PLAINTIFF'S
EXHIBIT
CHR-176

CONFIDENTIAL

Inter Company Correspondence

File Code

Date June 28, 1972

To — Name: S. C. Enders — Department: Mgr. - Friction Products — Division: Chemical — Plant Office: Trenton Chemical — CIMS Number:

From — Name: G. A. Sattelmeier — Department: Industrial Hygiene — Division: Personnel — Plant Office: Chrysler Center — CIMS Number:

Subject: Periodic Industrial Hygiene Survey

A periodic industrial hygiene survey was conducted at the Friction Materials Building from May 30 through June 2, 1972, by Messrs. T. W. Bohn, A. H. Gomez, L. Redmond and the writer. Conditions and operations capable of producing an environment detrimental to employees' health were evaluated.

Federal, State and Corporate Standards were used in evaluating the effectiveness of environmental controls. [redacted]eral, conditions in the plant were [redacted]liance with these standards. Only those conditions found which require corrective action are outlined in this report.

Summary and Recommendations

1. Solvent Vapor: Excessive concentrations of solvent vapor were found at the brake lining extruders while running batches which emit excessive amounts of toluene. Improved ventilation control is required for these extruders.

   The ventilation control at the adhesive spray operations is not in accordance with requirements for this type of operation as outlined in the OSHA Standards, Article 1910.94, table G10. We recommend that ventilation improvements be made to provide a control velocity at the spray operations of 100 feet per minute. Inadequate control velocities were found at the disc pad and disc plate spray operations in Bays C4 and D4, respectively.

2. Ventilation: Only two of the fourteen makeup air units were operating. The capacity of the system is greater than required by State law, however, more than two units must be run to provide makeup air at the minimum required rate of one cfm per square foot of floor space.

3. Noise: Excessive noise levels were measured at the disc pad spray operations located at Bay C4, at the #1 proof tester, Hammond Flat finisher, and brake lining saws. We recommend that engineering controls be provided to reduce these noise sources. Until engineering controls are instituted, hearing protection must be provided for all exposed employees.

4. Asbestos: Air samples were taken at all locations in the plant where excessive asbestos dust exposure was considered possible and in [redacted] below the [redacted] of air standard. [redacted] of the [redacted] operations [redacted] exposures [redacted] the new standard of two fibers per milliliter. [redacted] the ventilation control at these operations [redacted] over the next few years. The current standard for asbestos is being studied to determine if any modifications in processes will be required to meet this standard.

5. Microwave Radiation: The microwave oven in the food service area was checked and the oven door seal was satisfactory to prevent overexposure.

G. A. Sattelmeier
Industrial Hygienist

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Attachments

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Discussion

Asbestos - Recent changes in the Section 1910 of the OSHA Standard have set the permissible exposure to asbestos fibers at 5 fibers per cubic centimeter of air effective July 7, 1972, at 2 fibers per cubic centimeter effective July 1, 1976 and a ceiling level has been set at 10 fibers per cubic centimeter effective July 7, 1972.

Ventilation - Under the new Standard for Exposure to Asbestos Dust, local exhaust ventilation must be designed, constructed, installed and maintained in accordance with the details outlined in the ANSI publication Z9.2-1971 entitled "Fundamentals Governing the Design and Operation of Local Exhaust Systems."

The operation and maintenance section of the ANSI Z9.2-1971 standard specifies in paragraph 9.3.3 "No processes for which exhaust ventilation has been installed for hygienic or fire-hazard reasons should be operated when the exhaust system is not functioning satisfactorily." The quantity of air exhausted through each hood must be measured at the time of installation, following maintenance, and periodically. The responsibility for carrying out the schedule should be left with a single individual who is required to keep adequate records. A complete study of the exhaust ventilation system is required at least annually.

Data Sheet
Friction Materials Building

Asbestos Fibers

Location			Concentration in Fibers per cm^3
Allowable concentration		July 7, 1972	5.0
Bay F7	Unloading Hammond Flat finisher		2.1
Bay F8	Loading Besly Grinder		2.2
Bay C4	Loading slabs into saws #1 and #2		2.1

The above samples were collected on Millipore Cellulose Ester Filters using an MSA Portable Pump. Sample results were obtained using phase contrast microscopy at 430X.