

November 29, 1966

Bureau of Workmen's Compensation
Ohio Department Building
Columbus, Ohio 43215

Attention: Mr. Paul J. Dragan, Referee
Room 305A

Re: O. D. 8439-22,
Aubrey Moody

Gentlemen:

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On November 17, 1966, a visit was made to the Inland Manufacturing Division of General Motors Corporation, 2777 Inland Avenue, Dayton, and to the same Division at Vandalia, Ohio. This visit was made to evaluate conditions under which the above claimant had worked.

The claimant was, and is, a plumber. His employment experience with this company is as follows:

3-9-65 - 7-26-65	Main Plant on Inland Avenue
7-26-65 - 9-27-65	Vandalia Plant
9-27-65	Still working at Main Plant

The following information is also of interest:

3-15-66 - 4-11-66	Off work
3-15-66 - 3-22-66	In hospital
4-11-66	Still working but not permitted to work on former heads

In his application to the Commission the claimant states that he quit work on account of the disease complained of on February 1, 1966. The medical records of the Commission were studied and it was noted that there are five entries before February 1, 1966 and nineteen entries after that date. Most of these entries were for wheezing and asthmatic attacks.

In the Main Plant on Inland Avenue, the company manufactures foam rubber strips, steering wheels, ball joints (with plastic inserts)

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and motor mounts.

In the Main Plant there is a room approximately 150'x150'x15' to the ceiling in which are located four foamer heads for the application of toluene diisocyanate (TDI) on an experimental basis. There is a very elaborate system to remove TDI vapors from this room. No foamers were being operated at the time of this visit so it was not possible to take any samples. The company has taken samples and no doubt would make the results of the tests available to The Commission upon request. In all probability the results would be below 0.1 mg/m³.

ENG LAB

In the Vandalia Plant safety (crash) pads are manufactured from TDI. There are approximately seven foamer heads in this plant. Samples taken in this plant on January 11, 1963 are as follows:

No.	Location	PPM
1	Breathing zone of No. 1 foamer operator on west machine	less than .01
2	Breathing zone of operator unloading foam pads from mold at conveyor after the foam had gone through the oven	less than .01
3	General sample all foaming units	less than .01
4	Corvette foaming room, size of room being approximately 20'x30'x20', had local exhaust ventilation	less than .01

PPM Parts per million of TDI

As a plumber, the claimant's job was to occasionally change foamer heads. It is estimated that he might have worked one hour per week changing these heads. His exposure would have been about the same as employees operating the heads and these concentrations are indicated by the sample readings as given above.

The Threshold Limit Value for TDI is 0.02 ppm. Once an individual has been sensitized to TDI there is no known TLV. Threshold limit value refers to air-borne concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed, day after day, without adverse effect. Because of wide variation in individual susceptibility, exposure of an occasional individual at or even below the threshold limit may not prevent discomfort, aggravation of a pre-existing condition, or occupational illness.

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It cannot be stated that the claimant had exposure to TDI in excess of the threshold limit value. However, it should be noted that the company has taken him off any work with fumes and, therefore, away from exposure to TDI.

Yours very truly,

Dellitt Huffman, Assistant Chief
Engineering and Hygiene

DH:JC

Enc.: O.D. File

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November 29, 1966

Mr. Stanley G. Wright
Safety Director
Inland Manufacturing Company
2727 Inland Avenue
Dayton, Ohio 45417

Dear Mr. Wright:

We are enclosing a copy of our letter to The Bureau of Workmen's Compensation regarding O. D. Claim 8439-22, Aubrey Moody. This copy is for your information and file.

Also enclosed for your information is a copy of the Hygienic Guide Series on Tolane Diisocyanate (TDI), as discussed in our report on the O. D. Claim.

Please let us know whenever this Division can be of service to your company in the field of industrial safety and hygiene.,,

Yours very truly,

DeWitt Huffman, Assistant Chief
Engineering and Hygiene

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A STUDY OF
COMPLAINTS REGARDING OBJECTIONABLE ODORS

P. R. 52:

The following is a study performed at Inland Mfg. Division of General Motors Corporation, Dayton, Ohio, for the purpose of reviewing complaints regarding objectionable odors that have arisen relative to certain areas of the plant in the past few months. Our objective was to determine first if the actual number of complaints were higher in certain areas as compared to others and if so, for what reason.

MATERIALS AND
METHODS:

Two separate areas of the plant were studied, the Hill buildings, heretofore denoted as "Hill" and "Vandalia". The combined number of employees studied was 3462 of which 2462 were on the Hill and the remaining 1000 at Vandalia. The approximate percentage of women was Hill 70% and Vandalia 25%. Data was collected from the daily log of nurses notes from the period starting January 1, 1966 and ending April 15, 1966 (nurses were on duty 24 hours a day and all visits to medical were recorded, the nature of the complaint being written out). Work done in the Hill area was chiefly that of handling strip rubber, both unprocessed and in the finished form. Vandalia operations consisted mostly of handling the finished product (automobile instrument safety pads).

RESULTS:

	<u>HILL</u>	<u>VANDALIA</u>
Number of employees studied	2,462	1,000
Percent of employees complaining to Medical	1.6%	1.0%
Complaints registered per 1000 employees	17.3	10.0

CONCLUSION AND
REMARKS:

The variables in this study make it extremely difficult to compare one area of the plant to another in relation to the alleged odors. The area in question is the "Hill" and Inland has no "comparable" counterpart in order to properly conduct a study of relative complaints. Women are much more apt to complain in this regard and since the "Hill" area is predominantly women and Vandalia predominantly men this probably accounts for the higher rate of complaints in this area. In the "Hill" area we manufacture foam rubber products from the raw rubber latex, and coat with rubber cement. In addition we process crude and synthetic rubber through barburys and rubber mills. All toxic materials are well exhausted where handled by the employees. Complaints have come from rubber odors. All complaints have been investigated, and almost without exception it is not possible to find any basis for a complaint. At Vandalia, our chosen "control" for this study,

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our product is automobile instrument safety pads, brake lining, brake hose and foam seat pads. However, in spite of the difference in type of work and the difference in the number of women in each area, results showed that less than 2% in both areas have registered any complaint whatsoever.

M. E. Gibson, MD
Medical Director
Inland Mfg. Division, GMC
Dayton, Ohio

DIVISION OF SAFETY AND HYGIENE THE INDUSTRIAL COMMISSION OF OHIO

SPECIAL SERVICE REPORT

Date of Visit May 27, 1966

Name of Organization or Firm Inland Manufacturing Company

Address 2727 Inland Avenue, Dayton, Ohio 45417 Montgomery
(City) (Zone) (County)

Names of Persons Contacted

Position or Title

Stanley G. Wright

Director of Safety

Who initiated the contact? Carl Horn

Purpose of Contact (give essential reasons) Check on employees complaint.

Results accomplished (or planned) This visit was made as the result of continued complaints of fumes in Departments 91 and 92, regarding fumes which made employees sick. Due to the fact that the plant was down for inventory no one was working. Mr. Wright advised that the company doctor, Dr. Marle Gibson, would have a complete report of his findings ready the week of June 1 and a copy sent to Mr. Horn and a copy for the Dayton office.

Time Involved 3 Hours
(including travel time)

Report By Clarence G. Martin

Date of Report 5/27/66

FILL OUT FORM IN DETAIL — USE OTHER SIDE FOR ADDITIONAL INFORMATION

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November 1, 1966

Mr. Vincent J. Castrap
Industrial Hygiene Department
General Motors Corporation
12 Mile and Mound Roads
Warren, Michigan 48090

Dear friend Vince:

This letter will confirm our conversation of October 18.

On November 17, 1966, at or about 10:00 am, I will meet a representative of your department at the Inland Manufacturing Company, 2727 Inland Avenue, Dayton, Ohio, to check on the following two items:

1. O. D. Claim 5439-22, Aubrey Moody. This is a claim by a plumber alleging exposure to TDI from foamer heads.
2. A complaint from the union that "the air is very bad in Department 710".

I have checked with Safety Director Stanley Wright about these two items and he said that he talked with you about them last week in Chicago.

It is probable that Thomas L. Anania, Industrial Hygienist with this Division, will be with me when this visit is made.

Yours very truly,

DeWitt Huffman, Assistant Chief
Engineering and Hygiene

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