

PLAINTIFF'S EXHIBIT

TEX-122

SAF-74
PSP

TRMI
ENVIRONMENT,
HEALTH & SAFETY

MAY 18 '89

RAC		PVT	
JDW	✓	DB	
GRA	✓	FOH	
BHB		DRH	
CWP		LAL	
JKW		RGL	
		DWM	
HMB		GFR	
JRW		JRS	
FILE			
X = HANDLE		✓ = NOTE	

DATE: May 17, 1989

TO: C. R. Ferguson
Anacortes, WA

FROM: O. W. Rigdon
Allen Center - Houston, TX

SUBJECT: SAF STUDIES, SURVEYS, AND REPORTS
TEXACO REFINING AND MARKETING INC.
PUGET SOUND PLANT
Routine Industrial Hygiene Monitoring
(Respirable Silica, Respirable Nuisance Dust)

SYNOPSIS

Industrial hygiene monitoring identified personal breathing zone sample concentrations of respirable silica and nuisance dust to be less than applicable exposure limits. The silica result was less than the analytical limit of detection. Recommendations concerning employee notification of results and additional monitoring are included herein.

BACKGROUND

Industrial hygiene monitoring was conducted by C. R. Chebul in response to a request made by a union representative. Two personal breathing zone samples were collected while a Stockmar Northwest contract employee cut dip lag, and unpacked and stored calcium silicate insulation in the insulation shed. These activities are routinely performed by both contract and Texaco employees. The samples were analyzed for both respirable dust and respirable silica since there are separate exposure limits for these contaminants. The insulation shed has a general dilution ventilation system. During the monitoring, the employee wore a disposable particulate respirator.

RESULTS

The monitoring results are provided in Tables I and II, attached to this report. The data are presented as full-shift breathing zone concentrations with the units of milligrams per cubic meter (mg/m³) of air. The "less than" symbol (<) preceding the data indicates the contaminant was at or below the least quantifiable air monitoring limit of detection. The air monitoring limit of detection is a function of the analytical limit of detection and the sample air volume. Attachment A summarizes the applicable exposure limits utilized by Texaco.

C. R. Ferguson
May 17, 1989
Page 3

Should you have any questions concerning this report, please
direct them to Ms. B. Bessette-Henderson, Texnet 658-4110.

O. W. Rigdon Jr

BBH:aw

e:pspdo689.%%

RAC

Attachment

UVHjr

WA-TEX 000966

ATTACHMENT A
EXPOSURE LIMITS

<u>CONTAMINANT</u>	<u>WISHA PEL*</u>	<u>ACGIH TLV**</u>
Respirable Dust	5.0 mg/m3	
Crystalline Silica (Quartz)		0.1 mg/m3

Generally, the exposure limits referenced above are the lowest of those developed by either the Washington Industrial Safety and Health Administration (WISHA), or the American Conference of Governmental Industrial Hygienists (ACGIH).

- * An employee's exposure in any eight-hour work shift of a 40-hour work week shall not exceed the WISHA eight-hour time-weighted average (TWA) permissible exposure limit (PEL) for that material.
- ** The American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV) are eight-hour adjusted time-weighted average exposure concentrations to which nearly all workers can be exposed, day after day, without adverse effect.

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TEXACO USA
PUGET SOUND PLANT

TABLE I
PUGET SOUND PLANT
NUISANCE-RESPIRABLE
89-04-06

TABLE I OF II
PAGE 1 OF 1
REPORT DATE-

SAMPLE NUMBER	EMPLOYEE SSN	EMPLOYEE TITLE	WORK AREA	DATE	TEMP (F)	TIME ANALYSIS	RESULT*	TOTAL TIME	TIME WEIGHTED AVERAGE*	METHOD*
6203000766	3533244875	INSULATOR	MAINTENANCE	89-04-06	58	194	3.4000 MG/M3			
6203000765	3533244875	INSULATOR	MAINTENANCE	89-04-06	58	196	0.5200 MG/M3	390	1.9526	MG/M3 8 HR-SAM

* < = LESS THAN THE DETECTABLE LIMIT
~ = ROUNDED TO THE NEAREST HUNDRETH
B = BREAKTHROUGH
= THE TWA EXCEEDS THE STANDARD

** SAME = THE TWA WAS COMPUTED BASED ON ASSUMED SAME EXPOSURE DURING THE BALANCE OF THE UNSAMPLED SHIFT.
ZERO = THE TWA WAS COMPUTED BASED ON NO SIGNIFICANT EXPOSURE DURING THE BALANCE OF THE UNSAMPLED SHIFT.

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TEXACO USA
PUGET SOUND PLANT

TABLE II
PUGET SOUND PLANT
SILICA-RESPIRABLE

TABLE II OF II
PAGE 1 OF 1
REPORT DATE-

89-04-06

SAMPLE NUMBER	EMPLOYEE SSN	EMPLOYEE TITLE	WORK AREA	DATE	TEMP (F)	TIME ANALYSIS RESULT*	TOTAL TIME WEIGHTED		METHOD*
							TIME	AVERAGE*	
6203000766	3533244875	INSULATOR	MAINTENANCE	89-04-06	58	194 <	0.0740	MG/M3	
6203000765	3533244875	INSULATOR	MAINTENANCE	89-04-06	58	196 <	0.0730	MG/M3	390 <0.0740 MG/M3 8 HR-SAM

* < = LESS THAN THE DETECTABLE LIMIT
~ = ROUNDED TO THE NEAREST HUNDREDTH
B = BREAKTHROUGH
= THE TWA EXCEEDS THE STANDARD

** SAME = THE TWA WAS COMPUTED BASED ON ASSUMED SAME EXPOSURE DURING THE BALANCE OF THE UNSAMPLED SHIFT.
ZERO = THE TWA WAS COMPUTED BASED ON NO SIGNIFICANT EXPOSURE DURING THE BALANCE OF THE UNSAMPLED SHIFT.