PLAINTIFF'S EXHIBIT
MBL-202

DATE January 6, 1978

TO E. D. Keiper
Beaumont Refinery

Attn: G. P. Pepper

C.C. L. Levin - New York
R. P. Medlin - Beaumont
M. A. Mehlman - New York
D. E. Miller - New York
R. H. Murray, Jr. - New York
W. J. Selfridge, Jr. - New York
Attn: W. T. Gregg
J. K. Stewart, M.D. - Beaumont
J. L. Wescoat - Beaumont

INDUSTRIAL HYGIENE ASBESTOS AIR SAMPLING
INVESTIGATION
EH 61-77
MOBIL OIL CORPORATION
U. S. DIVISION
BEAUMONT REFINERY
BEAUMONT, TEXAS
OCTOBER 18, 1977

I. INTRODUCTION

An industrial hygiene asbestos air sampling investigation was performed at the Complex Plant, Hydrocracker Unit, by D. B. Dunham, Industrial Hygienist, and H. C. Chang, Industrial Hygienist, on October 18, 1977.

II. SUMMARY

A. Findings

1. The insulator's potential exposure to asbestos fibers resulted in a time-weighted average concentration of 0.01 fibers/cc or practically nil. The acceptable OSHA time-weighted average concentration is 2 fibers/cc (OSHA Regulation 1910.1001 (b)).

2. The insulator helper's potential exposure to asbestos fibers resulted in a time-weighted average concentration of 0.02 fibers/cc.

3. Since the employees wore approved NIOSH respirators their actual exposure was non-existant.

4. Employees were following the prescribed work practices set forth in the asbestos handling policy which includes bagging and tagging of the asbestos materials removed.

B. Recommendations

None

III. DISCUSSION

A. Asbestos Air Sampling Survey

1. Method

Breathing zone air samples were collected on Millipore filters, Type AA, 0.8 microns, 37 millimeter diameter, held in place by an open-faced Millipore holder. Air flow volumes were provided by MSA, Model G, Monitaire pumps at calibrated flow rates of 1.4 and 1.5 lpm respectively.

The asbestos and total fiber counting was performed by phase contract microscopy at the National Loss Control Corporation Laboratories, Long Grove, Illinois. Asbestos and total fiber counting was reported as fibers greater than 5 microns in length per cubic centimeter of air.

2. Results

The results of the asbestos fiber sampling are contained in Table I. Personal air sampling was performed while an insulator and insulator helper removed old insulation from several overhead lines at the Hydrocracker Unit - Hydrogen Treater. The insulation removal job took 82 minutes.

The insulator's potential exposure to asbestos and total fibers was 0.01 fibers/cc for fibers greater than 5 microns in length, based on the time-weighted average (TWA) concentration. Also, the insulator helper's potential exposure was 0.02 fibers/cc based on the TWA concentration. Their exposure is noted as potential since both employees wore approved respirators during their assignment and thus were not exposed to asbestos fibers. Further, both of these TWA concentrations are well below the OSHA guidelines of 2 fibers/cc for an 8-hour day.

Management informed the undersigned that the following work practices would be observed during the insulation removal process:

a) Caution signs would be placed at the perimeter of the removal area,

b) Wetting of insulation would be performed,

c) Debris would be placed in a sealed impervious bag and tagged,

d) Insulators would use the approved NIOSH respirators during the work period,

e) The bags of insulation would be disposed of and buried on the same day.

D. B. Dunham
Industrial Hygienist

"THE FINDINGS AND RECOMMENDATIONS OF THIS SURVEY WERE DISCUSSED WITH THE PLANT MANAGER OR HIS REPRESENTATIVE AT THE CONCLUSION OF THIS SURVEY."

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Mobil Oil Corporation

EH 61-77

Oil Sampling -

PLANT/LOCATION Beaumont Refinery - Complex Plant

INSTRUMENT MAKE, SERIAL NO. MSA, Model G, Monitaire Pumps

DATE/TIME 10/18/77 - 9:28 A.M.

INSTRUMENT CALIBRATION (DATE) 10/18/77

SAMPLED BY D.B.D. / H. C. C.
(Signature)

SAMPLING METHOD Millipore Filters, Type AA, 0.8microns; 37 mm

OPERATION	CONTAMINANT	SAMPLE TIME (MIN)	SAMPLE VOLUME (M³)	NET AMOUNT (MG)	CONC. MG/M³ / PPM	TLV	TWA	ACTION RECOMMENDED / FINDINGS
					Fibers/cc	Fibers/cc	Fibers/cc	
1) Sample # 10-18-1 Insulator J. Stewart SSN 452-28-4173	Asbestos Fibers	82	0.123		0.08	2	0.01	Flow rate 1.5 lpm. Insulator wore respirator.
2) Sample #10-18-2 Insulator Helper B. L. Frugie SSN 464-88-9128	Asbestos Fibers	82	0.114		0.09	2	0.02	Flow rate 1.4 lpm. Helper wore respirator.

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All Samples are Breathing Zone Samples Unless Otherwise Noted

Threshold Limit Value — refer to OSHA Sec. 1910 or current ACGIH TLV List

DISTRIBUTION: 1. Medical Dept, N.Y. Area
Chief Ind. Hyg.

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Table I
Asbestos Air Sampling
EH - 77

›bil Oil Corporation

air sampling da

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LOCATION Beaumont Refinery

TIME 10/18/77 - 9:28 AM

LED BY DBD / HCC
(Signature)

INSTRUMENT MAKE, SERIAL NO. MSA, Model G, Mountain Pumps

INSTRUMENT CALIBRATION (DATE) 10/18/77

SAMPLING METHOD Millipore Filters, Type AA, 0.3μ, 37 mm

OPERATION	CONTAMINANT	SAMPLE TIME (MIN)	SAMPLE VOLUME (M³)	NET AMOUNT (MG)	CONC. MG/M³ ___ PPM ___ Fibers	fiber/cc TLV *	fiber/cc TWA **	ACTION RECOMMENDED
	Asbestos fibers	82	0.123		0.08	2	0.01	Flow rate 1.5 lpm Insulator wore respirator
	Asbestos fibers	82	0.114		0.09	2	0.02	Flow rate 1.4 lpm Helper wore respirator

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