



INTERNAL CORRESPONDENCE

CHEMICALS AND PLASTICS

P. O. BOX 401, TEXAS CITY, TEXAS 77571

TO (NAME) Mr. R. E. Corkrean
COMPANY Dr. D. H. Glenn
LOCATION Mr. N. H. Ketcham - 511
Mr. L. G. McMullen - 510
Mr. C. W. Perry - 515
COPY TO Mr. S. F. Stabile - 519
Mr. R. J. Taylor - 511
Mr. G. Townsend - 529 ✓

DATE June 30, 1972

SUBJECT Asbestos Sampling Equipment



Gentlemen:

Attached is a list of necessary equipment for personnel sampling of asbestos dust as per the June 7, 1972 OSHA standard. Some items you may already have on hand. Please review this list and acquire the needed items so that samples can be taken when I visit. The slides can be prepared and transported to Texas City for counting.

After the initial study, the local plant industrial hygiene technician should be ready to sample and prepare the slides on his own and transport them to us for counting.

Very truly yours,

D. E. Deese
Senior Industrial Hygienist
Gulf Coast Area

DED:rr

Attachment

UCTC 07280

INDUSTRIAL HYGIENE DEPT

ASBESTOS FIBERS BY PHASE CONTRAST MICROSCOPY

Equipment for Air Sampling and Mounting Millipore Filters

- ✓ Millipore Field Monitor Cases (Complete)
Cat. No. MAWP 037A0
- ✓ Millipore Filters (with pads)
Cat. No. AAWP 037P0

✓ Millipore Filter Corp.
Bedford, Mass. 07130

- ✓ Unico Micronair Personnel Air Sampler (Part No. 3900-10)

✓ Unico Environmental Instruments Inc.
P. O. Box 590
Fall River, Mass. 02722

- ✓ Dimethyl Pthalate K075
- ✓ Diethyl Oxalate H 888

✓ J. T. Baker Chemical Co.
Phillipsburg, N. J.

- ✓ Lens Paper
- ✓ Cat. No. 268-425

✓ Curtin Scientific Co.
Houston, Texas

- ✓ Stainless Steel Forceps
- ✓ Cat. No. 7050

✓ Gelman Instrument Co.
Ann Arbor, Mich.

- ✓ Covering Micro Slides No. 2947
- ✓ Matheson Cat. No. 50585-10
- ✓ Cover Glass Gold Seal 25 mm
- ✓ Matheson Cat. No. 50507-25

✓ Bard Parker Scalpel
Handle - Matheson Cat. No. 19652-10
Blades - Matheson Cat. No. 19658-20

✓ Matheson Scientific
Houston, Texas

- ✓ Wheaton Balsam Bottle
- ✓ Cat. No. 034-678

✓ Curtin Scientific

D. F. DMS
6-30-72

UCTC 07281



INTERNAL CORRESPONDENCE

CHEMICALS AND PLASTICS

TO: Mr. Grant Townsend ✓
FROM: BROWNSVILLE PLANT

November 17, 1972

cc: Mr. R. E. Corkrean
Dr. D. H. Glenn
Mr. R. C. Gluck - 526
Mr. N. H. Ketcham - 511
Mr. C. W. Perry
Mr. R. L. Yelton

Asbestos Monitoring

Dear Grant:

This confirms your telephone request for our position relative to providing asbestos fiber counts for samples collected by Brown and Root personnel. After consideration, we are willing to provide this service within limitations, that is until the work load prevents it. Several thoughts are worth noting.

- 1) How and when samples are collected are extremely important. Unless the sample is representative it cannot be made so under the microscope. It follows that the person collecting the sample must be properly trained and supervised to insure representation.
- 2) Conserving your time by having someone else take samples has definite limitations from our point of view, especially since more time may be required to count the sample than to collect it. Our work load will no doubt reach a saturation point where we will need to have additional manpower or terminate the service.
- 3) The long-range extrapolation of this precedent could very well precipitate problems with other materials for which monitoring requirements are surely forthcoming.

UCTC 07282

- 4) You may do well to retain duplicate records with Brown and Root for future reference.
- 5) You may want to consult the Legal Department relative to liability assumption,

Please contact us when we can be of service.

Very truly yours,



D. E. Dease
Industrial Hygienist

DED/jp

UCTC 07283

November 8, 1972

ASBESTOS 1910.93a - TLV 5 fibers/cm³ July 7, 1972, to July 1, 1976

2 fibers/cm³ July 1, 1976

10 fibers/cm³ Max.

1. Monitoring

- (a) Environmental
- (b) Personal

2. Record Keeping of Monitoring

- (a) Environment
- (b) Personal

3. Medical Record Keeping

Employee notification

4. Medical Examination

- (a) Preplacement
- (b) Annual
- (c) Termination

5. Personal Protective Equipment

- (a) Establish respirator Program
- (b) Special Clothing
- (c) Change Rooms
- (d) Clothes Lockers
- (e) Laundering

} Only if TLV is exceeded

6. Caution Signs and Labels

7. Housekeeping

- (1) Cleaning
- (2) Waste Disposal

8. Work Practices

- (1) Wet Methods
- (2) Unpacking
- (3) Spraying, demolition or removal

9. Training Sessions

UCTC 07284

**UNION
CARBID**

INTERNAL CORRESPONDENCE

CHEMICALS AND PLASTICS

P. O. BOX 671, TEXAS CITY, TEXAS 77560

TO (NAME) Mr. G. Townsend ✓
COMPANY
LOCATION BROWNSVILLE PLANT

DATE August 3, 1973

COPY TO Mr. R. C. Glock
Mr. G. M. Juneman
Mr. W. W. McManus
Mr. T. L. Rapp
Mr. L. T. Windell

SUBJECT Brownsville Plant Industrial Hygiene
Visit, July 11-12, 1973

Dear Gran:

As always, my visit to the Brownsville Plant was very enjoyable. In general, environmental improvements were noted. Mr. Lee Windell requested plans for the plant Industrial Hygiene Program including objectives and frequency of analyses. The following is a list of projects:

1. Asbestos - (E. R. 1910.93a) required sampling at least each six months. This includes gaskets, filter aides, or other sources. (Texas City Lab will continue to do fiber counting).
2. Noise - Area Sound Pressure Levels - Annually. Audio-dosimetry - Daily. Work areas where audio-dosimeter readings exceed 100% need an OSHA Compliance Plan based on Engineering or Administrative control. The criteria document of NIOSH is anticipated to be adopted by DOL - namely, 90 dBA for eight hours and 85 for 16 hours to be reduced in five years to 85 dBA for eight hours and 80 for 16 hours. All new facilities and equipment would be required to meet the 85 dBA level. (Reported by Mr. H. Adrian, Chief Industrial Hygiene Programs, Texas Department of Health).

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Mr. G. Townsend
August 3, 1973
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3. Sandblasting - Respirable Silica Dust - 6 months.
Oil Mist - 3 months
Carbon Monoxide - weekly
Check breathing air pumping - weekly
(F.R. 1910-94a,6)
4. Welding Fume - A limited number of welding exhaust systems are recommended. (Mr. Frank Northcutt at Seadrift has detailed drawings of Ruemelin systems.) All MIG welders should be equipped with commercial exhausters attached to torches. Fume control should be monitored on a six month basis.
5. Spray Painting - Provide approved enclosed spray booths that will collect exhaust spray (F.R. 1910.107b (1-4)(6-10) ANSI Z 9.2-1960). Monitor painter's breathing zone for lead and zinc - 6 months.
6. Wood Shop - Provide approved guards and exhaust hoods for all woodworking machines. (F.R. 1910.213 (r)(4))
7. Heat Stress - Reference is made to your letter dated June 15, 1973. We endorse your recommendations. Dr. Joyner recommended in 1959 that "it would seem wise to limit human exposures to a maximum water temperature of 115°F." He found that "most subjects were unable to hold their hand against a surface when it reached a temperature in the range of 131 to 140°F." I question that anyone should ascend and descend the fourth level ladder every 15 minutes. Perhaps an ice-pack suit should be considered during potential long term exposures.
8. Breathing Air - Reference is made to "Safety Procedure Guideline" dated July 2, 1973 from R. E. Gracbert. I recall that "crowe-feet" type hose connectors were in use in the Sandblast Area. These should be exchanged for lock type Hansen connectors or others that are incompatible with any other system.
9. Toxic Materials - NIOSH Criteria Documents have been published recently for Benzene, Toluene, TDI, and Chronic Acid. You will wish to order them I'm sure. The new TLV for Toluene is 100 ppm.

UCTC 07286

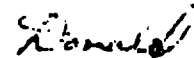
Mr. G. Townsend
August 3, 1973
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10. Barge Docks - Acetic Acid and Acetic Anhydride vapors should be monitored as a basis for control evaluation.
11. Brownsville was included as a part of the Gulf Coast Area Industrial Hygiene Laboratory in the Accreditation application. This is to fulfill our obligation under the 1967 Clinical Laboratories Improvement Act.
12. Budget - \$2,000 was the 5% Brownsville allocation of the Gulf Coast Industrial Hygiene Budget. Brownsville trips were pledged on a four month schedule.
13. Membership in the American Industrial Hygiene Association - Since you have been active for at least two years, you are eligible. I encourage you to apply and shall be happy to write the required letter of endorsement.
14. Requests - Last but not least, requests from units and individuals will continue to occupy a large part of your Industrial Hygiene program.

This list of subjects is only a guide since the Department of Labor may change monitoring frequency with the adoption of each permanent standard.

Please contact us if there are questions or if we can be of further help.

Very truly yours,



D. L. Deese
Senior Industrial Hygienist
Gulf Coast Area

/rs

UCTC 07287

INDUSTRIAL HYGIENE DEPARTMENT ASBESTOS DUST STUDY

#1
Department: MAINTENANCE Bldg. 6A9 #104 Date 5/20/79 Time 1322
Sampled By: AP + JEP Analyzed By: C. ARRY Method: NIOSH
General Conditions: Temp. 87°F 10mph wind East

Insulation removed by rigged helper with hammer
so impact wrench could be used. Insulation wasn't
wet down

FIBER COUNT (Fibers > 5μ in Length)

Slide 1
1 _____ 11 _____
2 _____ 12 _____
3 _____ 13 _____
4 _____ 14 _____
5 _____ 15 _____
6 _____ 16 _____
7 _____ 17 _____
8 _____ 18 _____
9 _____ 19 _____
10 _____ 20 _____
a1 _____ Avg. _____

Slide 2
1 _____ 11 _____
2 _____ 12 _____
3 _____ 13 _____
4 _____ 14 _____
5 _____ 15 _____
6 _____ 16 _____
7 _____ 17 _____
8 _____ 18 _____
9 _____ 19 _____
10 _____ 20 _____
Total _____ Avg. _____

CALCULATIONS

SAMPLE VOLUME: 30 Min. @ 2 LPM = 60 LITERS

$$\frac{(\text{Avg. Fiber Count} - \text{Avg. Blank Count})(\text{Total Filter Area})}{(\text{Counting Area})(\text{Vol. Air-Liters})(1000)} = \text{Concentration, Fibers/cc} > 5\mu$$

$$\frac{(0.02 - 0)(0.55)}{(0.00225)(60)(1000)} = 0.04 \quad \text{Fibers/cc} > 5\mu$$

$$\frac{(\quad - \quad)(\quad)}{(\quad)(\quad)(1000)} = \quad \text{Fibers / cc} > 5\mu$$

Special Conditions: _____

Remarks: 100 FIBERS CHECKED - ONLY 2 (TM) FIBERS FOUND.
CONSIDERABLE ASBESTOS IN DUST.

UCTC 07288