

November 1, 1972



Mr. Gerald E. Devitt
Chief, Industrial Hygienist
OWENS-CORNING FIBERGLAS CORPORATION
Fiberglass Towers
Toledo, Ohio 43659

Dear Mr. Devitt:

Presented herewith are three copies of a report summarizing the results of the industrial hygiene survey conducted at your plant in Berlin, New Jersey on September 14, 1972 by Mr. Paul Carlson and the undersigned.

The following comments are based on observations and measurements made by field team during the survey and represent their overall impressions of the plant. Particular areas in which a need exists for either implementation of corrective measures or further investigation have been noted.

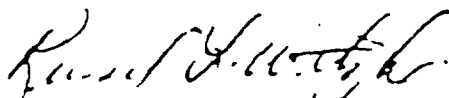
1. Comparison of noise measurements with current Occupational Safety and Health standards indicate that a potential exists for overexposure of workers to noise near the SID cylinders (see Table IV). A comprehensive hearing conservation program should be implemented.
2. Total dust concentrations ranged from 2.2 to 64.4 mg/M³ in those areas of the plant studied. The Occupational Safety and Health standard of 15 mg/M³ for total nuisance dust concentrations was exceeded at most work stations (see Table I).
3. The concentrations of airborne fibrous material greater than 5 micrometers in length were found to be less than 5 fibers per milliliter. One of the five samples evaluated for fiber concentration indicated a level in excess of the 2 fibers/ml standard intended for use by 1976.

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OWENS-CORNING FIBERGLAS CORP.

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4. The exposures of batch floor operators to siliceous dust were found to be within acceptable limits based on the determination of free silica content of the dust (see Table II).
5. A single short-term sample collected during a welding operation indicated concentrations of iron oxide of 16.2 mg/M^3 and total dust of 40.0 mg/M^3 . Although these results may not be representative of the workers' 8-hour time-weighted average exposure, they do indicate a need for control of dusts and fumes generated by welding.
6. Comparison of heat stress measurements made at the SID cylinder area with the current proposed ACCIH threshold limit value (WBGT index) indicates that a 25% work - 75% rest regimen is appropriate for the light work loads which characterize this area.
7. The exhaust fan on the number 4 pre-hardner ventilation hood was not working allowing hot gases and mist to escape into the adjacent work area. It was understood that the lubricant used for the shaft periodically dries out or degrades causing the shaft to "freeze." A lubricant which is compatible with the gases and mists evolved by this operation should be used.

Very truly yours,


Russel L. Witzke
Industrial Hygienist

RLW/c

TABLE B-5-1

GEORGE D. CLAYTON & ASSOCIATES
INDUSTRIAL HYGIENE SAMPLING SUMMARY

Location - Berlin, New Jersey

Material Total Dust, Asbestos

Sample No.	Description	Sampling Period		Sample Weight (mg)	Sample Volume Liters	Total Dust (mg/M ³)	Concentration		
		Start	Stop				>5μ	>10μ	Total
	Mold Shop								
9 8182A	East end of automatic shot blast hood, feed operator working	0927	1246	8.59	3122	2.7			
9 8397A	West end of blast hood, loading platform	1253	1619	3.53	3872	0.91			
9 8395A	On foreman's desk, center of shop	0931	1354	1.28	660	1.9			
9 9321AA	On Foreman's desk, center of shop	1355	1616	0.17	47	3.6	4.2	3.7	4.3
9 9323AA	Breathing zone of welder (electric on iron)	1243	1614	0.92	454	2.0			
9 9320AA	At west end of blast hood, loading platform	1358	1619	0.27	337	0.80	0.79	0.66	0.8
	Threshold Limit Value						2.0		

TABLE 1

GEORGE D. CLAYTON & ASSOCIATES
OWENS-CORNING FIBERGLAS INDUSTRIAL HYGIENE SAMPLING SUMMARY
Berlin, New Jersey

Material Total Dust

1972 Date	Sample No.	Description	Sampling Period		Sample Weight mg	Sample Volume liters	Concentration	
			Start	Stop			Total Dust mg/M ³	
9-14	30175A	BATCH FLOOR Hydro-Pulper Operator	10:25	11:48	2.5	206	12.1	
9-14	30166A	Asbestos Tanks Operator	10:27	11:48	3.0	205	14.6	
9-14	30163A	Batch Mix - Operator for Filter Presses	10:30	12:02	2.9	174	16.7	
		FILTER PRESSES						
9-14	30176A	Filter Press No. 2 Operator	13:14	15:10	3.3	282	11.7	
9-14	30167A	Filter Press No. 3 Operator	10:34	11:50	2.5	197	12.7	
9-14	30180A	Stripper for Filter Presses	13:18	15:12	8.9	287	31.0	
		Pour Line No. 1						
9-14	26362AA	Stripper	13:18	14:08	2.1	121	7.4	
		Pour Line No. 2						
9-14	30161A	HiLow Driver Line Service	10:40	11:52	4.0	174	23.0	
9-14	30165A	Stripper	10:38	11:53	10.8	180	60.0	
9-14	30172A	Feeder	10:42	11:52	11.2	174	64.4	
9-14	30179A	Unloader	13:21	15:13	2.7	272	9.9	
		Acceptable limit for 8-hour time-weighted average exposure (OSHA)					15	

TABLE 1B

GEORGE D. CLAYTON & ASSOCIATES
OWENS-CORNING FIBERGLAS INDUSTRIAL HYGIENE SAMPLING SUMMARY
Berlin, New Jersey

Plant _____ Material _____ Total Dust _____

1972 Date	Sample No.	Description	Sampling Period		Sample Weight mg	Sample Volume liters	Concentration	
			Start	Stop			Total Dust, mg/M	
9-14	30174A	Pole 6' off Floor General area Four Line #2	10:44	11:54	2.4	170	14.1	
9-14	30160A	Finish Line #2 - MPC						
9-14	30160A	MPC - 3 Saw Feeder	13:24	15:17	2.9	274	10.6	
9-14	30148A	MPC - Packer	10:45	11:56	0.4	182	2.2	
9-14	30170A	Flatware Finish Line #1						
9-14	30170A	Feeder	10:28	11:50	3.9	184	21.2	
9-14	30173A	Packer	10:29	11:51	3.4	208	16.3	
9-14	30168A	Packer	10:29	11:51	3.3	198	16.7	
9-14	30169A	Finish Line #3						
9-14	30169A	Line Feeder	10:34	11:53	3.1	138	22.5	
9-14	30164A	Packer	10:37	11:55	3.2	152	21.1	
9-14	30146A	Packer	10:39	11:55	5.2	168	31.0	
				...				
		Acceptable limit for 8-hour time-weighted average exposure (OSHA)					15	

TABLE 12

Total Dust

Material

[illegible]

TABLE

GEORGE D. CLAYTON & ASSOCIATES
 OWENS-CORNING FIBERGLAS INDUSTRIAL HYGIENE SAMPLING SUMMARY

Fiber Sizing*
 Silica

Plant Berlin, New Jersey

Material

1972 Date	Sample No.	Description	Sampling Period		Sample Weight mg	Sample Volume liters	Concentration		
			Start	Stop			Total Fibers per ml	Fibers >5 μ m per ml	SI0 ₂ %
9-14	26367AA	Batch Floor-Operator's Desk	13:12	13:50	—	71	0.45	0.45	—
9-14	26365AA	Pour Line #2, Stripping	13:15	14:05	—	108	2.6	2.2	—
9-14	26362AA	Pour Line #1, Stripping	13:18	14:08	—	121	3.0	1.6	—
9-14	26360AA	Flatware Finish Line #1	13:22	14:06	—	66	0.85	0.72	—
9-14	26368AA	Finish Line #3, Packing	13:25	14:07	—	96	0.32	0.27	—
					OSHA Limit		Value		
		* Fibrous material consisted of both glass fiber and asbestos. no attempt was made to distinguish between the various fiber particles.							
		BATCH FLOOR							
9-14	27089MP	Hydro-Pulper	10:52	13:05	2.6	4080	0.6		<1.0
9-14	27083MP	Asbestos Mix Tanks	10:55	13:11	11.2	2580	4.3		<1.0
		Acceptable limit for 8-hour time-weighted average exposure (OSHA)					15		

**GEORGE D. CLAYTON & ASSOCIATES
HEAT STRESS SURVEY SUMMARY**

SID
Pro.

Area Surveyed

Pro-Hardner

*Medical surveillance for any new employee until acclimatized to heat stress.

GEORGE D. CLAYTON
MOISE SURVEY

OWENS-CORNING FIBERGLAS
Plant Berlin, New Jersey

Date 9-1

Study by RW

Area or Department SID & Pre-Hardners

Instrument GR 1565A

Operating Conditions

Remarks

Test No.	Time	Location of Microphone	Weighting Network		Sound Pressure Level (dN) - re 0.0002 Microbar					
			A	C	11.5	63	125	250	500	1000
1	14:38	Desk, Back of SID #9	90	92						
2	14:38	Between SID #12 & #11, Backside	91	93						
3	14:49	Front of SID #2	109	110						
4	14:59	Between SID #12 & Pre-Hardner	93	96						
12	15:20	40ft. West of SID #16	93	95						
13	15:22	Front of SID #16	102	102						
5	14:59	50ft. North of Pre-Hardner	87	93						
6	15:00	Pour Line #2, Stripping	84	92						
7	15:01	Pour Line #2, Pourer	83	94						
8	15:02	Pour Line #1, Pourer	86	92						
9	15:03	Pour Line #1, Stripping	89	92						
10	15:13	Filter Press #1	87	93						
11	15:22	20ft. East of Pour Line #1	88	92						
14	15:27	Batch Floor - Mix Tank	82	90						