

Shell Oil Company • Shell Chemical Company

A Division of Shell Oil Company



724.3
BTR

Deer Park Manufacturing Complex
P.O. Box 100
Deer Park, TX 77536

November 28, 1990

Brown & Root, Inc.
ATTN Mr. Allan DeMunbrun
c/o Shell Intercompany Mail

PLAINTIFF'S EXHIBIT

SH-1607

Dear Sir:

Attached is a industrial hygiene sampling result for PNA's and Total Dust collected on a Brown & Root employee working at the Cat Cracker Shutdown. The sampling result is a personal task measurement, which is typically collected during specific work tasks.

We appreciate the cooperation of your employees for participating in this important endeavor. We encourage you to communicate these results to your personnel.

If you have any questions, please contact me at 476-7374.

Sincerely,

A handwritten signature in cursive script that reads "Wayne".

W. B. Austin
Sr. Industrial Hygienist

Attachment

bc: HSB Satellite
WBA Chron

DPMC-06330

LAM 009910

MONITORING RESULTS FORM

DEPARTMENT/PROCESS:		CAT CRACK & GAS		JOB DESCRIPTION:		PIPEFITTER HELPER (BROWN & ROOT)	
NAME	EMP. NO.	DATE	TIME	SAMPLE RESULTS (mg/m ³)		WORK DESCRIPTION	(1) 8-HR TWA
				PNA'S GUIDE- LINE = 0.2 mg/m ³	TOTAL DUST GUIDE- LINE = 10 mg/m ³		
		9/6/90	0837 1251	< 0.15	19.7	201	Grinding in V-1461.
							X

LAM 009911

DPMC-06331

(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.

CUSTOMER - 0001 0.0

Shell Oil Company • Shell Chemical Company

A Division of Shell Oil Company



724.3
B&R

Deer Park Manufacturing Complex
P.O. Box 100
Deer Park, TX 77536

November 28, 1990

Brown & Root, Inc.
ATTN Mr. Allan DeMunbrun
c/o Shell Intercompany Mail

Dear Sir:

Attached are industrial hygiene sampling results for benzene and asbestos collected on Brown & Root employees working at DU-2. The sampling results include 8-hour/12-hour time weighted average (TWA) measurements and may include short-term (15 minutes) ceiling measurements, which are typically collected during specific work tasks.

We appreciate the cooperation of your employees for participating in this important endeavor. We encourage you to communicate these results to your personnel.

If you have any questions, please contact me at 476-7374.

Sincerely,

A handwritten signature in cursive script that reads "Wayne".

W. B. Austin
Sr. Industrial Hygienist

Attachment

bc: HSB Satellite
WBA Chron

DPMC-06332

LAM 009912

MONITORING RESULTS FORM

DEPARTMENT/PROCESS:		DISTILLING		JOB DESCRIPTION:		INSULATOR (BROWN & ROOT)			
NAME	EMP. NO.	DATE	TIME	SAMPLE RESULTS (f/cc)	ASBESTOS GUIDE-LINE = 0.2 fibers/cc	SAMPLE PERIOD (MIN)	WORK DESCRIPTION	(1) 12-HR TWA	(2) RESP
		8/26/90	1343 1455	0.039		72	Cleaning DU-2 unit outside of fire zone.		X
		8/26/90	1327 1500	0.049		93	Cleaning DU-2 unit outside of fire zone.		X
		8/26/90	1330 1510	0.017		100	Cleaning DU-2 unit outside of fire zone.		X

LAM 009913

DPMC-06333

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

CHRT9029701 - 0013.0.0

7240
B.R.

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: November 5, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos (floor tile) removal project from "G" Plant Control Room. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bulletin Board
Dale Drysdale - (01) 138

LAM 009914

DPMC-06334

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

1175
 1176

AREA: "G" Plant Control Room

JOB ACTIVITY Removal of ACM (floor tile) from
 old "G" Plant Control Room.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1. Area Sample - downwind @ perimeter of barricade			10-9-90	450	0.009	
2		Insulator	10-9-90	340		0.003
3. Area Sample - Upwind @ perimeter of barricade			10-9-90	450	0.004	
4		Insulator Hlpr	10-11-90	250		0.001
5. Area Sample - Downwind @ perimeter of barricade			10-11-90	360	0.016	
6.		nsulator Hlpr	10-12-90	335		0.003
7. Area Sample - Downwind @ perimeter of barricade			10-12-90	465	0.006	

CALC TWA
 0.003

0.001

0.003

SX Cont. A
 Crystals A
 by Silt F

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06335

LAM 009915

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: September 24, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent removal of ACM (asbestos contaminated material) insulation from various damaged piping, located at DU-II Unit. The area was barricaded and regulated. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation clean up activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Dale Drysdale (01) Room 138
Bulletin Board

LAM 009916

DPMC-06336

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX**

AREA: DU-II

JOB ACTIVITY

Removal of ACM from various damaged

pipng. Glove bag procedure utilized.

Area barricaded & area regulated.

LAM 009917

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1		Insulator	9-1-90	340		0.001
2.		Insulator	9-1-90	399		0.001
3		Insulator	9-1-90	355		0.005
4.		Area Sample - Downwind @ perimeter of barricade	9-1-90	674	0.004	
5.		Area Sample - Crosswind @ perimeter of barricade	9-1-90	673	0.003	

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ DU-II _____

JOB ACTIVITY

Removal of ACM from various damaged

LAM 009918

piping. Glove bag procedure utilized.

Area barricaded & area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.		Insulator	9-2-90	360		0.011
2.		Insulator	9-2-90	375		0.006
3.		Insulator	9-2-90	320		0.003
4.		Insulator Hlpr	9-2-90	120		0.006
5.	Area Sample - Downwind @ perimeter of barricade		9-2-90	670	0.007	
6.		Insulator	9-2-90	298		0.002
7.		Insulator	9-2-90	282		0.001
8.		Insulator	9-2-90	298		0.094
9.		Insulator	9-2-90	34		0.000
10.	Area Sample - Crosswind @ perimeter of barricade		9-2-90		0.002	

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ DU-II _____

JOB ACTIVITY

Removal of ACM from various damaged

pipng. Glove bag procedure utilized.

Area barricaded & area regulated.

LAM 009919

	NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1			Insulator	9-3-90	380		0.018
2			Insulator	9-3-90	380		0.012
3			Insulator	9-3-90	330		0.006
4.	Area Sample - Downwind @ perimeter of barricade			9-3-90	625	0.004	
5.	Area Sample - Crosswind @ perimeter of barricade			9-3-90	610	0.002	

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ DU-II _____

JOB ACTIVITY _____

Removal of ACM from various damaged
piping. Glove bag procedure utilized.

Area barricaded & area regulated.

LAM 009920

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1		Insulator	9-3-90	375		0.005
2.		Area Sample - Downwind @ perimeter of barricade	9-3-90	567	0.002	
3.		Insulator	9-3-90	417		0.006
4.		Area Sample - Crosswind @ perimeter of barricade	9-3-90	568	0.002	
5		Insulator	9-3-90	310		0.001
6		Insulator	9-3-90	444		0.000

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX**

AREA: DU-II

JOB ACTIVITY

Removal of ACM from various damaged

pipng. Glove bag procedure utilized.

Area barricaded & area regulated.

LAM 009921

NAME	SOC.SEC. NUMBER	JOB TTTL	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1		Insulator	9-4-90	345		0.003
2.		Laborer	9-4-90	385		0.001
3.		Insulator	9-4-90	430		0.002
4.		Insulator	9-4-90	395		0.002
5.		Area Sample - Downwind @ perimeter of barricade	9-4-90	720	0.002	

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ DU-II _____

JOB ACTIVITY _____

Removal of ACM from various damaged

piping. Glove bag procedure utilized.

Area barricaded & area regulated.

LAM 009922

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1		Insulator	9-4-90	242		0.002
2.		Insulator	9-4-90	330		0.002
3.		Insulator	9-4-90	236		0.001
4.		Area Sample - Crosswind @ perimeter of barricade	9-4-90	520		0.002
5.		Area Sample - Downwind @ perimeter of barricade	9-4-90	542		0.003

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DU-II

JOB ACTIVITY

Removal of ACM from various damaged

pipng. Glove bag procedure utilized.

Area barricaded & area regulated.

LAM 009923

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.		Insulator	9-5-90	350		0.005
2.		Insulator	9-5-90	350		0.003
3.		Insulator	9-5-90	295		0.010
4.		Insulator	9-5-90	350		0.011
5.		Area Sample - Crosswind @ perimeter of barricade	9-5-90	630	0.004	
6.		Area Sample - Upwind @ perimeter of barricade	9-5-90	630	0.002	
7.		Insulator	9-5-90	357		0.011
8.		Insulator	9-5-90	358		0.002
9.		Insulator	9-5-90	203		0.001
10.		Insulator	9-5-90	171		0.003

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DU-II

JOB ACTIVITY

Removal of ACM from various damaged
pipng. Glove bag procedure utilized.
Area barricaded & area regulated.

LAM 009924

DPMC-06344

NAME	SOC.SEC. NUMBER	JOB TTITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area Sample - Crosswind @ perimeter of barricade			9-5-90	502	0.002	
2.Area Sample - Downwind @ perimeter of barricade			9-5-90	511	0.002	

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: September 24, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent general clean up of (asbestos contaminated material) insulation at DU-II Unit. The area was barricaded and regulated. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation clean up activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Dale Drysdale (01) Room 138
Bulletin Board

LAM 009925

DPMC-06345

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX**

AREA: DU-II

JOB ACTIVITY

General clean up of ACM contaminated

Insulation. Area barricaded & area

regulated.

LAM 009926

<u>NAME</u>	<u>SOC. SEC. NUMBER</u>	<u>JOB TITLE</u>	<u>SAMPLE DATE</u>	<u>SAMPLE DURATION (MINUTES)</u>	<u>TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1</u>	<u>8 HOUR TWA</u>
1.		Carpenter	8-31-90	185		0.012
2.		Insulator	8-31-90	455		0.003
3		Carpenter	8-31-90	260		0.006
4.		Insulator	8-31-90	250		0.005
5.		Insulator	8-31-90	375		0.004
6.		Area Sample - Crosswind @ perimeter of barricade	8-31-90	550		0.003
7.		Area Sample - Downwind @ perimeter of barricade	8-31-90	555		0.002

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DU-II

JOB ACTIVITY

General clean up of ACM contaminated

insulation. Area barricaded & area

regulated.

LAM 009927

DPMC-06347

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
Laborer			9-1-90	435		0.003
Laborer			9-1-90	485	0.014	
Insulator			9-1-90	520	0.015	
Insulator			9-1-90	105		0.001
Insulator			9-1-90	95		0.001
Insulator			9-1-90	140		0.003

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

7243
B&R

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: October 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from Exchangers (E-1735 A & B), located at the Fuel Gas Treaters. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009928

DPMC-06348

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: Fuel Gas Treaters JOB ACTIVITY Removal of ACM from E-1735 A & B
Exchangers. Negative pressure established
and area regulated

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1		Insulator	8-15-90	105		0.032
2..		Insulator	8-15-90	95		0.042
3.Area Sample - Exhaust of Neg. air machine			8-15-90	316	0.005	
4.Area Sample - Downwind approx. 25' from containment			8-15-90	323	0.004	
5.Area Sample - Downwind @ perimeter of barricade			8-20-90	116	0.009	
6.		Insulator	8-20-90	60		0.023
7		Insulator	8-20-90	73		0.015

Ex Cat A
Downwind B
R Side

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06349

LAM 009929

7243
BYR

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: October 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos (floor tile) removal project from "G" Plant Control Room. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009930

DPMC-06350

AREA: "G" Plant Control Room

Removal of ACM from (floor tile)
from Old "G" Plant Control Room.

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1. Area Sample - downwind @ perimeter of barricade			10-5-90	275	0.004	
2. Area Sample - Upwind @ perimeter of barricade			10-5-90	270	0.001	

SX Cat
 Contable
 R. Sisti

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 009931

7243
BYR

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: October 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 1" demo piping located inside of Shell Boiler Shop (central shop). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009932

DPMC-06352

AREA: Shell Boiler Shop (Central Shop)

JOB ACTIVITY

Removal of ACM from 1" steam line.

Glove bag procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.		Insulator Hlpr	9-19-90	75		0.010
2.	Area Sample - Inside boiler shop		9-19-90	75	0.007	

A C A
 SX Cont
 Cont
 Site
 L

Permissible Exposure Limit..... 0.2 F/cc

11) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 009933

DPMC-06353

1043
BPA

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: October 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from Tanks DW-214 and EX-96, located at the Wax Plant Tank Farm. A negative pressure enclosure (established and regulated). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009934

DPMC-06354

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: Wax Plant Tank Farm JOB ACTIVITY Removal of ACM from tanks DW-214
and EX-96. Negative pressure enclosure
established and area regulated

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT	
					(FIBER/cc) #1	8 HOUR TWA
1. Area Sample - exhaust of neg air machine			8-13-90	265	0.016	
2. Area Sample - Upwind Approx. 30' from enclosure			8-13-90	270	0.010	
3. Area Sample - Downwind @ perimeter of barricade			8-13-90	270	0.007	
4. Insulator			8-13-90	165		0.340
5. Area Sample - Downwind approx. 40' from enclosure			8-15-90	330	0.009	
6. Area Sample-upwind approx 30' from enclosure			8-15-90	330	0.008	
7. Insulator			8-15-90	220		0.209
8. Area Sample - Exhaust of neg. air machine			8-15-90	330	0.016	
9. Area Sample-Exhaust of neg. air machine			8-16-90	345	0.005	
10. Insulator			8-16-90	235		0.249
11. Area Sample - Exit of double bag room			8-16-90	345	0.019	
12. Area Sample - Downwind @ perimeter of barricade			8-16-90	345	0.006	

ade TWA
ade TWA
ade TWA

A *B* *E*
sd Cut
Control
Removal site

LAM 009935

724.3
B81

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: October 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from demo piping (cooling water header) located at the Laydown Yard, east of Cooling Water Towers 3 & 4. A negative pressure enclosure was established and regulated. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009936

DPMC-06356

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: Laydown Yard, East of Cooling JOB ACTIVITY Removal of ACM (dope & wrap) from
Water Towers 3 & 4 old cooling water header. Piping from
cooling water towers 3 & 4. Mini
negative pressure enclosure established &
area regulated.

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.		Insulator Hlpr	9-27-90	160		0.004
2.	Area Sample - Inside mini enclosure		9-27-90	300	0.010	
3.	Area Sample-outside of encl., perimeter of barricade		9-27-90	300	0.008	

5X Cat A
Control B
Removal site C

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

7243
BSP

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: October 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent sealing and encapsulating of asbestos on equipment E-809 and B-1025, located at the HVI Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the sealing and encapsulating activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009938

DPMC-06358

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ HVI Unit _____

JOB ACTIVITY _____ Sealing & Encapsulating of ACM
 on equipment E-809 and B-1025

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.		Insulator Hlpr	10-4-90	115		0.002
2. <u>Area Sample - Downwind @ perimeter of barricade</u>			10-4-90	285	0.003	

SV Cont. IE
Contab

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

11240
B3F

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: October 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 3" demo steam piping located at the Solvent Treaters Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009940

DPMC-06360

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: Solvent Treaters Unit JOB ACTIVITY Removal of ACM from 3" steam line
Glove bag procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
------	--------------------	-----------	----------------	---------------------------------	--	------------

1.		Insulator Hlpr	10-3-90	130		0.000 <i>3.000 TWA</i>
2.	Area Sample - Downwind @ perimeter of barricade		10-3-90	250	0.004	

*SX Unit Demanded
 Control
 R Side*

Permissible Exposure Limit..... 0.2 F/cc

1) F'her/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 009941

DPMC-06361

724.5
B&R

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: August 16, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from Tank US-142, located at the Wax Plant Tank Farm. A negative pressure enclosure (established and regulated). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009942

DPMC-06362

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: WAX PLANT TANK FARM JOB ACTIVITY Removal of ACM from Tank US-142.

Negative pressure established and area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area Sample - Downwind @ perimeter of barricade			6-28-90	365	0.006	1182
2.Area Sample - Upwind @ perimeter of barricade			6-28-90	355	0.006	
3.Area Sample - Exhaust of HEPA machine (decon trailer)			6-28-90	360	0.004	54 Cont. A
4.Area Sample - Exhaust of neg air machine			6-28-90	350	0.009	B
5.Area Sample-Upwind @perimeter of barricade			6-29-90	330	0.009	Cont. C
6.Area Sample - Exhaust of neg air machine			6-29-90	330	0.007	54 Cont. D
7.Area Sample-exhaust of neg air machine(shower trailer)			6-29-90	330	0.009	
8.Area Sample - Crosswind @ perimeter of barricade			6-29-90	330	0.006	

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06363

LAM 009943

1243
B&R

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: July 25, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 2, 4" steam lines, located at CCU Flare. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009944

DPMC-06364

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: CCU Flare JOB ACTIVITY Removal of ACM from 2-4" steam
lines. Glove Bag Procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1. Area Sample - Crosswind @ perimeter of barricade			6-27-90	562	0.002	
2. Area Sample - Downwind @ perimeter of barricade			6-27-90	560	0.002	

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

SX Cut A
Canister B
R. Site

LAM 009945

124.3
B&R

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: July 25, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 2" A, B, and C Cooler Wax lines, located at the Wax Plant. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009946

DFMC-06366

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: Wax Plant **JOB ACTIVITY** Removal of ACM from 2" A, B & C
Cooler Wax lines. Glove Bag Procedure
Utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area Sample - Crosswind @ perimeter of barricade			6-23-90	145	0.002	
2.Area Sample - Downwind @ perimeter of barricade			6-23-90	145	0.003	
3.Area Sample - Upwind @ perimeter of barricade			6-24-90	230	0.001	
4.Area Sample - Downwind @ perimeter of barricade			6-24-90	230	0.002	
Insulator			6-23-90	115		0.081
Insulator			6-23-90	115		0.049
Insulator			6-24-90	175		0.176
Insulator			6-24-90	160		0.09

Handwritten signature/initials

SX Cut A
Control A
R Side

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

124.9
B+R

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: July 25, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from the skirt of V-5201 and V-5202, located at BA unit. A mini negative pressure enclosure (established and regulated). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bulletin Board

DFMC-06368

LAM 009948

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ BA Unit _____ JOB ACTIVITY Removal of ACM from skirt of V-5201
and V-5202. Negative Pressure established
and regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1. Area Sample - Crosswind @ perimeter of barricade			6-17-90	525	0.002	
2. Area Sample - Upwind @ perimeter of barricade			6-17-90	300	0.003	
3. Area Sample - Downwind @ perimeter of barricade			6-17-90	307	0.005	
4. Area Sample - Entry to airlocks on V-5202			6-17-90	329	0.002	
5. Area Sample - Entry to airlocks on V-5201			6-17-90	334	0.002	
6. Area Sample - Exhaust of negative air machine			6-17-90	334	0.002	

St. Cat. A B D
Opture
R Gith

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

724 0
BYR

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance

FROM: Allan DeMunbrun

DATE: July 25, 1990

RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from the skirt of V-5412, located at BA unit. A mini negative pressure enclosure (established and regulated). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

**cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bulletin Board**

LAM 009950

DPMC-06370

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX**

AREA: _____ **BA Unit** _____ **JOB ACTIVITY** Removal of ACM from skirt of V-5412.
Negative pressure established & area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1. <u>Area Sample</u>		Downwind @ perimeter of barricade	6-15-90	325	0.002	
2.		Insulator	6-15-90	275		0.025
3. <u>Area Sample</u>		Downwind @ 7' elevation	6-15-90	325	0.003	

Colby

Permissible Exposure Limit..... 0.2 F/cc
 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

SX Cat A B D
Control
R. S. S.

1243
BTR

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: August 16, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 1" demo piping located at the Laydown Yard north of SR-5 unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009952

DPMC-06372

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: LAYDOWN YARD NORTH OF SR-5 JOB ACTIVITY Removal of ACM from 1" demo piping.

Glove Bag Procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
------	--------------------	-----------	----------------	---------------------------------	--	------------

1. Area Sample - Downwind @ perimeter of barricade			7-5-90	225	0.003	
--	--	--	--------	-----	-------	--

2.

Insulator Hlpr

7-5-90

155

0.001

Coke Test

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

Sx Cost A
Conduct C
Re Site P

LAM 009953

DPMC-06373

124.2
BTR

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: August 16, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from bottom heads of V-44, V-45, V-46 and V-48, located at Dubbs-9 unit. A negative pressure enclosure (established and regulated). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009954

DPMC-06374

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DUBBS-9 JOB ACTIVITY Removal of ACM from bottom heads
of V-44, V-45, V-46 and V-48. Negative
pressure established and area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.		Insulator(V-48)	7-5-90	343		0.002
2. <u>Area Sample - Exhaust of Neg Air Machine (V-44)</u>			7-5-90	404	0.005	
3. <u>Area Sample - Inside Bagout Room (V-48)</u>			7-5-90	556	0.004	
4. <u>Area Sample - Inside Bagout Room (V-45)</u>			7-5-90	535	0.005	
5. <u>Area Sample-Downwind @perimeter of barricade(V-45)</u>			7-5-90	535	0.002	
6. <u>Area Sample - Inside Bagout Room (V-46)</u>			7-8-90	350	0.007	
7. <u>Area Sample-@ exhaust of neg air machine(V-46)</u>			7-8-90	353	0.007	
8. <u>Area Sample - Inside Bagout Room (V-44)</u>			7-8-90	406	0.006	

Handwritten notes:
A
Sx Cat. B
1. *Detected*
R. *Sick*

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 009955

101.~
BSE

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: November 5, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from Tanks DW-214 and EX-96, located at the Wax Plant Tank Farm. A negative pressure enclosure (established and regulated). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bulletin Board
Dale Drysdale - (01) 138

DPMC-06376

LAM 009956

AREA: Wax Plant Tank Farm

JOB ACTIVITY

and EX-96. Negative pressure established and area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1. <u>Area Sample</u>	- downwind @	perimeter of barricade	10-15-90	285	0.016	
2. <u>Area Sample</u>	- Upwind @	perimeter of barricade	10-15-90	285	0.008	

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

ex	Cat.	Control	Site
A	B	C	

7243
872

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: November 5, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 4" steam line on Tank G-307, located at Area 14 Tank Farm. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bulletin Board
Dale Drysdale - (01) 138

DPMC-06378

LAM 009958

9/24/90
BKF

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: September 6, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent general clean up of (asbestos contaminated material) insulation at DU-II Unit. The area was barricaded and regulated. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation clean up activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bulletin Board

LAM 009960

DPMC-06380

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DU-II JOB ACTIVITY General clean up of ACM contaminated
insulation. Area barricaded & area
regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insulator	8-25-90	100		0.006
		Insulator	8-25-90	130		0.009
		Insulator	8-25-90	35		0.005
4. Area Sample - Downwind @ perimeter of barricade			8-25-90	425	0.006	
5. Area Sample - Crosswind @ perimeter of barricade			8-25-90	275	0.009	

Calc. TWA

*SLC
 1000
 R. S. 10*

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DU-II JOB ACTIVITY: General clean up of ACM contaminated
Insulation. Area barricaded & area
regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insulator	8-26-90	305		0.005
		Insulator	8-26-90	351		0.013
		Insulator	8-26-90	336		0.006
4.Area Sample - Downwind @perimeter of barricade			8-26-90	660	0.002	
5.Area Sample - Crosswind @perimeter of barricade			8-26-90	660	0.002	

calc. fwa

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06382

LAM 009962

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DU-II JOB ACTIVITY General clean up of ACM contaminated
insulation. Area barricaded & area
regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
------	--------------------	-----------	----------------	---------------------------------	--	------------

0.022

0.023

0.009

0.017

5. Area Sample - Downwind @ perimeter of barricade 0.008

6. Area Sample - Crosswind @ perimeter of barricade 0.007

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06383

LAM 009963

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DU-II JOB ACTIVITY General clean up of ACM contaminated
insulation. Area barricaded & area
regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insulator	8-28-90	235		0.007
		Insulator	8-28-90	370		0.009
		Insulator	8-28-90	370		0.004
4.Area Sample - Downwind @perimeter of barricade			8-28-90	725	0.003	
5.Area Sample - Crosswind @perimeter of barricade			8-28-90	735	0.004	

Calder
Y. Calder

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06384

LAM 009964

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DU-II JOB ACTIVITY: General clean up of ACM contaminated
insulation. Area barricaded & area
regulated.

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
Insulator		Insulator	8-29-90	405		0.014
Insulator		Insulator	8-29-90	395		0.014
Insulator		Insulator	8-29-90	300		0.022
Insulator		Insulator	8-29-90	300		0.018
5. Area Sample - Downwind @ perimeter of barricade			8-29-90	720	0.006	
6. Area Sample - Crosswind @ perimeter of barricade			8-29-90	720	0.005	

Noted by JWA

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06385

LAM 009965

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DU-II JOB ACTIVITY: General clean up of ACM contaminated insulation. Area barricaded & area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Laborer	8-30-90	390	0.007	0.007
		Laborer	8-30-90	355	0.026	0.026
		Insulator	8-30-90	475	0.014	0.014
4. Area Sample - Downwind @perimeter of barricade			8-30-90	695	0.002	0.002

Handwritten notes:
 } 0.007
 } 0.026
 } 1260 0.014 } AR

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06386

LAM 009966

7243
B&R

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: November 5, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent sealing and encapsulating of asbestos on equipment E-763 and E-765, located at the MVI Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the sealing and encapsulating activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:ps

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bulletin Board
Dale Drysdale - (01) 138

DPMC-06387

LAM 009967

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: MVI Unit JOB ACTIVITY Sealing and encapsulating of exposed
 ACM on E-763 and E-765.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
------	--------------------	-----------	----------------	---------------------------------	--	------------

1. Area Sample - downwind @ perimeter of barricade			10-15-90	305	0.009	0.049 ARC C-TWA
Insulator			10-15-90	195		

SX Cell, I
 Control A
 Removal Site B

Permissible Exposure Limit..... 0.2 F/cc
 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

10-3
BYE

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance

FROM: Allan DeMunbrun

DATE: June 28, 1990

RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from V-5213, located at BA unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative pressure enclosure.

A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DFMC-06389

LAM 009969

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: BA JOB ACTIVITY: Removal of ACM from V-5213.Negative
pressure enclosure erected and area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1		Insulator	6-13-90	380		0.256
2.Area Sample - Upwind @		perimeter of barricade	6-13-90	510	0.002	
3.Area Sample - Downwind @		perimeter of barricade	6-13-90	510	0.002	
4.Area Sample - Inside bag		out room	6-13-90	500	0.002	
5.Area Sample-Outside		Enclosure above neg. air machine	6-13-90	500	0.005	
6.Area Sample-Outside		enclosure below neg. air machine	6-13-90	500	0.002	
7.Area Sample - crosswind @		perimeter of barricade	6-13-90	493	0.002	
8.		Insulator	6-13-90	400		0.361
9.Area Sample - outside		bag out room	6-13-90	586	0.002	
10.Area Sample-Top deck		of neg. air machine	6-13-90	564	0.002	
11.Area Sample-bottom		deck of neg. air machine	6-13-90	564	0.002	
12.Area Sample-Downwind		approx. 20' from enclosure	6-13-90	581	0.002	

DPMC-06390

LAM 009970

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Kenneth Dessert - Capital
FROM: Allan DeMunbrun
DATE: June 28, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 2" steam line, located at LPA Annex Building. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06391

LAM 009971

AREA: LPA Annex Building

JOB ACTIVITY

Removal of ACM from a 2" steam line.

Glove bag procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area Sample - outside of a/c room			6-7-90	270	0.060	
2.		Insulator	6-7-90	170		0.031

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc ~ Fibers Of Asbestos Per Cubic Centimeter Of Air.

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: June 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 4" fill lines to F-353 and F-354, located Southwest of Dubbs-9. A negative "mini" pressure enclosure (established and area regulated). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06393

LAM 009973

<u>AREA:</u>	<u>SOUTHWEST OF DUBBS-9 PUMP HOUSE</u>	<u>JOB ACTIVITY</u>
	1	Removal of ACM from 4" fill line to F-353 & F-354. Negative "mini" pressure enclosure established & area regulated.

Permissible Exposure Limit.....	0.2 F/cc
1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.	

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: June 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from two 3" lines between exchangers E-476 and E-456, located at LOFU unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06395

LAM 009975

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ LOFU _____

JOB ACTIVITY _____ Removal of ACM from two 3" lines
 _____ between E-476 & E-456. Glove bag
 _____ procedure utilized.

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
------	------------------	-----------	-------------	---------------------------	--	------------

1. Area Sample - Downwind @ perimeter of barricade			5-24-90	285	0.009	
2. Insulator			5-24-90	170		0.013

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: June 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from a 4" line to V-1201, located at LOFU unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06397

LAM 009977

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ LOFU _____

JOB ACTIVITY _____ Removal of ACM from 4" line
 to V-1201. Glove bag procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1. Area Sample - Downwind @ perimeter of barricade			5-29-90	270	0.014	
2		Insulator	5-29-90	170		0.089

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06398

LAM 009978

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance

FROM: Allan DeMunbrun

DATE: June 18, 1990

RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos (drilling holes in ceiling tiles) in rooms #148, 110, 114, 116, 104, 147, sample receiving, receptionist and janitors room, located at North Laboratory. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

**cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board**

DFMC-06399

LAM 009979

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

<u>AREA:</u>	<u>NORTH LABORATORY</u>	<u>JOB ACTIVITY</u>
		Removal of ACM (drilling holes in ceiling tiles) @ room 148, 110, 114, 116, 104, 147, sample receiving, Receptionist & janitors room. Glove bag procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
Insulator			5-23-90	60		0.002
Insulator			5-23-90	75		0.000

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06400

LAM 009980

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: June 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from V-5203, located at BA unit. A negative pressure enclosure (established and area regulated). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06401

LAM 009981

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: BA JOB ACTIVITY Removal of ACM from V-5203.
Negative pressure enclosure
established & area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insulator	5-24-90	282		0.211
2.Area Sample - @ Bag out door			5-24-90	422	0.001	
3.Area Sample - @ Entry to airlock of containment			5-24-90	421	0.001	
4.Area Sample - Downwind @ perimeter of barricade			5-24-90	420	0.001	
5.Area Sample - @ exhaust of neg. air machine			5-24-90	406	0.002	
6.Area Sample - Outside of airlock			5-24-90	470	0.003	
7.Area Sample - @ HEPA exhaust on Decon trailer			5-24-90	480	0.003	
		Insulator	5-24-90	245		0.021
9.Area Sample - Inside Clean room of Decon trailer			5-24-90	480	0.027	

DPMC-06402

LAM 009982

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: June 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from a 4" (C-4) line, located at CCU unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06403

LAM 009983

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ CCU _____

JOB ACTIVITY _____

Removal of ACM from 4" (C-4) line.

Glove bag procedure utilized.

DPMC-06404

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
------	------------------	-----------	-------------	---------------------------	--	------------

1.		Insulator	5-30-90	301		0.004
2.		Area Sample - Downwind @ perimeter of barricade	5-30-90	339	0.009	
3.		Area Sample - 20' Downwind from pipe rack	5-30-90	333	0.016	

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 009984

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: June 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from V-1190, located at CCGas unit. A negative pressure enclosure (established and area regulated). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06405

LAM 009985

<u>AREA:</u>	<u>CC GAS</u>	<u>JOB ACTIVITY</u>
		<u>Removal of ACM from V-1190.</u>
		<u>Negative pressure enclosure</u>
		<u>established & area regulated</u>

Permissible Exposure Limit..... 0.2 F/cc

- DPMC-06406

LAM 009986

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance

FROM: Allan DeMunbrun

DATE: June 18, 1990

RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from V-1190, located at CCGas. A negative pressure enclosure (established and area regulated). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

**cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board**

DFMC-06407

LAM 009987

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: CC GAS JOB ACTIVITY Removal of ACM from V-1190.

Negative pressure enclosure
established & area regulated

8 HOUR TWA

SAMPLE DURATION
(MINUTES)

SAMPLE DATE

SAMPLE DATE

JOB TITLE

SOC.SEC. NUMBER

NAME

1.Area sample - Exhaust negative air machine	5-30-90	270	0.003	
2.Area Sample - Downwind @ perimeter of barricade	5-30-90	270	0.007	
3.Area Sample - @ airlock outside of containment	5-30-90	270	0.052	
4 Insulator	5-30-90	170		0.001
Insulator	5-30-90	115		0.319

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

MEMORANDUM

TO: Wayne Austin
FROM: Allan DeMunbrun
DATE: June 18, 1990
SUBJECT: West Operation Building (men's restroom) Asbestos Sampling Results

Summarized in the attached report are results of clearance sample results conducted by A & B Environmental Services during the recent asbestos abatement work (removal of "ACM" ceiling tiles) at the West Operation Building.

If you have any questions concerning this report, call me at 246-6917.

AD/ps
Attachment

DPMC-06409

LAM 009989

A & B ENVIRONMENTAL SERVICES, INC.

A & B Environmental services, Inc.
15371 Woodforest Blvd.
Channelview, Texas 77530
(713) 457-6608

June 7, 1990

FIBER COUNTING BY PCM (NIOSH 7400 METHOD, "A" RULES)

TO: Brown & Root Industrial Ser.
Attn: Rudy Pena
P.O. Box 276-B
Deer Park, Texas 77536

P.O. #:
Ref: Shell/DPMC/West Operation
Abatement/By: A & B Environ

Date Received: 05/19/1990

Date Analyzed: 05/19/1990

Date Reported: 05/19/1990

Analyst: R.R.

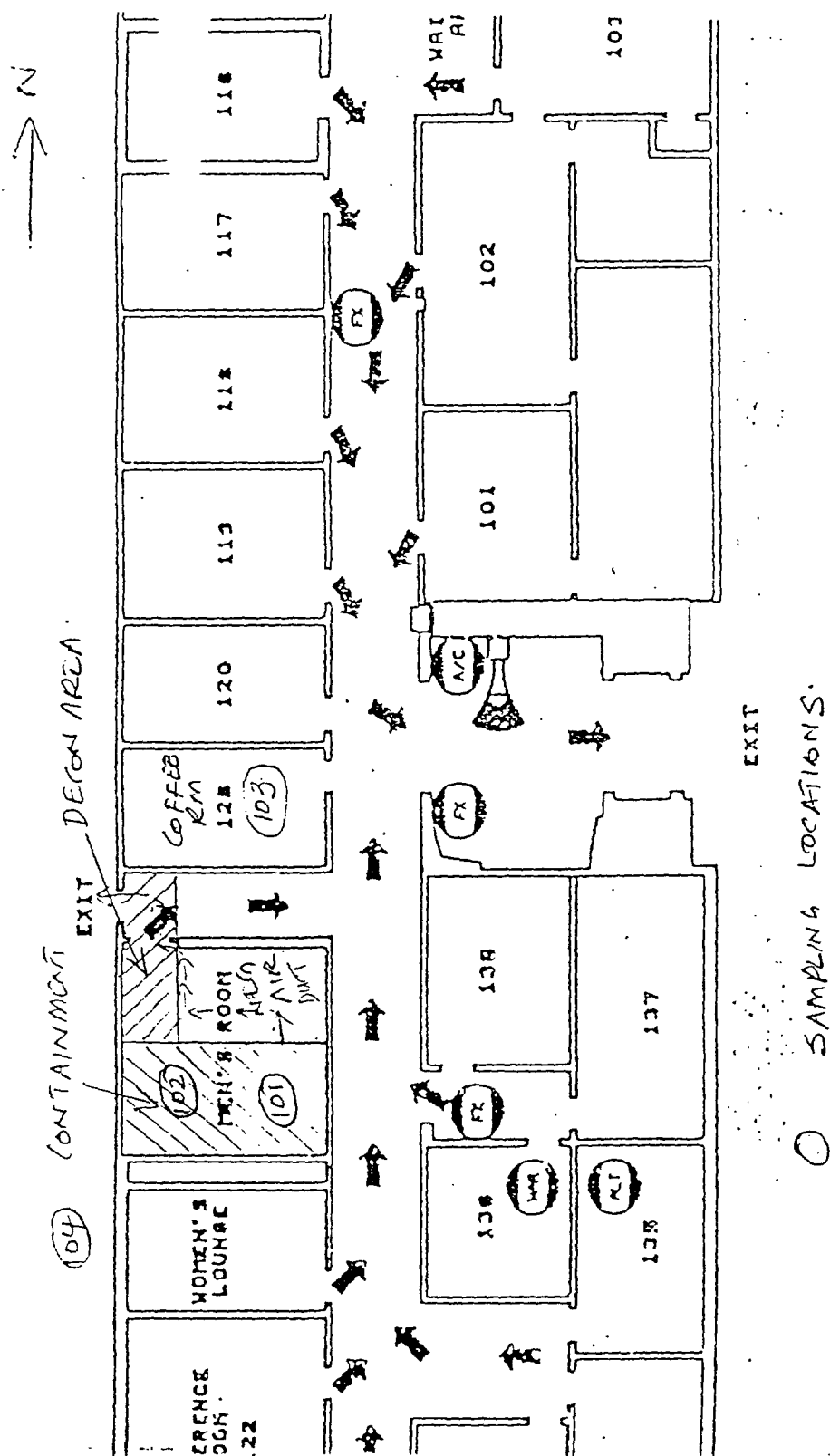
SAMPLE ID	LAB ID	TYPE	DATE	FIBERS/CC
S 05190-101	7597.11 RR	Clearance 15:20-17:00	05/19/90 1000 ltrs	0.006
S 05190-102	7597.12 RR	Clearance 15:25-17:00	05/19/90 950 ltrs	0.004

APPROVED:
DATE:


June 7, 90

DPMC-06410

05/19/90



**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance

FROM: Allan DeMunbrun

DATE: May 25, 1990

RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos (ceiling tile) removal project from West Operations Building (men's restroom). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative enclosure.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06412

LAM 009992

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: West Operations Building

JOB ACTIVITY

Removal of ACM (ceiling tile) from
men's restroom. Negative pressure
enclosure established & area regulated

DFMC-06413

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
------	---------------------	-----------	----------------	---------------------------------	--	------------

1. Area sample - Exit door of men's restroom

5-19-90 130 0.004

2. Area Sample - Inside of negative pressure enclosure

5-19-90 70 0.02

Insulator 5-19-90 110 0.003

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 009993

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

MEMORANDUM

TO: Wayne Austin
FROM: Allan DeMunbrun
DATE: June 18, 1990
SUBJECT: North Laboratory (ceiling tile) Building Asbestos Sampling Results

Summarized in the attached report are results of background and clearance sample results conducted by A & B Environmental Services during the recent asbestos abatement work (removal of "ACM" ceiling tiles) at the West Operation Building.

If you have any questions concerning this report, call me at 246-6917.

AD/ps
Attachment

DFMC-06414

LAM 009994

A & B ENVIRONMENTAL SERVICES, INC.

A & B Environmental services, Inc.
15371 Woodforest Blvd.
Channelview, Texas 77530
(713) 457-6608

June 7, 1990

FIBER COUNTING BY PCM (NIOSH 7400 METHOD, "A" RULES)

TO: Brown & Root Industrial Ser.
Attn: Rudy Pena
P.O. Box 276-B
Deer Park, Texas 77536

P.O. #:
Ref: Shell/DPMC/North Laboratory
Ceiling Tile Removal

Date Received: 05/25/1990

Date Analyzed: 05/25/1990

Date Reported: 05/25/1990

Analyst: R.R.

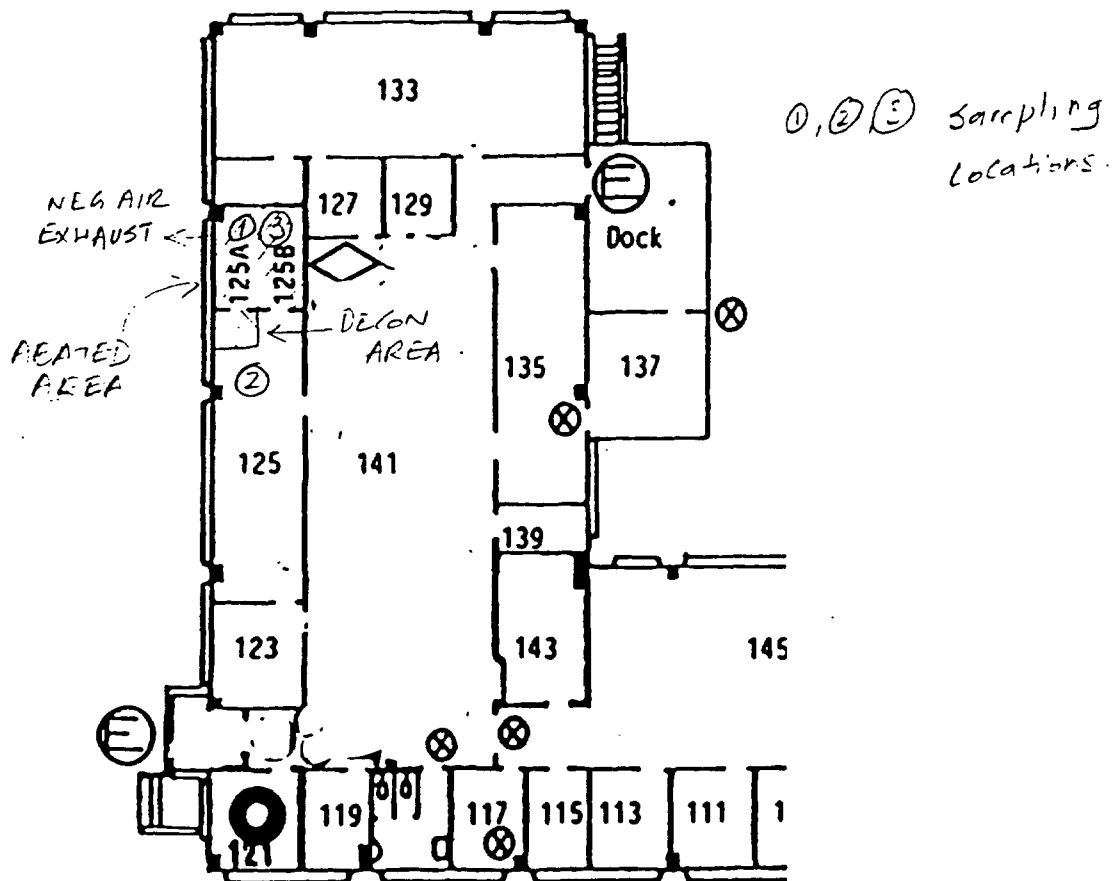
SAMPLE ID	LAB ID	TYPE	DATE	FIBERS/CC
SB 05250-101 Location-1	7598.11 RR	Background 13:45-15:10	05/25/90 1020 ltrs	0.003
SB 05250-102 Location-2	7598.12 RR	Background 13:50-15:11	05/25/90 972 ltrs	0.006
SB 05250-103 Location-1	7598.13 RR	Clearance 19:20-21:01	05/25/90 1010 ltrs	0.003
SB 05250-104 Location-3	7598.14 RR	Clearance 19:21-21:01	05/25/90 1000 ltrs	<0.002

APPROVED:
DATE:

[Signature]
June 7, 90

DPMC-06415

SHELL / DPMC.
 NORTH LABORATORY
 CEILING TILE REMOVAL
 05/25/90



**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: June 18, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos (ceiling) removal project from room #125, located at the North Laboratory. A negative pressure enclosure (established and area regulated). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06417

LAM 009997

AREA: NORTH LABORATORY

JOB ACTIVITY

Removal of ACM (ceiling) from

room #125. Negative pressure

enclosure established & area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1		Insulator	5-25-90	115		0.011
2.	Area Sample - @	Exhaust of Negative air machine	5-25-90	195	0.006	
3.	Area Sample -	Outside of Negative pressure enclosure	5-25-90	135	0.004	
4.	Area Sample -	Inside adjacent room #141	5-25-90	130	0.001	
5.	Area Sample -	Inside negative pressure enclosure	5-25-90	135	0.033	
6.	Area Sample -	Inside airlock of neg. pressure enclosure	5-25-90	140	0.007	

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

724.3
B&R

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: May 15, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 6" demo lines, located at Dubbs-9 Laydown Yard. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06419

LAM 009999

BROWN & ROOT INDUSTRIAL SERVICES, INC.

ASBESTOS MONITORING RESULTS

SHELL DEER PARK MANUFACTURING COMPLEX

DUBBS-9 LAYDOWN YARD

JOB ACTIVITY

Removal of ACM from 6" demo lines

Glove bag procedure utilized.

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
------	------------------	-----------	-------------	---------------------------	--	------------

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06420

LAM 010000

7243
BFR

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: May 15, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 4" demo lines, located at Dubbs-9 Laydown Yard. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06421

LAM 010001

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DUBBS-9 LAYDOWN YARD JOB ACTIVITY Removal of ACM from 4" demo lines

Mini negative pressure enclosure
 established and area regulated .

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insulator	5-4-90	95		0.034
2.Area Sample - Downwind @ perimeter of barricade			5-4-90	105	0.31	

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06422

LAM 010002

7243
BKK

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: May 15, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from a 10" steam line located at A-Plant. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06423

LAM 010003

AREA:	A-PLANT	JOB ACTIVITY	Removal of ACM from 10" steam line.
-------	---------	--------------	-------------------------------------

A-PLANT

JOB ACTIVITY

Removal of ACM from 10" steam line.

Glove bag procedure utilized.

Permissible Exposure Limit..... 0.2 F/cc

- 11) Fiber/cc -- Fibers Of Asbestos Per Cubic Centimeter Of Air.

724.3
B&R

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: May 15, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from the 200# steam header, located Northeast of BA Unit. A negative pressure enclosure (established and area regulated). The purpose of the monitoring was to determine any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06425

LAM 010005

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: BA JOB ACTIVITY Removal of ACM from 200# steam header.
Negative pressure enclosure established
and area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area sample - Downwind @ perimeter of barricade			5-1-90	380	0.002	
2.Area Sample - Downwind @ perimeter of barricade			5-1-90	380	0.003	
3.Area Sample - Upwind from Decon trailer			4-30-90	420	0.004	
4.Area Sample - Downwind @ perimeter of barricade			4-30-90	425	0.004	

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06426

LAM 010006

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: April 27, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 2", 3", 4" and 6" ECH lines associated with Tank 340, located at Dock Tank Area. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06427

LAM 010007

<u>AREA:</u>	<u>DOCK TANK FARM</u>	<u>JOB ACTIVITY</u>
		Removal of ACM (Dope and wrap) from 2", 3", 4" & 6" ECH lines associated with Tank D-340. Glove bag procedure utilized.

Permissible Exposure Limit..... 0.2 F/cc

- LAM 010008**

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: May 7, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos (transite) removal project located at the North Main Shop. The purpose of the monitoring was to determine any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06429

LAM 010009

AREA: NORTH SHOP

JOB ACTIVITY

North Shop.

Permissible Exposure Limit..... 0.2 F/cc

- 11) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

20 11 11

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance

FROM: Allan DeMunbrun

DATE: May 7, 1990

RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos (drilling holes) removal project from the ceiling inside Plat-2 Control Room. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06431

LAM 010011

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: Plat-2 Control Room JOB ACTIVITY Removal of ACM (Drilling Holes)
from inside control room ceiling.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
3.Area Sample - Inside Control Room		Insulator	4-16-90	125		0.004
		Insulator	4-16-90	100		0.008
			4-16-90	155	0.004	

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DFMC-06432

LAM 010012

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: May 7, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 200# steam header, located Northeast of BA Unit. A negative pressure enclosure (established and area regulated). The purpose of the monitoring was to determine any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06433

LAM 010013

AREA: BA

JOB ACTIVITY

Removal of ACM from 200# steam

header. Negative pressure established
and area regulated.

Permissible Exposure Limit..... 0.2 F/cc

- 11) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DFMC-06434

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: April 27, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from Pump 5517, located at HP-1. A mini negative pressure enclosure (established and area regulated). The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010015

DFMC-06435

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: HP-1 JOB ACTIVITY Removal of ACM from Pump 5517.

Mini negative pressure enclosure
established and area regulated.

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insulator	4-23-90	135		0.054
2. Area Sample - Downwind @ perimeter of barricade			4-23-90	135	0.002	

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 010016

DPMC-06436

1704.3
B
1-11

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: April 27, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal (cleaning up debris) covering of cable tray directly under East fin fan, located at DU-II. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010017

DPMC-06437

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DU-II JOB ACTIVITY: Removal of ACM (cleaning debris) and
covering of cable tray directly under
East Fin Fan.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insulator	4-16-90	120		0.033
		Insul. Hlpr.	4-16-90	120		0.0009
3.Area Sample - Downwind @ perimeter of barricade						
		Insul. Hlpr.	4-16-90	225	0.004	
		Insul. Hlpr.	4-17-90	190		0.004
		Insul. Hlpr.	4-17-90	185		0.026
6.Area Sample - Downwind @ perimeter of barricade						
			4-17-90	230	0.008	

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06438

LAM 010018

704-2
1001

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: April 24, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from a 3" line from Exchanger-986 to Pump-1129 sump tank, located at Lubes. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06439

LAM 010019

<u>AREA:</u>	<u>LUBES</u>	<u>JOB ACTIVITY</u>
		Removal of ACM from a 3" line from E-986 to P-1129 sump tank. Glove bag procedure utilized.

Permissible Exposure Limit..... 0.2 F/cc

- 11) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DFMC-06440

243
244
245

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: April 24, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos (inspection plugs) removal project from Exchangers E-788, E-789 and E-1056 located at MEK. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010021

DFMC-06441

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ MEK _____ JOB ACTIVITY _____ Removal of ACM from (inspection plugs)
from Exchangers E-788, E-789 and E-1056.
Glove bag procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area Sample - Upwind @ perimeter of barricade			4-3-90	320	0.017	
2.Area Sample - Downwind @ perimeter of barricade			4-3-90	320	0.007	
Insul. Hlpr.			4-3-90	155		0.006

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 010022

DPMC-06442

BPA-4

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: April 24, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from a 3" line from Pump-1129 to Exchanger-980, located at LEU Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010023

DPMC-06443

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ LEU _____ JOB ACTIVITY: Removal of ACM from a 3" line from P-1129
 to E-980. Glove bag procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area Sample - Upwind @ perimeter of barricade			4-10-90	145	0.009	
Insul. Hlpr.			4-10-90	115		0.003
Insulator			4-10-90	115		0.006

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06444

LAM 010024

1124.3
01

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: April 24, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 6" CIS boiler feed line located south of ALKY Compressors. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06445

LAM 010025

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: South of ALKY Compressors JOB ACTIVITY Removal of ACM from 6" CIS boiler feed line.

Glove bag procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insulator	4-6-90	229		0.024
2.Area Sample - Downwind @ perimeter of barricade			4-6-90	320	0.005	
		Insulator	4-6-90	229		0.009
4.Area Sample - Downwind @ perimeter of barricade			4-9-90	305	0.002	
		Insul. Hlpr.	4-9-90	250		0.011
		Insulator	4-9-90	255		0.041
7.Area Sample - Downwind @ perimeter of barricade			4-12-90	340	0.002	
		Insul. Hlpr.	4-12-90	260		0.005
		Insulator	4-12-90	260		0.013

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DFMC-06446

LAM 010026

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance

FROM: Allan DeMunbrun

DATE: April 2, 1990

RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from Tank US-142 located at the Wax Plant. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a mini negative enclosure.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06447

LAM 010027

AREA: Wax Plant

Wax Plant

JOB ACTIVITY

Removal of ACM (Bottom 6 ft.)

from tank US-142. Negative pressure established and area regulated.

Permissible Exposure Limit..... 0.2 F/cc

- 11) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: April 2, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal (inspection plugs) project located at LEU Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06449

LAM 010029

AREA: LEU

JOB ACTIVITY

Removal of ACM (inspection plugs)

from exchangers E-1970, E-1971.

Glove bag procedure utilized.

Permissible Exposure Limit..... 0.2 F/cc

- 11) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance

FROM: Allan DeMunbrun

DATE: April 2, 1990

RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from V-5404 located at SHCU Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative pressure enclosure.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010031

DPMC-06451

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: SHCU JOB ACTIVITY Removal of ACM from V-5404. Negative
pressure enclosure erected and area
regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1. Area sample - inside airlock room			3-13-90	319		0.002
2. Area sample - inside bag out room			3-13-90	315		0.001
3. Area sample - downwind @ perimeter of barricade			3-13-90	316		0.003
4. Area sample - @ exhaust of neg. air machine			3-13-90	302		0.001
		Insul. Hlpr.	3-13-90	242		0.03

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06452

LAM 010032

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: April 2, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project on a 8" flare line located at the East Property Flare. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06453

LAM 010033

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: East Property Flare JOB ACTIVITY Removal of ACM from 8" flare line.

Glove bag procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
------	--------------------	-----------	----------------	---------------------------------	--	------------

1. Area sample - downwind @ perimeter of barricade			3-24-90	400		0.030
Insulator			3-24-90	250		0.012
Insulator			3-24-90	250		0.067

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06454

LAM 010034

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: April 2, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project on a 3" and 8" flare line located at the East Property Flare. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06455

LAM 010035

AREA: East Property Flare

Glove bag procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insulator	3-21-90	147		0.002
		Insul. Hlpr.	3-21-90	142		0.084

Permissible Exposure Limit..... 0.2 F/cc

- 11) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance

FROM: Allan DeMunbrun

DATE: April 2, 1990

RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from V-5527 located at HP-1 Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative enclosure.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06457

LAM 010037

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: HP-1 JOB ACTIVITY Removal of ACM from V-5527. Negative
pressure enclosure erected and area
regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area sample - upwind @ perimeter of barricade			3-24-90	525	0.003	
2.Area sample - downwind @ perimeter of barricade			3-24-90	525	0.003	
3.Area sample - exhaust of neg. air machine			3-24-90	520	0.002	
		Insulator	3-24-90	335		0.020
		Insulator	3-24-90	345		0.013

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06458

LAM 010038

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: HP-1 JOB ACTIVITY Clearance samples inside V-5527

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT	
					(FIBER/cc) #1	8 HOUR TWA
1.Clearance sample inside west manway V-5527			3-24-90	355	0.008	
2.Clearance sample inside east manway V-5527			3-24-90	520	0.002	
3.Clearance sample inside V-5527			3-24-90	175	0.003	

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06459

LAM 010039

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: April 5, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from a 6" CIS boiler feed line, located west of the Turbo Generator Building. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010040

DPMC-06460

<u>AREA:</u>	<u>West of Turbo Generator Building</u>	<u>JOB ACTIVITY</u>	<u>Removal of ACM from 6" CIS boiler</u>
			feed line. Glove bag procedure utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1. Area Sample- Downwind @ perimeter of barricade			3-28-90	75	0.013	
		Insul. Hlpr.	3-28-90	75		0.023

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 010041

DPMC-06461

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: April 5, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from various demo piping items, located at SR-5 North Laydown Yard. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010042

DPMC-06462

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: SR-5 North Laydown Yard JOB ACTIVITY Removal of ACM from various demo

pipng items. Glove bag procedure
utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area Monitor - Downwind @ perimeter of barricade			3-26-90	285	0.009	
Insulator			3-26-90	165		0.004
Insulator			3-26-90	165		0.007

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 010043

DPMC-06463

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: April 5, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from various demo piping items, located at SR-5 North Laydown Yard. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative pressure enclosure.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010044

DPMC-06464

DFMC-06465

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: April 5, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from V-1212 located at NPRU Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative pressure enclosure.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010046

DPMC-06466

LAM 010047

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: April 5, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from two (2) 4" micro wax lines, located at the Wax Plant. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - BPA-4
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06468

LAM 010048

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

<u>AREA:</u>		<u>Wax Plant (Tank car loading rack)</u>	<u>JOB ACTIVITY</u>	<u>Removal of ACM from Two (2) 4" micro wax lines. Glove bag procedure utilized.</u>	
NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1
1.Area Sample- Downwind @ perimeter of barricade					
		Insulator	3-31-90	335	0.003
		Insulator	3-31-90	240	0.079
		Insulator	3-31-90	55	0.030
		Insulator	4-1-90	205	0.008
		Insulator	4-1-90	180	0.020
6.Area Sample - Downwind @ perimeter of barricade					
			4-1-90	275	0.004

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06469

LAM 010049

104.0
10711 111
10711 111

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: February 13, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent insulation removal project at "A" Plant, 6" line from stripper #5. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06470

LAM 010050

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: "A" Plant JOB ACTIVITY Removal of ACM from a 6" line

associated with stripper #5

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
2.		Insulator	1-25-90	195		.050
		Insul Hlpr	1-25-90	185		.034
3.		Area sample-downwind @ perimeter of barricade	1-25-90	300		.002
4		Insul Helper	1-26-90	220		.014
		Insulator	1-26-90	220		.020
6.		Area sample-downwind @ perimeter of barricade	1-26-90	305		.000
7.		Area sample-downwind @ perimeter of barricade	1-29-90	300		.003
		Insul Hlpr	1-29-90	230		.013
9.		Insul Hlpr	1-29-90	235		.019

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06471

LAM 010051

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: February 13, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project located at EPON-II Platform Demolition, inside the BPA warehouse, consisting of one 2" steam traced pipe. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06472

LAM 010052

AREA:

JOB ACTIVITY

Removal of ACM utilizing

of glove bag procedure from
one 2" steam traced pipe

associated with EPON-II platform demo.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area sample-downwind @	perimeter of barricade		1-29-90	310		.002
		Insulator	1-29-90	197		.004
		Insulator Helper	1-29-90	197		.004
		Insulator Helper	1-30-90	140		.002
		Insulator	1-30-90	140		.003
6.Area sample-downwind @	perimeter of barricade		1-30-90	235		.003

Permissible Exposure Limit..... 0.2 F/cc

- 11) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06473

LAM 010053

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: February 13, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project located at SHT Unit, consisting of several piping items. One 2", one 1½", and one ½" piping associated with P-561. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities..

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

**cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board**

DPMC-06474

LAM 010054

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: SHT UNIT

JOB ACTIVITY Removal of ACM utilizing

of glove bag procedure from

one 2", one 1 1/2", & one 1/2"

lines associated with P-561.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insulator	1-31-90	215		.237
		Insulator Helper	1-31-90	215		.256
3.Area sample-downwind @ perimeter of barricade		Insulator Helper	2-1-90	145		.009
5.Area sample-downwind @ perimeter of barricade		Insulator Helper	2-1-90	230		.003
6.		Insulator Helper	2-1-90	150		.032

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06475

LAM 010055

104.3
B.H.

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: March 12, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from V-1211, located at NPRU Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative pressure enclosure. Area air samples were collected outside the enclosure, inside the enclosure, and at the exhaust of the air blower.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010056

DPMC-06476

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: NPRU UNIT

JOB ACTIVITY

Removal of ACM from V-1211.

negative pressure enclosure erected

and area regulated.

DPMC-06477

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insulator	2-28-90	212		0.129
		Insulator	2-28-90	208		0.046
3. Area Sample - @ Exhaust of neg. air machine			2-28-90	335		0.045
4. Area Sample - Downwind @ perimeter of barricade			2-28-90	330		0.045

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 010057

11343
8710

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: March 16, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from exchanger E-5628 A & B, located at SGP-1. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a mini negative enclosure. Area air samples were collected outside the enclosure and inside the enclosure.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06478

LAM 010058

LAM 010059

7243
B81

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: March 16, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project on a 2" hot water line from North Training Building. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06480

LAM 010060

<u>AREA:</u>	<u>JOB ACTIVITY</u>	<u>Removal of, ACM from 2" Hot Water line. Glove bag procedure utilized</u>
<u>North Training Building</u>		

Permissible Exposure Limit..... 0.2 F/cc

- DPMC-06481

7243
B3A

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: March 16, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 2" line, located at SHT Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a mini negative enclosure. Area air samples were collected outside the enclosure and inside the enclosure.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06482

LAM 010062

AREA:

SHT Unit

JOB ACTIVITY

Removal of ACM from 2" line. Mini

negative pressure enclosure erected
and area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area Sample - Downwind @ perimeter of barricade						
			3-01-90	210		0.016
		Insul. Hlpr	3-01-90	190		0.026

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

7243
B812

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: March 16, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 6" CIS boiler feed line, located at Alky Compressor Plant Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a mini negative enclosure. Area air samples were collected outside the enclosure and inside the enclosure.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06484

LAM 010064

AREA: Alky Compressor Plant

JOB ACTIVITY

feed line. Glove Bag procedure

utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insul. Hlpr.	3-07-90	135		0.006
		Insulator	3-07-90	145		0.002
		3-Area monitor - downwind @ perimeter of barricade	3-07-90	185		0.008

Permissible Exposure Limit..... 0.2 F/cc

- 11) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

124.3
BYE

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: March 16, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos (Transite) removal project from Refinery Main Zone Shop. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06486

LAM 010066

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

<u>AREA:</u>	<u>Refinery Main Zone Shop</u>	<u>JOB ACTIVITY</u>	<u>Removal of transite from refinery</u>			
			<u>main zone shop.</u>			
NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insulator	3-10-90	135		0.011
		Insul. Hlpr	3-10-90	125		0.017
		3.Area sample- downwind @ perimeter of barricade	3-10-90	165		0.006

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

7243
B312

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: March 16, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from H-5402 located at SHCU Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a mini negative enclosure. Area air samples were collected outside the enclosure and inside the enclosure.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010068

DFMC-06488

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: SHCU JOB ACTIVITY Removal of ACM from H-5402. Negative
pressure enclosure erected and area
regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
3.Area sample- outside of entrance door		Insulator	3-11-90	120		0.012
		Insulator	3-11-90	125		0.016
			3-11-90	125		0.005

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 010069

DPMC-06489

724.3
BYE

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: March 12, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from V-5106, located at DU-II Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative pressure enclosure. Area air samples were collected outside the enclosure, inside the enclosure, and at the exhaust of the air blower.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06490

LAM 010070

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: DU-II JOB ACTIVITY Removal of ACM from V-5106.
negative pressure enclosure erected
and area regulated.

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1. Area Monitor - Downwind @ perimeter of barricade			2-26-90	298		0.017
2. Area Monitor - @ exhaust of neg. air machine			2-26-90	300		0.013
		Insul. Hlpr	2-26-90	180		0.073
		Insul. Hlpr	2-26-90	177		0.042

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06491

LAM 010071

724.3
B&R

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: March 12, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 6" CIS boiler feed line, located at SRR Unit to CCU Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DFMC-06492

LAM 010072

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: SRR Unit to CCU Unit JOB ACTIVITY Removal of ACM from 6" CIS boiler
feed line. Glove bag procedure
utilized.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
3.Area Sample - Downwind @ perimeter of barricade		Insul. Hlpr.	2-27-90	195		0.051
		Insul. Hlpr	2-27-90	195		0.029
4.Area Sample - downwind @ perimeter of barricade			2-27-90	275		0.001
			2-28-90	190		0.022
		Insul. Hlpr	2-28-90	115		0.043
		Insulator	2-28-90	110		0.306

DPMC-06493

LAM 010073

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: February 13, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project located at OP-II Unit, 4" 1250# steam line, east, west pipe rack, south of the control room. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06494

LAM 010074

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

<u>AREA:</u>	<u>OP-II UNIT</u>	<u>JOB ACTIVITY</u>				
		<u>Removal of ACM utilizing glove bag</u>				
		<u>procedure from 4" 1250# steam line,</u>				
		<u>east, west pipe rack, south of</u>				
		<u>control room.</u>				
NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
		Insul. Hlpr	1-31-90	115		.003
		Insul Hlpr	1-31-90	115		.001
3.Area sample-downwind @perimeter of barricade			1-31-90	250		.002
4		Insulator	2-1-90	145		.002
5.		Insul Hlpr	2-1-90	145		.001
6.Area sample-downwind @ perimeter of barricade			2-1-90	285		.000
		Insulator	2-2-90	185		.005
		Insul Hlpr	2-2-90	185		.005
9.Area sample-downwind @perimeter of barricade			2-2-90	305		.000

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06495

LAM 010075

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: February 14, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from OL-III Unit to LOFU Unit, 2" spent caustic line. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06496

LAM 010076

LAM 010077

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: February 14, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos (floor tile) removal project from the South Administration Building. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative pressure enclosure. Area air samples were collected outside the enclosure, inside the enclosure, and at the exhaust of the air blower.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DFMC-06498

LAM 010078

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: SOUTH ADMINISTRATION BLDG. JOB ACTIVITY Removal of ACM (floor tile from South

Admin. Bldg., negative pressure

enclosure erected and area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area monitor-hallway between room 184-185			2-10-90	433		.007
		Insulator	2-10-90	271		.007
		Insulator	2-10-90	324		.010
4.Area monitor @ main lobby entrance			2-10-90	395		.002
5.Area monitor @ hallway room 176			2-10-90	392		.004
6.Area monitor @ exit of airlock room			2-10-90	391		.003
		Insulator	2-11-90	346		.004
		Insul Hlpr	2-11-90	346		.006
9.Area monitor @ main lobby entrance			2-11-90	485		.003

Permissible Exposure Limit..... 0.2 F/cc

1) 'Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06499

LAM 010079

23

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: SOUTH ADMINISTRATION BLDG. JOB ACTIVITY Removal of ACM (floor tile from South

Admin. Bldg., negative pressure
enclosure erected and area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
10.Area monitor-@exit of airlock room			2-11-90	500		.006
11.Area monitor inside enclosure @ lunch room entrance			2-11-90	475		.005
12.Area monitor @ outside airlock entrance			2-11-90	198		.001
13.Area monitor @ room 120			2-11-90	199		.000
14.Area sample outside @ negative air machine exhaust			2-11-90	198		.001
15.Area sample @ hallway room 177			2-11-90	200		.002

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06500

LAM 010080

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: February 22, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos (floor tile) removal project from the South Administration Building. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative pressure enclosure. Area air samples were collected outside the enclosure, inside the enclosure, and at the exhaust of the air blower.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06501

LAM 010081

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: SOUTH ADMINISTRATION BLDG. JOB ACTIVITY Removal of ACM (floor tile) from South

Admin. Bldg., negative pressure

enclosure erected and area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
2.Area monitor @ Room 123		Insul Hlpr	2-17-90	175		.009
3.Area monitor @ Main lobby on display cabinet			2-17-90	481		.008
4.Area monitor @ exhaust on neg air machine #1			2-17-90	495		.003
			2-17-90	493		.002
		Insul Hlpr	2-17-90	175		.013
6.Area monitor @ critical barrier by Xerox machine			2-17-90	547		.003
7.Area monitor @ exhaust on neg air machine #2			2-17-90	549		.002
8.Area monitor @ hallway at mechanical room entrance			2-17-90	495		.008

Permissible Exposure Limit..... 0.2 F/cc,

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06502

LAM 010082

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: February 22, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from V-423, located at Alky Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative pressure enclosure. Area air samples were collected outside the enclosure and inside the enclosure.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010083

DPMC-06503

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: ALKY UNIT JOB ACTIVITY Removal of ACM from V-423
Negative pressure enclosure
erected and area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area sample - upwind @ perimeter of barricade			2-12-90	118		.002
		Insulator	2-12-90	100		.000
3.Area sample - outside @ air lock room			2-12-90	125		.000

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 010084

DFMC-06504

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: February 22, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from V-1214, located at NPRU Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative pressure enclosure. Area air samples were collected outside the enclosure and inside the enclosure.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06505

LAM 010085

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: NPRU UNIT JOB ACTIVITY Removal of ACM from V-1214.
negative pressure enclosure erected
and area regulated.

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area monitor @ exhaust of neg air machine			2-15-90	328		.002
2 Insulator			2-15-90	163		.001
3.Area monitor - downwind @ perimeter of barricade			2-15-90	324		.002
Insulator			2-15-90	208		.047

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06506

LAM 010086

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: February 22, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project on a 2" hot water line from North Training Building. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DFMC-06507

LAM 010087

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

<u>AREA:</u>		<u>NORTH TRAINING BUILDING</u>	<u>JOB ACTIVITY</u>	<u>Removal of ACM utilizing glove bag procedure on 2" hot water line</u>	
NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1
		Insulator	2-16-90	150	8 HOUR TWA
					.023

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

7245
Brown & Root

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: January 15, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent insulation removal project at SR-3, 2" nitrogen line associated with vessels V-1673, V-1674 and V-1675. The purpose of the monitoring was to determine employee exposures to asbestos during insulation removal activities from the 2" nitrogen line.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06509

LAM 010089

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: SR-3

JOB ACTIVITY: Removal of ACM from

2" Nitrogen line in Association
with V-1673,V-1674 and V-1675

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
2. Area Sample		Insulator	12-13-89	85		.0037
			12-13-89	85		.029

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DFMC-06510

124-
254206
0400074

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: January 15, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent insulation removal project at the Lower Dock Road, 2-12" OP-II Flasher Pitch lines. The purpose of the monitoring was to determine employee exposures to asbestos during insulation removal activities from the 2-12" lines.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06511

LAM 010091

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ LOG _____

JOB ACTIVITY: Removal of ACM from

2-12" lines (OP-II Flasher

Pitch Lines) Lower Dock Rd.

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
		Insulator	12-8-89	290		.007
		Insulator	12-8-89	290		.002
		Insulator Hlpr	12-11-89	190		.012
		Insulator Hlpr	12-11-89	195		.0037
		Insulator	12-13-89	210		.026
		Insulator	12-13-89	210		.022

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DFMC-06512

LAM 010092

1243
B. Munbrun
1/15/90

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: January 15, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent insulation removal project at EPON-II Platform Demolition, inside the BPA warehouse, consisting of several piping items. One 2", one 4", and one 10" piping associated with A-1901 and A-1900. One 1" and one 3/4" piping on E-1900. One 3" pipe associated with V-1942 and V-1941. The purpose of the monitoring was to determine employee exposures to asbestos during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DFMC-06513

LAM 010093

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: EPON-II

JOB ACTIVITY: Removal of ACM from

piping associated with

EPON-II Platform Demolition

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
3. Area Sample		Insulator Hlpr	12-20-89	240		.0035
		Insulator Hlpr	12-20-89	235		.0029
			12-20-89	365		.0046

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06514

724.3
J. H. Hester
Cheney 1/11/89

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: January 11, 1989
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted during the asbestos removal project from Furnace F-1201C located at EA Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during the project. This project required regulating the abatement area and establishing a negative pressure enclosure. Area samples were collected outside the enclosure.

According to the worksheet, the employees were required to wear protective clothing and supplied air respirator equipment during the abatement operation.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06515

LAM 010095

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ EA UNIT _____

JOB ACTIVITY: Removing ACM from _____
 F-1201C negative pressure _____
 enclosure erected and area _____
 regulated _____

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
		Insulator	12-1-89	303		.012
		Insulator	12-4-89	294		.011
		Insulator Hlpr	12-4-89	317		.009
			12-5-89	420		.0017
		Insulator	12-5-89	310		.005
		Insulator Hlpr	12-20-89	275		too dusty
		Insulator	12-20-89	255		too dusty
			12-20-89	405		.00086

15. Area sample downwind @ perimeter barricade

19. Area sample downwind @ perimeter barricade

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DFMC-06516

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ EA UNIT _____

JOB ACTIVITY: Removing ACM from _____

F-1201C negative pressure _____

enclosure erected and area _____

regulated _____

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
2. Area sample downwind @ perimeter barricade		Insulator	11-27-89	260		.006
3.		Insulator	11-27-89	415		.005
4.		Insulator Hlpr	11-27-89	240		.013
5.		Insulator	11-29-89	255		too dusty
6. Area sample downwind @ perimeter barricade		Insulator	11-29-89	240		.004
		Insulator	11-29-89	455		.009
9. Area sample downwind @ barricade		Insulator	11-30-89	320		too dusty
10. Area Sample downwind @ barricade		Insulator Hlpr	11-30-89	325		too dusty
			11-30-89	460		.0019
			12-1-89	454		.0009
		Insulator Hlpr	12-1-89	323		too dusty

DPMC-06517

LAM 010097

724.3
05.11.2001
0000.1207

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: January 11, 1989
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent insulation removal project at "M" Plant, 6" xre piping associated with superheater north reactor. The purpose of the monitoring was to determine employee exposures to asbestos during insulation removal activities from the 6" xre piping.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010098

DPMC-06518

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ "M" PLANT _____ JOB ACTIVITY: Removing ACM from _____
 6" XRE piping associated _____
 with superheater _____
 (North Reactor) _____

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
1. Area sample downwind @ perimeter barricade			11-21-89	100		.002
2 Insulator			11-21-89	100		.015

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06519

LAM 010099

124.3
Brown & Root

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: January 11, 1989
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted during the separation of trash from ACM bins located at the VTI yard. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during the project.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

LAM 010100

DPMC-06520

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: VTI Yard

JOB ACTIVITY: Separating trash from

ACM, associated with

ACM bins - VTI yard.

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
1. Area sample downwind @ perimeter barricade			11-21-89	365		.004
2		Insulator Helper	11-21-89	270		.005
3. Area sample downwind @ perimeter barricade			11-27-89	350		.009
4.		Insulator Helper	11-27-89	240		.01
5.		Insulator Helper	11-28-89	135		.0025
6. Area sample downwind @ perimeter barricade			11-28-89	205		.006

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DFMC-06521

724.3
Brown & Root

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: December 28, 1989
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent insulation removal project at Shell's Safety & Health Building, inside mechanical room #200. The purpose of the monitoring was to determine employee exposures to asbestos during insulation removal activities from the one inch hot water piping.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the monitoring period..

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06522

LAM 010102

AREA: Shell Safety & Health Bldg.
(Mechanical Room #200)

JOB ACTIVITY Removed ACM from 1" Hot Water Piping.

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

LAM 010103

4243
1 R
100

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: January 19, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project 2", 3" piping and associated valves and level bridge on V-1131 located at LHT-1. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06524

LAM 010104

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: LHT-I JOB ACTIVITY: Removal of ACM from 2", 3"
pipng and associated valves
and level bridle on V-1131

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
1		Insulator Hlpr	1-16-90	185		0.006
2.		Insulator	1-16-90	175		0.020
3. Area monitor - downwind @perimeter at barricade			1-16-90	180		0.006

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06525

LAM 010105

*7243
Bureau
1.10.90*

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: January 19, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent insulation removal project at BA Unit, 1" steam line, which was damaged during the freeze. The purpose of the monitoring was to determine employee exposures to asbestos during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06526

LAM 010106

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ BA UNIT _____

JOB ACTIVITY: Removal of ACM from 1"
steam line, damaged during
the freeze

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
3. Area sample - downwind @ perimeter at barricade		Insulator Hlpr	1-10-90	140		0.011
		Insulator	1-10-90	140		0.049
			1-10-90	200		0.014

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06527

LAM 010107

72-12
10497

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: January 19, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent insulation removal project at EPON-II Platform Demolition, inside the BPA warehouse, consisting of several piping items. One 2", one 4", and one 10" piping associated with A-1901 and A-1900. One 1" and one 3/4" piping on E-1900. One 3" pipe associated with V-1942 and V-1941. The purpose of the monitoring was to determine employee exposures to asbestos during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06528

LAM 010108

BROWN & ROOT INDUSTRIAL SERVICES, INC.
ASBESTOS MONITORING RESULTS
SHELL DEER PARK MANUFACTURING COMPLEX

AREA: EPON-II

JOB ACTIVITY: Removal of ACM from piping
associated with EPON-II
Platform Demolition

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
		Insulator Hlpr	12-27-89	179		0.054
2. Area sample - downwind @perimeter at barricade			12-27-89	315		0.003
		Insulator Hlpr	12-27-89	182		0.011
4. Area sample - downwind @perimeter at barricade			12-29-89	320		0.000
		Insulator Hlpr	12-29-89	231		0.002
		Insulator Hlpr	12-29-89	204		0.002
		Insulator Hlpr	1-2-90	123		0.003
		Insulator Hlpr	1-2-90	122		0.003
9. Area Sample - Downwind @perimeter at barricade			1-2-90	243		0.003

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06529

LAM 010109

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Jerry Stallings - Maintenance
FROM: Allan DeMunbrun
DATE: January 19, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent sealing of insulation project at Power Plant #1, 12" piping associated with compressor building. The purpose of the monitoring was to determine employee exposures to asbestos during insulation sealing activities of the 12" piping.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Ken Dessert - Capital
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DFMC-06530

LAM 010110

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ POWER PLANT #1 _____ JOB ACTIVITY: Sealing of ACM from 12"
lines associated with
compressor building

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
1. Area sample - downwind @perimeter at barricade			1-12-90	285		0.008
		Insulator	1-12-90	285		0.022
		Insulator Hlpr	1-12-90	285		0.020
4. Area monitor - downwind @perimeter at barricade			1-15-90	180		0.002
		Insulator	1-15-90	180		0.050
		Insulator Hlpr	1-15-90	180		0.022

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DFMC-06531

7243
Brown
& Root

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: January 19, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted during the recent asbestos removal project from Furnace F-1201C located at EA Unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. This project required regulating the abatement area and establishing a negative pressure enclosure. Area samples were collected outside the enclosure.

According to the worksheet, the employees were required to wear protective clothing and supplied air respirator equipment during the abatement operation.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06532

LAM 010112

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ EA UNIT _____ JOB ACTIVITY: Removal of ACM from F-1201C

negative pressure enclosure

erected and area regulated

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
		Insulator Hlpr	12-21-89	326		too dusty
		Insulator	12-21-89	314		too dusty
3. Area sample - downwind @perimeter at barricade			12-21-89	415		too dusty
4. Area sample - downwind @perimeter at barricade			1-4-90	415		0.011
		Insulator	1-4-90	310		0.001
		Insulator Hlpr	1-4-90	300		too dusty
		Insulator hlpr	1-5-90	106		too dusty
		Insulator	1-5-90	59		too dusty
9. Area sample - downwind @perimeter at barricade			1-5-90	183		0.001

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DFMC-06533

LAM 010113

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ EA UNIT _____

JOB ACTIVITY: Removal of ACM from F-1201C

negative pressure enclosure

erected and area regulated

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
		Insulator	1-12-90	230		too dirty
		Insulator Hlpr	1-12-90	225		too dirty
3. Area sample - downwind @perimeter at barricade			1-12-90	315		0.000
		Insulator hlpr	1-15-90	160		too dirty
5. Area sample - downwind @perimeter at barricade			1-15-90	255		0.003
6		Insulator	1-15-90	75		too dirty

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06534

LAM 010114

7243
Brown &
Root

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: January 19, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent insulation removal project at the Lower Dock Road, 2-12" OP-II Flasher Pitch lines. The purpose of the monitoring was to determine employee exposures to asbestos during insulation removal activities from the 2-12" lines.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06535

LAM 010115

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: _____ LOG _____

JOB ACTIVITY: Removal of ACM from 2-12"

lines (OP-II Flasher Pitch

Lines) Lower Dock Rd.

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
1		Insulator	12-27-89	240		0.052
2		Insulator Hlpr	12-27-89	240		0.052
3. Area sample - downwind @perimeter at barricade			12-27-89	340		0.004
4. Area sample - downwind @perimeter at barricade			12-28-89	261		0.002
		Insulator Hlpr	12-28-89	189		0.016
		Insulator Hlpr	12-28-89	196		0.018

Permissible Exposure Limit..... 0.2 F/cc

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06536

LAM 010116

1
MLD

7243
10-1-90
10-1-90

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: January 15, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent insulation removal project at OP-II, 6" pipe associated with Column C-OL-200. The purpose of the monitoring was to determine employee exposures to asbestos during insulation removal activities from the 6" pipe.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06537

LAM 010117

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

AREA: OP-II JOB ACTIVITY: Removal of ACM from
6" line in association
with Column C-OL-200

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
		Insulator	12-8-89	205		.048
		Insulator	12-8-89	205		.017

Permissible Exposure Limit..... 0.2 F/cc
 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

72-5
10/10/90
10/10/90

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: January 19, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 3" piping in association with the turbine from cooling water tower #5 and #6 at SHT unit. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities. The project required the use of a glove bag.

According to the worksheet, the employees were required to wear protective clothing and respiratory equipment during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 476-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06539

LAM 010119

BROWN & ROOT INDUSTRIAL SERVICES, INC.
 ASBESTOS MONITORING RESULTS
 SHELL DEER PARK MANUFACTURING COMPLEX

2/1/90

AREA: _____ SHT _____

JOB ACTIVITY: Removal of ACM from _____

3" piping (glove bag utilized)
in association with Turbine
Cooling Water Tower #5 & #6

NAME	SOC. SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	CALCULATED 8 HOUR TWA
		Insulator	1-2-90	135		0.0272
		Insulator	1-2-90	135		0.382
		3. Area Sample Downwind @ Perimeter of Barricade	1-2-90	240		0.005

1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

DPMC-06540

1000
BIR

**BROWN & ROOT INDUSTRIAL SERVICES, INC.
SHELL DEER PARK MANUFACTURING COMPLEX**

INTEROFFICE MEMO

TO: Ken Dessert - Capital
FROM: Allan DeMunbrun
DATE: April 2, 1990
RE: Asbestos Monitoring Results

Industrial hygiene monitoring was conducted with your personnel during the recent asbestos removal project from 6" CIS boiler feed line, located east of Utilities Control Center. The purpose of the monitoring was to determine employee exposures and any environmental asbestos emissions during insulation removal activities.

As summarized in the Attachment, personal air sampling results were within the Occupational Safety and Health Administration (OSHA) permissible exposure limits. A review of the sampling data sheets indicated proper protective clothing and respiratory protection were worn by the employees during the abatement activities.

According to the OSHA regulations you must communicate the report to the affected employees and I would encourage posting of the report in an area accessible to other similar craft personnel for their review also.

If you have any questions concerning this report, call me at 246-6917.

ADD:pc

Attachment

cc: Wayne Austin - Shell Industrial Hygienist
Jerry Stallings - Maintenance
Jimmy Hearn - SBS Project
Bill Johnson - OL-3 Furnace
Bulletin Board

DPMC-06541

LAM 010121

<u>AREA:</u>	<u>East of Utilities Control Center</u>	<u>JOB ACTIVITY</u>	<u>Removal of ACM from 6" CIS boiler feed line. Glove bag procedure utilized.</u>

NAME	SOC.SEC. NUMBER	JOB TITLE	SAMPLE DATE	SAMPLE DURATION (MINUTES)	TIME-WEIGHTED AVERAGE RESULT (FIBER/cc) #1	8 HOUR TWA
1.Area sample - downwind @ perimeter of barricade						
			3-23-90	310		0.002
		Insulator	3-23-90	190		0.004

Permissible Exposure Limit..... 0.2 F/cc

- 1) Fiber/cc - Fibers Of Asbestos Per Cubic Centimeter Of Air.

HIS Monitoring Data

Contractor - BJR

130320

1990 061 724.3

DPMC 06329.1

LAM 009909

We will have the forms revised to provide blanks for the date, signature and title. When the new forms are available, we will advise you so that you can have your departments order a supply together with instructions to destroy the present Shell Forms S-10958 (7-71).

If you have provided instruction manuals to your departments, you may wish to revise your instructions at this time or when the revised forms are available.

W. A. Roquet
W. A. Roquet

Attachment

S-10958 (7-71) OSHA NO. 102	SUMMARY OCCUPATIONAL INJURIES AND ILLNESSES 7-1-71 - 12-31-71	FORM APPROVED OMB NO. 4-HR 1453
--------------------------------	---	------------------------------------

ESTABLISHMENT NAME AND ADDRESS:		FATALITIES	WORK DAY LOST CASES			NON-FATAL CASES WITHOUT LOST WORKDAYS*	
1	2 INJURY AND ILLNESS CATEGORY		NUMBER OF CASES OF CASES	NUMBER OF CASES INVOLVING TRANSFER TO ANOTHER JOB OR TERMINATION OF EMPLOYMENT	NUMBER OF LOST WORK DAYS	NUMBER OF CASES INVOLVING TRANSFER TO ANOTHER JOB OR TERMINATION OF EMPLOYMENT	8
10	OCCUPATIONAL INJURIES	0	1	0	1	2	0
21	OCCUPATIONAL ILLNESSES						
21	OCCUPATIONAL SKIN DISEASES OR DISORDERS						
22	DUST DISEASES OF THE LUNGS (PNEUMOCONIOSES)						
23	RESPIRATORY CONDITIONS DUE TO TOXIC AGENTS						
24	POISONING (SYSTEMIC EFFECTS OF TOXIC MATERIALS)						
25	DISORDERS DUE TO PHYSICAL AGENTS (OTHER THAN TOXIC MATERIALS)						
26	DISORDERS DUE TO REPEATED TRAUMA						
29	ALL OTHER OCCUPATIONAL ILLNESSES						
	TOTAL - OCCUPATIONAL ILLNESSES (21-29)						
	TOTAL - OCCUPATIONAL INJURIES AND ILLNESSES	0	1	0	1	2	0

LAM 007359

*NON-FATAL CASES WITHOUT LOST WORK DAYS - CASES RESULTING IN: MEDICAL TREATMENT BEYOND FIRST AID, DIAGNOSIS OF OCCUPATIONAL ILLNESSES, LOSS OF CONSCIOUSNESS, RESTRICTION OF WORK OR MOTION, OR TRANSFER TO ANOTHER JOB (WITHOUT LOST WORKDAYS). TO BE POSTED ON THE BULLETIN BOARD DURING THE PERIOD 2/1/72 - 3/2/72

I certify that this is a true and complete report.

C. E. Bishop
C. E. Bishop
Manager Personnel and Staff Services
Head Office