FILE NAME: Ford (FD)

DATE: 1983 Nov 10

DOC#: FD197

DOCUMENT DESCRIPTION: Memo with Lab Investigation Report - Insulation-Fireproofing in Kentucky Truck Plant Fan Room

file

Inter Office

Personnel and Organization Staff

10 November 1983

C. E. Allen, M.D., Plant Physician
Kentucky Truck Plant

cc D. E. Dyer A. H. Greer J. G. Henry

Subject: Insulation-Fireproofing in Kentucky Truck Plant Fan Room

References: 1. Industrial Hygiene Bulletins 4 and 4b
2. OSHA Regulation 29 CFR 1910.1001
3. OSHA Emergency Temporary Standard for Asbestos, 11/4/83

At your request, samples of sprayed-on insulation and fireproofing obtained from walls of a Kentucky Truck Plant administration building fan room were analyzed for asbestos. Five samples obtained by the writer were homogenized and analyzed under direction of the Industrial Hygiene Laboratory.

Test results reveal an average of 39% chrysotile asbestos in the wall treatment. Fiber glass, mineral wool, and slag wool comprised 46%. Mineral granules comprised the balance. The dry material abrades easily and has a very high friability, and can easily generate airborne dust when disturbed. Considerable abraded dust was observed on the floor at the wall junctions.

As you are aware, excessive asbestos dust and fiber inhalation can cause three major diseases. One is asbestosis, a non-cancerous scarring of the lungs that gradually makes it harder and harder to breathe. There is no cure, and the pneumoconiosis can be life-shortening as well as affecting quality of life.

The other two diseases are malignant. One is lung cancer, which generally is fatal. The other is mesothelioma, a cancer of the lining of the stomach or the lung. Victims rarely live more than a few months after diagnosis. The hazard to health from inhalation of asbestos dust depends on several factors including concentration of respirable fibers in the breathing zone, length of exposure, fiber morphology, and age at first exposure. The carcinogenesis latency period can be from five to 20 or more years. Asbestos handlers who smoke are at a much increased risk.

Asbestos is one of the few clearly recognized human carcinogens. It is the considered opinion of Industrial Hygiene and the Associate Medical Director of Environmental Affairs, Employee Health Services, F. V. Viola, M.D., that the threshold of asbestos carcinogenesis, if any, is unknown. Accordingly, it cannot be said with any certainty that there is any safe dose of inhaled asbestos fibers. In consideration of this and the fact that large surface areas are covered with dry, highly friable asbestos-containing material that is easily abraded and can readily generate invisible and respirable fibers, steps must be taken to prevent release of airborne fibers.

RECOMMENDATION

Immediately initiate steps to have a reliable asbestos-removal contractor encapsulate, top-coat, or remove all asbestos-treated surfaces.

INTERIM RECOMMENDATIONS

The following steps are recommended to protect employee health until all asbestos wall treatment is encapsulated or completely removed:

1. Inform all who work in the area of the presence of asbestos in the sprayed-on wall treatment and the possible adverse health effects from inhalation of dust. The concept of the long latency period should be explained. This training would perhaps best be conducted by you or a senior nurse, the safety engineer, and the UAW health and safety representative.

2. Consideration should be given to restricting access to the fan and boiler room and discouraging skilled trades personnel from occupying the area unless they are performing maintenance activities.

3. Discourage dry sweeping of floors, machinery, and equipment surfaces in the fan room. Damp commercial sweeping compound could be helpful in cleaning floors without creating airborne dust. Damp rags wrung nearly dry can be used to wipe up and remove dust accumulations. Otherwise, an OSHA-approved vacuum sweeper as specified in Industrial Hygiene Bulletin No. 4 must be used. Asbestos-containing waste must be labeled in accordance with OSHA regulations.

4. Post access doors and label asbestos-treated surfaces in the fan room with the statement:

> WARNING
>
> Walls and ceilings in this area are treated with ASBESTOS. Breathing asbestos dust may be harmful to your health. Avoid disturbing. DO NOT INHALE DUST. Do not remain in area unless your work requires it. Contact safety engineer if material must be removed.

5. The use of portable pedestal fans in the boiler room is not recommended because of the possibility of air-abrading asbestos fibers from the walls.

6. Arrangements will be made by this department to conduct atmospheric monitoring for airborne asbestos fibers in representative Kentucky Truck Plant areas. It is anticipated that concentrations will be very low to non-detectable provided the wall treatment is not disturbed. Nevertheless, monitoring is required to assure that employees are not excessively exposed. OSHA has issued "serious" citations to employers for failure to monitor (29 CFR 1910.100(b)(3)).

Roger Wabeke

Roger Wabeke, Supervisor
Industrial Hygiene Section
Employee Health Services

jb

FN 5778

CENTRAL LABORATORY SERVICES

LABORATORY INVESTIGATION REPORT

RW file: Kentucky Truck Plant

NUMBER 304726

October 25, 1983

TO: L. Latorre

SUBJECT: Insulation Samples from Kentucky Truck Plant, Norfolk Assembly, and R & E.

OBJECT: Determine if asbestos is present and if present identify and quantify.

CONCLUSION: The three (3) samples were identified as 83-1728, 83-1770, and 83-1794. Of these samples two contained asbestos at levels greater than 1%.

TEST DATA:

Sample #	Asbestos % and Type	Fiberglass(1)	Friability	Balance other Components
83-1728	13% chrysotile	32%	low	mineral granules, fiberglass cloth
83-1770	ND	ND	moderate	wood fibers and plaster
83-1794	39% chrysotile	46%	moderate	mineral granules

ND - none detected, detection limit 1%.
(1) Fiberglass: including fiberglass, mineral wool, and slag wool.

Test Method: Interim Method for the Determination of Asbestos in Bulk Insulation Samples. December, 1982.

by Kathryn H Berry

Kathryn H. Berry, Engineer
Metallurgy Department
ABIH Certificate #1531

KHB/pk

ITO Oct 81 16011-2

8006 2107