

APRIL 26-30, 1981



March 23, 1981

Mr. Lonnie M. Thacker
 Supervisor of Safety & Industrial Hygiene
 Delco Moraine Division
 General Motors Corporation
 1420 Wisconsin Boulevard
 Dayton, Ohio 45401

Dear Mr. Thacker:

As a result of a complaint telephoned to our Division on January 8, 1981, by a worker at the Delco-Moraine Plant, Wagoner Ford Road, Dayton, Ohio, concerning exposure to oil mist, an industrial hygiene survey was accomplished on February 9, 1981. This survey was done with your concurrence, with duplicate air sampling being performed by Delco-Moraine industrial hygienists.

Review of the process involving oil mists disclosed Cross Dial Index machines machining and drilling holes in newly fabricated automobile master cylinders. The oil in question was Polar 14-C containing 60 percent mineral oil. Five Mine Safety Appliance Model G personal air sampling pumps in-line with a sampling train consisting of "AA" mixed cellulose ester filters were used to take full shift breathing zone air samples of workers involved. Attachment 1 is a table of the sample results along with the allowable permissible exposure limit or threshold limit value.

Review of the air sampling data readily discloses none exceeded the regulatory requirements established by the Occupational Safety and Health Administration or the guidelines established by the American Conference of Governmental Industrial Hygienists. Review of the literature indicates that heat-decomposed oil mists are classified more of an irritant than a health hazard.

The Industrial Commission of Ohio • Division of Safety and Hygiene • 246 N. High St. • Columbus, Ohio 43215
 James A. Rhodes, Governor • William W. Johnston, Industrial Commission Chairman • W. Craig Zimpher, Vice Chairman • Leonard T. Lancaster, Member
 Philip A. Workman, Safety and Hygiene Superintendent • Bob Riley, Assistant Superintendent • Lawrence J. Whalen, Congress Manager

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The worker who is sensitive to oil-mists should be identified, and if possible, be relocated to another job task, thereby eliminating exposure. Further, it is well established that oils are a major cause of contact dermatitis. The present protective clothing, issued the worker and use of the robot, should minimize any such problem however. Hence, no further recommendations need to be made. I would suggest the continued pursuit of the problem with the standing oil on the floor adjacent the Cross Dial Index machines be continued until it is resolved.

If this Division can be of further assistance to your corporation at any time on Industrial Hygiene problems relating to health and safety, please feel free to contact me through the Dayton District Office, 898-3206. Again, I would like to thank you and your staff in their assistance in my investigation of this complaint.

Respectfully submitted,

Glenn L. Davis
Glenn L. Davis
Industrial Hygienist

GLD:vh

Attachment

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Delco-Moraine

Dayton, Ohio

TABLE

TLV - TWA

NAME/SITE SAMPLED	POSITION/ OPERATION	CONTAMINANT	TIME SAMPLED	CONCENTRATION DETERMINED	OSHA STANDARD	NIOSH PROPOSAL	ACGIH STANDARD
D. Aregood	Mach. Oper. #2	Oil Mists	7 hr 10 min	0.13 mg/M ³	5 mg/M ³	NAS	5 mg/M ³
B. Couch Jr.	Cross Oper. #9	" "	7 hr	0.12 mg/M ³			
L. Chatman	Job Setter	" "	7 hr	0.14 mg/M ³			
R. Garman	Job Setter	" "	7 hr	0.16 mg/M ³			
N.H. Beyke	Mach. Oper. #7	" "	7 hr 2 min	0.16 mg/M ³			

mg/M³ = Milligrams per cubic meter of air

ppm = Parts per million of air

OSHA = Occupational Safety and Health Administration

NIOSH = National Institute of Occupational Safety & Health

ACGIH = American Conference of Governmental Industrial Hygienists

TLV = Threshold Limit Value

TWA = Time Weighted Average

N.A.S. = No Applicable Standard

Attachment 1

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