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SL

Shell Oil Company • Shell Chemical Company

A Division of Shell Oil Company



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

March 9, 1992

General Electric
c/o Shell Intercompany Mail

PLAINTIFF'S EXHIBIT

SH-3312

Dear Sir:

SUBJECT: ASBESTOS SAMPLING AT GENERATOR TG-8610

Enclosed is the final report on the airborne asbestos sampling done on January 27 thru 29, 1992. The sampling was done during removal of the stator bars from generator TG-8610 at the Central Power Station.

A review of the sampling results indicates all of the results are less than the Occupational Safety and Health Administration (OSHA) permissible exposure limit of 0.2 fibers per cubic centimeter, as an 8-hour time weighted average.

We appreciate the cooperation of your employees during this sampling and encourage you to communicate these results to affected employees.

If I can be of further assistance, contact me at 246-1218.

Sincerely,

Lynne Tackett

Lynne Tackett
Industrial Hygienist

enclosure

cc: HSB Satellite
DLT Chron

LAM 016685

DPMC-13396

BROWN & ROOT INDUSTRIAL SERVICES, INC.

Shell Deer Park Manufacturing Complex

February 12, 1992

Shell Oil Company
Attention Mr. Wayne Austin
c/o Shell Intercompany Mail

Re: Abatement Air Monitoring
Generator TG-8610, CPS

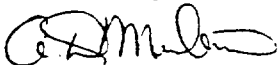
Dear Mr. Austin:

Enclosed is the final report submitted by A&B Environmental Services, Inc., on the airborne fiber analysis conducted during air sampling operations for General Electric on January 27, 28, and 29, 1992.

We appreciate your assistance in forwarding this report to General Electric.

If I can be of further help, please call me at ext. 6-6917.

Sincerely,



Allan DeMunbrun
Safety Manager

Enclosure

cc: Ben Neal ES02 RM26
Lynn Tackett HSE

LAM 016686

DPMC-13397

A & B ENVIRONMENTAL SERVICES, INC.

1643 FEDERAL ROAD
HOUSTON, TEXAS 77015
(713) 453-6060

February 4, 1991

Brown & Root Industrial Services, Inc.
P. O. Box 276-B
Deer Park, Texas 77536
Attn: Mr. Al Bolton
Re: Subcontract 4042-1695-S-2163
Charge # 051226

Dear Mr. Bolton:

Enclosed is the final report of the airborne fiber analysis conducted during air sampling operations at Shell DPMC on January 27, 28, and 29, 1992. The report includes analytical results of air samples, calculated 8 hour TWA's, daily activity logs, and a work area map.

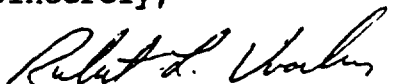
Baseline samples were collected on the morning of January 27, prior to the start of work on this phase of the project. Area and personnel samples were collected during work on the afternoon of the 27th, and on the 28th and 29th.

The work area consisted of the generator of the turbine/generator unit TG-8610 in the Central Power Station (CPS). Workers from General Electric were removing metal rods from the generator. The rods were covered with insulation reported to contain asbestos. A & B Environmental's role was limited to area and personnel sampling.

All samples were collected and analyzed by Dr. Ram Ramakrishnan or Lane Voorhies, both NIOSH 582 certified persons. A Nikon Alphaphot microscope equipped with 400X magnification, Walton-Beckett graticule, and positive phase contrast was used. The NIOSH 7400A method of fiber counting was followed.

If you have any questions concerning this report please feel free to call Dr. Ram Ramakrishnan or myself at 453-6060.

Sincerely,



Robert L. Voorhies
Environmental Services Coordinator
A & B Environmental Services, Inc.

LAM 016687

DPMC-13398

FINAL REPORT

OF THE

ABATEMENT AIR MONITORING

GENERATOR TG-8610

CENTRAL POWER STATION

SHELL DPMC

DEER PARK, TEXAS

JANUARY 27, 28, 29, 1992

BY

A & B ENVIRONMENTAL SERVICES, INC

LAM 016688

DPMC-13399

APPENDIX I
ANALYTICAL RESULTS

LAM 016689

DPMC-13400



A & B Environmental services, Inc.
1643 Federal Road
Houston, Texas 77015
(713) 453-6060

February 4, 1992

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

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

P.O. #: 051226
Ref: Shell DPMC-Central Power
Station-Generator TG-8610

Date Received: 01/27/92

Date Analyzed: 02/02/92

Date Reported: 02/04/92

Analyst: RR/AP/RLV

SAMPLE ID	LAB ID	TYPE	DATE	FIBERS/CC
#BR-1-27-01 West End-Generator	8619.11 RLV	Baseline 07:55 - 09:40	01/27/92 1365 Ltr.	<.003
#BR-1-27-02 East End-Generator	8619.12 RLV	Baseline 08:00 - 09:40	01/27/92 1400 Ltr.	<.002
#BR-1-27-03	8619.13 RR	Personnel 15:30 - 17:00 Ricardo Franklin	01/27/92 180 Ltr.	.02
#BR-1-27-04	8619.14 RR	Personnel 15:30 - 17:00 Robert Upton	01/27/92 180 Ltr.	.03
#BR-1-27-05 West End-Generator	8619.15 RLV	Area 15:35 - 17:05	01/27/92 360 Ltr.	<.009
#BR-1-27-06 East End-Generator	8619.16 RLV	Area 15:35 - 17:10	01/27/92 380 Ltr.	<.009
#BR-1-28-01 East End-Generator	8619.17 AP	Area 08:20 - 13:20	01/28/92 1200 Ltr.	<.003

APPROVED:
DATE:

Robert L. Vank
2/4/92

DPMC-13401

LAM 016690



SAMPLE ID	LAB ID	TYPE	DATE	FIBERS/CC
#BR-1-28-02 West End-Generator	8619.18 AP	Area 08:20 - 13:20	01/28/92 1200 Ltr.	<.003
#BR-1-28-03	8619.19 AP	Personnel 08:30 - 12:00 Ricardo Franklin	01/28/92 420 Ltr.	.012
#BR-1-28-04	8619.20 AP	Personnel 08:30 - 12:00 Robert Upton	01/28/92 420 Ltr.	.020
#BR-1-28-05	8619.21 AP	Personnel 13:20 - 16:45 Ricardo Franklin	01/28/92 410 Ltr.	.023
#BR-1-28-06	8619.22 AP	Personnel 13:20 - 16:45 Robert Upton	01/28/92 410 Ltr.	.019
#BR-1-28-07 East End-Generator	8619.23 AP	Area 13:30 - 16:50	01/28/92 800 Ltr.	<.004
#BR-1-28-08 West End-Generator	8619.24 AP	Area 13:30 - 16:50	01/28/92 800 Ltr.	<.004
#BR-1-29-01	8619.25 RLV	Personnel 08:10 - 12:00 Ricardo Franklin	01/29/92 460 Ltr.	.013
#BR-1-29-02	8619.26 RLV	Personnel 08:10 - 12:00 Robert Upton	01/29/92 460 Ltr.	.008
#BR-1-29-03 East End-Generator	8619.27 RLV	Area 08:15 - 14:00	01/29/92 690 Ltr.	<.005
#BR-1-29-04 West End-Generator	8619.28 RLV	Area 08:15 - 14:00	01/29/92 690 Ltr.	.005

APPROVED:
DATE:

Robert L. Voulch
2/4/92

LAM 016691

APPENDIX II
DAILY ACTIVITY LOGS

LAM 016692

DPMC-13403

A & B ENVIRONMENTAL SERVICES, INC.

FIELD ACTIVITY LOG

Job Location: Shell DPMC

Contractor: Brown & Root Inc. Ltd.

Date: 1/27/92

Supervisor: Paul D. Leonard

Time	Description of Activity
7:15	Arrive at gate 19, check in Meet with Al Bolton. Proceed to CPS to meet with Paul Diamond
7:45	Move to work area (generator TG-8610) Check in with control room Set up 2 area monitors for background Fiber counts on east & west ends of generator
9:40	Collect 2 baseline samples, go to lab to perform fiber count

LAM 0166

LAM 016693

A & B Field Personnel:

Signature:

A & B ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Job Location: Shell game / Central Contractor: Brown & Root / Co.
Date: 4/27/92 Power Supervisor:
Station

[illegible]

LAM 016694

A & B Field Personnel:

Signature:

A & B ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Job Location: DDMC/CPD
Date: 1/28/92

Contractor: GEL P/L
Supervisor: A.D.E. GARCIA

Time	Description of Activity
8:00	Arrive at Gate 19
8:30	Start area sampling. GE crew to town and a supervisor at work. Also start Personnel sampling in two bin working crew.
9:00	Leave for Laboratory to analyze samples
12:45	Arrived Gate 19
1:00	Start Personnel & Area Sampling
4:45	Take personnel & Area sampling
5:15	Leave 1st

LAM 01669

LAM 016695

A & B Field Personnel:

Signature: _____

A & B ENVIRONMENTAL SERVICES, INC.
FIELD ACTIVITY LOG

Job Location: DOME/CPs
Date: 1/25/92

Contractor: BR/GE.
Supervisor:

Time	Description of Activity
7:50	Arrive at GATE 19
8:10	Grant Personnel and Area Sampling
8:30	Go to Lab to Read Personnel's Area Samples
1:10	Back at CPS to collect Samples. Abilities within completed normal marking needed until further notice.
3:00	Leave Gate 19

LAM 016696

A & B Field Personnel:

Signature: _____

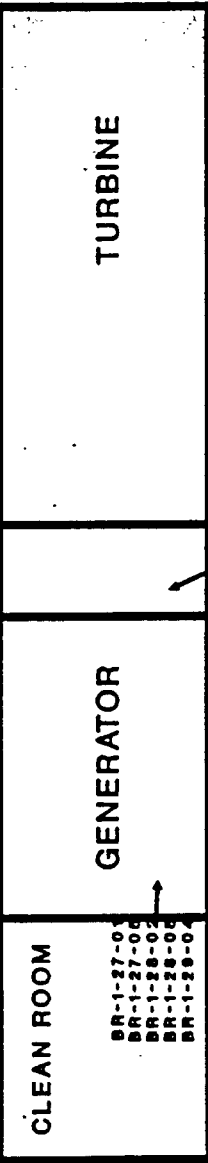
APPENDIX III
WORK AREA MAP

LAM 016697

DPMC-13408



EAST



BR-1-27-02
BR-1-27-03
BR-1-28-01
BR-1-28-02
BR-1-28-03

AIR SAMPLING LOCATIONS, JANUARY 27, 28, 29, 1992
GENERATOR BAR REMOVAL
TURBINE/GENERATOR UNIT TG-8610
SHELL DPMC, CPS

NOT TO SCALE

A & B ENVIRONMENTAL SERVICES, INC.

LAM 016698

APPENDIX IV
PERSONNEL 8 HOUR TIME WEIGHTED AVERAGES

LAM 016699

DPMC-13410

8 HOUR TIME WEIGHTED AVERAGES FOR MONITORED PERSONNEL

<u>DATE</u>	<u>WORKER</u>	<u>TIME</u>	<u>8 HR. TWA</u>
1/27	Ricardo Franklin	15:30 - 17:00	.004
1/27	Robert Upton	15:30 - 17:00	.006
1/28	Ricardo Franklin	8:30 - 12:00, 13:20 - 16:45	.015
1/28	Robert Upton	8:30 - 12:00, 13:20 - 16:45	.017
1/29	Ricardo Franklin	8:10 - 12:00, 13:20 - 16:45	.006
1/29	Robert Upton	8:10 - 12:00, 13:20 - 16:45	.004

LAM 016700

DPMC-13411

IH Monitoring Results
Contractor - General Electric
30380 061 1992 724.3

LAM 016684

DPMC 13395.1