

INDUSTRIAL HYGIENE REPORT

TEXAS OPERATIONS

DOW CHEMICAL U.S.A.
AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY

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TITLE:

EVALUATION OF CONTRACTOR WORK PROCEDURES DURING A TRANSITE REMOVAL PROJECT AT MAGNESIUM I

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SUMMARY

Personal and area monitoring was performed during the removal of asbestos transite at Magnesium I on December 14 and 15, 1988. All personal and area sample results were below the acceptable exposure guidelines of 0.2 fibers/cc. Results of the five samples taken ranged from 0.002 to 0.082 fibers/cc with an average of 0.037 fibers/cc.

The procedures outlined in the Texas Operations Asbestos Handbook - November, 1988 were followed during this removal project by Win Way contractors. The work area was cordoned off and all workers within the restricted area used approved respiratory protection and protective clothing. Disposal and clean up operations followed the handbook guidelines.

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EVALUATION OF CONTRACTOR WORK PROCEDURE DURING A TRANSITE REMOVAL PROJECT AT MAGNESIUM I

INTRODUCTION

On December 14 and 15, 1988, Win Way contractors removed transite board from Magnesium I ceiling. Personal and area monitoring was conducted to evaluate potential exposures to asbestos during this operation.

CONCLUSION

All personal and area sample results were below acceptable exposure guidelines of 0.2 fibers/cc. Results of the five samples taken ranged from 0.002 to 0.082 fibers/cc with an average of 0.037 fibers/cc. Monitoring results have been communicated to Win Way contractors for employee notification. See Table I for sample results.

RESULTS AND DISCUSSION

All procedures in the Texas Operations Asbestos Handbook - November 1988 were followed when Win Way contractors removed transite board from Magnesium I's ceiling. The actual removal process lasted two days and occurred on December 14 and 15, 1988. A sizzors lift was utilized to perform this removal project. A double layer of clear poly was laid out on the decking and attached to the sizzor lift's midrail. Prior to removal, each transite board was wetted with amended water. Once removed the transite was placed on a double layer of polyethylene, wrapped and secured. This wrapped transite was then placed in a dino box for disposal. The polyethylene on the lift was rolled up and properly disposed of and the work area was thoroughly cleaned.

Approved respirators and protective clothing were worn by all operators involved within this restricted area.

METHODOLOGY

Asbestos samples were collected using Gilian HFS513 air sampling pumps. A known volume of air was pulled through 25mm cellulose ester membrane filters, 0.8 micron pore size. Samples were collected at a flow rate of approximately two liters per minute. The samples were counted by McKee Environmental Health Services using NIOSH Analytical Method #7400.

EVALUATION CRITERIA

The evaluation of exposure levels were based on the following criterion.

	<u>OSHA PEL</u>
Asbestos	0.2 fibers/cc

The OSHA Permissible Exposure Limit (PEL) is the time-weighted average concentration for a normal 8-hour workday, 40 hour work week, to which nearly all workers may be repeatedly exposed without adverse health affects.

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TABLE I
ASBESTOS TRANSITE REMOVAL BY WIN WAY CONTRACTORS
MAGNESIUM I

Sample #	Location/SS#	Date	Sample Time (min)	During Sampling Asbestos fibers/cc	8-Hour Average Asbestos fibers/cc
#1AR	455-37-8995	12-14-88	161	0.082	0.027
#2AR	330-54-1321	12-14-88	158	0.073	0.024
#3AR	6' from hoist on ground floor	12-14-88	159	0.027	0.008
#4AR	330-54-1321	12-15-88	61	0.002	0.0002
#6AR	455-37-8995	12-15-88	61	0.002	0.0002

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