FILE NAME: Marley (MAR)

DATE: 1976 Jan 8

DOC#: MAR005

DOCUMENT DESCRIPTION: Internal Report

Jan 8/1976

1976

Mr. Mike Redmond, Safety Coordinator
The Marley Company
5800 Foxridge Drive
Mission, Kansas 66202

HOME OFFICE: WAUSAU, WISCONSIN
Employers Insurance of Wausau
Safety and Health Consultant's Report

RECEIVED
OCT 29 1976
THE MARLEY CO.
LOUISVILLE, KY.

FOR

Mr. E. A. Griesel, Insurance Manager
The Marley Company
5800 Foxridge Drive
Mission, Kansas 66202

January 8, 1976

~~March Ltd Trip~~
April Ltd Trip

CONCERNING 6333 Strawberry Lane
Louisville, Kentucky

REPORTED BY M. S. Freshwater, environmental health engineer; and J. Marble, senior safety consultant; on December 11, 1975

PERSONS CONTACTED
Mr. Robert Hatfield, safety and personnel
Mr. Jim Buckleman, engineer
Mr. Luke Armstrong, general plant superintendent

REPORT SUMMARY Environmental Health Engineering Service

"This survey was made at the request of Mr. Robert Hatfield, safety and personnel, to determine the concentrations of airborne contaminants to which employees are exposed at various locations in the plant.

"Ventilation measurements were made on local exhaust systems, air samples taken, and work practices observed at selected operations.

"The following comments and suggestions are based upon the results of this survey:

Assembly Building

1. Ventilation measurements on the existing flexible hood in the rework area indicated that the open face of the hood should be placed no farther than ten inches from the welding point for the ventilation to be effective. The workers should always be upwind of the work.

D6 welding ?

Local ventilation at this location should be correctly positioned and used during all welding and grinding operations. [illegible] regulations state that "welding or cutting [illegible] zinc-bearing base or filler metals coated with zinc-bearing materials shall have adequate local exhaust ventilation [illegible] .252 mg/m³)..."

This confirmation report concerns only such conditions and practices as were observed and considered at the time of this call. It is not intended to indicate that any hazards are adequately controlled nor that the conditions meet the requirements of any applicable federal, state, or local law, regulation, or ordinance.

If you have any comments or questions concerning this report, write to G. B. Lemke, Vice-President, Safety & Health Services.

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2. In the pipe shop, fabrication department, local exhaust ventilation is needed on the band saw during asbestos cutting. The enclosed print VS-706 illustrates basic ventilation design criteria (Industrial Ventilation, Committee on Industrial Ventilation, Post Office Box 453, Lansing, Michigan 48902).

Mill Department

1. Four formaldehyde samples were collected using NIOSH certified length-of-stain detector tubes.

The results given in Table I show that no formaldehyde was detected in any of the samples.

2. Three breathing zone samples were collected on 0.8 micron pore-size membrane filters worn by the operators and mounted open-face downward (samples numbered 5, 6, and 7 in Table I). The samples collected were subsequently counted at 400 to 450 magnification under phase contrast illumination in the laboratory to determine the asbestos concentrations.

The results given in Table I show that none of the samples exceeded the OSHAdministration-acceptable values.

3. A breathing zone sample (Table I, sample number 8) was collected on a 5 micron pore-sized membrane filter positioned on the LM895 band saw operator during the cutting of polyvinyl chloride (PVC) plastic.

Subsequent analysis in the laboratory indicated that the dust concentration was well below the OSHAdministration-acceptable value for nuisance dust, the current OSHA standard for PVC dust.

4. The asbestos cutting operation on the LM895 band saw was not being performed during the survey. However, some improvements can be made to increase the ventilation effectiveness.

The open space underneath the table between the table and the slot should be enclosed. By doing so, the hood will be positioned closer to the dust source.

Dust duct velocities of 2,000 to 2,700 feet per minute (fpm) were measured compared to the usual design value of 3,500 fpm. Other design specifications can be found in the enclosed print VS-706 from 'Industrial Ventilation.'

5. Housekeeping should be improved to minimize asbestos dust accumulation on the floors and aisles where traffic redistributes it into the air. Vacuum cleaning rather than dry sweeping should be used to keep the dust under control.

'These comments and suggestions, except for analytical results, were discussed with Mr. Jim Hucklemen, engineer, who participated in the survey."
HO 64
cc: Mr. Mike Redmond and Mr. Robert Hatfield

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TABLE I

CONCENTRATIONS OF AIRBORNE CONTAMINANTS

The Marley Company
Louisville, Kentucky
December 11, 1975

Sample No.	Sample Location	Concentration of Formaldehyde p.p.m.(1) Found	OSHA Acceptable(4)	Concentration of Asbestos fibers/c.c.(2) Found	OSHA Acceptable(4)	Concentration of Total Dust mg./m³.(3) Found	OSHA Acceptable(4)
1	Roll coater	ND(5)	3.0				
2	Honeycomb machine, feed side	ND(5)	3.0				
3	Honeycomb machine discharge side	ND(5)	3.0				
4	[illegible], discharge side	ND(5)	3.0				
5	[illegible] operator			1.53	5.0		
6	[illegible] operator			1.15	5.0		
7	[illegible] curing oven operator			0.16	5.0		
8	[illegible] 895 bandsaw operator					0.16	15.0

(1) p.p.m. - Parts of contaminant per million parts of air by volume.

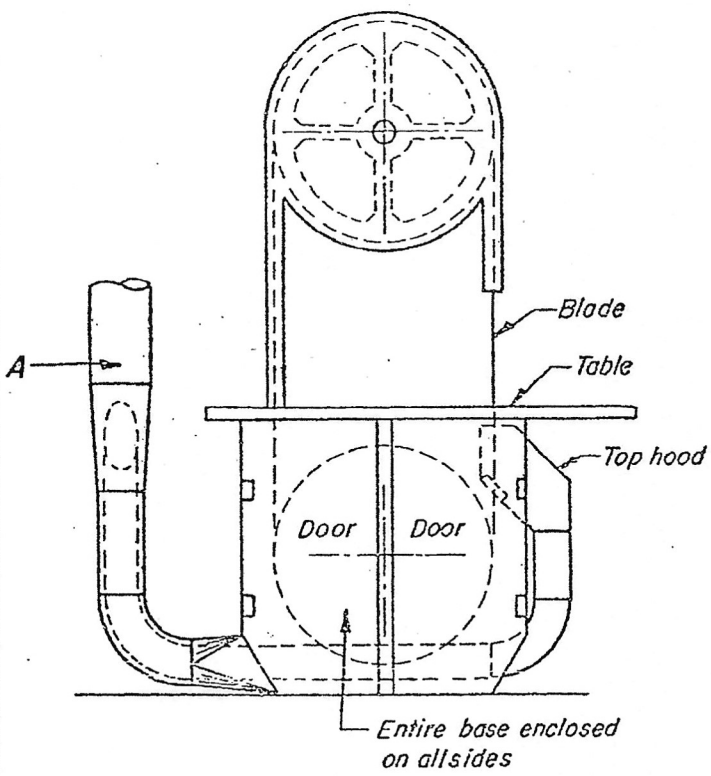
(2) fibers/c.c. greater than 5 mu - asbestos fibers per cubic centimeter of air greater than 5 microns in length.

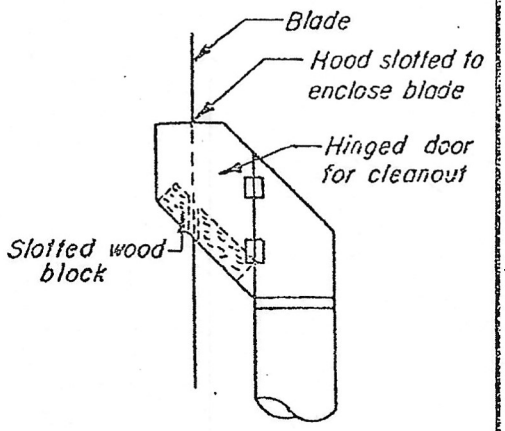
(3) mg./m³ - Milligrams of contaminant per cubic meter of air.

(4) OSHA Acceptable - Title 29 Code of Federal Regulations Part 1910, Subpart Z, Section 1910.1000, Table Z-2, Z-3, 1910.1001 Asbestos.

(5) ND - Not detected.

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TOP HOOD DETAIL

Blade width, inches	Exhaust volume, cfm		
	Bottom	Top	Total
Up to 2	350	350	700
over 2 to 3	350	550	900
over 3 to 4	550	800	1350
over 4 to 6	550	1100	1650
over 6 to 8	550	1400	1950

Duct velocity = 3500 fpm
Entry loss = 1.75 VP in duct riser (Point A)

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS

BAND SAW

DATE 1-66 | VS-706

Walt Jones

10-C-1-D

R: Asbestos

In the recent report you filed with Air Pollution Control Dist. of Jefferson County, Ky (which we helped fill out) we advised them of asbestos discharge

The Armstrong C. is now advising us that all asbestos fibres may not be fully encapsulated in the neoprene in the sheet.

We therefore advise you as follows, per attached Plate

A. The Honeywell Machine Tools are now on an American Air Filter "Bag" Unit discharging to the outside air.

B. The M-67 Machine Tools are now on an "Unbrow" brand filter unit discharging into the same room.

C. Contact AAF in Louisville and have them send out a qualified Sales-Eng to look over the above and recommend how we should proceed to.

1. Is the M-67 Machine Filter adequate?
2. Should it be discharged outside the building
3. Could both the M-67 & Honeywell Machine dust be handled by the present AAF Unit?
4. Is the present AAF Unit adequate to handle & meet current regulations?
5. If we add ducts to the SDNA line could we also tie it into this present AAF Unit?
6. If Not then complete analysis & recommendations with pricing.

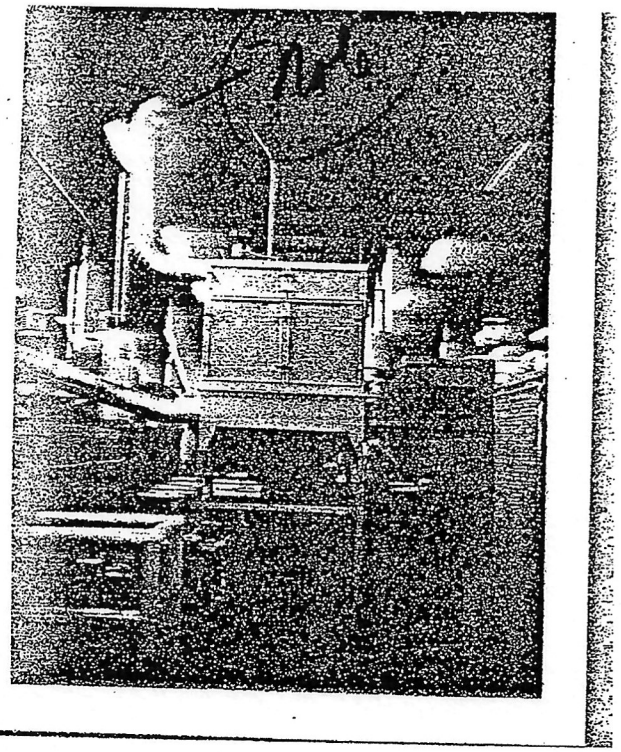
cc. Paul Spechin
Conner Bebb

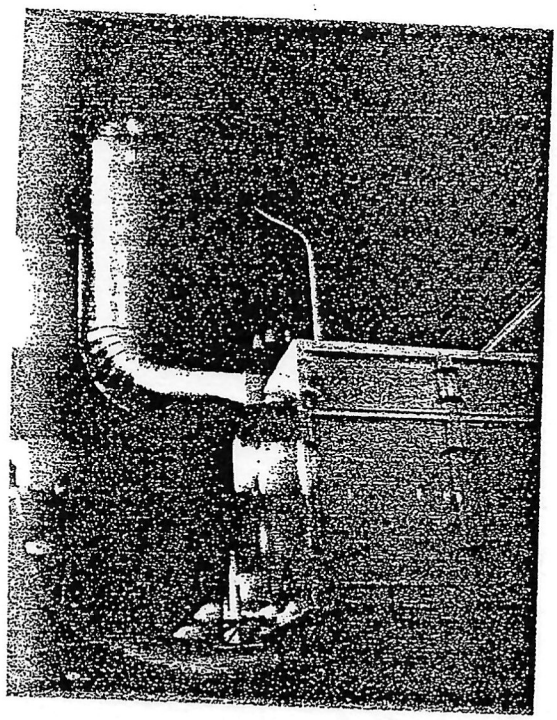
Wm Leon

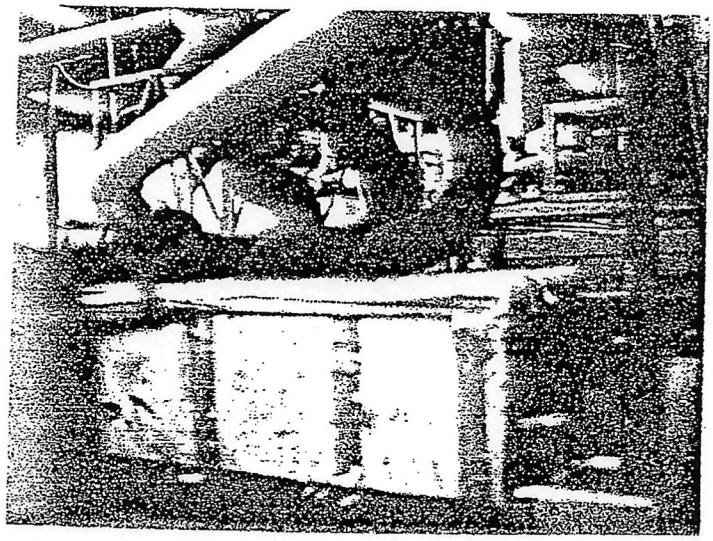
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B 515 - 1/1 10
230/460/60/3

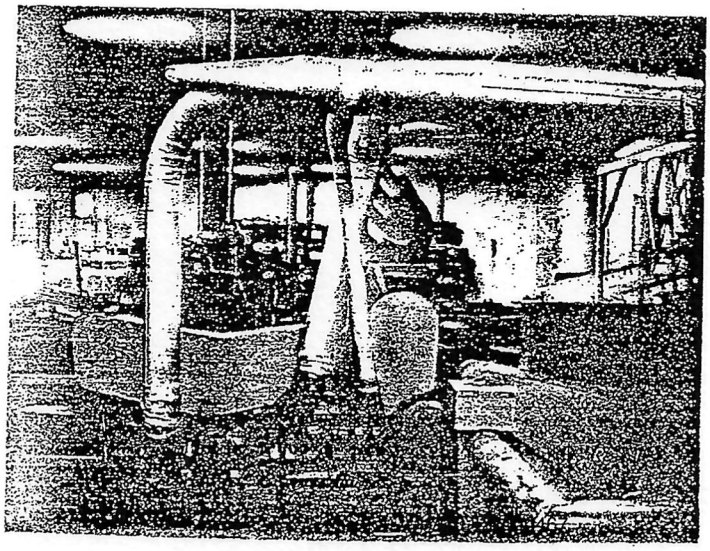
On M-67 Machine



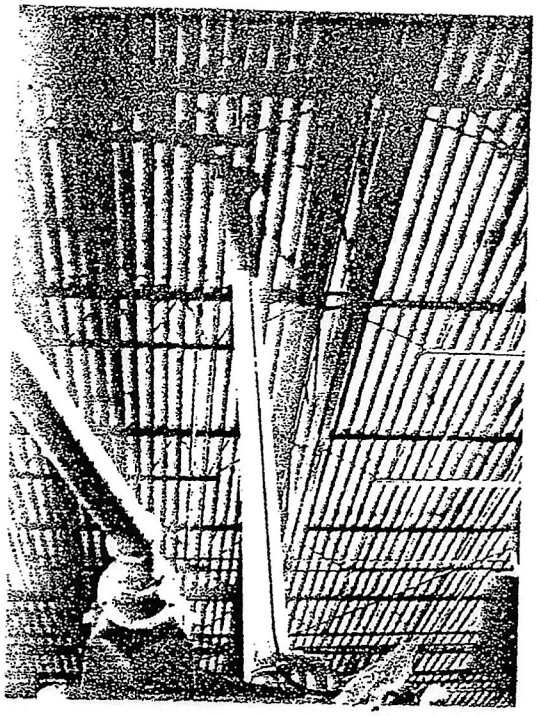








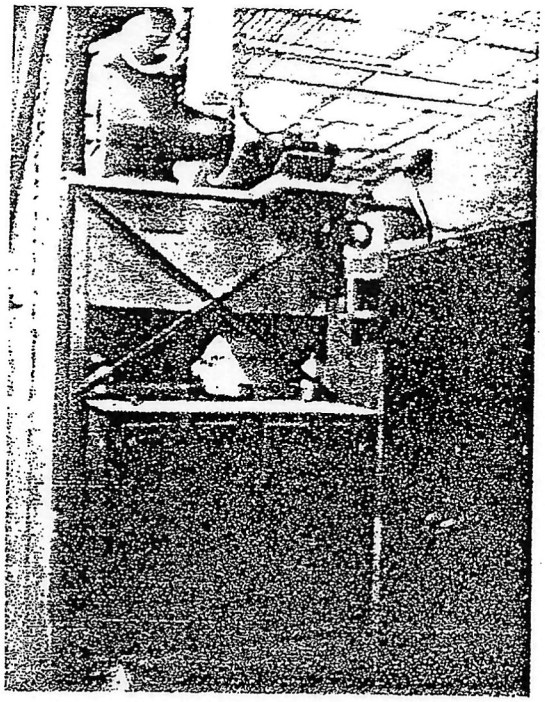
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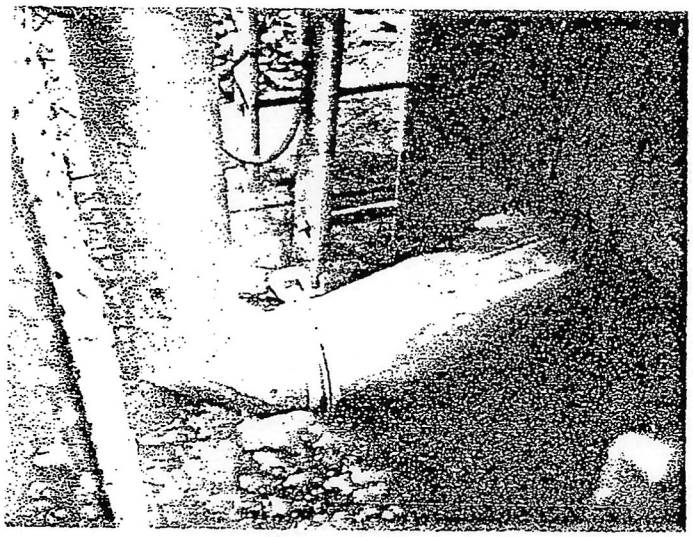


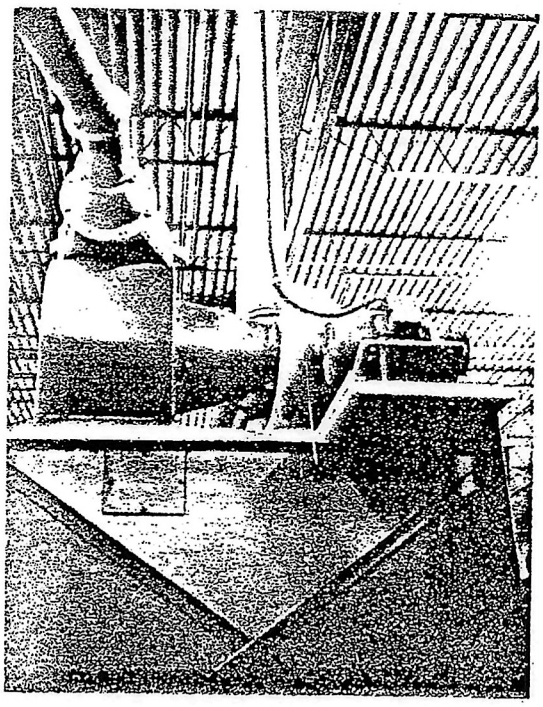
American Air Filter
Thermo - Sig #10
Lead S61264
Photocycle - Sig #10
961440

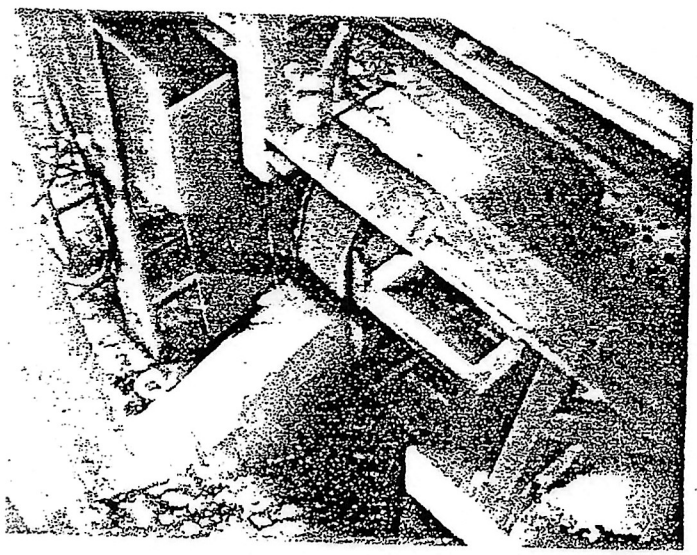
On
Honeywell
Modine

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