Co. file

STATE OF OHIO
THE INDUSTRIAL COMMISSION OF OHIO
DIVISION OF SAFETY AND HYGIENE
2325 WEST FIFTH AVENUE
P.O. BOX 1745
COLUMBUS, OHIO 43216
PHONE (614) 466-3385

PLAINTIFF'S EXHIBIT BRK-231

NOV 10 1975

Risk No.
S.I. 2647

Mr. Jack T. Early, Safety Director
Delco Products- Division of General Motors
2000 Forrer Blvd.
Dayton, Ohio 45420

Dear Mr. Early:

On October 8, 1975 an inspection was conducted at Delco Products at 361 1st Street in Dayton, Ohio, by Michael F. Goyda, an industrial hygienist from the Division of Safety & Hygiene. The inspection was the result of a complaint involving the dust shield welding machines in plant #3.

Air samples were collected at the dust shield welding machines using a personal sampling pump operating at 2 liters per minute and a poly vinyl chloride filter with a 37 millimeter diameter and a 5 micron pore size.

The air samples were collected in the employee's breathing zones.

The air sample results are listed in Table #1.

The American Conference of Governmental Industrial Hygienists' recommended threshold limit values for total welding fumes and oil mist is 5 mg/M^3 (milligrams per cubic meter).

The results obtained during the inspection were below those recommended by the A.C.G.I.H. There was, however, a mist or fumes being generated at both welding machines and it could produce an unpleasant working environment for the employees operating the machinery.

The mist or fumes appeared to be generated three ways: (1) metal fumes from the welding of the parts (2) oil mist from the oil on the metal parts and (3) steam when the hot metals parts were dropped into water.

If the metal parts are clean when they are welded, there should be a reduction in the contaminants in the air.

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If you have any questions or comments, please contact:

Mr. Ed Tyler
Dept. Head
Industrial Hygiene & Engineering

Sincerely,

Michael F. Goyda

Michael F. Goyda
Industrial Hygienist

MG:bs

TABLE # 1

DELCO PRODUCTS- Division of GENERAL MOTORS

TEST RESULTS

NDIVIDUAL OR SITE TESTED	CONTAMINANT	CONCENTRATION DETERMINED (mg/M^3)*	ACGIH** 8-HOUR TLV***
Dustshield Welding #1	Total particulate. (iron oxide, oil mist	Negative	5.0
Dustshield Welding #2	Total particulate (iron oxide, oil mist	0.18	5.0
Dustshield Welding #3	Total particulate (iron oxide,oil mist)	1.22	5.0

(1) *MILLIGRAMS PER CUBIC METER OF AIR
(2) **AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS
(3) ***THRESHOLD LIMIT VALUE

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OCT 22 1975

Legal Section
Industrial Commission of Ohio
Ohio Departments Building
Columbus, Ohio 43215

Risk # S.I. 2647
Re: O.D. #11469
Robert A. Crum

Attn: Jim Clymer

Dear Mr. Clymer:

On September 10 & 11, 1975 an investigation was conducted at Delco-Moraine-Division of General Motors Corporation in Dayton, Ohio by Michael F. Goyda and Richard M. Maykowski, two industrial hygienists from the Division of Safety & Hygiene. The investigation was to evaluate conditions under which the claimant had worked.

This company manufactures brake systems, transmissions, engine bearings and powdered metal products.

According to information furnished by Don Abbott, the supervisor of employee benefits, the claimant's work history was as follows:

9/15/70 - 2/26/73- Maintenance Millwright, Plant 5
2/26/73 - 9/22/73 Maintenance Millwright, Main Plant

One of the employee's work assignments was repairing the furnaces treating the powdered metal. This repair work is intermittent and was not being performed during the inspection. However, bulk samples were collected in and around the furnaces. Bulk samples were also collected of the powdered metals.

Since the employment records do not record the exact day to day activity of the claimant and only designate departmental assignment, it was necessary to obtain bulk samples of material in all areas where the claimant may have received an exposure to arsenic.

All the samples were sent to the laboratory for analysis.

The sample results are listed in Table #1.

The American Conference of Governmental Industrial Hygienists' recommended threshold limit value for arsenic is

0.5 milligrams of arsenic per cubic meter of air.

Sincerely,

Michael Goyda
Industrial Hygienist

MG:bs

LOCATION	CONCENTRATION OF ARSENIC
Plant #5- Borax	0.0043%
Plant #5- oil	0.0001 %
Main Plant #52 Furnace (Pre-heat)	0.0002 %
Main Plant #52 Furnace (Sintering Zone)	None detected
Main Plant-New Catalytic Brick	None detected
Main Plant-Old Catalytic Brick	None detected
Main Plant- Mix #328	0.0030 %
Main Plant-#59 Sintering, Furnace	0.0006 %
Main Plant- S-62 Mix	0.0004 %
Main Plant-Copper Mix	0.0017%