



PLAINTIFF'S EXHIBIT

FD-1421

Inter Office

Personnel and Organization Staff

August 19, 1980

Mr. T. McCaffrey, Plant Manager
Sharonville Transmission Plant

cc R. Byrom R. Klingenberg, M.D.
J. Condon M. Lindsey

Subject: Industrial Hygiene Survey - Oil Mist and Asbestos Fiber - August, 1980

At the request of M. Lindsey, Senior Safety Engineer, an industrial hygiene survey was performed at the subject location. The purpose was to evaluate employee exposures to:

- 1) Oil mist and smoke at the lathes in Department No. 271 and bores in Department Nos. 274, 254 and 265.
- 2) Asbestos fibers during the loading of rear bands onto conveyor No. 6 in Department No. 290.

These surveys were prompted by union grievances relating to health and safety.

Survey results, shown in the attached tables, are summarized below:

I. Oil Mist and Smoke

Department No. 271 -- Breathing zone air samples of representative lathe operators indicate that employee exposures are well below appropriate permissible exposure limits (PEL's). During the survey, an attempt was made to simulate the worst possible operating conditions by eliminating the mechanical dilution ventilation in the area. Despite this condition, air sampling results were still in compliance.

Department Nos. 274, 254 and 265 - Breathing zone air samples on representative bore operators indicate that employee exposures are well below appropriate PEL's for oil mist and smoke. Despite this fact, it was noted that the existing exhaust ventilation on bore No. 137843 was not operating adequately. The enclosure and ducting appeared to be clogged with oil and debris. This condition should be corrected.

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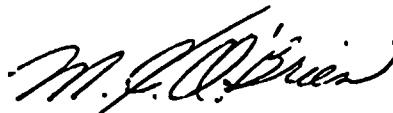
August 19, 1980

II. Asbestos Fibers

Breathing zone air samples of the employee who loads rear bands on conveyor No. 6 indicate no excessive exposure to airborne asbestos. In addition, employee exposures were below the Ford medical monitoring limit of 0.1 f/cc. The asbestos containing part of the band was oiled which further reduced the possibility of airborne emissions.

Based on the above information, it is concluded that no health hazard exists. However, if conditions change appreciably (i.e., dusty parts or containers), the operation should be resurveyed.

If there are any questions contact the writer at 337-8955.



M. J. O'Brien
Senior Industrial Hygienist
Industrial Hygiene & Toxicology Dept.
Employee Health Services

dt
Attachments

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TABLE NO. 1

INDUSTRIAL HYGIENE SERVICES SECTION
INDUSTRIAL HYGIENE AND TOXICOLOGY DEPARTMENT
EMPLOYEE HEALTH SERVICES

SHARONVILLE TRANSMISSION

August 4-5, 1980

Lathe and Bore Operations

PERMISSIBLE OCCUPATIONAL EXPOSURE LIMITS TO AIRBORNE CONTAMINANTS:

(mg/M³ = milligrams of particulate per cubic meter of breathing zone air)

<u>Contaminants</u>	<u>8-Hour Time Weighted Average Exposure Limits</u>
Total Particulate (TP)	10 mg/M ³ *
Oil Mist (OM)	2.5 mg/M ³ *
Oil Smoke (OS)	2.0 mg/M ³ *

<u>Employee Name & S.S. Number</u>	<u>Location & Conditions</u>	<u>Airborne Contaminant Concentration (mg/M³)</u>		
		<u>TP</u>	<u>OM</u>	<u>OS</u>
<u>I. Department No. 271</u>				
L. O. Elkins (245-48-7483)	Operates lathe Nos. P566266 & P566265 with soluble oil. Excellent Ventilation	0.84	0.84	ND ¹
L. O. Elkins (245-48-7483)	Same as above except venti- lation only fair.	0.30	0.30	ND ¹
R. Burns, Jr. (400-36-2929)	Operates lathe Nos. P566267 & P566268 with soluble oil. Excellent Ventilation	0.55	0.38	0.16
R. Burns, Jr. (400-36-2929)	Same as above except venti- lation only fair.	1.24	1.06	0.18
<u>II. Department No. 274</u>				
W. E. Gill (294-20-5822)	Operates bore Nos. 136734 & 137632 without coolant. Venti- lation considered fair.	0.60	0.56	0.03
W. E. Gill (294-20-5822)	Same As Above	0.35	0.33	ND ¹
E. A. Hall (268-03-8371)	Operates bore Nos. 136735 & 137128 without coolant. Venti- lation considered fair.	0.48	0.48	ND ¹

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TABLE NO. 1

-2-

<u>Employee Name & S.S. Number</u>	<u>Location & Conditions</u>	<u>Airborne Contaminant Concentration (mg/M³)</u>		
		<u>TP</u>	<u>OM</u>	<u>OS</u>
<u>III. Department No. 254</u>				
J. M. Sturgeon (721-12-1151)	Operates bore Nos. 131159 & 131131 without coolant. Ventilation fair	0.52	0.27	0.25
<u>IV. Department No. 265</u>				
G. T. Purdon (281-28-3022)	Operates bore No. 137843 with- out coolant. Ventilation fair	0.29	0.23	0.07

* - Ford Industrial Hygiene permissible exposure limits.

ND¹ - None Detected at 0.03 mg/M³

Data Retrieval Numbers: MJO 2020 through MJO 2029 and MJO 2031.

Equipment: Bendix BDY 41 and 44 personal sampling pumps, pre-weighed glass fiber filters in three-piece cassettes.

Analysis: Total particulate and oil smoke samples analyzed gravimetrically; oil mist samples analyzed by solvent extraction.

All analyses performed by J. Kenyon, Industrial Hygiene Technician (Co-Op)

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Industrial Hygiene & Toxicology Laboratory
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TABLE NO. 2

INDUSTRIAL HYGIENE SERVICES SECTION
INDUSTRIAL HYGIENE AND TOXICOLOGY DEPARTMENT
EMPLOYEE HEALTH SERVICES

SHARONVILLE TRANSMISSION

August 5, 1980

Rear Band Loading-Conveyor No. 6

PERMISSIBLE OCCUPATIONAL EXPOSURE LIMITS TO AIRBORNE CONTAMINANTS:

(f/cc = fibers greater than 5 microns in length per cubic centimeter of breathing zone air)

<u>Contaminant</u>	<u>8 Hour Time Weighted Average Exposure Limits</u>
Asbestos	2.0 f/cc

RESULTS

<u>Employee Name/ S.S. Number</u>	<u>Airborne Asbestos Concentration (f/cc)</u>
W. Cooper 402-44-8896	ND ¹
W. Cooper 402-44-8896	ND ¹
W. Cooper 402-44-8896	ND ¹
Time Weighted Average	<u>ND¹</u>

ND¹ - None detected at 0.06 f/cc

Data Retrieval Numbers: MJO 2032-2034

Equipment: Bendix BDY - 44 personal sampling pump, open faced 0.8 u AA filter

Analysis: Phase contrast microscopy

Analysis performed by L. LaTorre, Senior Industrial Hygienist

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