

750
PLAINTIFF'S EXHIBIT

SH-951

January 3, 1974

Dr. N. D. Hines
2317 Fannin Street
Houston, Texas

Dear Dr. Hines:

In accordance with Federal OSHA regulations which require specific medical examinations for personnel regularly exposed to airborne concentrations of asbestos fibers, we plan to send once again five of our employees to you for examination.

I am attaching for your information our latest directive from the Corporate Medical Director, Dr. R. E. Joyner, M.D., and the necessary forms for your use and distribution. You may wish to contact him on technical questions. Mr. D. G. Hood in our Employee Relations Department, Deer Park Plant, will make the necessary scheduling arrangements with you.

Very truly yours,

Original Signed by F. G. Reitz

F. G. Reitz, Manager
Safety & Training

← THIS COPY FOR →
FGR/s

Attach.

cc: Dr. R. E. Joyner

bc (w/o attach): DHM-DGH
File
Chron

DPMC-00362

LAM 006850

SHELL OIL COMPANY

DATE DECEMBER 3, 1973

TO ALL LOCATIONS PERFORMING
ASBESTOS EXAMINATIONS

FROM MEDICAL DIRECTOR

SUBJECT OSHA ASBESTOS STANDARD
MEDICAL EXAMINATIONS

I am enclosing copies of a new medical examination form which should be utilized for all OSHA asbestos examinations performed in the future.

The results of the first round of examinations, and current changes in the form, suggest the following comments:

I. MEDICAL HISTORY:

No significant changes in this section.

II. SPIROMETRY:

The fact that different predicted normals were used in the pulmonary function tests in different locations has resulted in difficulties in evaluation of these tests. In the future, please use the predicted normals of Kory et al, which are shown in a table on the reverse of the physical examination form. This table of predicted normal values should be provided to the pulmonary function testing laboratory utilized by your individual location, and calculations of percent of predicted values should be based on this table. I would also like to request that your pulmonary function laboratory furnish to my office the type of spirometer used in the examination.

III. CHEST X-RAY:

It is not necessary to send the x-ray to my office, but please specify where film is to be permanently filed. If any abnormal findings are noted on chest x-ray, please forward a copy of the radiologist's reading to my office, along with the other examination forms as specified below.

DPMC-00363

LAM 006851

ALL LOCATIONS PERFORMING
ASBESTOS EXAMINATIONS

2.

IV. PHYSICIAN'S EVALUATION:

No significant changes in this section.

V. CLINICAL EXAMINATION:

All employee participants in this program should be given a clinical examination by a physician. A copy of the report of that examination should be attached to the enclosed form when it is returned to my office.

VI. ADDITIONAL PROCEDURES, REMARKS, SUMMARY:

No significant changes in this section.

To date, I am unaware of any employees who have refused to submit to asbestos examinations. In the event this occurs, it has been suggested by OSHA that we obtain a signed statement from the employee documenting his refusal to participate.

Examinations continue to be required on an annual basis for those employees currently included in the examination program.

In addition to those employees examined annually under this program, the following examinations are also required:

1. PRE-PLACEMENT

A pre-employment or a pre-transfer examination must be given to those employees transferred into "exposed" job assignments within 30 calendar days following such employment or transfer. The content of such examinations should be identical to the regular annual examination.

DPMC-00364

LAM 006852

2. TERMINATION

Examinations should be provided for those employees terminating exposure through transfer, retirement, resignation or other means within 30 calendar days before or after such termination. The content of such examinations should be identical to the regular annual examination. Exception: The standard states that "no medical examination is required of any employee if adequate records show that the employee has been examined in accordance with this paragraph within the past one-year period".

Results of all examinations described above should be expeditiously reviewed by the Company-appointed examining physician. The examining physician should report to the employee all abnormal findings in exactly the same manner as he would in a private doctor-patient relationship, without conjecture as to etiology. In those instances in which the abnormalities do not appear to be related to asbestos exposure, the examining physician should make appropriate recommendations and referral to employee's family physician as he deems necessary at the employee's expense. Findings which could possibly be related to asbestos exposure should be discussed with the Corporate Medical Director and location management prior to advising the employee of a definitive diagnosis and before referral for consultation or other additional testing.

Results of all examinations described above shall be made available to the employee's designated personal physician upon request of the individual employee.

Copies of all examinations described above shall be forwarded to the Corporate Medical Director for review and filing in the Central Corporate Medical Files. ✓

All medical records generated by the procedures described above should be retained at the individual location for the duration of employment, and in the Central Corporate Medical Files indefinitely.

ALL LOCATIONS PERFORMING
ASBESTOS EXAMINATIONS

4.

I am enclosing a sufficient number of forms to allow one copy to be returned to the employee's location, one copy forwarded to me, and a third copy retained in the examining physician's files ~~if he so desires~~ for twenty years.

It is suggested that the enclosed copy of this memorandum be furnished to the examining physician for his guidance in this program.

If I may be of any assistance regarding this examination program, please call on me at any time.



R. E. Joyner, M.D.
Medical Director

Enclosures

Sent to:

Anacortes Refinery
Houston Refinery
Martinez Refinery
Norco Refinery
Wilmington Refinery
Wood River Refinery
Houston Chemical Plant
Martinez Chemical Plant
Norco Chemical Plant

cc: Messrs. J. W. Sheehan
H. E. Walker
G. Holzman
A. J. Martin
R. F. Nelson
B. W. Dunbar
R. E. Nordstrom
H. L. Kusnetz

bc - Messrs. E. S. Martin - Houston Plant
F. L. Lewis - Houston Plant ← THIS COPY FOR
E. C. Borgeson - Martinez Plant
J. G. Bridgeman - Norco Plant

DFMC-00366

LAM 006854

PREDICTED NORMAL VALUES* - NORMAL MALES

DPMC-00367

HEIGHT (in.)	MEASURE	AGE (year)									
		20	25	30	35	40	45	50	55	60	65
60	FVC	3.94	3.83	3.72	3.61	3.50	3.39	3.28	3.17	3.06	2.95
	FEV ₁	3.49	3.35	3.21	3.07	2.93	2.79	2.65	2.51	2.37	2.23
61	FVC	4.07	3.96	3.85	3.74	3.63	3.52	3.41	3.30	3.19	3.08
	FEV ₁	3.58	3.44	3.30	3.16	3.02	2.88	2.74	2.60	2.46	2.32
62	FVC	4.21	4.10	3.99	3.88	3.77	3.66	3.55	3.44	3.33	3.22
	FEV ₁	3.68	3.54	3.40	3.26	3.12	2.98	2.84	2.70	2.56	2.42
63	FVC	4.34	4.23	4.12	4.01	3.90	3.79	3.68	3.57	3.46	3.35
	FEV ₁	3.77	3.63	3.49	3.35	3.21	3.07	2.93	2.79	2.65	2.51
64	FVC	4.47	4.36	4.25	4.14	4.03	3.92	3.81	3.70	3.59	3.48
	FEV ₁	3.87	3.73	3.59	3.45	3.31	3.17	3.03	2.89	2.75	2.61
65	FVC	4.60	4.49	4.38	4.27	4.16	4.05	3.94	3.83	3.72	3.61
	FEV ₁	3.96	3.82	3.68	3.54	3.40	3.26	3.12	2.98	2.84	2.70
66	FVC	4.74	4.63	4.52	4.41	4.30	4.19	4.08	3.97	3.86	3.76
	FEV ₁	4.05	3.91	3.77	3.63	3.49	3.35	3.21	3.07	2.93	2.79
67	FVC	4.87	4.76	4.65	4.54	4.43	4.32	4.21	4.10	3.99	3.88
	FEV ₁	4.15	4.01	3.87	3.73	3.59	3.45	3.31	3.17	3.03	2.89
68	FVC	5.00	4.89	4.78	4.67	4.56	4.45	4.34	4.23	4.12	4.01
	FEV ₁	4.24	4.10	3.96	3.82	3.68	3.54	3.40	3.26	3.12	2.98
69	FVC	5.14	5.03	4.92	4.81	4.70	4.59	4.48	4.37	4.26	4.15
	FEV ₁	4.34	4.20	4.06	3.92	3.78	3.64	3.50	3.36	3.22	3.08
70	FVC	5.27	5.16	5.05	4.94	4.83	4.72	4.61	4.50	4.39	4.28
	FEV ₁	4.43	4.29	4.05	4.01	3.87	3.73	3.59	3.45	3.31	3.17
71	FVC	5.40	5.29	5.18	5.07	4.96	4.85	4.74	4.63	4.52	4.41
	FEV ₁	4.52	4.38	4.24	4.10	3.96	3.82	3.68	3.54	3.40	3.26
72	FVC	5.54	5.43	5.32	5.21	5.10	4.99	4.88	4.77	4.66	4.55
	FEV ₁	4.62	4.48	4.34	4.20	4.06	3.92	3.78	3.64	3.50	3.36
73	FVC	5.67	5.56	5.45	5.34	5.23	5.12	5.01	4.90	4.79	4.68
	FEV ₁	4.71	4.57	4.43	4.29	4.16	4.01	3.87	3.73	3.59	3.45

LAM 006855

SPECIAL MEDICAL EXAMINATION (Asbestos)

MEDICAL DEPARTMENT - SHELL

- ☐ SHELL OIL COMPANY
☐ SHELL CHEMICAL COMPANY
☐ SHELL DEVELOPMENT COMPANY

- ☐ Preplacement
☐ Annual
☐ Termination
☐ Other

Employee Name _____

No. _____ Date _____

Location _____

Age _____ Ht. _____ Wt. _____ Sex _____

Pursuant to OSHA Regulations published in the Federal Register (37 F. R. 11318), the following procedures were performed on the above-named employee:

I. MEDICAL HISTORY (Please check Yes or No)

- | | YES | NO | | YES | NO |
|--|--------------------------|--------------------------|--|--------------------------|--------------------------|
| 1. Have you had shortness of breath in the past few months? | ☐ | ☐ | 9. Is your cough mainly on arising in the morning? | ☐ | ☐ |
| 2. Does your shortness of breath make you stop for breath after climbing one flight of stairs? | ☐ | ☐ | 10. Is your cough about the same all through the day? | ☐ | ☐ |
| 3. Does shortness of breath interfere with your work? | ☐ | ☐ | 11. Do you cough up yellowish or greenish sputum? | ☐ | ☐ |
| 4. Does shortness of breath ever awaken you from sleep? | ☐ | ☐ | 12. Have you coughed up blood within the past six months? | ☐ | ☐ |
| 5. Does shortness of breath ever occur at rest? | ☐ | ☐ | 13. Do you think the blood came from your nose, throat, or chest? (circle one) | ☐ | ☐ |
| 6. Do you have to sleep on several pillows at night in order to breathe easily? | ☐ | ☐ | 14. Are you frequently aware of whistling or wheezing when you breathe? | ☐ | ☐ |
| 7. Do you have a bothersome cough nearly every day? | ☐ | ☐ | 15. Has a Doctor ever said you have emphysema? | ☐ | ☐ |
| 8. Is your cough mainly on lying down? | ☐ | ☐ | 16. Do you get frequent chest colds? | ☐ | ☐ |

Remarks:

Employee's Signature _____

II. SPIROMETRY:

	Vital Capacity (Liters)	FEV ₁ (Liters)
Predicted (Kory) (See Reverse)		
Measured		
% Of Predicted		

RATIO $\left[\frac{FEV_1}{VC} \times 100 \right] = \text{_____} \%$

III. CHEST X-RAY:

Date Taken _____

Where is film filed? _____

- Reading: ☐ Normal chest
☐ Abnormal findings

(If abnormal, attach copy of reading)

Remarks: _____

IV. PHYSICIAN'S EVALUATION:

- ☐ History and test results above do not show evidence of chronic respiratory disease.
☐ Marginal findings. Recommend follow-up as noted below.
☐ Recommend immediate further study as noted below.
☐ Employee may wear respirator.
☐ Employee should not wear respirator.

REMARKS:

Physician's name (print) _____

Physician's signature _____

Date _____

V. CLINICAL EXAMINATION: (Attach report of examination)**VI. ADDITIONAL PROCEDURES, REMARKS, SUMMARY:**

DPMC-00368

LAM 006856

PREDICTED NORMAL VALUES* - NORMAL MALES

HEIGHT (in.)	MEASURE	AGE (year)									
		20	25	30	35	40	45	50	55	60	65
60	FVC	3.94	3.83	3.72	3.61	3.50	3.39	3.28	3.17	3.06	2.95
	FEV ₁	3.49	3.35	3.21	3.07	2.93	2.79	2.65	2.51	2.37	2.23
61	FVC	4.07	3.96	3.85	3.74	3.63	3.52	3.41	3.30	3.19	3.08
	FEV ₁	3.58	3.44	3.30	3.16	3.02	2.88	2.74	2.60	2.46	2.32
62	FVC	4.21	4.10	3.99	3.88	3.77	3.66	3.55	3.44	3.33	3.22
	FEV ₁	3.68	3.54	3.40	3.26	3.12	2.98	2.84	2.70	2.56	2.42
63	FVC	4.34	4.23	4.12	4.01	3.90	3.79	3.68	3.57	3.46	3.35
	FEV ₁	3.77	3.63	3.49	3.35	3.21	3.07	2.93	2.79	2.65	2.51
64	FVC	4.47	4.36	4.25	4.14	4.03	3.92	3.81	3.70	3.59	3.48
	FEV ₁	3.87	3.73	3.59	3.45	3.31	3.17	3.03	2.89	2.75	2.61
65	FVC	4.60	4.49	4.38	4.27	4.16	4.05	3.94	3.83	3.72	3.61
	FEV ₁	3.96	3.82	3.68	3.54	3.40	3.26	3.12	2.98	2.84	2.70
66	FVC	4.74	4.63	4.52	4.41	4.30	4.19	4.08	3.97	3.86	3.76
	FEV ₁	4.05	3.91	3.77	3.63	3.49	3.35	3.21	3.07	2.93	2.79
67	FVC	4.87	4.76	4.65	4.54	4.43	4.32	4.21	4.10	3.99	3.88
	FEV ₁	4.15	4.01	3.87	3.73	3.59	3.45	3.31	3.17	3.03	2.89
68	FVC	5.00	4.89	4.78	4.67	4.56	4.45	4.34	4.23	4.12	4.01
	FEV ₁	4.24	4.10	3.96	3.82	3.68	3.54	3.40	3.26	3.12	2.98
69	FVC	5.14	5.03	4.92	4.81	4.70	4.59	4.48	4.37	4.26	4.15
	FEV ₁	4.34	4.20	4.06	3.92	3.78	3.64	3.50	3.36	3.22	3.08
70	FVC	5.27	5.16	5.05	4.94	4.83	4.72	4.61	4.50	4.39	4.28
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73	FVC	5.67	5.56	5.45	5.34	5.23	5.12	5.01	4.90	4.79	4.68
	FEV ₁	4.71	4.57	4.43	4.29	4.16	4.01	3.87	3.73	3.59	3.45
74	FVC	5.80	5.69	5.58	5.47	5.36	5.25	5.14	5.03	4.92	4.81
	FEV ₁	4.81	4.67	4.53	4.39	4.26	4.11	3.97	3.83	3.69	3.55
75	FVC	5.93	5.82	5.71	5.60	5.49	5.38	5.27	5.16	5.05	4.94
	FEV ₁	4.90	4.76	4.62	4.48	4.34	4.20	4.06	3.92	3.78	3.64
76	FVC	6.07	5.96	5.85	5.74	5.63	5.52	5.41	5.30	5.19	5.08
	FEV ₁	4.99	4.85	4.71	4.57	4.43	4.29	4.15	4.01	3.87	3.73
77	FVC	6.20	6.09	5.98	5.87	5.76	5.65	5.54	5.43	5.32	5.21
	FEV ₁	5.09	4.95	4.81	4.67	4.53	4.39	4.25	4.11	3.97	3.83
78	FVC	6.33	6.22	6.11	6.00	5.89	5.78	5.67	5.56	5.45	5.34
	FEV ₁	5.18	5.04	4.90	4.76	4.62	4.48	4.34	4.20	4.06	3.92

* Source - Kory, Callahan, Boren and Syner, American Journal of Medicine, 30:243-58, 1961

DPMC-00369

LAM 006857

SPECIAL MEDICAL EXAMINATION (Asbestos)

MEDICAL DEPARTMENT - SHELL

- ☐ SHELL OIL COMPANY
☐ SHELL CHEMICAL COMPANY
☐ SHELL DEVELOPMENT COMPANY

- ☐ Preplacement
☐ Annual
☐ Termination
☐ Other

Employee Name: _____

No. _____ Date _____

Location _____

Age _____ Ht. _____ Wt. _____ Sex _____

Pursuant to OSHA Regulations published in the Federal Register (37 F. R. 11318), the following procedures were performed on the above-named employee:

I. MEDICAL HISTORY (Please check Yes or No)

- | | YES | NO | | YES | NO |
|--|--------------------------|--------------------------|--|--------------------------|--------------------------|
| 1. Have you had shortness of breath in the past few months? | ☐ | ☐ | 9. Is your cough mainly on arising in the morning? | ☐ | ☐ |
| 2. Does your shortness of breath make you stop for breath after climbing one flight of stairs? | ☐ | ☐ | 10. Is your cough about the same all through the day? | ☐ | ☐ |
| 3. Does shortness of breath interfere with your work? | ☐ | ☐ | 11. Do you cough up yellowish or greenish sputum? | ☐ | ☐ |
| 4. Does shortness of breath ever awaken you from sleep? | ☐ | ☐ | 12. Have you coughed up blood within the past six months? | ☐ | ☐ |
| 5. Does shortness of breath ever occur at rest? | ☐ | ☐ | 13. Do you think the blood came from your nose, throat, or chest? (circle one) | ☐ | ☐ |
| 6. Do you have to sleep on several pillows at night in order to breathe easily? | ☐ | ☐ | 14. Are you frequently aware of whistling or wheezing when you breathe? | ☐ | ☐ |
| 7. Do you have a bothersome cough nearly every day? | ☐ | ☐ | 15. Has a Doctor ever said you have emphysema? | ☐ | ☐ |
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Remarks: _____

Employee's Signature _____

II. SPIROMETRY:

	Vital Capacity (Liters)	FEV ₁ (Liters)
Predicted (Kory) (See Reverse)		
Measured		
% Of Predicted		

$$\text{RATIO} \left[\frac{\text{FEV}_1}{\text{VC}} \times 100 \right] = \text{ } \%$$
III. CHEST X-RAY:

Date Taken _____

Where is film filed? _____

Reading: ☐ Normal chest
☐ Abnormal findings

(If abnormal, attach copy of reading)

Remarks: _____

IV. PHYSICIAN'S EVALUATION:

- ☐ History and test results above do not show evidence of chronic respiratory disease.
☐ Marginal findings. Recommend follow-up as noted below.
☐ Recommend immediate further study as noted below.
☐ Employee may wear respirator.
☐ Employee should not wear respirator.

REMARKS: _____

Physician's name (print) _____

Physician's signature _____

Date _____

V. CLINICAL EXAMINATION: (Attach report of examination)**VI. ADDITIONAL PROCEDURES, REMARKS, SUMMARY:**

DPMC-00370

Signature _____

M.D.

LAM 006858

SHELL OIL COMPANY

DATE DECEMBER 3, 1973

TO ALL LOCATIONS PERFORMING ASBESTOS EXAMINATIONS

FROM MEDICAL DIRECTOR

SUBJECT OSHA ASBESTOS STANDARD MEDICAL EXAMINATIONS

I am enclosing copies of a new medical examination form which should be utilized for all OSHA asbestos examinations performed in the future.

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II. SPIROMETRY:

The fact that different predicted normals were used in the pulmonary function tests in different locations has resulted in difficulties in evaluation of these tests. In the future, please use the predicted normals of Kory et al, which are shown in a table on the reverse of the physical examination form. This table of predicted normal values should be provided to the pulmonary function testing laboratory utilized by your individual location, and calculations of percent of predicted values should be based on this table. I would also like to request that your pulmonary function laboratory furnish to my office the type of spirometer used in the examination.

III. CHEST X-RAY:

It is not necessary to send the x-ray to my office, but please specify where film is to be permanently filed. If any abnormal findings are noted on chest x-ray, please forward a copy of the radiologist's reading to my office, along with the other examination forms as specified below.

DPMC-00371

LAM 006859

ALL LOCATIONS PERFORMING
ASBESTOS EXAMINATIONS

2.

IV. PHYSICIAN'S EVALUATION:

No significant changes in this section.

V. CLINICAL EXAMINATION:

All employee participants in this program should be given a clinical examination by a physician. A copy of the report of that examination should be attached to the enclosed form when it is returned to my office.

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ALL LOCATIONS PERFORMING
ASBESTOS EXAMINATIONS

3.

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Examinations should be provided for those employees terminating exposure through transfer, retirement, resignation or other means within 30 calendar days before or after such termination. The content of such examinations should be identical to the regular annual examination. Exception: The standard states that "no medical examination is required of any employee if adequate records show that the employee has been examined in accordance with this paragraph within the past one-year period".

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Results of all examinations described above shall be made available to the employee's designated personal physician upon request of the individual employee.

Copies of all examinations described above shall be forwarded to the Corporate Medical Director for review and filing in the Central Corporate Medical Files.

All medical records generated by the procedures described above should be retained at the individual location for the duration of employment, and in the Central Corporate Medical Files indefinitely.

DPMC-00373

LAM 006861

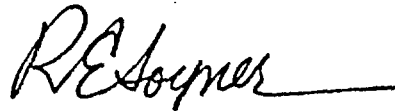
ALL LOCATIONS PERFORMING
ASBESTOS EXAMINATIONS

4.

I am enclosing a sufficient number of forms to allow one copy to be returned to the employee's location, one copy forwarded to me, and a third copy retained in the examining physician's files if he so desires.

It is suggested that the enclosed copy of this memorandum be furnished to the examining physician for his guidance in this program.

If I may be of any assistance regarding this examination program, please call on me at any time.



R. E. Joyner, M.D.
Medical Director

Enclosures

Sent to:

Anacortes Refinery
Houston Refinery ◀ THIS COPY FOR
Martinez Refinery
Norco Refinery
Wilmington Refinery
Wood River Refinery
Houston Chemical Plant
Martinez Chemical Plant
Norco Chemical Plant

cc: Messrs. J. W. Sheehan
H. E. Walker
G. Holzman
A. J. Martin
R. F. Nelson
B. W. Dunbar
R. E. Nordstrom
H. L. Kusnetz

DPMC-00374

LAM 006862

PREDICTED NORMAL VALUES* - NORMAL MALES

HEIGHT (in.)	MEASURE	AGE (year)									
		20	25	30	35	40	45	50	55	60	65
60	FVC	3.94	3.83	3.72	3.61	3.50	3.39	3.28	3.17	3.06	2.95
	FEV ₁	3.49	3.35	3.21	3.07	2.93	2.79	2.65	2.51	2.37	2.23
61	FVC	4.07	3.96	3.85	3.74	3.63	3.52	3.41	3.30	3.19	3.08
	FEV ₁	3.58	3.44	3.30	3.16	3.02	2.88	2.74	2.60	2.46	2.32
62	FVC	4.21	4.10	3.99	3.88	3.77	3.66	3.55	3.44	3.33	3.22
	FEV ₁	3.68	3.54	3.40	3.26	3.12	2.98	2.84	2.70	2.56	2.42
63	FVC	4.34	4.23	4.12	4.01	3.90	3.79	3.68	3.57	3.46	3.35
	FEV ₁	3.77	3.63	3.49	3.35	3.21	3.07	2.93	2.79	2.65	2.51
64	FVC	4.47	4.36	4.25	4.14	4.03	3.92	3.81	3.70	3.59	3.48
	FEV ₁	3.87	3.73	3.59	3.45	3.31	3.17	3.03	2.89	2.75	2.61
65	FVC	4.60	4.49	4.38	4.27	4.16	4.05	3.94	3.83	3.72	3.61
	FEV ₁	3.96	3.82	3.68	3.54	3.40	3.26	3.12	2.98	2.84	2.70
66	FVC	4.74	4.63	4.52	4.41	4.30	4.19	4.08	3.97	3.86	3.76
	FEV ₁	4.05	3.91	3.77	3.63	3.49	3.35	3.21	3.07	2.93	2.79
67	FVC	4.87	4.76	4.65	4.54	4.43	4.32	4.21	4.10	3.99	3.88
	FEV ₁	4.15	4.01	3.87	3.73	3.59	3.45	3.31	3.17	3.03	2.89
68	FVC	5.00	4.89	4.78	4.67	4.56	4.45	4.34	4.23	4.12	4.01
	FEV ₁	4.24	4.10	3.96	3.82	3.68	3.54	3.40	3.26	3.12	2.98
69	FVC	5.14	5.03	4.92	4.81	4.70	4.59	4.48	4.37	4.26	4.15
	FEV ₁	4.34	4.20	4.06	3.92	3.78	3.64	3.50	3.36	3.22	3.08
70	FVC	5.27	5.16	5.05	4.94	4.83	4.72	4.61	4.50	4.39	4.28
	FEV ₁	4.43	4.29	4.05	4.01	3.87	3.73	3.59	3.45	3.31	3.17
71	FVC	5.40	5.29	5.18	5.07	4.96	4.85	4.74	4.63	4.52	4.41
	FEV ₁	4.52	4.38	4.24	4.10	3.96	3.82	3.68	3.54	3.40	3.26
72	FVC	5.54	5.43	5.32	5.21	5.10	4.99	4.88	4.77	4.66	4.55
	FEV ₁	4.62	4.48	4.34	4.20	4.06	3.92	3.78	3.64	3.50	3.36
73	FVC	5.67	5.56	5.45	5.34	5.23	5.12	5.01	4.90	4.79	4.68
	FEV ₁	4.71	4.57	4.43	4.29	4.16	4.01	3.87	3.73	3.59	3.45
74	FVC	5.80	5.69	5.58	5.47	5.36	5.25	5.14	5.03	4.92	4.81
	FEV ₁	4.81	4.67	4.53	4.39	4.26	4.11	3.97	3.83	3.69	3.55
75	FVC	5.93	5.82	5.71	5.60	5.49	5.38	5.27	5.16	5.05	4.94
	FEV ₁	4.90	4.76	4.62	4.48	4.34	4.20	4.06	3.92	3.78	3.64
76	FVC	6.07	5.96	5.85	5.74	5.63	5.52	5.41	5.30	5.19	5.08
	FEV ₁	4.99	4.85	4.71	4.57	4.43	4.29	4.15	4.01	3.87	3.73
77	FVC	6.20	6.09	5.98	5.87	5.76	5.65	5.54	5.43	5.32	5.21
	FEV ₁	5.09	4.95	4.81	4.67	4.53	4.39	4.25	4.11	3.97	3.83
78	FVC	6.33	6.22	6.11	6.00	5.89	5.78	5.67	5.56	5.45	5.34
	FEV ₁	5.18	5.04	4.90	4.76	4.62	4.48	4.34	4.20	4.06	3.92

* Source - Kory, Callahan, Boren and Syner, American Journal of Medicine, 30:243-58, 1961

DPMC-00375

LAM 006863

SPECIAL MEDICAL EXAMINATION (Asbestos)

MEDICAL DEPARTMENT - SHELL

- ☐ SHELL OIL COMPANY
☐ SHELL CHEMICAL COMPANY
☐ SHELL DEVELOPMENT COMPANY

- ☐ Preplacement
☐ Annual
☐ Termination
☐ Other

Employee Name: _____

No. _____ Date _____

Location _____

Age _____ Ht. _____ Wt. _____ Sex _____

Pursuant to OSHA Regulations published in the Federal Register (37 F. R. 11318), the following procedures were performed on the above-named employee:

I. MEDICAL HISTORY (Please check Yes or No)

- | | YES | NO | | YES | NO |
|--|--------------------------|--------------------------|--|--------------------------|--------------------------|
| 1. Have you had shortness of breath in the past few months? | ☐ | ☐ | 9. Is your cough mainly on arising in the morning? | ☐ | ☐ |
| 2. Does your shortness of breath make you stop for breath after climbing one flight of stairs? | ☐ | ☐ | 10. Is your cough about the same all through the day? | ☐ | ☐ |
| 3. Does shortness of breath interfere with your work? | ☐ | ☐ | 11. Do you cough up yellowish or greenish sputum? | ☐ | ☐ |
| 4. Does shortness of breath ever awaken you from sleep? | ☐ | ☐ | 12. Have you coughed up blood within the past six months? | ☐ | ☐ |
| 5. Does shortness of breath ever occur at rest? | ☐ | ☐ | 13. Do you think the blood came from your nose, throat, or chest? (circle one) | ☐ | ☐ |
| 6. Do you have to sleep on several pillows at night in order to breathe easily? | ☐ | ☐ | 14. Are you frequently aware of whistling or wheezing when you breathe? | ☐ | ☐ |
| 7. Do you have a bothersome cough nearly every day? | ☐ | ☐ | 15. Has a Doctor ever said you have emphysema? | ☐ | ☐ |
| 8. Is your cough mainly on lying down? | ☐ | ☐ | 16. Do you get frequent chest colds? | ☐ | ☐ |

Remarks: _____

Employee's Signature _____

II. SPIROMETRY:

	Vital Capacity (Liters)	FEV ₁ (Liters)
Predicted (Kory) (See Reverse)		
Measured		
% Of Predicted		

$$\text{RATIO} \left[\frac{\text{FEV}_1}{\text{VC}} \times 100 \right] = \text{ } \%$$
III. CHEST X-RAY:

Date Taken _____

Where is film filed? _____

- Reading: ☐ Normal chest
☐ Abnormal findings

(If abnormal, attach copy of reading)

Remarks: _____

IV. PHYSICIAN'S EVALUATION:

- ☐ History and test results above do not show evidence of chronic respiratory disease.
☐ Marginal findings. Recommend follow-up as noted below.
☐ Recommend immediate further study as noted below.
☐ Employee may wear respirator.
☐ Employee should not wear respirator.

REMARKS: _____

Physician's name (print) _____

Physician's signature _____

Date _____

V. CLINICAL EXAMINATION: (Attach report of examination)**VI. ADDITIONAL PROCEDURES, REMARKS, SUMMARY:**

DPMC-00376

Signature _____

M.D.

LAM 006864

SHELL OIL COMPANY

Asbestos

✓ JGP
RWB
WAB
BSB
GPB
JRC
HLI
DHK
EMR
AGS

STRICTLY PERSONAL

DATE OCTOBER 1, 1973

FROM MEDICAL DIRECTOR

SUBJECT REVIEW OF ASBESTOS
EXAMINATIONS - HOUSTON
REFINERYIs. Handle
Mg

Attached is a summary of the asbestos examinations performed on Houston Refinery employees, along with recommendations regarding specific employees.

It appears that of the 15 employees examined, only one can be classified as having possible pulmonary asbestosis. Several others, however, warrant close attention and follow-up.

Invoices received from Kelsey-Seybold covering these examinations are also attached.

If you have any questions following review of this material, I would be happy to discuss them by telephone at your convenience.

R. E. Joyner
R. E. Joyner, M.D.
Medical Director

Attachments

cc (w/o attachments) - Messrs. R. F. Nelson
G. Holzman
H. L. Kusnetz
J. G. Pratt ✓

August 31, 1973

C. M. Rivers

Re: Asbestos Samples at
Solids Disposal Area

Results of air samples obtained
at the Primary Solids Disposal Area do
not show any identifiable asbestos fibers
(see attached).

Sample No. 1 was obtained ca.
30 feet downwind of the area being worked
by the bulldozer.

Sample No. 1 - The sampling
apparatus was attached to the bulldozer
near the operator.

An estimate for facilities to
collect spent CA diaphragm material
is being prepared.

Attachment

cc - LSA
RFF
FCR
DGM/JDW

Original Signed By

CAS:slb

C. A. BLAND

←THIS COPY FOR---

DPMC-00378

LAM 006866

SHELL DEVELOPMENT COMPANY

TO C. A. BLAND
SHELL CHEMICAL COMPANY
HOUSTON PLANT

DATE AUGUST 24, 1973

FROM R. M. CURTIS
SHELL DEVELOPMENT COMPANY
BRC

SUBJECT ASBESTOS FIBER COUNTS: REFERENCE BRC 4248

Asbestos fiber counts on two millipore filter samples are as follows:

Designation	Total on Filter	Fibers/ccAir
No. 1 (138 l)	1060	0.008
No. 2 (248 l)	9700	0.039

The counts are of all fibers greater than 5 μ m length. No. 1 is quite clean and the few fibers present do not resemble asbestos. No. 2 is rather heavily loaded with particulate matter in the 2-10 μ m range but again the fibers present do not resemble asbestos.

RMC:pcr

Dick Curtis

cc: D. Atwood, Industrial Hygiene, One Shell Plaza, Houston

DPMC-00379

LAM 006867

SHELL OIL COMPANY

DATE MAY 25, 1973

TO ALL MANAGERS

FROM MANAGER SAFETY
HOUSTON REFINERY

SUBJECT SAFETY REMINDERS

The following are safety reminders for June, 1973.

1. All defective ladders must be tagged and removed from service.
2. Review the attached safety requirements for compressed gas cylinders.
3. Approved dust respirators, available at the Main Shop tool-room, must be worn when exposure to insulation dust exists.
4. Defective automotive equipment should be taken to the automotive garage for repairs.
5. Guardrails and toeboards must be installed on all open sides and ends of platforms more than ten feet above the ground or floor.
6. All plant telephones should have the refinery ambulance and fire alarm telephone numbers affixed thereon.
7. Plant air used for cleaning purposes must not exceed 30 psig pressure.
8. Hearing protection requirements for high noise levels must be specified on departmental work permits.
9. Good housekeeping at all times will reduce accidents.
10. Job tickets should be made out for the removal of scaffolding which has been left in place.

J. B. Floyd
for R. L. Bryan

Attachment

C E BEECHER JR
LUBE B

DPMC-00380

LAM 006868