PLAINTIFF'S EXHIBIT
TEX-112

TEXACO

Houston, Texas - October 1, 1974

F.W.

INDUSTRIAL HYGIENE SURVEY
ASBESTOS SAMPLING
PUGET SOUND PLANT
ANACORDES, WASHINGTON

HEH | ERS
OCT 9 1974
SS

Mr. W. C. Patterson
Houston, Texas

In my memorandum of February 25, 1974, transmitting the report of an Industrial Hygiene Survey conducted the week of November 26, 1973, it was stated that results of asbestos sampling conducted during the survey would be transmitted at a later date. We regret the delay in reporting the results of this sampling, however, it was due to curcimstances beyond our control.

Attached is an original and one copy of a report of the results of asbestos sampling conducted at the Puget Sound Plant during the above dates. It is assumed that you will forward one copy to Mr. P. C. Templeton. If you or Mr. Templeton should have any questions, please contact me at your convenience.

H. L. HOBSON

HLH/dem
cc: PGT-DMM-WAD-RTR ✓

INDUSTRIAL HYGIENE SURVEY
PUGET SOUND PLANT
ANACORDES, WASHINGTON

November 26 - 29, 1973

By H. L. HOBSON, INDUSTRIAL HYGIENIST
HEALTH DIVISION, TEXACO INC.
HOUSTON, TEXAS

SUMMARY

An Industrial Hygiene Survey was conducted at the Puget Sound Plant in order to determine exposure levels of insulators handling asbestos products. Unfortunately, due to the infrequent use of asbestos insulation and the seldom occurance of asbestos insulation removal, sampling of a magnitude necessary to make a complete evaluation was not possible. The operation which was surveyed included the dry stripping of existing asbestos insulation and the replacement of this insulation to its original location. It was determined that exposures were below current maximum allowable concentrations based on one ten minute sample.

FINDINGS

On November 28, 1973, breathing zone samples for airborne asbestos fibers were collected using Mine Safety Appliances (MSA) monitare pumps, and appropriate gridded milipore filters with open face. The co-operation of Mr. Tom Scoggin was solicited in order to collect samples. Activities sampled were divided into two segments, the first of which encompassed the removal of dry preformed asbestos insulation from a horizontal pipe run, and secondly, the replacement of this same insulation on the original pipe. A summary of sampling activities and results of microscopic counting is presented in Table I.

Milipore filters were counted by two separate and independent groups; Beacon Research and Technical Laboratories, Texaco Inc., Beacon New York and the Bernville Biological Laboratory, Bernville, Pennsylvania. The results obtained by these laboratories are comparable and averages of the two counts obtained are used in calculating exposures. Regretably, filter No. 2 was lost in transit and therefore, results are not available for the second phase of the work performed. It should be noted that the work being performed during the first part of the sampled operation would be expected to generate the highest level of airborne asbestos fibers concentration. Consequently, one would expect that should the results from sample No. 2 have been available, it would have reflected a concentration lower than that of sample No. 1.

Because the use of asbestos insulation at Puget Sound Plant has been discontinued, and because the stripping of existing asbestos insulation is only very infrequently performed, this very brief operation, which was especially conducted for the purpose of sampling, was all that could be generated. Sampling times of the duration in this report are satisfactory only for the evaluation of the maximum allowable concentration as established by the Occupational Safety and Health Administration Standards of ten fibers per cubic centimeter greater than five micrometers in length. Results indicate that this type of stripping operation performed under dry conditions very nearly approaches this maximum allowable concentration but does not exceed it. It is therefore most important that whenever possible, all asbestos stripping operations be performed under wet conditions. It was not possible to evaluate an eight hour, time weighted average for comparison with the threshold limit value.

The co-operation and assistance of Mr. Scoggins and Mr. P. C. Templeton and his staff are greatly appreciated.

H. L. HOBSON

TABLE I

SUMMARY OF AIRBORNE SAMPLING FOR ASBESTOS

Puget Sound Plant, Anacordes, Washington

Sample Number	Sampling Time	Volume Sampled	Bernville* Results	Beacon R&T* Results	Average Count	Discription of Operation
1	10 Minutes	20 Liters	7.6	11.8	9.7	Stripping of dry asbestos insulation
2	17 Minutes	34 Liters	Sample Lost In Transit - - - - - - - - -			Replacement of dry asbestos insulation
Blank			None	None		

* Asbestos Fibers Greater Than Five Micrometers In Length

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