	Plant/Office	CIMS Number
D. P. Glazier		Employee & Ind. Relations	Chrysler Center	417-05-19

Subject: ASBESTOS SURVEY

EXHIBIT

CHR-46

The OSHA asbestos standard CFR 1910.1001(f)(3)(ii) stipulates that environmental monitoring be of such frequency and pattern as to represent with reasonable accuracy the levels of employee exposure. In compliance with this requirement, the writer investigated employee exposure levels at all work stations associated with the recently introduced disc brake riveting process. The results of this investigation are listed on the attached data sheets opposite the corresponding job description or area location. We were accompanied by Mr. E. Lombard, Supervisor, Employee and Facility Protection, and Mr. Clayton, Local 372 Chief Steward, at various times throughout this survey.

During the course of this survey, two large make-up air units were installed on the east end of the Friction Products Building. The intake of the north make-up air unit is in close proximity to the exhaust of the #2 Baghouse. Air sample No. 22 indicates that asbestos emissions are being recirculated back into the Friction Products Building through the north make-up air unit. Industrial Hygiene recommends that the #2 Baghouse exhaust be relocated so as to direct any fugitive baghouse emissions away from the north make-up air unit. It is good Industrial Hygiene practice to design building air inlets and outlets in accordance with the attached A. C. G. I. H. sketch.

The preliminary investigation conducted on August 29, 1977, indicated that all grinding, drilling and riveting operations were in compliance with the two fiber/cc OSHA Permissible Exposure Limit. However, the August 29 data indicated significant airborne asbestos levels at the pad only inspection work stations. This operation, which was performed at unventilated Work-O-Matic fixtures, involved the visual inspection and sorting of disc brake linings after they had been ground on both sides at the Besly rough grinders. Note that employees performing the pad only inspection operation on August 29, 1977, were required to wear approved air-purifying respirators. This respirator requirement had resulted from previous experience with the disc brake linings ground on the Hammond flat finisher.

Upon receipt of the August 29, 1977, laboratory results, the writer returned to the Friction Products facility on September 12, 1977, to obtain additional

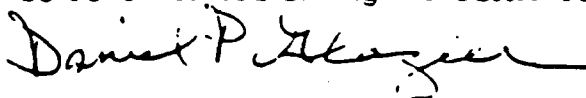
Re: Asbestos Survey

air samples at the pad only inspection work stations. The September 12, 1977 air samples were analyzed immediately and the pad only inspection of ground linings was discontinued on September 13, 1977. In compliance with Section 1910.1001(i)(3), the affected employees were notified that the air samples obtained at the pad only inspection operation indicated excessive exposure to airborne asbestos fibers at this location.

During the week of September 12, 1977, downdraft exhaust ventilation was installed at the pad only inspection work stations. In order to properly evaluate the effectiveness of the pad only inspection exhaust ventilation, a third set of air samples was obtained on September 21, 1977. The September 21, 1977, air samples indicated that the downdraft exhaust ventilation provided good control of pad only inspection operations performed on disc brake linings which had not been ground on the Besly rough grinder. The pad only inspection exhaust ventilation also provided adequate control for those employees inspecting disc brake linings which had been ground, washed, and drilled at the wet drilling operation. On September 21, 1977, the drill press operators were the only employees handling ground disc brake pads prior to the wet drilling operation, (see air sample No. 18).

During the week of September 26, 1977, the plant installed additional exhaust ventilation at the north and south drill presses. A fourth set of air samples obtained on October 6, 1977, indicated that the drill press exhaust, located directly above the ground linings, did protect the drill press operator from the residual asbestos dust which adheres to the ground pads. Due to production scrap problems, the pad only inspection of ground linings was re-established on October 6, 1977, (see air sample No. 21). Evidently, the downdraft Work-O-Matic bin exhaust ventilation will provide marginal control of airborne asbestos when employees are required to inspect ground linings.

We recommend that the Industrial Engineering and Quality Control Departments investigate the possibility of eliminating the pad only inspection of ground pads. Employee exposure at the pad only inspection operations will be re-evaluated during the OSHA-required semi-annual asbestos survey.



DANIEL P. GLAZIER
Industrial Hygienist

Attachments

cc: L. F. Andre
G. D. Benson
F. A. Burnett

G. C. Hill
J. A. Johnston
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Data Sheet

TRENTON FRICTION PRODUCTS

<u>Location</u>	<u>Concentration</u> (fibers, greater than 5 microns in length, per cubic centimeter of air)
<u>August 29, 1977</u>	
OSHA Permissible Exposure Limit	2.0
1) Personal air sample, long riveting (inner disc brake)	1.1
2) Personal air sample, short riveting (outer disc brake)	0.3
3) Personal air sample, south disc brake drill press operator	0.5
4) Personal air sample, north disc brake drill press operator	0.5
5) Personal air sample, south Besly finish grinder operator	0.4
6) Personal air sample, north Besly finish grinder operator	0.1
7) Personal air sample, south Besly finish grinder inspector	0.2
8) Personal air sample, south Besly rough grinder operator	0.4
9) Personal air sample, north Besly rough grinder operator	1.1
10) Personal air sample, pad only inspection, after Besly rough grinder operation, time- weighted average concentration based on 4 hours on and 4 hours off, (employee was wearing an air-purifying respirator)	37.8

TRENTON FRICTION PRODUCTS

September 12, 1977

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|-----|---|------|
| 11) | Personal air sample, pad only inspection, after Besly rough grinding operation, time-weighted average concentration based on 4 hours on and 4 hours off, (employee was wearing an air-purifying respirator) | 57.2 |
| 12) | Personal air sample, pad only inspection prior to Besly rough grinding, time-weighted average concentration based on 4 hours on and 4 hours off, (employee was wearing an air-purifying respirator) | 12.5 |

September 21, 1977

- | | | |
|-----|--|-----|
| 13) | Personal air sample, pad only inspection prior to Besly rough grinding | 0.2 |
| 14) | Personal air sample, pad only inspection repeat of air sample 13) | 0.3 |
| 15) | Personal air sample, pad only inspection prior to Besly rough grinding | 0.1 |
| 16) | Personal air sample, pad only inspection after Besly rough grinding and drilling | 0.5 |
| 17) | Personal air sample, north drill press operator, time-weighted average concentration | 0.9 |
| 18) | Personal air sample, south drill press operator, time-weighted average concentration | 2.4 |

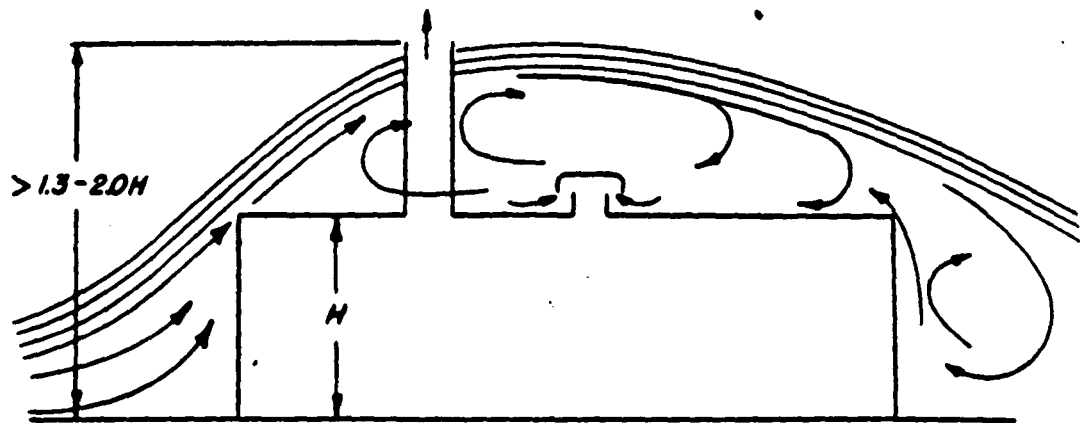
October 6, 1977

- | | | |
|-----|---|-----|
| 19) | Personal air sample, south drill press operator | 0.4 |
|-----|---|-----|

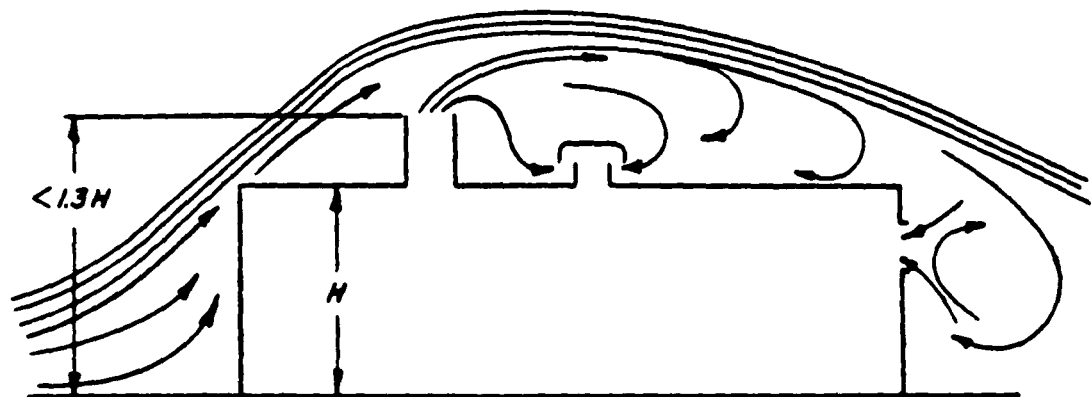
TRENTON FRICTION PRODUCTS

20)	Personal air sample, OEM grinder inspector	< 0.1
21)	Personal air sample, pad only inspection, after Besly rough grind operation, time-weighted average concentration	1.8
22)	General air sample, roof, immediately adjacent to the intake of the recently installed north make-up air unit	0.6
23)	General air sample, roof, immediately adjacent to the intake of the recently installed south make-up air unit	0.1

All determinations of airborne asbestos fiber concentrations were made by the Industrial Hygiene Laboratory using the OSHA dictated membrane filter method at a magnification of 450X with phase contrast illumination.

**GOOD**

*High discharge stack relative to building height,
air inlet on roof.*

**POOR**

*Low discharge stack relative to building height,
air inlet on roof and wall.*

AMERICAN CONFERENCE OF
GOVERNMENTAL INDUSTRIAL HYGIENISTS

BUILDING AIR INLETS AND OUTLETS

(Ref. B7)

DATE 1-66

Fig. 6-23