RESULTS OF AIR SAMPLES

CERTAIN-TEED PRODUCTS
Santa Clara, California

Report Prepared By:
Jeremiah R. Lynch

May, 1968

PLANT 32

May 14, 1968

Mr. William Carl
Plant Manager
Certain-Teed Products Corp.
Santa Clara, California 95052

Dear Mr. Carl:

The analysis of the air samples collected in your plant during our survey in June 1967 has been completed, and the results are attached. The impinger samples were counted during the survey using the American Conference of Governmental Industrial Hygienists' method. The membrane filters were rendered transparent with 50-50 mixture of diethyl oxalate, dimethyl phthalate and counted at 430X magnification with phase contrast illumination.

The dust concentration as measured by impinger exceeded the 5 million particle per cubic foot Threshold Limit Value currently in use, in a few locations. The membrane filter method is experimental and no standard has been adopted for its interpretation in this country. However, the British Occupational Hygiene Society has issued "Hygiene Standards for Chrysotile Asbestos Dust" for the 5 μ + fiber counts, averaged over a three month period, as follows:

Range	fibers/cc
Negligible	less than 0.5
Low	0.5 - 2.0
Medium	2.0 - 10.0
High	more than 10.0

They also recommend that an approved respirator be worn when it is necessary to work in "high" concentration areas.

Some reprints relating to our study are enclosed. Your cooperation is appreciated and the data gained from your plant is of considerable value.

Sincerely yours,

Jeremiah R. Lynch
Asst. Chief, Environmental Activities
Field Studies
Occupational Health Program

cc: Mr. Leon Horowitz
Dr. Cralley
Prog. Mgmt. Offcr.

JRLYNCH:ms

Attachments

Results of Air Samples of June 1967

Certain-Teed Products, Santa Clara, California

Operation		Impinger		Membrane Filter		
					Fibers/cc	
		Sample #	mppcf	Sample #	Total	5 μ +
Mixing						
Mixer	B	13	2.4	14	22.0	17.1
		303	1.7	304	23.8	19.6
	P			206	19.6	3.8
				213	31.3	18.8
				347	7.4	1.3
Sweeper	P			205	10.9	0.8
	G	313	0.2			
Forming						
Machine Tender	B	307	2.8	308	22.6	3.1
		305	1.0	306	1.8	1.4
	P			201	4.3	3.0
				343	7.8	0.7
				349	11.1	1.0
				203	22.6	3.2
				207	12.4	6.7
				208	4.3	3.3
				214	1.7	1.3
				344	6.8	0.4
Consol Operator	P			204	40.0	2.3
				210	7.1	1.1
				343	5.3	0.8
Relief Man	P			209	26.6	1.8
				217	1.1	0.9
				346	6.1	0.3

NOTES:

B - Breathing zone simultaneous impinger-membrane filter samples.

P - Personal membrane filter samples collected by a sampling pump worn by the worker.

G - General air samples.

Certain-Teed Products

Operation		Impinger		Membrane Filter		
		Sample #	mmcf	Sample #	Fibers/cc Total	5 μ +
Forming						
Foreman	P			200	29.9	3.1
	C	302	1.2			
Curing						
Curer and Pipe Stacker	B	10	1.2	11	3.5	2.3
		32	0.9	33	29.9	3.1
		314	0.8	315	17.7	0.8
		236	1.0	235	12.7	1.0
	P			212	13.3	1.0
				215	9.5	0.9
				218	13.5	1.0
				345	6.1	1.4
Mandrel Puller	B	8	2.7	9	4.5	1.5
		309	0.8	310	7.2	0.6
	P			202	2.3	1.4
				211	9.8	2.0
				350	5.9	0.7
Forklift	P			216	2.4	1.6
Pipe Finishing						
Pipe Lathe Operator	B	316	2.7	317	23.0	2.1
		323	1.4	324	15.4	2.3
		232	2.4	231	32.3	3.7
	P			226	7.5	5.2
				229	20.6	4.2
				230	7.2	5.2
	C	342	2.6			

Certain-Teed Products

Operation		Impinger		Membrane Filter		
		Sample #	mppcf	Sample #	Fibers/cc Total	5 μ +
Pipe Finishing						
Roller	B	234	3.1	233	30.8	5.1
	P			222	7.4	5.3
Hydroflex Tester	B	240	1.2	239	8.6	1.6
		325	3.8	326	66.9	11.5
	P			225	19.7	5.0
				227	7.0	4.9
Coupling Finishing						
Coupling Cutter	B	330	3.0	331	44.4	8.6
		332	23.7	333	51.5	15.7
	P			221	39.0	26.7
				223	79.1	33.4
	C	339	3.7			
		336	14.6			
Coupling Lathe	B	318	3.7	319	82.2	24.7
		238	3.0	237	17.3	2.3
	P			219	22.8	13.7
				220	27.6	8.7
				241	19.4	5.3
	C	322	1.3			
		329	3.9			
Coupling Tester	P			246	13.8	4.2
				248	14.4	3.5
Forklift Operator	P			224	42.1	13.1
Foreman	P			228	27.0	6.7

Certain-Teed Products

Operation		Impinger		Membrane Filter		
					Fibers/cc	
		Sample #	mppcf	Sample #	Total	5 μ +
Epoxy						
Special Fitting Maker	B	250	2.0	249	14.4	3.5
	P			242	9.1	1.8
				243	14.3	3.3
Packing						
Packer	P			244	21.3	8.6
				245	2.7	0.2
				252	3.2	0.4
				253	0.2	0.1
Forklift Operator	P			247	5.2	0.3
				251	6.6	0.5

file

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

March 23, 1970

Federal Office Building
50 Fulton Street
San Francisco, California 94102

Mr. William Carl
Plant Manager
Certain Teed Products Corp.
Santa Clara, California

Dear Mr. Carl:

Your plant was visited by a survey team from our Cincinnati, Ohio office in 1966, as part of our study of the asbestos products industry. We are presently resurveying all of the plants visited for the purpose of obtaining further environmental information and a better picture of workmens' exposure to asbestos dust. The survey will be basically the same as last time except that occupational questionnaires of the employee will not be required and only dust samples will be collected. We would like to visit your plant on June 3-5, 1970 for this purpose.

If this date is inconvenient for any reason, please contact me at the above address or phone me at Area Code 415, 556-3781. Your cooperation in this study is appreciated.

Sincerely yours,

DOUGLAS L. JOHNSON
Occupational Safety & Health
Representative
Environmental Control Administration

Copy to:
Mr. R. B. Weidner, Cincinnati
Dr. D. D. Holaday, Santa Clara County
Dr. T. H. Milby, Berkeley

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

March 23, 1970

Federal Office Building
50 Fulton Street
San Francisco, California 94102

Mr. Gilmore
Personnel Manager
Johns-Manville Corp.
Stockton, California

Dear Mr. Gilmore:

Your plant was visited by a survey team from our Cincinnati, Ohio office in 1966, as part of our study of the asbestos products industry. We are presently resurveying all of the plants visited for the purpose of obtaining further environmental information and a better picture of workmen's exposure to asbestos dust. The survey will be basically the same as last time except that occupational questionnaires of the employee will not be required and only dust samples will be collected. We would like to visit your plant on May 25-28, 1970 for this purpose.

If this date is inconvenient for any reason, please contact me at the above address or phone me at Area Code 415, 556-3781. Your cooperation in this study is appreciated.

Sincerely yours,

DOUGLAS L. JOHNSON
Occupational Safety & Health
Representative
Environmentald Health Service

Copy to:
Dr. T. H. Milby, Berkeley
Mr. R. B. Weidner, Cincinnati

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

March 23, 1970

Federal Office Building
50 Fulton Street
San Francisco, California 94102

Mr. Harold Koehlen
Industrial Engineer
Johns-Manville Corporation
Long Beach, California

Dear Mr. Koehlen:

Your plant was visited by a survey team from our Cincinnati, Ohio office in 1966, as part of our study of the asbestos products industry. We are presently resurveying all of the plants visited for the purpose of obtaining further environmental information and a better picture of workmens' exposure to asbestos dust. The survey will be basically the same as last time except that occupational questionnaires of the employee will not be required and only dust samples will be collected. We would like to visit your plant on June 8-11, 1970 for this purpose.

If this date is inconvenient for any reason, please contact me at the above address or phone me at Area Code 415, 556-3781. Your cooperation in this study is appreciated.

Sincerely yours,

DOUGLAS L. JOHNSON
Occupational Safety & Health
Representative
Environmental Health Service

Copy to:
Mr. R. B. Weidner, Cincinnati
Mr. W. V. Cardillo, Los Angeles
Dr. H. P. Blejer, Los Angeles

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

March 23, 1970

Federal Office Building
50 Fulton Street
San Francisco, California 94102

Mr. Torbohn
Plant Manager
Fiberboard Paper Products Corp.
Emeryville, California

Dear Mr. Torbohn:

Your plant was visited by a survey team from our Cincinnati, Ohio office in 1966, as part of our study of the asbestos products industry. We are presently resurveying all of the plants visited for the purpose of obtaining further environmental information and a better picture of workmens' exposure to asbestos dust. The survey will be basically the same as last time except that occupational questionnaires of the employee will not be required and only dust samples will be collected. We would like to visit your plant on May 28 - June 2, 1970 for this purpose.

If this date is inconvenient for any reason, please contact me at the above address or phone me at Area Code 415, 556-3781. Your cooperation in this study is appreciated.

Sincerely yours,

DOUGLAS L. JOHNSON
Occupational Safety & Health
Representative
Environmental Control Administration
Environmental Health Service

Copy to:
Mr. T. H. Shirasawa, San Leandro
Mr. R. B. Weidner, Cincinnati
Dr. T. H. Milby, Berkeley

VENTILATOON PLANT 32

CERTAIN-TEED
SANTA CLARA
CALIF

CPL LATHE

TAIL END
$d = 5\frac{1}{2}$"
V = 2120 fpm
Q = 350 cfm

PIPE LATHE (#2)

MAIN DUCT WITH 3 EXHAUSTS
7" DUCT
V = 3150 fpm
Q = 840 cfm

A.
3" BRANCH
6" × 1½" SLOT
Above CUTTER
HEAD

B
4" BRANCH
8½" × 2½" SL
BELOW CUTTE
HEAD

PIPE LATHE

7" DUCT
V = 2750
Q = 734 cfm

C 3" BRANCH
3" × 2" RECT OPENING
BY CUTTER HEAD

SAME SET UP FOR LATHE

(A) 3" BRANCH (6" × 1½" slot)
Above cutter head

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
National Institute for Occupational Safety and Health
1014 Broadway, Cincinnati, Ohio 45202

xxxxxxxxxxxxxxxxxxxxxxxxxxxx

June 4, 1971

Mr. William Carl
Certain-Teed Products Corporation
Santa Clara, California

Dear Mr. Carl:

The analysis of the air samples taken in your plant in June, 1970, has been completed. The analysis was done using the membrane filter method at 430X magnification phase contrast illumination. A table of the results is enclosed. The 1970 American Conference of Governmental Industrial Hygienists' List of Threshold Limit Values of Airborne Contaminants includes asbestos in the section of intended changes. The new TLV is five fibers greater than five microns in length per ml. As you will note three of the 49 samples exceeded the recommended concentration.

Thank you for your cooperation that we received in your plant. If I can be of further assistance, please feel free to contact me.

Sincerely yours,

Robert B. Weidner
Assistant Chief,
Field Studies Branch
National Institute for Occupational
Safety and Health

Enclosure

ANALYSIS OF PERSONAL SAMPLES
CERTAIN-TEED, SANTA CLARA, CALIFORNIA

OPERATION	SAMPLE NO.	CONCENTRATION (FIBERS>5u/cc)
Warehousing and Mixing	133	3.5
	144	1.0
Pipe Forming	131	2.5
	134	1.4
	135	**
	136	1.6
	140	1.7
Curing	103	0.1
	124	0.4
	137	0.5
	141	0.7
Pipe Finishing	102	3.4
	112	4.6
	114	0.0
	115	1.3
	116	1.2
	117	0.3
	118	2.4
	121	1.6
	122	1.3
	123	0.5
Coupling Finishing	101	13.4
	107	2.5
	108	1.9
	109	6.8
	111	10.5
	127	1.7
	129	0.6
Epoxy	125	1.8
	126	1.4
	128	0.5
	130	0.3
	132	0.6
___king	104	1.8
	105	1.0
	106	2.5
	110	1.7
	119	0.2
	120	0.3
	139	0.2

OPERATION	SAMPLE NO.	CONCENTRATION (FIBERS>5u/cc)
Miscellaneous	113	0.7
	138	0.6
	142	0.0
	143	0.1
	145	0.1
	146	0.4
	148	1.7
	149	0.3
	151	0.3

** SAMPLE WAS UNCOUNTABLE