PLAINTIFF'S EXHIBIT

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TITLE:

EVALUATION OF CONTRACTOR EMPLOYEE EXPOSURES TO ASBESTOS DURING REMOVAL OF PIPING WHILE DOING A HOT GAS PASS INSPECTION FOR THE CRITICAL TURBINE EQUIPMENT DEPARTMENT

AUTHOR(S)

C.L. Sandlin C. L Sandlin July 11, 1989

REVIEWER(S)

D.E. Cragar D. E. Cragar July 11, 1989

SUMMARY

Asbestos monitoring was conducted during the removal of pigtail piping and steam injection piping while doing a hot gas pass inspection on GT-33 turbine at Power 3, on January 16, 1989. Personal breathing zone samples were collected to determine potential exposures to asbestos. The asbestos removal was being done by contract maintenance employees working at Power 3, for the Critical Turbine Equipment department.

Potential asbestos exposures were well below the OSHA PEL of 0.2 fibers/cubic centimeters of air. Employees wore half face negative pressure respirators equipped with HEPA filters, disposable coveralls, and used a wetting method during the removal of the piping. The removal procedures followed the written guidelines in the Texas Operations Asbestos Handbook.

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EVALUATION OF CONTRACTOR EMPLOYEE EXPOSURES TO ASBESTOS DURING REMOVAL OF PIPING WHILE DOING A HOT GAS PASS INSPECTION FOR THE CRITICAL TURBINE DEPARTMENT

INTRODUCTION

Asbestos monitoring was conducted during the removal of pigtail piping and steam injection piping at while doing a hot gas pass inspection on GT-33 turbine at Power 3, on January 16, 1989. Personal breathing zone samples were collected to determine potential exposures to asbestos. The asbestos removal was done by contract maintenance employees working at Power 3, for the Critical Turbine Equipment Department. Survey results were supplied to Mallay for employee notification.

CONCLUSION

Potential contractor eight-hour, time-weighted average (TWA) exposures to asbestos were 0.02 fibers per cubic centimeter (f/cc) of air during the removal of pigtail piping and steam injection piping during a hot gas pass inspection. Exposure level were well below the OSHA PEL of 0.2 f/cc.

DISCUSSION OF RESULTS

Mallay contractor employees were monitored during the removal of pigtail piping and steam injection piping while working on a turbine during a hot gas pass inspection at Power 3. The Mallay employees wore half face respirators equipped with HEPA filter cartridges and disposable coveralls and a wetting method during the removal. The removal procedures followed the written guidelines in the Texas Operation Asbestos Handbook.

Table I summarizes the individual potential exposures. Potential exposures were well below the OSHA PEL of 0.2 f/cc

METHODOLOGY

Asbestos samples were collected using a calibrated Gilian HFS 113 air sampling pump. A known volume of air was pulled through 25 mm cellulose ester membrane filters, 0.8 micron pore size. Samples were collected at a flow rate of approximately 2 liters per minute. The sample were counted by McKee Environmental Health Services using NIOSH Analytical Method #7400.

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EVALUATION CRITERIA

The evaluation of exposure levels was based on the following criterion:

AGENT	OSHA PEL
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 effects.

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TABLE I

SUMMARY OF 8-HR TWA EXPOSURES TO ASBESTOS
DURING PIPING REMOVAL WHILE PERFORMING A HOT GAS PASS INSPECTION
CRITICAL TURBINE DEPARTMENT

JOB CODE/ CLASSIFICATION	EMPLOYEE NUMBER	DATE	SAMPLE TIME(min)	8-HR TWA CONCENTRATION (f/cc)
Mallay Contractor	95-8-741	1-16-89	172	0.02
	95-8-765	1-16-89	171	0.02
		OSHA PEL		0.2

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