FILE NAME: Ford (FD)

DATE: 1979 May 14

DOC#: FD228

DOCUMENT DESCRIPTION: Memo with Data Report - Industrial Hygiene Asbestos Study - Clutch Assembly Area, Dept 4980

File

Inter Office

Personnel and
Organization Staff

May 14, 1979

Mr. C. J. Augey, Manager
Cleveland Engine Plant No. 2

cc E. Arscott, M.D.
J. Kirk
R. Manthey
T. Washington

Subject: Industrial Hygiene Asbestos Study - Clutch Assembly Area - Department 4980 - Cleveland Engine Plant No. 2

As requested by R. J. Manthey, Division Safety Engineer, a restudy of asbestos use and handling in the clutch assembly area was conducted pending a possible citation from the Occupational Safety and Health Administration. Prefabricated clutch and pressure plates are removed from their containers and installed on the 351 engine block. Breathing zone samples were taken on the clutch assemblers, the unpacker, the operator across the line from this clutch installation operation, and the maintenance worker who disposes of empty clutch plate boxes.

Sample analyses revealed concentrations between 0.03 and 0.98 fibers/cc. L. Brobst, located across the line from the installation operation was the only employe who had levels all below 0.1 fibers/cc. Medical monitoring procedures as outlined in 29 CFR 1910.1001 (J) and the attached letter from Dr. Block dated May 2, 1978 should be instituted for these employes. Although this operation is only performed approximately one four to six hour period per week, noted concentrations during that time period warrant these monitoring procedures.

Employes should be made aware of the hazards involved with using asbestos and measures which they can take to reduce airborne concentrations. Throwing of boxes into the dumpster from the assembly work station should be prohibited as it will disperse asbestos fibers into the atmosphere.

Reevaluation of this operation should be performed when conditions change which may contribute to a lowering of the airborne asbestos levels. Repackaging techniques such as lining the box with an adhesive material or additional cleaning measures by the supplier may reduce the number of free asbestos fibers in the clutch plate boxes. Until this takes place, employes should handle these boxes as little as possible to reduce the potential for making these fibers airborne.

Mark R. Francis

Mark R. Francis
Industrial Hygienist
Industrial Hygiene & Toxicology Dept.

bl
attachment

013949

INDUSTRIAL HYGIENE SERVICES SECTION
INDUSTRIAL HYGIENE & TOXICOLOGY DEPARTMENT
EMPLOYE HEALTH SERVICES

CLEVELAND ENGINE PLANT NO. 2

February 20, 1979

PERMISSIBLE OCCUPATIONAL EXPOSURE LIMITS TO AIRBORNE CONTAMINANTS:

Fibers per cc = fibers of asbestos longer than five micrometers per cubic centimeter of contaminated breathing zone air

Contaminant	8-Hour Time Weighted Average Exposure Limit	Medical Monitoring*
Asbestos	2.0 fibers/cc	0.1 fibers/cc

TWA = time-weighted average calculated by the following equation:

$$\frac{(C_1 \times T_1) + (C_2 \times T_2) + (C_3 \times T_3) + \ldots (C_n \times T_n)}{(T_1 + T_2 + T_3 \ldots T_n)}$$

where C= concentration and T = Time

RESULTS

Employe	Social Security Number	Location	Fibers/cc	Time (Minutes)	TWA
F. Eureka	290-44-0833	Unpacks pressure plates and opens clutch plate boxes	0.13	106"	
		" " " "	0.30	30"	
F. Eureka	290-44-0833	" " " "	0.05	34"	0.14
F. Eureka	290-44-0833		0.36	104"	
A. Scheuring	281-60-5539	Clutch assembly operator	0.86	30"	
A. Scheuring	281-60-5539	" " " "	0.14	37"	0.40
A. Scheuring	281-60-5539	" " " "	0.49	105"	
A. Georgopoulos	269-58-2521	" " " "	0.98	30"	
A. Georgopoulos	269-58-2521	" " " "	0.08	39"	0.48
A. Georgopoulos	269-58-2521				
L. Brobst	275-48-6389	Tightens water inlet across the line from clutch operation	0.03	68"	
		" " " "	0.05	30"	
L. Brobst	275-48-6389	" " " "	0.09	32"	0.05
L. Brobst	275-48-6389				
A. Walkosak	184-18-1038	Maintenance - Disposes of clutch boxes	0.18	8"	

* See attached letter from Dr. Block dated May 2, 1978

DATA RETRIEVAL NUMBERS: MRF-241 through MRF-253

Equipment: Bendix personal sampling pumps; 0.8 micron filters in 3-piece open-faced cassettes.

Analyses: Performed by Clayton Environmental Consultants

013960