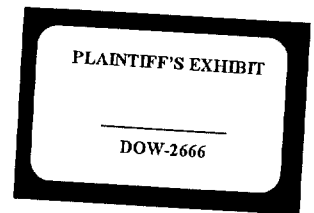




DOW CHEMICAL U.S.A.



TEXAS DIVISION
FREEPORT, TEXAS 77541

ENVIRONMENTAL HEALTH REPORT

AIRBORNE ASBESTOS SURVEY
CATHODE CLEANING UNIT
OYSTER CREEK DIVISION

FILE NO. OCD-327

DATE April 9, 1974

AUTHOR H. N. Edwards

CHECKED *K. F. Daniel*

DATE 4/11/74

Summary

A survey for airborne asbestos was made at the cathode cleaning unit. All analyses were below the levels required for the asbestos standard established by the Occupation Safety and Health Act (OSHA).

ST0014508

Distribution

M. E. Sanders OCD
C. J. Barras OCD
C. E. Caldwell OCD
R. C. Miller OCD
R. E. Flake B-101
J. D. Laman B-1226
H. R. Hoyle 1707 Bldg. -Midland
*F. D. Axe - Pittsburg

* C. L. Sercu- Cleveland
* R. R. Langner -607 Bldg.-Midland
* *A*. G. Vaughn - Plaquemine
✓ File (2)

AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY



ST0014508

INTRODUCTION

The Occupational Safety and Health Act (OSHA) requires that occupational exposure to airborne asbestos dust be controlled so that no worker is exposed to more than 5.0 asbestos fibers per cubic centimeter of air based on a count of fibers greater than 5 micrometers in length. These are determined as a time-weighted average (TWA) exposure for an eight hour work day, and no peak concentrations of asbestos more than 10.0 fibers per cubic centimeter as determined by a minimum sampling time of fifteen minutes. This survey evaluated the airborne asbestos at the cathode cleaning unit.

METHODOLOGY

The cathode cleaning area was surveyed and ten locations were selected as stationary points for monitoring (Fig.1). Four other samples were collected from a monitor worn by a Technician during four hours of work.

Airborne samples were collected using the Micronair permissible air sampling pump (Bendix Environmental Science Division, Baltimore, Maryland). The asbestos was collected by pulling air through a millipore filter. Flow rates for the pumps were calibrated at 1500 cubic centimeters per minute and the sample times for the stationary pumps were thirty minutes while the time for sampling of the personnel monitor was one hour each for four hours. All analyses were done by Lee Martin B-1218.

RESULTS

There were no asbestos levels that exceeded the limits established by OSHA, (Table I). This operation seems to keep everything damp at all times and therefore asbestos levels are low.

CONCLUSIONS

Airborne asbestos measured during this survey are well below the current Threshold Limit Values (TLV).

ST0014509

ST0014509

RECOMMENDATIONS

(1) Even though the concentrations of asbestos are below the TLV, care should always be used when handling the material.

(4) When the weather is warm and outside the cleaning area is dry, another survey should be made. This would evaluate the levels created by the truck traffic along the roadways.

EHS
HNE/bbs
4-9-74

ST0014510

ST0014510

TABLE I

AIRBORNE ASBESTOS
Fibers greater than 5.0 micrometers per cubic centimeter

LOCATION		NO. OF FIBERS
(1)	(Fig.1) Change Room, dirty clothes area	0.30
(2)	(Fig.1) Lunch Room, on table	0.16
(3)	(Fig.1) On cathodes that have been cleaned	0.27
(4)	(Fig.1) On wall (5' from floor)	0.86
(5)	(Fig.1) Between motors (5' from floor)	0.67
(6)	(Fig.1) On wall (5' from floor)	0.10
(7)	(Fig.1) On cathodes - ready for cleaning	0.16
(8)	(Fig.1) Along road on cathodes (5' from ground)	0.10
(9)	(Fig.1) Along road on cathodes (4' from ground)	0.12
(10)	(Fig.1) Along road on cathodes (4' from ground)	0.13

PERSONNEL MONITOR

First hour-----	0.73
Second hour-----	0.13
Third hour-----	*
Fourth hour-----	0.10

* Filter became wet during work (unable to evaluate)

EHS
HNE/bbs
4-9-74

ST0014511

ST0014511

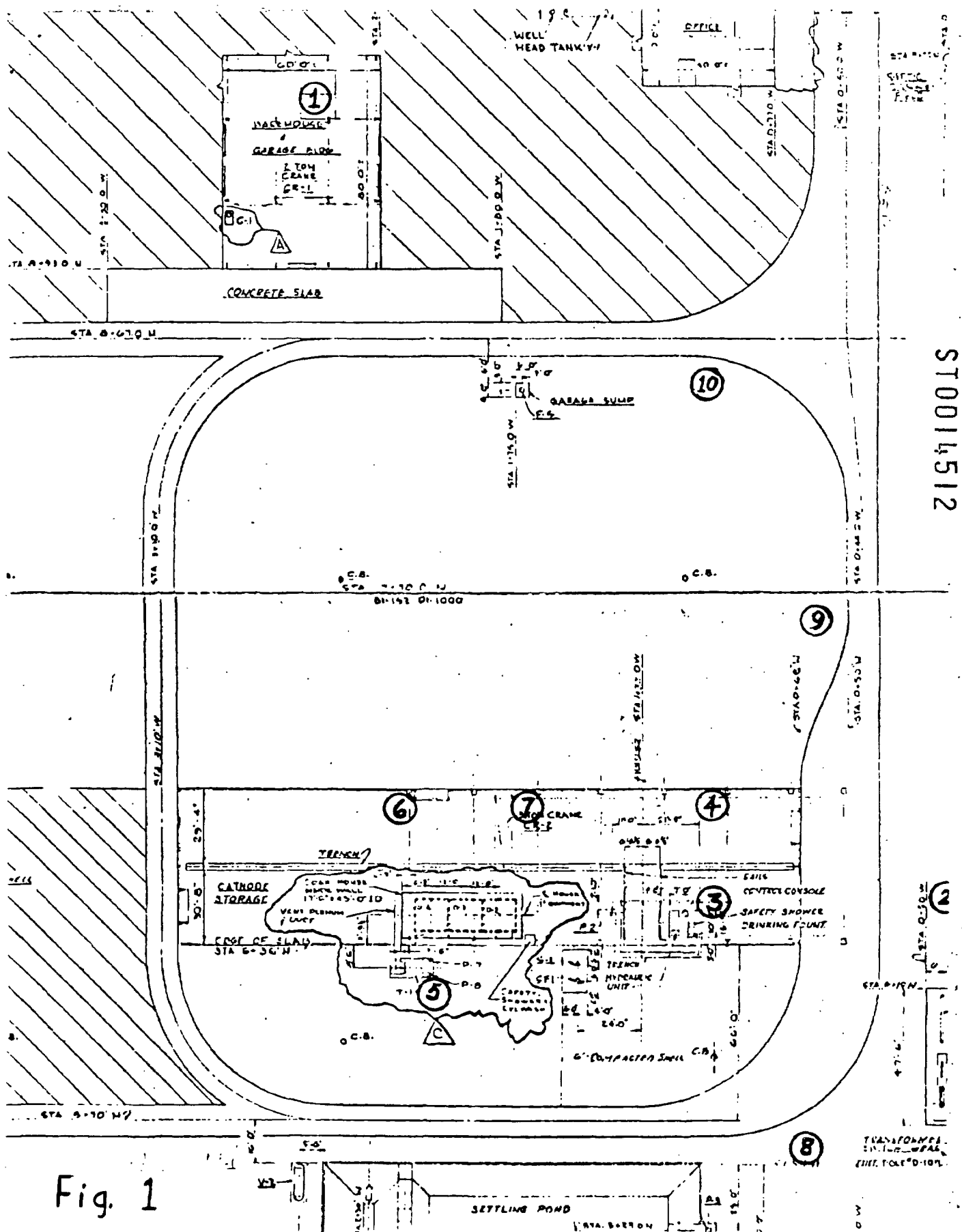


Fig. 1

ST0014512