



file

Inter Office

Personnel and Organization Staff

2 November 1983

Mr. R. J. Womac, Manager
Ypsilanti Plant

cc W. C. Cooper, D.O.
R. Gainey
J. Turner

D. B. Vaughan
G. H. Wolcott

PLAINTIFF'S EXHIBIT

FD-1780

Subject: Industrial Hygiene Study -- Ypsilanti Plant

As requested by Mr. J. Turner, Safety Engineer, Ypsilanti Plant, an industrial hygiene study was completed to evaluate employee exposures to airborne asbestos concentrations. The operations of concern were the injection molding of the molded commutator and armature machining operations. Also, bulk waste samples from these operations were submitted for asbestos analysis. The study, according to supervisory personnel, was completed under normal work conditions. Air sample durations were sufficient to represent employee eight-hour time-weighted average exposures. Results of this study and instrumentation are listed on the attached data sheets.

Based on evaluation of results, data collected, and observations of operations, the employees were not exposed to airborne concentrations of asbestos to warrant a health hazard.

The bulk sample test results reveal that all samples contained significant amounts of asbestos. Any handling, labeling and disposal of waste products must be in compliance with OSHA 29 CFR 1910.1001 regulation. It would be prudent that this knowledge be known to any outside contractors handling and disposing of these asbestos laden waste materials.

C. E. Plasters, Industrial Hygiene Associate
Industrial Hygiene Section
Employee Health Services

jb
Attachment

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SCF-FORD-3377

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INDUSTRIAL HYGIENE SECTION
ENVIRONMENTAL HEALTH AFFAIRS
EMPLOYEE HEALTH SERVICES

Ypsilanti Plant
Departments 452-4, 452-5

22 August 1983

PERMISSIBLE OCCUPATIONAL EXPOSURE LIMIT TO AIRBORNE CONTAMINANTS (PEL):

<u>Contaminant</u>	<u>Medical Monitoring*</u>	<u>Eight-Hour Time-Weighted Average Exposure Limit (TWAE)**</u>
Asbestos	0.1 fibers/cc	2.0 fibers/cc

Fibers per cc = Fibers of asbestos greater than 5 microns in length per cubic centimeter of contaminated breathing zone air.

* Reference Dr. Block's letter dated 2 May 1978.

** TWAE calculated from the following equation:

$$TWAE = \frac{(T_1 \times C_1) + (T_2 \times C_2) + \dots (T_n \times C_n)}{T_{total}}$$

Where Cn = Concentrations measured

Tn = Time exposed to Cn

T_{total} = Total amount of time exposed

RESULTS

<u>Employee/ Soc Sec Number</u>	<u>Location</u>	<u>Fibers/cc</u>
General Area	Adjacent to No. 1 Machine Hopper Injection Molding	ND
General Area	Adjacent to No. 3 Machine Hopper Injection Molding	ND
E. H. Publiski (385-40-1505)	Operator of No. 1 and 4 Machines Injection Molding	ND
R. R. Olszewski (379-34-8928)	Operator of No. 2 and 3 Machines Injection Molding	ND
C. Lane (405-40-5881)	Operator of No. 1 Mechaner Machine	0.04
F. Linn (233-50-2774)	Operator of No. 2 Mechaner Machine	ND
T. L. Stumbo (371-58-5124)	Operator of Lo Swing Lathe B.T. 133694	ND

<u>Type of Sample</u>	<u>Location</u>	<u>Type Asbestos</u>	<u>Percent</u>
Bulk Sample	Pellet form	Chrysotile	42%
Bulk Sample	Turnings from Mechaner chip drag	Chrysotile	42%
Bulk Sample	Vacuum Unit	Chrysotile	25%

ND = Not detectable. Detection limit is 1600 fibers which at air volumes sampled is less than 0.001 fibers per cubic centimeter of air.

3007 0150

DATA RETRIEVAL NUMBERS: CEP 1432 through CEP 1441

INSTRUMENTATION: Bendix BDY-55 personal sampling pumps with open face
0.8 mm AA filters

ANALYSIS: Counting by Ford Motor Company Industrial Hygiene Laboratory
Phase-contrast Microscopy performed by L. Latorre, Industrial
Hygienist Senior
Bulk by EPA Interim Method (Polarized Light Microscopy with
Dispersion Staining) performed by K. Berry, Engineer, Metallurgy
Department, Central Laboratory

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