

Ref 0112

PLAINTIFF'S EXHIBIT

SH-2846

INTEROFFICE MEMORANDUM

JULY 21, 1989

FROM: ANGIE SVOBODA, SR INDUSTRIAL HYGIENE TECH.
DEER PARK MANUFACTURING COMPLEX

TO: P. T. HAMILTON, MANAGER CAT CRACKING & GAS
DEER PARK MANUFACTURING COMPLEX

SUBJECT: ASBESTOS MONITORING RESULTS

As requested, asbestos area monitoring was conducted by Industrial Hygiene at all four Cat Cracking and Gas control rooms to determine background asbestos levels. A total of 45 area samples and 8 grab (bulk) samples were taken at various locations throughout the control rooms. The area sampling results may be compared to the following DPMC Exposure Guidelines:

Permissible 8 Hr. TWA
Exposure Guideline

Asbestos

0.2 fibers/cc

The area monitoring analysis were performed by Shell Industrial Hygiene Laboratory at Westhollow Research Center (Attachment 1). All the results show the concentration of asbestos fibers in the control rooms were below the minimum limit of detection (0.01 fibers/cc).

The identification of asbestos fibers in the grab samples (Attachment 2) were performed by Health and Safety Department personnel. The Gas Recovery Fractionator control room is the only control room where asbestos fibers were identified in the grab samples. The grab samples were taken from the area behind the panel board and in the back room over the book shelf in the attic space. Although asbestos fibers were present in the grab samples taken from the attic space, no airborne fibers were detected in the area samples. All the area samples were taken in the breathing zone level, five additional area samples were taken in this control room for a total of fifteen area samples.

ABS-000176

LAM 019365

The attached monitoring results should be posted in area that are accessible to the personnel who work in these control rooms.

If you have any questions concerning the sampling, please call me at ext. 7102.

Angie Svobeda
ANGIE SVOBODA

Attachments

cc: W.B. Austin
J.T. Flynt
AS Chron
H&S Satellite

ABS-000177

LAM 019366

MONITORING RESULTS FORM

<u>DEPARTMENT/PROCESS:</u>		<u>CAT CRACKING & GAS</u>		<u>JOB DESCRIPTION:</u>		<u>AREA SAMPLES</u>	
<u>NAME</u>	<u>EMP. NO.</u>	<u>DATE</u>	<u>TIME</u>	<u>SAMPLE RESULTS (Fibers/cc)</u>		<u>SAMPLE PERIOD (MIN)</u>	<u>WORK DESCRIPTION</u>
				<u>ASBESTOS GUIDE-LINE =</u>			
				0.2 Fibers/cc			

CAT CRACKER CONTROL ROOM

Area Sample		6/13/89	0620 1410	<0.01	470	Area sample placed behind panel board, southeast side by XM11404. Sample placed at breathing zone level.	(1) 8-HR TWA	(2) RESP
Area Sample		6/13/89	0620	< 0.01	470	Area sample placed north-west side of Cat Cracker Control Room by lockers.		
Area Sample		6/13/89	0620 1410	< 0.01	470	Area sample placed at southwest side of Control Room by F1-10317. Sample located at breathing zone level.		
Area Sample		6/13/89	0620 1410	0.01	470	Area sample collected at breathing zone level, northeast side of Control Room by office wall.		
Area Sample		6/13/89	0620 1410	< 0.01	470	Area sample placed by bookcase southeast side of Control Room, placed at breathing zone level.		

ABS-000178

- (1) X indicates that the sample result is a measure of the eight-hour time-weighted average exposure.
 (2) X indicates that a respirator was worn during the sampling period.

CHRT8920701

MONITORING RESULTS FORM

DEPARTMENT/PROCESS:	CAT CRACKING & GAS	JOB DESCRIPTION:	AREA SAMPLES
SAMPLE RESULTS (Fibers/cc)			
NAME	EMP. NO.	DATE	TIME
ASBESTOS			
GUIDE-LINE = 0.2 Fibers/cc			
SAMPLE PERIOD (MIN)	WORK DESCRIPTION	(1) 8-HR TWA	(2) RESP

CAT CRACKER CONTROL ROOM (CONT'D)

Area Sample	6/14/89	0700	INVALID SAMPLE. PUMP MALFUNCTIONED.		
Area Sample	6/14/89	0700 1406	< 0.01	426	Area sample placed behind control panel area on south end of Control Room.
Area Sample	6/14/89	0700 1406	< 0.01	426	Area sample placed by lockers in back of room by Shift Foreman's Office.
Area Sample	6/14/89	0700 1406	< 0.01	426	Area sample placed by Main Frac. Operator station. Sample placed at breathing zone level.
Area Sample	6/14/89	0700 1406	< 0.01	426	Area sample placed by Fish Tank at breathing zone level, northwest side of Control Room.

ABS-000179

- (1) X indicates that the sample result is a measure of the eight-hour time-weighted average exposure.
- (2) X indicates that a respirator was worn during the sampling period.

CHRTAQ20701

MONITORING RESULTS FORM

DEPARTMENT/PROCESS: CAT CRACKING & GAS JOB DESCRIPTION: AREA SAMPLES

NAME	EMP. NO.	DATE	TIME	SAMPLE RESULTS (Fibers/cc)					(1) 8-HR TWA	(2) RESP
				ASBESTOS	GUIDE-LINE =	SAMPLE PERIOD (MIN)	WORK DESCRIPTION	0.2 Fibers/cc		

GAS FRACTIONATOR CONTROL ROOM

Area Sample		6/15/89	0632	<0.01		448	Area sample placed by kitchen sink, northwest side of Control Room.		
Area Sample		6/15/89	0632	INVALID SAMPLE. PUMP MALFUNCTIONED.					
Area Sample		6/15/89	0632	INVALID SAMPLE. PUMP MALFUNCTIONED.					
Area Sample		6/15/89	0632 1400	<0.01		448	Area sample placed by computer station, located at breathing zone level east of main operating desk area.		
Area Sample		6/15/89	0632 1400	<0.01		448	Area sample placed by computer desk by north wall close to north door.		
Area Sample		6/21/89	0700 1420	<0.01		440	Area sample placed in back room storage area by bookcase.		

ABS-000180

- (1) X indicates that the sample result is a measure of the eight-hour time-weighted average exposure.
 (2) X indicates that a respirator was worn during the sampling period.

CHRT8920701

MONITORING RESULTS FORM

DEPARTMENT/PROCESS: CAT CRACKING & GAS JOB DESCRIPTION: AREA SAMPLES

SAMPLE RESULTS (Fibers/cc)										
NAME	EMP. NO.	DATE	TIME	ASBESTOS		GUIDE-LINE = 0.2 Fibers/cc	SAMPLE PERIOD (MIN)	WORK DESCRIPTION	(1)	(2)
									8-HR TWA	RESP

GAS FRACTIONATOR CONTROL ROOM (CONT'D)

Area Sample		6/21/89	0700 1420	<0.01		440	Area sample placed behind panel board by lockers.		
Area Sample		6/21/89	0700 1420	<0.01		440	Area sample placed in Control Room in kitchen area by the sink.		
Area Sample		6/21/89	0700 1420	<0.01		440	Area sample placed on operators desk right in the middle of Control Room. Sample placed at breathing zone level.		
Area Sample		6/21/89	0700 1420	<0.01		440	Area sample placed by computer station, east wall of Control Room at breathing zone level.		
Area Sample		6/30/89	0655 1410	<0.01		435	Area sample placed by computer station, east wall of CC/Gas Control Room.		

ABS-000181

(1) X indicates that the sample result is a measure of the eight-hour time-weighted average exposure.
(2) X indicates that a respirator was worn during the sampling period.

CHRT8920701

LAM 019370

MONITORING RESULTS FORM

DEPARTMENT/PROCESS: CAT CRACKING & GAS JOB DESCRIPTION: AREA SAMPLES

SAMPLE RESULTS (Fibers/cc)									
NAME	EMP. NO.	DATE	TIME	ASBESTOS					
				GUIDE-LINE =					
				0.2 Fibers/cc					
				WORK DESCRIPTION	(1) 8-HR TWA	(2) RESP			
				SAMPLE PERIOD (MIN)					

GAS FRACTIONATION CONTROL ROOM (CONT'D)

Area Sample		6/30/89	0655 1410	< 0.01			435	Area sample place on operator's desk in middle of Control Room. Sample placed at breathing zone level.		
Area Sample		6/30/89	0655 1410	< 0.01			435	Area sample placed in CC/Gas Control Room, in kitchen area by the sink.		
Area Sample		6/30/89	0655 1410	< 0.01			435	Area sample placed behind panel board by lockers. Sample placed at breathing zone level.		
Area Sample		6/30/89	0655 1410	< 0.01			435	Area sample placed in back room storage area by bookcase.		

ABS-000182

- (1) X indicates that the sample result is a measure of the eight-hour time-weighted average exposure.
 (2) X indicates that a respirator was worn during the sampling period.

CHBT8920701

MONITORING RESULTS FORM

DEPARTMENT/PROCESS: CAT CRACKING & GAS JOB DESCRIPTION: AREA SAMPLE

NAME	EMP. NO.	DATE	TIME	SAMPLE RESULTS (F/cc)			SAMPLE PERIOD (MIN)	WORK DESCRIPTION	(1)	(2)	
				ASBESTOS					8-HR	TWA	RESP
				GUIDE-LINE = 0.2 Fibers/cc							

DHT - CFH CONTROL ROOM

Area Sample		6/22/89	0655 1416	<0.01			441	Area sample placed behind panel board inside walkin space (between kitchen and Control Room).		
Area Sample		6/22/89	0655 1416	<0.01			441	Area sample placed by CFH Operator working station at breathing zone level.		
Area Sample		6/22/89	0655 1416	<0.01			441	Area sample placed by DHT Operator working area - south side of Control Room at breathing zone level.		
Area Sample		6/22/89	0655 1416	<0.01			441	Area sample placed at southeast corner of Control Room by bookcase.		
Area Sample		6/22/89	0655	INVALID SAMPLE. PUMP MALFUNCTIONED.						
Area Sample		6/22/89	0700 1430	<0.01			450	Area sample placed in the kitchen area, north wall by sink at breathing zone level.		

ABS-000183

- (1) X indicates that the sample result is a measure of the eight-hour time-weighted average exposure.
 (2) X indicates that a respirator was worn during the sampling period.

CHRT920701

MONITORING RESULTS FORM

DEPARTMENT/PROCESS:		CAT CRACKING & GAS		JOB DESCRIPTION:		AREA SAMPLES	
SAMPLE RESULTS (Fibers/cc)							
ASBESTOS							
NAME	EMP. NO.	DATE	TIME	GUIDE-LINE = 0.2 Fibers/cc	SAMPLE PERIOD (MIN)	WORK DESCRIPTION	(1) 8-HR TWA (2) RESP

DHT - CFH CONTROL ROOM (CONT'D)

Area Sample		6/23/89	0700 1430	< 0.01	450	Area sample placed by CFH Operator working area at breathing zone level.	
Area Sample		6/23/89	0700	INVALID SAMPLE. PUMP MALFUNCTIONED.			
Area Sample		6/23/89	0700 1430	< 0.01	450	Area sample placed behind panel board inside walkin space between kitchen and Control Room.	
Area Sample		6/23/89	0700 1430	< 0.01	450	Area sample placed by DHT Operator station - south side of Control Room.	

ABS-000184

LAM 019373

- (1) X indicates that the sample result is a measure of the eight-hour time-weighted average exposure.
- (2) X indicates that a respirator was worn during the sampling period.

CHRT0020701

MONITORING RESULTS FORM

DEPARTMENT/PROCESS: CAT CRACKING & GAS JOB DESCRIPTION: AREA SAMPLES

NAME	EMP. NO.	DATE	TIME	SAMPLE RESULTS (Fibers/cc)		SAMPLE PERIOD (MIN)	WORK DESCRIPTION	(1)	(2)
				ASBESTOS GUIDE-LINE =	0.2 Fibers/cc			8-HR TWA	RESP

NPRU CONTROL ROOM

Area Sample		6/28/89	0715 1435	< 0.01		440	Area sample placed in back room, southwest side of Control Room by water heater.		
Area Sample		6/28/89	0715 1435	< 0.01		440	Area sample placed in kitchen area by coffee pot. Placed at breathing zone level.		
Area Sample		6/28/89	0715 1435	< 0.01		440	Area sample placed at northeast side of Control Room by computer station. Sample placed at breathing zone level.		
Area Sample		6/28/89	0715 1435	< 0.01		440	Area sample placed by bookshelf against north wall, north from operator's desk.		

ABS-000185

- (1) X indicates that the sample result is a measure of the eight-hour time-weighted average exposure.
 (2) X indicates that a respirator was worn during the sampling period.

CHBT8920701

MONITORING RESULTS FORM

DEPARTMENT/PROCESS:		CAT CRACKING & GAS		JOB DESCRIPTION:		AREA SAMPLES			
NAME	EMP. NO.	DATE	TIME	SAMPLE RESULTS (Fibers/cc)		SAMPLE PERIOD (MIN)	WORK DESCRIPTION	(1) 8-HR TWA	(2) RESP
				ASBESTOS GUIDE-LINE = 0.2 Fibers/cc					

NPRU CONTROL ROOM (CONT'D)

Area Sample		6/28/89	0715 1435	~0.01	440	Area sample placed by computer desk northwest side of Control Room at breathing zone level.		
Area Sample		6/29/89	0705 1416	~0.01	431	Area sample placed by west wall close to door by water fountain.		
Area Sample		6/29/89	0705 1416	<0.01	431	Area sample placed in middle of Control Room on operator's desk at breathing zone level.		
Area Sample		6/29/89	0705 1416	0.01	431	Area sample placed at northeast side of Control Room by computer station.		
Area Sample		6/29/89	0705 1416	~0.01	431	Area sample placed in kitchen area by coffee pot.		

ABS-000186

- (1) X indicates that the sample result is a measure of the eight-hour time-weighted average exposure.
 (2) X indicates that a respirator was worn during the sampling period.

CHBT8920701

MONITORING RESULTS FORM

DEPARTMENT/PROCESS:	CAT CRACKING & GAS	JOB DESCRIPTION:	AREA SAMPLES
SAMPLE RESULTS (Fibers/cc)			
NAME	EMP. NO.	DATE	TIME
ASBESTOS			
GUIDE-LINE =		SAMPLE PERIOD (MIN)	WORK DESCRIPTION
0.2 Fibers/cc		(1) 8-HR TWA	(2) RESP

NPRU CONTROL ROOM

Area Sample	6/29/89	0705 1416	<0.01	431	Area sample placed in back room by southwest corner of Control Room (placed by water heater).
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ABS-000187

LAM 019376

- (1) X indicates that the sample result is a measure of the eight-hour time-weighted average exposure.
- (2) X indicates that a respirator was worn during the sampling period.

CHBT8920701

DPMC-2729

04/89 (R)

INSULATION INSPECTION SUMMARY

FROM G.L. Buchanan HEALTH & SAFETY

DATE 06-20-89

TO ..

DEPT/UNIT CFH/OHT

The following equipment has been inspected for insulation containing asbestos. The original inspection summary has been filed in the Health and Safety Satellite, HSB-115 to be in compliance with OSHA 1910.1001 and Shell Epidemiology Study requirements.

[illegible]

cc: Health & Safety Satellite
Information Copy

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ABS-000188

LAM 019377

10-
Bento

INSULATION, INSPECTION SUMMARY

FROM W J Hall DATE 6/12
TO Paul Hamilton DEPT/UNIT Cat Creek

The following equipment has been inspected for insulation containing asbestos. The original inspection summary has been filed in the Health and Safety Satellite, HSB-115 to be in compliance with OSHA 1910.1001 and Shell Epidemiology Study requirements.

UNIT	EQUIPMENT	ASBESTOS	NON-ASBESTOS
① Behind Control Room	South end of Control Room		X
② Storage Area Behind Control Room N. Side of Bldg	by Locks 1-8		X

cc: Health & Safety Satellite
Information Copy

180
Asbestos

DPMC-2729
04/89 (R)

INSULATION INSPECTION SUMMARY

FROM Wes Neal DATE 6/14/89
TO Paul Hamilton DEPT/UNIT CC

The following equipment has been inspected for insulation containing asbestos. The original inspection summary has been filed in the Health and Safety Satellite, HSB-115 to be in compliance with OSHA 1910.1001 and Shell Epidemiology Study requirements.

UNIT	EQUIPMENT	ASBESTOS	NON-ASBESTOS
	<u>Behind Panel Board</u>		
	<u>Ceiling</u>	<u>Asbestos</u>	
①			
②			<u>Fiber</u>
	<u>Ceiling Space in Book</u>		
	<u>room over Book Shelf</u>	<u>Asbestos</u>	
①			
②			<u>X</u>

cc: Health & Safety Satellite
Information Copy