

THOMAS B. BONNEY
PITTSBURGH OFFICE

MR. A. A. RAMBICKUR
PT. COMFORT OPERATIONS

February 13, 1973

RE: ASBESTOS SAMPLING

In reviewing some of the asbestos sampling data you have recently sent us, it occurred to me that you may not have a copy of the OSHA Sampling Data Sheet for asbestos. This outlines the manner in which OSHA industrial hygienists are to evaluate asbestos exposures. Since these procedures will be used to determine if we are or are not in compliance, I would recommend that we also use the same criteria.

Hope you find the data sheet useful.

Thomas B. Bonney

TBB:mh

Attachment

cc: Mr. C. F. Scott, Pt. Comfort



ARCH 18711

6/27/72

OSHA SAMPLING DATA SHEET #2 (REVISED)

Substance:

Asbestos.

Standard: 29 CFR 1910.93a(b), (1) and (3) of June 7, 1972

8-hour time-weighted average: 5 fibers, longer than 5 micrometers, per cubic centimeter of air.

Ceiling concentration: 10 fibers, longer than 5 micrometers, per cubic centimeter of air.

Analytical Method:

Fibers counted at 400-450 magnification, using phase contrast illumination, with sample mounted in high-viscosity solution of membrane filter material.

Sampling Equipment:

Personal sampling pump plus Millipore type AA Filter (37mm, 0.5 μ pore size). Face cap is removed and filter used open face during sampling. Sample rate: 2 l/m. (liters per minute)

Sample Size:

Minimum period of 15 minutes for evaluation of ceiling limit. Several samples of up to 4 hours for evaluation of 8-hour average. Samples with a visible deposit may be too heavy to count. Compare with a clean filter. Heavy concentrations of visible dust in the air (100 to 500 fibers/cc) may require short sampling periods of only 5 minutes, or less.

Blanks:

With each batch of samples submit two filters which are subjected to exactly the same handling as for the samples except that no air is drawn through them. Label these as blanks.

Shipping:

The cassettes in which the samples are collected should be shipped in a suitable container, designed to prevent damage in transit.

Imminent Danger Situations:

Generally not applicable.

ARCH 18712

6/27/72

OSHA SAMPLING DATA SHEET #2 (REVISED)--Continued

Serious Violation:

More than 5 fibers longer than 5 micrometers, per cubic centimeter of air, for an 8-hour time-weighted average, or an individual sample of more than 10 fibers, longer than 5 micrometers, per cubic centimeter of air. The times permitted at 10 fibers longer than 5 micrometers per cubic centimeter can be obtained from the attached graph. Times permitted at fiber counts between 5 and 10 fibers (including 10 fibers) can be worked out with the C_1/T_1 formula using the 5 fibers standard as the 8-hour time-weighted average.

$$\frac{C_1}{T_1} + \frac{C_2}{T_2} + \dots + \frac{C_n}{T_n} = 1$$

Nonserious Violation:

Not applicable.

De Minimus Violation:

Not applicable.

*0.24! A2...
...
... (3' 60' off)*

TOM FLORES

OPERATIONS

February 1, 1973

CONFIDENTIAL

DR. V. H. BARBOUR - BLDG. I
MR. C. L. GREEN - BLDG. I
MR. H. P. ARMSTRONG - BLDG. I
MR. R. C. MCCORMACK - BLDG. I
MR. C. F. SCOTT - BLDG. I
DR. V. H. BARBOUR - BLDG. I

cc - Mr. A. A. Rambikur - Bldg. R-141
Mr. T. B. Bonney - Pittsburgh

RE: ASBESTOS DUST TESTS

Three tests were run at the Marinite Shop for asbestos fibers during January.

In all tests, the employee was wearing a face mask and the sampler.

Results are below:

ACTIVITY	TIME Min.	CONCENTRATION FIBERS/ML
Cleaning out small dustkop collector with shovel	4	13.17
Digging out trough from Casting	6	1.38
Cleaning up floor after working on trough	17	0.47*

*Millapore filter holder accidentally slipped off hose and dropped on floor. Some sample was lost.

TOM FLORES

TF:djw

OSHA sample data sheet
sent to Rambikur 2/12/73
T.B.B.

too short.

COPY

ARCH 18714



TOM FLORES

OPERATIONS

January 2, 1973

CONFIDENTIAL

m/s
DR. V. H. BARBOUR - BLDG. I
MR. C. L. GREEN - BLDG. I
MR. F. J. MABRY - BLDG. R-139
MR. R. C. McCORMACK - BLDG. I
MR. C. F. SCOTT - BLDG. I
DR. V. H. BARBOUR - BLDG. I

cc: ~~Mr. A. A. Rambiker - Bldg. R-141~~
Mr. T. B. Bonney - Pittsburgh

RE: ASBESTOS DUST TESTS

Two tests were run in Refining during December for asbestos fibers. One in the storeroom and the other one at R-31.

In both tests the employee doing the work was wearing the sampler. Results are shown below.

<u>ACTIVITY</u>	<u>AREA</u>	<u>TIME</u> <u>Min.</u>	<u>CONCENTRATION</u> <u>Fibers/ml</u>
Using power sweeper to sweep aisles where asbestos materials are stored	Storeroom	32	0.1925
Tying asbestos pipe insulation to liquor line	R-31	30	0.29

TOM FLORES

T.F.
TF:djw

ARCH 18715

TOM FLORES

FILE

DR. V. H. BARBOUR - BLDG. I
MR. C. L. GREEN - BLDG. I
MR. H. P. ARMINTROUT - BLDG. I
MR. R. C. MCCORMACK - BLDG. I
MR. C. F. SCOTT - BLDG. I
DR. V. H. BARBOUR - BLDG. I - FILE

cc: Mr. A. A. Rambikur - Bldg. R-141

RE: ASBESTOS DUST TEST AT BLDG. 54E

A dust test was taken on December 4, 1972 at Bldg. 54E while John Manville Brand Superex Block insulation was being cut. The employee was weaving *slammy?* the sampler while cutting the Hi-Temp block. Sampling period was 48.5 minutes.

Some of the dust was visible on the filter so two slides were prepared, one as is, and the other one with the surface dust knocked off. The results are shown below.

<u>SAMPLE</u>	<u>TIME</u>	<u>COUNT</u>	<u>CONCENTRATION</u>
As is	48.5 min.	first	3.53 fibers/ml
		second	3.31
Dust knocked off	48.5 min.	first	4.74 fibers/ml
		second	4.66

Fibers are difficult to count when there is a lot of material on the slide.

TOM FLORES

TF:djw

ARCH 18716

FILE

TOM FLORES

OPERATIONS

November 29, 1972

DR. V. H. BARBOUR

OPERATIONS

RE: ASBESTOS DUST TESTS AT MARINITE SHOP

Two tests were run on November 27, 1972 using 0.8 μ pore size millipore filters and monitiare sampling pumps.

One sampler was carried by Craftsman operating router. The other sampler was held in the dust collector fan exhaust.

<u>SAMPLE</u>	<u>LOCATION</u>	<u>TIME</u>	<u>CONCENTRATION</u>
1	On Craftsman Shaping Marinite	30 min.	1.22 Fibers/ml
2			1.40 Fibers/ml
3	Fan Exhaust	25 min.	.75 Fibers/ml

TOM FLORES

TF:djw

ARCH 18717

FROM

R. E. PODHORA

TO

MR. F. J. MABRY

POINT COMFORT OPERATIONS

MR. F. A. SHARKEY

cc:

Mr. R. G. Kuerner

Mr. C. L. Green

Mr. A. A. Rambikur

Dr. L. F. Brennecke

Dr. M. F. Jones

Mr. H. J. Loesch

Mr. N. V. Lubbers

Mr. W. W. Browne

Mr. R. M. Rose

Mr. J. N. Rumble

Mr. F. D. Carter

Mr. C. J. Engels

Mr. N. W. Neeley/Mr. Cliff Watson

~~Mr. T. B. Bonney - Pittsburgh~~

December 18, 1974

RE: CALL FROM MR. RAY SKINNER - OSHA - CORPUS CHRISTI
DECEMBER 16, 1974 AT 2:45 P.M.

1. Mr. Skinner reported the mercury samples taken on the lower level of R-300 were well below the limits.
2. The sodium hydroxide sample results at R-45 precipitators were about one hundred times below the TLV.
3. The asbestos sample results for Building 13E Marinite Shop were 3 fibers/c.c. Mr. Skinner plans to run these tests again, possibly sometime after January 1, 1975. We tested December 3, 1974, and obtained less than 0.1 fibers on the TWA.
4. A partial report on coal-tar-pitch volatiles indicated that the benzene extraction fraction was so low they were unable to identify benzo-a-pyrene.

Remaining test results to be received are fluorides and the balance of coal-tar-pitch samples.

Buddy E Podhora
R. E. PODHORA

ENVIRONMENTAL CONTROL

REP:vh



ALCOA

ARCH 18718

BP-4508 (REV. 11-68)

FROM: E. J. MULLIGAN

POINT COMFORT OPERATIONS

TO: MR. T. B. BONNEY

PITTSBURGH OFFICE

July 21, 1967

RE: SAFETY INDOCTRINATION FOR CONSTRUCTION EMPLOYEES

Enclosed is a copy of the regulations which are given to new construction employees and discussed with them at the time they start to work on the job. I forgot to give it to you the other day when we talked about it.

E. J. MULLIGAN

EJM:nsr

Enclosure - 1



ARCH 18719

PT Comfort Operations

Engineering
7-10-1988

SAFETY INDOCTRINATION FOR CONSTRUCTION

We want to welcome you as Contractors' employees to our job site.

We want to take a few minutes to acquaint you with our safety rules and some of the conditions of our Operations which are probably unfamiliar to you. Even though you are not working directly for us, you must abide by our safety rules.

Everyone has a personal responsibility to look after his own safety. We want to help you do it.

All Contractors should hold Tool Box type safety meetings on a regular weekly basis.

I. Personal Protective Equipment

- A. Safety hard hats are required at all times while on the plant site—in case of construction employees, plastic hard hats are required.
- B. Safety glasses are required. Also, goggles must be worn when exposed to chemical splash, grinding, chipping, or breaking into pipe lines; goggles must be on person at all times.
- C. Approved respirators will be provided to each employee by his employer and will be in the employee's possession at all times.
- D. Emergency showers, eye wash fountains, and wool blankets are available at various locations. LEARN THESE LOCATIONS—they are marked by a GREEN LIGHT.

II. Plant-Wide Regulations (Must be followed wherever you are in the plant.)

- A. Horseplay is not allowed. This is a place where men earn their living and we operate a business. Horseplay will positively not be tolerated.
- B. No riding in vehicles with arms and/or legs outside body; no standing in vehicle or on running boards; and no riding on fenders or cab of vehicles. The speed limit is 15 MPH. There are some places in the plant where even slower speeds are necessary. All vehicles must stop at plant gates for inspection.
- C. Housekeeping - All debris generated during each day must be collected for removal to the disposal area. Nails in boards must be bent down or removed.

ARCH 18720

Collecting points are worked out between the Contractor and the department.

It is the Contractor's responsibility to take the debris to disposal area.

- D. When working overhead, area beneath should be protected by signs or guard or should be roped off.
- E. Guard area below when throwing things from above.

III. General Equipment and Material Considerations

- A. No power driven equipment permanently installed in the plant is to be started or stopped unless the Contractor has been authorized to do so. In no case will any of the construction employees operate or attempt to operate danger tagged equipment (Show sample sign and explain why.).
- B. No connections to plant services—gas, steam, water, air, or electrical—without prior arrangement with engineer, and then any connections will be made only after a permit has been issued and signed by the operating foreman.
- C. On site, fire fighting equipment must be maintained in good condition and not blocked by equipment. Avoid fire hazards by storing combustibles carefully and cleaning up frequently. Special care must be exercised when welding or cutting operations are being performed. In case of fire or need of an ambulance, call Station 212. You will find this number marked on all plant telephones.
- D. Do not locate construction buildings or equipment under overhead power lines.
- E. Electrical - All portable electric tools must be equipped with a three-wire positive grounded power supply. Substantial insulation should be provided to protect employees from temporary or permanent wiring or apparatus.
When working in areas of proximity to bare electrical conductors, arrangements for safeguarding must be made in advance with the Electrical Engineer before work can be started.
- F. The use of explosives is prohibited unless specifically authorized in writing by the appropriate Works Manager.
- G. Protective caps must be installed on all oxygen and acetylene bottles when not in use. While being used, they must be securely fastened.

IV. Specific Chlor-Alkali Rules and Procedures

- A. No smoking, matches, or open fires shall be permitted except as established by engineer (hydrogen explosion danger).
- B. No cutting or welding shall be done unless a permit has been issued by Chlor-Alkali Shift or Department Foreman or Alcoa's Engineer.
- C. Confine yourselves to your one work area (explain why).
- D. No eating, gum-chewing, or tobacco chewing is permitted in the cell building due to vapors.
- E. Caution against wearing watches.
- F. The wooden floors in the cell building were installed to reduce any likely shock hazard; but, since it often becomes wet (from normal cell flushing), non-conductive rubber-soled shoes or rubber pull-overs are required within the cell building. This applies to the operating cell room only.
- G. Cell buildings (ground or operating floors) have the following rules:
 - 1. Objects 24" or more must get approval of engineer or department foreman to take into cell building (explain).
 - 2. Objects 4' or longer must receive same approval as above and then must have man at both ends (mag swing and electricity).

The above two items apply to operating cell rooms only.

V. Chlorine Precautions

- A. Chlorine (throughout the department) is a toxic gas that is a respiratory irritant. Symptoms of extreme exposure are retching and vomiting, followed by difficult breathing.
- B. Protection against chlorine
 - 1. Respirators are to be carried by all personnel working in this area. These provide only short period protection and are intended to be used only for escape purposes. If chlorine in air causes coughing or sick feeling, immediately put on respirator and leave the area going cross-wind. Do not re-enter until the cause is corrected (explain why cross-wind).

2. Wind Direction: You will quickly learn to observe wind direction when coming on and during your work periods. If caught in a high contaminated area—use your respirator and always run cross-wind. There are three (3) wind indicators in the Chlor-Alkali Department—
LEARN THEIR LOCATIONS.

VI. Warnings and Emergency Procedures

- A. Warnings upon Chlorine Escape: Chlor-Alkali personnel are knowledgeable of rescue procedure for anyone who may be caught in highly concentrated areas. This has priority over any operational consideration. However, our warning system should prevent anyone becoming trapped—if he knows the warning arrangements and heeds them. Upon any emergency, an announcement over the Public Address System will be made. "Emergency in (area)." Areas include the cell building, chlorine area, brine dechlorination, and dock. Upon hearing any such announcement, quickly leave the affected area if you are in it; if not in the immediately affected area, observe for possible coming danger in your area. In any event, be sure your area is upwind from that of the escape.
- B. In addition to the above verbal warning announcements, this department has an automatic warning buzzer system which is activated any time large concentrations of chlorine escape (such as in a power failure). This would normally preclude the verbal warning which serves to pinpoint the escape area. These two systems then both complement and supplement each other.
- C. Action upon Noting Chlorine Gas Escape Victim
 1. First of all, any such victim would likely be first discovered by operating personnel who are instructed to perform rescue duties prior to stopping any chlorine leak. However, construction personnel should be familiar with the following rescue procedure:

- a. Carry victim to uncontaminated area.

IF BREATHING:

- b. Place on back with head and back elevated, keep warm and allow him to rest in this position (purpose of wool blanket locations).
- c. Call First Aid ambulance.

IF BREATHING HAS APPARENTLY CEASED:

- d. Immediately administer artificial respiration.
- e. Call First Aid ambulance as soon as possible if by yourself.

If someone else is with you, send them.

D. Acids and Caustics

- 1. Remove soaked clothing.
- 2. Flush with water.
- 3. Go to First Aid.

E. Mercury

- 1. Wash hands and face thoroughly after exposure.
- 2. If spilled on clothing, remove from cuffs, pockets, before leaving cell building.

GENERAL SUMMATION: The Chlor-Alkali Department is as safe a place to work as we have at Point Comfort Operations. This is illustrated by the record of our regular operating employees. It is a safe place to work as long as the prescribed conditions are followed.