

CertainTeed	Date	To	Location and mail code
	August 13, 1980	J. McGinley	VF PPG 2B
Subject	Survey Final Report		Location and mail code
		From <i>JW</i> Janis Woodson	VF 1125/4

cc: Bill Blakeslee - 1126/00
O. H. Kittilstad - 1125/4

Attached find the final report for the Industrial Hygiene Survey made at the Riverside Plant April 21-25, 1980. Please contact me if you have any questions or comments.

JLW/tmf

Industrial Hygiene Survey
Riverside A/C Pipe Plant
April 21-25, 1980

Introduction

An Industrial Hygiene Survey was conducted at the Riverside Asbestos - Cement Pipe Plant by Janis Woodson during the period April 21-25, 1980.

This survey was conducted to supplement the on-going in-plant fiber exposure surveillance program and to measure employee exposures to noise. Approximately 105 air samples, covering 27 job positions were taken. Six samples were taken in different areas of the plant. The other 99 were personal samples establishing 24 time weighted averages. There also were 35 personal audiodosimetry measurements made during the survey.

The appendices to the report document the air sampling methodologies, the analysis techniques, and the current standards used in evaluating the data. The field notes and in-house laboratory documentation of this survey are on file in Corporate Health and Safety.

This report is an "Employee Exposure Record" as defined in 29 CFR 1910.20 and must be retained for at least 30 years in the plant and made available upon request to those authorized access to employee records as specified in 29 CFR 1910.20(d).

Manufacturing Schedule at Time of Survey

<u>Date</u>	<u>Manufacturing Department</u>		<u>Finishing Dept.</u>
	<u>1st. Shift</u>	<u>2nd. Shift</u>	<u>1st. Shift</u>
Monday 4/21/80	8"150 10"200 pipe	-	-
Tuesday 4/22/80	-	-	6"150 pipe
Wednesday 4/23/80	6"150/200 pipe	6"150/200 pipe	14"150 pipe
Thursday 4/24/80	6",12",&14"150 pipe	-	6"150 pipe
Friday 4/25/80	14"150 pipe	-	6"150 pipe

CTD027327

ASBESTOS FIBER MEASUREMENTS

Table I shows the results of the 99 personal fiber samples giving individual sample results, and Time Weighted Averages where applicable. Table II shows the results of the 6 Environmental samples taken throughout the plant. A departmental breakdown of the samples and results can be further exemplified by Table III.

In reviewing the sampling results, all areas seem to fall well within the current OSHA 8-hour Time Weighted Average (TWA) asbestos standard of 2.0 f/cc, although a few samples/areas need further discussion, which follows.

Manufacturing Department

Thirty-six samples were taken in this Department with a range from 0.005 to 0.43. The average fiber count is 0.16 f/cc.

The fiber warehouse was found to be neat and clean and free from torn bags. Sample #136 taken in the warehouse, yielded a 0.11 f/cc level.

The Automatic Bag Opener is located in a section of the fiber warehouse. It opens the bags and transfers the raw fiber into the mixers. It has good seals and ventilation and eliminates human contact with the raw fiber. The Mixer Operator makes approximately 1 dump per hour, (depending on type of pipe being manufactured) each dump consisting of approximately 36 bags. This is a required respirator area and the employee wears a 3M 8710 respirator at all times while operating the Bag opener, cleaning the area and staging Fiber Bags. The TWA for this job position was measured at 0.21 f/cc (Samples 001-006) with two 15 minute Peak Exposure Samples of 0.18 & 0.36 f/cc. An area sample (#137) at the Bag Opener disclosed a level of 0.11 f/cc. In case of a breakdown in the automatic system, a manual system for dumping fiber is used. All trash is labeled with a caution label & properly disposed of.

Three samples were taken in the area of the pipe machine to characterize the concentration during the manufacturing process.

One sample (#138) located at the pit near the wetting screw had a level of 0.41 f/cc, another sample (#139) in the same general area yielded a 0.43 f/cc level. Water Sprays have been installed over the pit to help contain any dust that could possibly be released. Sample #140 was located at the pipe machine control panel and yielded 0.23 f/cc.

It was noted that used felt is cut into strips and used as padding for machine parts that come into contact with pipe and also used as a curtain at the entrance to the curing tunnel. The felt inherently contains asbestos fibers & upon drying releases the asbestos fibers when abraided. Although there isn't sampling data that condemns this practice, it is recommended that use of the used felt be discontinued and that old discarded felt be totally disposed of.

Personal Exposures for the Machine Tender (#007-010), Press Operator (#011-014), Mandrel Handler (#015-019), and Relief Operator (#029-032) all positioned at the wet end of the Machine, were found to be well within the OSHA Standard. The exposure levels for the Stripper Operator (#020-023), Tray Loader (#024 & 026-028) and Truck Driver (#025) were found to be below 0.5 f/cc.

Finishing/Fittings Department

Fifty samples were collected in this department yielding a range of 0.002 to 1.45 with the average fiber count being 0.20 f/cc.

On April 23, Finishing Line 3 was in operation in which 14"150 pressure pipe was being lathed and tested. Each job position was sampled on this line. The Tester Operators samples (041-043) disclosed a 1.19 f/cc TWA, with individual samples being 1.45, 1.13 and 0.89 f/cc, these levels being higher than expected. It is felt that the higher levels are due to tailings/dust left in the large diameter pipe after lathing. When the finished pipe rolls down the tester table to the Tester Operator, the pipe bump against each other and dust is released. The release of dust in smaller diameter pipe isn't quite as visible, but should also be of concern. It is recommended that this job position be sampled regularly to be assured that the exposure level remains within the acceptable level. The engineering department should be consulted concerning possible changes that can be made to achieve better dust control in this area. The other job functions on this line, the Lathe Operator (#035-037), Lathe Assistant (#038-040), Beller (044-046 & 047-049), Handler (#050-052) and Inspector (#053-055) all were well within OSHA's Standards, likewise, the samples taken on the operators of the Rework Saws (#056-062), Boring Mills (#063-075), Coupling Cut-Off Saw (#076-078), Large FM Lathe (#084-086), Coupling Tester (#079-082) and the Fittings Maker (#083) also fell well within the 2.0 f/cc standard.

Miscellaneous Departments

Areas that fall under this heading include the Maintenance Department, Shipping Department and the Crusher Operator.

The Maintenance Department is characterized by samples taken on the Oiler/Mechanic. This person covers all areas of the plant in his job function and his samples revealed a TWA of 0.052 f/cc (Samples 092 & 093).

Three Shipping Department personnel were sampled while loading pipe on flatbed trucks in the yard. Those samples (095, 097 & 099) having levels of 0.23, 0.05, and 0.04 f/cc.

One 150 minute sample taken on the Crusher Operator revealed a level of 2.76 f/cc, (Sample 088) with a TWA of 1.39 f/cc. (087-090) The crusher is located outside the plant near the Finishing Department Building and has a canopy over it with a house built around the secondary crusher to protect the complete system from the weather. All rejected pipe, end pieces, etc. are taken to the crusher to be recycled into fines and used in manufacturing new pipe.

The Crusher Operator's job is to feed pieces of pipe into the crusher, keep watch on a vacuum line sucking fines from a hopper and to clean the area around the crusher. During damp weather the system tends to block up therefore a minimum amount of crushing is done.

At the time of this survey there was a small leak at the secondary crusher within the house around it. The employee, as a part of his responsibilities, is to keep this area inside the house clean as well as the rest of the crusher area. It is felt that the employee's higher level of exposure was received while cleaning in the area of the leak. The crusher area is posted as a required respirator area. The employee wears a 3M 8710 respirator during a block up, (usually caused by damp weather) clean up and while crushing during extra dry weather.

Plant Management was notified of the levels found in this area and was asked to resample this area to get a better idea of the exposure. The Plant's results were 0.16, 0.11 & 1.29 f/cc, per L. Megargee.

Further Air Monitoring

The present fiber exposure surveillance program should be continued but expanded to include more frequent sampling in all areas of the plant with more emphasis on 8 hour Time Weighted Averages for those employees sampled.

It is recommended that the areas with samples exceeding 1.0 f/cc (Line #3 Tester Operator & Crusher Operator and any other area that possibly could exceed 1.0 f/cc) be monitored on a regular basis in order to be assured that levels remain below the current limit of 2.0 f/cc established by OSHA.

It is also recommended that whenever any changes - minor or major - are made to the manufacturing process/system, in the Finishing/Fittings Dept. and the Crusher Area, fiber exposure measurements should be made and followup work done to assure that exposures are well within standards at all times.

Table III shows the number of samples taken during this survey in each department and the average airborne fiber concentration of each. On the right side of the table there are 3 columns, one is headed - Percent >2.0 f/cc. This gives the percentage of samples taken during this survey that exceed the current OSHA limit of 2.0 f/cc. The other 2 columns are headed - Percent >0.5 f/cc and percent >0.1 f/cc. These columns were included in the table to give an idea of the percentage of samples exceeding the levels now under consideration by OSHA. This table was also included to give an idea of where most work would be needed to bring the plant into compliance with the new level.

Respirators

It is necessary that a written respirator program be established to formally address the use of respirators at the plant. Respirators are required in areas where a level exceeding 2.0 f/cc is found, until engineering or other changes are made and an acceptable level is achieved. Currently, 3M 8710 respirators are used at locations throughout the facility where required and by employees who choose to use one.

A very large drawback with the 3M 8710 is that employees cannot be properly fit tested to assure us that when an employee is wearing the respirator, he is being properly protected. Undetected leaks around the nose or face due to facial contour lead to a false security that the respirator is in fact offering protection. It is especially important that all employee's who are required to wear respirators be fit tested.

The respirator protection program should be upgraded to incorporate toxic dust filters for all job positions where we require the use of respirators. These positions include Scrap Crusher and Mixer Operator. A single use respirator, 3M 9900, as well as other permanent half-mask respirators approved by NIOSH for protection against asbestos containing dusts should be utilized. These should also be made available to those employees who request a respirator. It is recommended that a "Personal Respirator Control" Unit Program be developed using the concepts presented in section C of the CT Health and Safety Manual and Appendix I to this report.

NOISE MEASUREMENTS

The noise survey was conducted by using Dupont Audiometers set at 90 dB. The employees wore the dosimeters throughout the day while working at their normal jobs. The audiometers are noise measuring devices which measure and accumulate the total noise dose above 90 dBA for the total time during which the employee wears the instrument. The resulting value is recalculated to determine the 8-hour exposure based on the assumption that the employee's work is fairly consistent throughout the day. This 8-hour value is compared to the OSHA 8-hour acceptable limit of 100%. This survey results are given in Table IV.

The results indicate 11 job positions with excessive noise levels. A break down of those positions follow.

Pipe Machine Area

The Machine Tenders exposure was 105% just over the allowable dose. His job requires him to work in all areas on and around the pipe machine. A Sound Pressure Level Meter was not available for use during this survey to determine the levels or give an exact source. It is felt that it is a combination of many sources that contribute to his over exposure.

Finishing/Fitting Area

Excessive noise exposures were found in the finishing area especially at the Lathe Lines. These levels contributed to high levels found in other areas of the Finishing Department.

On Wednesday, April 23, Line 3 was running 14"150 pipe. The Lathe Operators measurement was 181% (#111) Tester Operator 129%, (#113) Handler 124%, (#116) and Beller 109% (#114). The main source of the noise was the Lathe itself, while actually lathing the pipe ends, and the air noise created when the lathe moves back, away from the finished pipe. This is posted as a required hearing protection area. One contributing factor to the noise is the pipe itself, its hardness, which is due to a manufacturing process change. The harder the pipe the more noise that is created by the tools lathing the ends. Another factor adding to the overall problem is the pipe rolling on hard surfaces and bumping together. Line #1 was tested while running 6"150 - similar results were found.

When levels are analyzed and the overall picture is considered, the Lathe is the prime source with diminishing levels being found at greater distances from the lathe. The lathes, when in operation, effect employees exposures at other areas in the department, especially the Coupling Tester and #1 Boring Mill. The samples taken while Lathe Line 1 was in operation illustrate this, although the individual machines themselves are a source, as is the Rework Saw.

Miscellaneous Areas

The crusher located outside the plant was found to have excessive levels, those being 137% and 153%. (#132 & 133) The main source here, of course, is the hammers in the primary crusher system while actually crushing. Ear Muffs were worn by the employees in this area while crushing.

Further Noise Study

A more intensive & detailed noise survey should be made using a sound pressure level meter to determine exact levels & sources of noise. This study would aid the engineering department in making the necessary improvements for noise control.

HEARING PROTECTION

OSHA requires that noise be controlled by feasible administrative or engineering controls. Only when these methods fail to reduce sound levels to the acceptable limit is it appropriate to utilize a permanent hearing protection program. In the meantime, until noise levels are reduced to acceptable limits, all employees whose job positions were found to exceed 100% should be required to wear hearing protection and provided an annual audiometric examination. It is recommended that several types of hearing protectors be made available to employees so that they can choose the one most comfortable. These machines and job positions should be posted with signs requiring the use of hearing protection.

Summary

The results of this survey disclose that all Time Weighted Averages of the 27 job functions sampled presently fall within the current OSHA 8 hour Time Weighted Average (TWA) asbestos standard of 2.0 fibers per cubic centimeter of air (f/cc).

One sample of 5 (#087-091) taken on the crusher operator was found to be above 2.0 f/cc (Sample 088) resulting in a TWA of 1.39 f/cc for this position. This was the only sample taken in the plant found to be above 2.0 f/cc. Plant management was notified of these results and asked to resample this job function. Their samples revealed levels of 0.16, 0.11 and 1.29 f/cc, per L. Megargee.

Personal Audiodosimeter Measurements reveal a number of job positions exceeding the current OSHA Noise limit of 90 dBA. Areas in need of improvement include Rework Saw, Crusher, certain areas of the pipe machine, and the finishing lathe lines, mainly the lathes themselves. Improvements made at the lathes would help to reduce the noise levels at the boring mills and also the coupling tester.

Recommendations:

1. The use of old felts should be discontinued and old discarded felts should be totally disposed of.
2. The Engineering Department should be consulted for the improvement of the dust collection system at the finishing lathe lines to remove tailings & dust from inside pipe. The job positions in this area should be sampled regularly to measure the effect of the changes made.
3. The leak at the Secondary Crusher should be repaired & the Crusher Operator be sampled regularly to measure the effect of the repair work.
4. The fiber surveillance program should be expanded to include more frequent sampling throughout the plant with more emphasis on full day sampling and 8 hour Time Weighted Averages.
5. A review and upgrading of the present Respirator program should be made.
6. A more intensive & detailed noise survey should be made to determine noise levels & sources. This would help to aid the engineering department in making the necessary changes and improvements.

TABLE I
PERSONAL DUST EXPOSURES

No. 80	POSITION LOCATION (Date)	NAME/AREA	ANALYSIS FOR	TIME	MIN.	RESULT f/cc	TWA f/cc	RESULT
Manufacturing Department								
001	Mixer Operator	J. James	Fiber	8:25a- 9:40a	75	0.16	0.21	10 minute break 6", 12" & 14" 150
002	4/24/80			9:40a- 9:55a	15	0.18		Staging & cleaning area.
003				9:55a- 11:45a	110	0.15		Felt and Cylinder change 1/2 hour lunch.
004				11:45a- 1:45p	120	0.29		Made 2 dumps
005				1:45p- 2:00p	15	0.36		Staging
006				2:00p- 2:54p	54	0.22		11 minute dump. 15 minute staging, 28 minute cleanup
007	Machine Tender 4/21/80	F. Windsor	Fiber	11:40a- 2:56p	196	0.13	-	8" 150 & 10" 200 pipe
008	Machine Tender	A. Horton	Fiber	4:15p- 6:35p	140	0.21	--	6" 150/200 pipe
009	4/23/80	2nd Shift.		6:35p- 7:35p	60	0.33		
010				7:35p- 8:50p	75	-		VOID - Pump problems
011	Press Operator 4/21/80	D. Marron	Fiber	11:27a- 2:57p	210	0.09	-	8" 150 & 10" 200 pipe.
012	Press Operator	W. Ashen	Fiber	4:15p- 6:35p	140	0.20	0.19	6" 150/200 pipe
013	4/23/80	2nd Shift		6:35p- 7:35p	60	0.23		
014				7:35p- 8:50p	75	0.16		
015	Mandrel Handler 4/21/80	J. Clauson	Fiber	11:42a- 2:58p	196	0.10	--	8" 150/200 pipe
016	Mandrel Handler	D. Braun	Fiber	4:20p- 6:25p	125	0.16	--	6" 150/200 pipe
017	4/23/80	2nd Shift		6:25p- 7:40p	75	-		VOID-Pump Problems
8				7:40p- 8:50p	70	-		VOID - Pump problems

TABLE I
PERSONAL DUST EXPOSURES

No. 80	POSITION LOCATION (Date)	NAME/AREA	ANALYSIS FOR	TIME	MIN.	RESULT f/cc	TWA f/cc	RESULT
Manufacturing Department (Continued...)								
019	Mandrel Handler 4/25/80	J. Clauson	Fiber	1:35p- 1:53p	18	0.22	-	14" 150 pipe
020	Stripper 4/21/80	A. Chavez	Fiber	11:45a- 2:53p	188	0.005	-	8" 150 & 10" 200 pipe
021	Stripper	G. Soncrant	Fiber	4:25p- 6:30p	125	0.08	0.07	6" 150/200 pipe Steamy
022	4/23/80			6:30p- 7:45p	75	0.007		30 minute break
023	2nd Shift			7:45p- 8:00p	15	0.31		
024	Tray Loader 4/21/80	J. Butts	Fiber	12:30p- 1:30p	60	0.061	-	8" 150 & 200 pipe
025	Tray Loader Truck Driver 4/21/80	L. Goodman	Fiber	11:50p- 2:53p	183	0.007	-	8" 150 & 200 pipe
6	Tray Loader	J. Ledford	Fiber	4:30p- 6:30p	120	0.061	0.052	6" 150/200 pipe
027	4/23/80			6:30p- 7:45p	75	0.029		
028	2nd Shift			7:45p- 8:50p	65	0.061		
029	Relief Operator 4/21/80	K. Aeschliman	Fiber	11:35a- 2:50p	195	0.07	-	8" 150 & 10" 200
030	Relief Operator	E. Renfro	Fiber	4:15p- 6:35p	140	0.17	0.14	6" 150/200 pipe
031	4/23/80			6:35p- 7:35p	60	0.089		Relieved Press Operator and Stripper
032	2nd Shift			7:35p- 8:52p	75	0.13		Relieved Mandrel Handler & Press Operator
Finishing Department								
033	Line 1 Truck Driver	D. Glavin	Fiber	8:55a- 12:00N	185	0.021	0.022	6" 150 Pipe
034	4/24/80			12:00N- 3:15p	195	0.023		
035	Line 3 Lathe Operator 4/23/80	D. Pasillas	Fiber	7:52a- 10:58a	186	0.033	0.041	14" 150 pipe

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TABLE I
PERSONAL DUST EXPOSURES

No. 80	POSITION LOCATION (Date)	NAME/AREA	ANALYSIS FOR	TIME	MIN.	RESULT f/cc	TWA f/cc	RESULT
Finishing Department								
036	Continued... Line 3 Lathe Operator	D. Pasillas	Fiber	10:58a- 12:50p	112	0.053		14" 150 pipe
037	4/23/80			12:50p- 3:20p	150	-		VOID - Pump problems
038	Line 3 Lathe	J. Peterson	Fiber	7:47a- 11:00a	193	0.039		14" 150 pipe
039	Assistant			11:00a- 12:50p	110	0.066	0.063	
040	4/23/80			12:50p- 3:20p	150	0.093		
041	Line 3 Tester	J. Campbell	Fiber	7:45a- 11:00a	195	1.45		14" 150 pipe
042	Operator			11:00a- 12:50p	110	1.13	1.19	
043	4/23/80			12:50p- 3:20p	150	0.89		
044	Line 3 Beller	D. Parr	Fiber	8:05a- 10:56a	171	0.097		14" 150 pipe
045	4/23/80			10:56a- 12:45p	109	0.11	0.102	
046				12:45p- 3:20p	155	-		VOID-Pump problems
047	Line 3 Beller	J. Dobbs	Fiber	7:53a- 10:57a	184	0.23		14" 150 pipe
048				10:57a- 12:47p	110	0.17	0.18	
049	4/23/80			12:47p- 3:20p	153	0.13		
050	Line 3 Handler	A. Amaro	Fiber	8:00a- 10:57a	177	0.22		14" 150 pipe
051	4/23/80			10:57a- 12:45p	108	0.20	0.22	
052				12:45p- 3:20p	155	0.24		
053	Line 3 Inspector	L. Gil	Fiber	7:50a- 10:55a	185	0.038		14" 150 pipe
	4/23/80							

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TABLE I
PERSONAL DUST EXPOSURES

No. 80	POSITION LOCATION (Date)	NAME/AREA	ANALYSIS FOR	TIME	MIN.	RESULT f/cc	TWA f/cc	RESULT
054	Line 3 Inspector 4/23/80	L. Gil	Fiber	10:55a- 12:45p	110	0.054	0.05	14" 150 pipe
055				12:45p- 3:20	155	0.062		
056	Small Rework Saw Operator 4/22/80	M. Allen	Fiber	7:20a- 9:15a	115	0.06	0.084	8" 150 Rework to 1/2 lengths
057				9:15a- 11:50a	155	0.095		
058				11:50a 1:45p	115	—		Void Sample Used Twice
059				1:45p 3:20p	95	0.09		On Sweeper
060	Large Rework Saw Operator 4/23/80	M. Allen	Fiber	8:10a- 10:05a	115	0.28	0.16	60 min.-large saw 14" 150 51 min. Small saw 8" 150
061				10:05a 12:15p	130	0.061		1/2 hour sweeper, 30 min small saw, 15 min. large saw
?	Large Rework Saw Operator 4/24/80	M. Allen	Fiber	9:35a- 10:15a	40	0.05	—	30 min. large saw 14" 150 10 min. small saw
Fittings Department								
063	#1 Boring Mill 4/22/80	A. Buenrostro	Fiber	8:05a- 10:20a	135	0.05	0.061	10" 150 couplings
064				10:20a 11:51a	91	0.08		
065				11:51a 2:00p	129	0.052		Down 1 hr. for repair
066				2:00p- 2:45p	145	0.068		Down 40 min. for repair
067	#1 Boring Mill Helper 4/22/80	M. Plaza	Fiber	8:07a- 10:20a	133	—	0.15	Void - Sample used twice
068				10:20a 11:52a	92	0.17		10" 150 Couplings (Dry)
069				11:52a- 1:46p	115	0.10		Working on plastic coupling machine
070				1:46p 4:26p	159	0.17		10" 150 Couplings (Dry)

TABLE I
PERSONAL DUST EXPOSURES

No. 80	POSITION LOCATION (Date)	NAME/AREA	ANALYSIS FOR	TIME	MIN.	RESULT f/cc	TWA f/cc	REMARKS
071	#1 Boring Mill Operator 4/24/80	A. Buenrostro	Fiber	10:25a- 10:40	15	0.10	--	10" 150 Couplings (Wet)
072	Big Mill Operator	E. Garcia	Fiber	8:11a- 10:22a	131	0.25	0.42	12" Couplings
073	4/22/80			10:22a- 11:55a	93	0.34		
074				11:55a- 2:05p	130	0.36		
075				2:05p- 4:25p	140	0.68		
076	Coupling Cut Off Saw Operator	B. Taylor	Fiber	8:20a- 11:57a	217	0.17	0.13	10" 150 Couplings
077	4/22/80			11:57a- 2:20p	143	0.058		
078				2:20p- 4:27p	127	--		VOID Pump Problems
079	Coupling Tester Operator	T. Putnam	Fiber	8:30a- 10:00a	90	0.20	0.13	12" 150 Couplings -Dry side of Coupling Tester
080	4/22/80			10:00a- 11:57a	117	0.086		10:00-11:30, Wet side of coupling tester, 11:30- 12 Noon Machine Down
081				11:57a- 2:10p	133	0.071		12:30-4:30, Employee Handler Line 1.
082				2:10p- 4:20p	130	0.19		
083	Fittings Maker 4/24/80	C. Hamilton	Fiber	8:45a- 12 N	195	0.45	--	8" Tap couplings
084	Large FM Lathe	M. Garcia	Fiber	8:15a- 11:55a	220	0.025	0.03	12" 150 1/2 length FM's
085	Operator			11:55a- 2:15p	140	0.034		
086	4/22/80			2:15p- 4:27p	132	0.036		

TABLE I
PERSONAL DUST EXPOSURES

No. 80	POSITION LOCATION (Date)	NAME/AREA	ANALYSIS FOR	TIME	MIN.	RESULT f/cc	TWA f/cc	REMARKS
087	Crusher Operator	T. Silva	Fiber	7:25a- 9:30a	125	0.77	1.39	Crushing 3' X 3" pieces & end pieces.
088	4/22/80			9:30a 12 N	150	2.76		Sprinkling off and on through out the day
089				12N 1:55p	115	1.37		
090				1:55p 4:20p	145	0.53		
091	Crusher Operator	E. Garcia	Fiber	2:00p 3:20p	80	0.14	--	2:00-2:30 - Crushing 2:30-2:45 - Break 2:45-3:20 - Crushing
Maintenance Department								
092	Maintenance Oilier/Mechanic	S. Eltz	Fiber	8:20a 12:10	230	0.036	0.052	In baghouse 20 minutes
093	4/24/80			12:10 4:15p	245	>0.068		
Shipping Department								
094	Loader	S. Atencio	Fiber	8:05a- 12:00N	235	—	--	VOID Sample-pump problems
095	4/24/80			1:40p 4:20p	160	0.23		In yard
096	Loader/Truck Driver	R. Corral	Fiber	8:05a- 12:00N	235	—	--	VOID Sample-pump problems
097	4/24/80			1:40p 4:20p	160	0.05		In yard
098	Loader/Truck Driver	R. Fonseca	Fiber	8:02a- 12:00N	238	—	--	VOID Sample+ pump problems
099	4/24/80			1:40p 4:20p	160	0.04		In yard

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Industrial Hygiene Survey
Riverside A/C. Pipe Plant
April 21-25, 1980

TABLE II

ENVIRONMENTAL DUST RESULTS

[illegible]

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Table III

<u>Dept.</u>	<u>No. Samples</u>	<u>Mean</u>	<u>Percent >2.0 f/cc</u>	<u>Percent >0.5 f/cc</u>	<u>Percent >0.1 f/cc</u>
Manufacturing	34	0.16 f/cc	0	0	68
Finishing/Fittings	50	0.20 f/cc	0	8	46
Miscellaneous (Crusher, Shipping, Maintenance)	10	0.60 f/cc	10	40	60
PLANT	94*	0.23 f/cc	1	9%	55

*11 samples were voided due to problems in the field.

Industrial Hygiene Survey
Riverside A/C Pipe Plant
April 21-25, 1980

Table IV
AUDIODOSIMETRY RESULTS

J. 80	POSITION LOCATION (DATE)	NAME	TIME	Min.	RESULTS Eight Hour		REMARKS
					85 dBA Dosimeter	90 dBA	
118	Small Rework Saw Operator 4/22/80	M. Allen	9:15a-3:20p	365	-	75 87.9	Running 8" 150 pipe
119	Large & Small Rework Saw Operator 4/22/80	M. Allen	8:10a-12:15p	245	-	102 90.1	Large Saw Running 14" 150 (75 min) Small saw running 8" 150 (80 min)
120	Boring Mill #1 Operator 4/22/80	A. Buenrostro	8:14a-4:25p	491	-	112 90.8	Running 10" 150 couplings (Dry) Machine down 2 hours
121	Boring Mill #1 Helper 4/22/80	M. Plaza	8:13a-4:25p	490	-	66 86.6	Running 10" 150 coupling (Dry) Machine down 2 hours.
122	Boring Mill #1 Operator 4/24/80	A. Buenrostro	9:00a-4:20p	440	-	113 90.9	Running 10" 150 couplings (wet)
123	Boring Mill #1 Operator 4/25/80	A. Buenrostro	10:25a-3:45p	320	-	51 85	Running 8" 150 couplings (wet)
124	Big Mill Operator 4/22/80	E. Garcia	8:11a-4:25p	494	-	93 89.5	Running 12" 150 couplings
125	Big Mill Operator 4/24/80	E. Garcia	8:30a-3:15p	405	-	82 88.6	Running 12" 150 couplings
126	Coupling cut off Operator 4/22/80	B. Taylor	9:20a-4:27p	427	-	37 82.4	Running 10" 150 couplings
127	Coupling Tester Operator 4/22/80	T. Putnam	9:15a-4:20p	425	-	122 91.6	Running 12" 150 couplings (4 hours) Line #1 Handler (4hrs)
128	Coupling Tester Operator 4/24/80	T. Putnam	8:10a-4:20p	490	-	65 92.1	Running 12" 150 couplings
129	Coupling Tester Operator 4/24/80	P. Martinez	8:10a-4:20p	490	-	51 92.3	Running 12" 150 Couplings
130	Fitting Maker 4/24/80	C. Hamilton	8:45a-4:20p	455	-	35 82.4	8" Top couplings
131	FM Lathe Operator 4/22/80	M. Garcia	9:20a-4:27p	427	-	90 89.2	Running 12" 150 1/2 length
132	Crusher Operator 4/22/80	T. Silva	9:14a-4:20p	426	-	153 93.2	
133	Crusher Operator 4/24/80	T. Silva	8:50a-4:20p	450	-	137 92.2	
134	Boiler Operator 4/25/80	D. DeAngelis	9:25a-2:30p	305	-	74 87.1	
135	Maintenance Oiler/ Mechanic 4/24/80	Eltz	8:20a-4:20p	480	-	37 92.1	

CTD027343

Industrial Hygiene Survey
Riverside A/C Pipe Plant
April 21-25, 1980

Table IV

AUDIOSIMETRY RESULTS

JJ	POSITION LOCATION (DATE)	NAME	TIME	Min.	RESULTS Eight Hour 85 dBA 90 dBA Dosimeter		REMARKS
100	Mixer Operator 4/24/80	J. James	8:25a-2:54p	389	-	21 94.4	Running 6" 150 pipe.
101	Machine Tender 4/23/80 2nd Shift	A. Horton	4:15p-8:50p	275	-	105 90.4	Running 6" 150 pipe
102	Machine Tender 4/25/80	F. Windsor	8:20a-2:30p	370		62 90.5	Running 6" 150 pipe.
103	Control Operator 4/23/80 2nd shift	A. Askev	4:15p-8:50p	275	-	44 94.2	Running 6" 150 pipe
104	Mandrel Handler 4/23/80 2nd shift	D. Brown	4:20p-8:50p	270	-	71 91.4	Running 6" 150 pipe
105	Stripper Operator 4/23/80 2nd shift	G. Soncrant	4:25p-8:00p	215	-	78 84.4	Running 6" 150 pipe
106	Tray Loader 4/23/80 2nd Shift	J. Ledford	4:30p-8:50p	260	-	2 173.4	Running 6" 150 pipe
107	Relief Operator 4/23/80 2nd Shift	E. Renfro	4:15p-8:50p	275	-	94 89.6	Running 6" 150 pipe
	Relief Operator 4/25/80	A. Aeschlman	8:20a-2:30p	370	-	58 80.3	Running 6" 150 pipe
109	Line #1 Lathe Operator 4/25/80	D. Pasillas	8:15a-3:15p	420	-	192 94.6	Running 6" 150 pipe
110	Line #1 Tester Operator 4/25/80	J. Campbell	8:15a-3:15p	420	-	187 90.4	Running 6" 150 pipe
111	Line #3 Lathe Operator 4/23/80	D. Pasillas	7:52a-3:20p	448	-	181 94.5	Running 14" 150 pipe
112	Line #3 Lathe Assistant 4/23/80	J. Peterson	7:47a-3:20p	453	-	96 81.7	Running 14" 150 pipe
113	Line #3 Tester Operator 4/23/80	J. Campbell	7:45a-3:20p	455	-	129 91.1	Running 14" 150 pipe
114	Line #3 Beller 4/23/80	D. Park	8:05a-3:20p	435	-	109 90.6	Running 14" 150 pipe
115	Line #3 Beller 4/23/80	J. Dobbs	7:53a-3:20p	447	-	97 89.5	Running 14" 150 pipe
116	Line #3 Handler 4/23/80	R. Amaro	8:00a-3:20p	440	-	124 91.6	Running 14" 150 pipe
117	Line #3 Inspector 4/23/80	L. Gil	7:50a-3:20p	450	-	77 77.3	Running 14" 150 pipe

CTD027344

APPENDIX I
Monitoring/Analytical Procedures
and
Current Standards

Asbestos

Personal samples, Area samples which reflect employee exposure levels, and Engineering area samples which do not reflect employee exposures were obtained on Millipore 0.8 micrometer Mixed Cellulose Ester Filters (MCEF). DuPont P4000 air sampling pumps were calibrated before and after each sampling day to approximately 2 liters per minute (lpm). In most cases, a series of 3 or 4 different filter samples were obtained for the person or area to establish an eight hour time weighted average concentration (TWA).

The analysis was conducted according to the USPHS/NIOSH Membrane Filter Method for Evaluating Airborne Asbestos Fibers (P&CAM 239) by an experienced fiber counter who was trained by NIOSH. Fibers were counted on a Nikon Model 96982 phase contrast microscope at 400X magnification.

The current OSHA standard is given in 29 CFR 1910.1001. It calls for an employee TWA airborne limit of two fibers, longer than 5 micrometers, per cubic centimeter of air (f/cc). Also, no employee shall be exposed at any time to airborne concentrations in excess of 10 f/cc.

Noise

DuPont Model D-376 audiodosimeters utilized during this survey were set at the 90 dB cutoff mode.

The audiodosimeters were calibrated before and after each day of dosimetry sampling utilizing the DuPont Audiodosimeter Calibrator Model C114 by the direct reading method. Before and after each survey week the audiodosimeters were calibrated by the timed calibration procedure utilizing the DuPont calibrator C114 and the Model R225 readout. This calibration was done for 5 minutes, 10 seconds at 114 dB to give an expected 30% +/- 4% result.

The Permissible noise exposure given in OSHA 29 CFR 1910.95, ranges between 90 decibels for 8-hours per day through 115 decibels for a maximum duration of 1/4 hour per day according to the table below. Also, exposure to impulsive or impact noise should not exceed the 140 decibel peak sound pressure level ceiling value. The maximum permissible audiodosimeter dose is 100%.

Appendix I
Monitoring/Analytical Procedures
and Current Standards

Permissible Noise Exposures

<u>Duration per day, hours</u>	<u>dBA, slow response</u>
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

APPENDIX II

KEY ELEMENTS OF A RESPIRATOR PROGRAM

The Occupational Safety and Health Administration (OSHA) provides regulations for the use of respirators in OSHA standard, 29 CFR 1910.134. OSHA indicates that harmful levels of atmospheric contamination of dusts, fogs, fumes, mists, gases, smokes, sprays and vapors shall be prevented as far as feasible by accepted engineering controls. When effective engineering controls are not feasible or when they are being instituted, appropriate respirators are to be used. It is required that employers provide respirators which are applicable and suitable for the purpose intended. The employer is responsible for the establishment and maintenance of a respiratory protective program which includes the following eleven items.

1. Written Operating Procedure. The respirator procedures must be written and should address the selection and use of respirators. The location's procedures for items 2 through 11 should be discussed and explained in detail. Responsibilities for specific aspects of the program should also be specified in the Location's written respirator program.
2. Proper Selection. The selection of the appropriate respirator is based on the physical state of the substance (gas, vapor, particulate, etc...) the warning properties of the chemical, the toxicity of the agent involved, the protection factor of the respiratory device, and the airborne level of the agent. Other factors to be considered include permissible exposure levels, oxygen deficiency, and approved equipment.
3. Training and Fitting for the Employees. It is required that employees are instructed and trained in the proper use, limitations, selection, and maintenance of respirators. Employees should be trained in the nature of the hazard. The employee must be trained to check the fit of the respirator each time it is used. Fitting through the use of quantitative fit testing (isoamyl acetate or irritant smoke) is also required.
4. Exclusive Employee Use. Where practicable, the respirators should be assigned to individual workers for their exclusive use.

KEY ELEMENTS OF A RESPIRATOR PROGRAM - Cont'd...

5. Cleaning and Disinfecting. Respirators are to be regularly cleaned and disinfected. This must be done thoroughly after each use for respirators used by more than one worker. For respirators assigned to one worker, respirators must be cleaned and disinfected daily when they are routinely used throughout the day.
6. Storage. Respirators shall be stored in a convenient, clean, and sanitary location. It is especially important that rubber parts are stored so that they do not lose their original shape. A misshapen mask is essentially broken and no longer holds its approval.
7. Inspection and Maintenance. Respirators used routinely must be inspected during cleaning. Worn or deteriorated parts must be replaced.

Respirators for emergency use such as self-contained devices shall be thoroughly inspected at least once a month and after each use.

8. Work AREA Surveillance. Appropriate surveillance of work area conditions and degree of employee exposure shall be maintained.

It is necessary to review the work area to identify contaminants and assess the degree of hazard on a regular basis.

9. Inspection and Evaluation of the Program. Regular inspections are required to insure that respirators are properly selected, used, cleaned, and maintained.
10. Medical Examination. OSHA indicates that an employee should not be required to use a respirator unless a physician has determined that the employee is physically able to perform the work and use the equipment. The respirator user's medical status should be reviewed periodically.
11. Approved Respirators. Approved (NIOSH/MSHA) respirators are to be used when they are available. The approvals on respirators apply to the respirators as whole units. The approval is valid for the whole unit in good condition. It is nullified by the mixing of components and by use of non-approved components.

KEY ELEMENTS OF A RESPIRATOR PROGRAM - Cont'd...

This is a condensed summary of the OSHA regulations on the use of respirators. Background information on respirators is given in the following sources:

A Guide to Industrial Respiratory Protection, John A. Pritchard, Los Alamos Scientific Laboratory, HEW Publication No.(NIOSH) 76-189, 1976.

Practices for Respiratory Protection, ANSI Z88.2, 1969, American Standards Institute, Inc., 1430 Broadway, N.Y., N.Y., 10018.

OSHA Standard Method for Determination of Respiratory Protection Program Acceptability, Industrial Hygiene Field Operations Manual, OSHA Instruction CPL 2-2.20, April 2, 1979, Office of Field Coordination.

CertainTeed

Date

April 15, 1982

To

D. Hall

Location and mail code

2125/2B

Subject

FOLLOWUP ON PAST INDUSTRIAL HYGIENE
RECOMMENDATIONS

From

O. Kittilstad

Location and mail code

1125/4

file: Bill Kittilstad

Over the past several years, Corporate Health and Safety has conducted industrial hygiene surveys at your locations and provided recommendations for correcting health hazards or improving procedures to protect employees health. Because of the nature of these recommendations, it is vitally important for legal and ethical reasons that these recommendations be acted upon and that these actions be adequately documented.

We have been asked by Senior Management to develop a procedure to insure that all health and safety recommendations are fully addressed and, followup actions taken, be documented and kept on file with the original reports.

To update the records on past surveys we are compiling by plant a summary of recommendations made and our current knowledge of documented corrective actions. You are requested to review these summaries and provide an update on the actions taken on all recommendations including copies of backup documentation where applicable.

During future surveys, we will specifically review actions on old recommendations with Plant Management for their implementation and effectiveness. We will also request a quarterly update on the actions taken on all new recommendations be provided for the record.

The Riverside and Hillsboro A/C Pipe Plants will be surveyed in May and June respectively. Attached is a summary of past recommendations provided to those plants. Please provide us the requested update on these locations by 5/1/82 and 5/15/82 respectively.

Your cooperation is appreciated.

OHK/ejs

Attachments

OHK Kittilstad

CTD027350

RIVERSIDE A/C PIPE PLANT

RECOMMENDATIONS

1. The use of old felts should be discontinued and old discarded felts should be totally disposed of. (IHS 80-5)

STATUS:

2. The Engineering Department should be consulted for the improvement of the dust collection system at the finishing lathe lines to remove tailings and dust from inside pipe. The job positons in this area should be sampled regularly to measure the effect of the changes made. (IHS 80-5)

STATUS:

3. The leak at the Secondary Crusher should be repaired and the Crusher Operator be sampled regularly to measure the effect of the repair work. (IHS 80-5)

STATUS:

4. The fiber surveillance program should be expanded to include more frequent sampling throughout the plant with more emphasis on full day sampling and 8-hour Time Weighted Averages. (IHS-80-5)

STATUS:

5. A review and upgrading of the present Respirator Program should be made. (IHS 80-5)

STATUS:

6. A more intensive and detailed noise survey should be made to determine noise levels and sources. This would help to aid the engineering department in making the necessary changes and improvements. (IHS 80-5)

STATUS:

Riverside A/C Pipe Plant
Recommendations

Page 2

Cont'd

7. Until noise levels are reduced to acceptable limits, all employees whose job positions were found to exceed 100% should be required to wear hearing protection and be provided an annual audiometer exam. Several type of protectors should be made available. These machines and job positions should be posed as required hearing protection areas. (IHS 80-5)

STATUS:

Recommendations were taken from:

Industrial Hygiene Survey, April 21-25, 1980 (IHS 80-5)

CTD027352

RIVERSIDE A/C PIPE PLANT

RECOMMENDATIONS:

1. The use of old felts should be discontinued and old discarded felts should be totally disposed of. (IHS 80-5)

(C) STATUS:

The use of old felts was discontinued and are disposed of at the county dump, as of 1980.

2. The Engineering Department should be consulted for the improvement of the dust collection system at the finishing lathe lines to remove tailings and dust from inside pipe. The job positions in this area should be sampled regularly to measure the effect of the changes made. (IHS 80-5)

(C) STATUS:

Water is shot through the pipe by hydrotester. Job positions are sampled on a six month basis.

3. The leak at the Secondary Crusher should be repaired and the Crusher Operator be sampled regularly to measure the effect of the repair work. (IHS 80-5)

(C) STATUS:

The Secondary Crusher was repaired on receipt of the survey report IHS 80-5. Problems arise and are solved on a continuous basis. A daily checklist is filed on the housekeeping of the crusher. The Crusher Operator is sampled every six months.

4. The fiber surveillance program should be expanded to include more frequent sampling throughout the plant with more emphasis on full day sampling and 8-hour Time-Weighted Averages. (IHS 80-5)

(C) STATUS:

Every employee is sampled twice a year on a scheduled basis.

5. A review and upgrading of the present Respirator Program should be made. (IHS 80-5)

(I.P.) STATUS:

Maintenance personnel are outfitted with Wilson 1200 nondisposable respirators. Manufacturing and finishing utilize 3M 8710 disposable respirator.

CTD027353

Some deficiencies in the respirator program are improper storage of Wilson respirator, cleaning and disinfecting, and fit-testing of respirators to the individual users (Both 3M and Wilson Models).

6. A more intensive and detailed noise survey should be made to determine noise levels and sources. This would help to aid the engineering department in making the necessary changes and improvements. (IHS 80-5)

(C) STATUS:

Completed May, 1982.

7. Until noise levels are reduced to acceptable limits, all employees whose job positions were found to exceed 100% should be required to wear hearing protection and be provided an annual audiometer exam. Several type of protectors should be made available. These machines and job positions should be posted as required hearing protection areas. (IHS 80-5)

(N) STATUS:

Personnel identified as working in high noise areas have been issued personal protection. The audiometric examinations will be conducted by Dr. Kanter, once the audiometric booth has been recieved.

Recommendations are from the following report:

Industrial Hygiene Survey - April 21-25, 1980. (IHS 80-5)

RIVERSIDE A/C PIPE PLANT

Industrial Hygiene Recommendations
Follow-Up

Industrial Hygiene Survey, 4/21-25/80

1. The use of old felts should be discontinued and old discarded felts should be totally disposed of. (4/80)

✓ STATUS: This has been completed as stated. (6/14/82 - DRH)

2. The Engineering Department should be consulted for the improvement of the dust collection system at the finishing lathe lines to remove tailings and dust from inside pipe. The job positions in this area should be sampled regularly to measure the effect of the changes made. (4/80)

✓
Good to see in sample results
STATUS: Dust collection systems have been upgraded. Further more, water sprays are being installed (in process) to remove/dampen any possible residual dust. Job positions are sampled regularly; results sent to both Group and Corporate Health and Safety departments. (6/14/82 - DRH)

3. The leak at the Secondary Crusher should be repaired and the Crusher Operator be sampled regularly to measure the effect of the repair work. (4/80)

✓
Done
STATUS: Leak was repaired. Job position is sampled regularly; results sent to both Group and Corporate Health & Safety departments. (6/14/82 - DRH)

4. The fiber surveillance program should be expanded to include more frequent sampling throughout the plant with more emphasis on full day sampling and 8-hour Time Weighted Averages.

✓ STATUS: Program was upgraded formally 9/81. Sampling schedules are specified and followed; results sent to both Group and Corporate Health and Safety departments. (6/14/82 - DRH)

RIVERSIDE A/C PIPE PLANT
Industrial Hygiene Recommendations Follow-up
Page 2

5. A review and upgrading of the present Respirator Program should be made. (4/80)

? — (T.P.)
STATUS: A basic program is in place, and will be upgraded. Respirator program guidelines are to be established by Group Health and Safety and will be issued to the plants by 10/82. This is being done to ensure that a proper mechanism is set in place to address the various aspects of proper respirator use and care. Guidelines will be consistent with those outlined in two NIOSH publications, Respiratory Protection... An Employer's Manual and Respiratory Protection...A Guide for the Employee. (6/14/82 - DRH)

6. A more intensive and detailed noise survey should be made to determine noise levels and sources. This would help to aid the engineering department in making necessary changes and improvements. (4/80)

Fixed check results. (C)
STATUS: This was accomplished 11/30-12/4/81. Results were sent to both Group and Corporate Health and Safety departments. (6/14/82 - DRH)

- W
7. Until noise levels are reduced to acceptable limits, all employees whose job positions were found to exceed 100% should be required to wear hearing protection and be provided an annual audiometer exam. Several types of protectors should be made available. These machines and job positions should be posted as required hearing protection areas. (4/30)

(T.P.)
STATUS: A Hearing Conservation Program is being established; total development and implementation to be achieved by 12/31/82. Protectors are presently made available and are required in specific areas. Signs will be ordered and will be posted when received. (6/14/82 - DRH)

Fortainteed

Date

10/7/83

To

O. H. Kittilstad

Location and mail code

1125/4

Subject

Corporate Industrial Hygiene
Recommendation Status Report

From

D. R. Hall/ev

Location and mail code

2125/2B

D. R. Hall

J.W.

Per your August 12, 1983; attached are Corporate Industrial Hygiene recommendations updates for the following P&PG and VBPD plant locations:

A/C

Hillsboro, TX
Riverside, CA 4/80

PVC

Cameron Park, CA
Eads, TN
McPherson Pipe, Blend and Vinyl, KS
McPherson Fab/I.M., KS
Social Circle, GA
Waco, TX

Polymer

Lake Charles, LA

VBPD

Hagerstown, MD

This report has been compiled from information presently on file and/or direct communications with plant personnel.

The next update will be forwarded to you by December 31, 1983. Should you have any questions, contact me.

Attachments

CTD027357

RIVERSIDE A/C PIPE PLANT

Recommendations F/u

IHS, 4/80

IHS, 5/82

1. A review and upgrading of the present Respirator Program should be made. (IHS 4/80, 5/82)

Status: Basic program in place, will be upgraded. Respirator program guidelines to be established by Group Health and Safety, will be issued to the plant by 10/82. This being done to ensure a proper mechanism is set in place to address various aspects of proper respirator use and care. Guidelines will be consistent with those outlined in two NIOSH publications, Respiratory Protection...An Employer's Manual and Respiratory Protection...A Guide for the Employee. (6/82, DRH)

Status: Plant continues to use present programs. Group guidelines have yet to be established due to other priorities -- project appears near top of 1984 objectives. (10/83, DRH)

2. Until noise levels are reduced to acceptable limits, all employees whose job positions were found to exceed 100% should be required to wear hearing protection and be provided an annual audiometer exam. Several types of protectors should be made available. These machines and job positions should be posted as required hearing protection areas. (IHS, 4/80)

Status: A Hearing Conservation Program is being established; total development and implementation to be achieved by 12/31/82. Protectors are presently made available and are required in specific areas. Signs will be ordered and will be posted when received. (6/82, DRH)

Status: Signs posted throughout Finishing Department and at primary crusher; mandatory hearing protector use, enforced. Several types of hearing protective equipment made available to employees. Employees have viewed "Sound Advice". Considered complete. (10/83, DRH)

3. Clean out pipe tailings in the ventilation system prior to each shift on the Large Lathe Lines. (IHS, 5/82)

Status: Plant has on-going procedure for cleaning chips and sticks from dust hoods. Chips/dust from as few as 4 large pipes reaches accumulation level noted by P. Norris. Engineering looking into possibilities to improve dust hood design. (10/83, DRH)

4. Resampling for silica dust should be performed to substantiate the airborne concentrations measured during this survey. Equipment and instructions will be forwarded to the plant safety manager in the near future. (IHS, 5/82)

Status: Complete. Refer to 12/21/82 memo, P. Norris to N. Rhoades, this subject. (10/83, DRH)

5. A Hearing Conservation program should be established for employees who are exposed to noise levels of 85 dBA or greater and 90 dBA or greater for an 8-hour day. (IHS, 5/82)

Status: Refer to item #2 above. Presently following Cal-OSHA regulations, copies of which are posted and made available to employees. Considered complete. (10/83, DRH)

6. Noise abatement efforts in the finishing department should be increased and all efforts should be documented for compliance purposes. The services of an acoustical consultant should also be considered in solving these noise problems. (IHS, 5/82)

Status: For present, mandatory use of hearing protectors is the practical solution. Long term, the recommendation has been discussed, however, no engineering solutions have been taken, nor consulting services contracted. Cost factors being considered. (10/83, DRH)

Seq T Name ATENCIO, SR, STEVEN A. Dept PRODUCTION Contaminant sll-RD-Chry Quartz / CT PVC 5u 37mm +Cycl/OSHA ID142 EQUIVALEN
0001 P Soc Sec 553-88-1692 Locn SAW - REMORK TWA <0.002000 MG/M3
Date 11/01/1982 Proc Pel/Exp Limit OSHA PEL CALCULATED
Shift 1ST 8 HOUR Job OPERATOR Product 6"150 & 8"150 1/4 LGTHS, 10"150 RANDOM L

Equip	Samp	Start	Stop	Min	LPM	Analysis-MG	Conc-MG/M3	ST Exp Limit	Respirator	Comments
1. 5791	440	07:55	12:05	250	2.0000	0.0010/	0.0	<0.0020	Y DISPOSABLE	SNGLE USE

Seq T Name ATENCIO, SR, STEVEN A. Dept PRODUCTION Contaminant Total Nuisance Dust / PVC 5u 37mm2 /N0500
0002 P Soc Sec 553-88-1692 Locn COUPLING CUT OFF TWA 0.360000 MG/M3
Date 11/02/1982 Proc Pel/Exp Limit OSHA PEL = 15 MG/M3
Shift 1ST 8 HOUR Job OPERATOR Product 6"150 & 8"150 1/4 LGTHS & RANDOM LGTHS

Equip	Samp	Start	Stop	Min	LPM	Analysis-MG	Conc-MG/M3	ST Exp Limit	Respirator	Comments
1. 3155	436	07:54	14:45	411	2.0000	0.2920/	0.0	0.3600	Y DISPOSABLE	SNGLE USE

Seq T Name CLAUSON, JOHN N. Dept PRODUCTION Contaminant Total Nuisance Dust / PVC 5u 37mm2 /N0500
0003 P Soc Sec 554-72-9301 Locn SAW - REMORK TWA 0.058000 MG/M3
Date 10/11/1982 Proc Pel/Exp Limit OSHA PEL = 15 MG/M3
Shift 1ST 8 HOUR Job OPERATOR Product 8" 150 1/4 LGTHS, 1/2 LGTHS

Equip	Samp	Start	Stop	Min	LPM	Analysis-MG	Conc-MG/M3	ST Exp Limit	Respirator	Comments
1. 3155	446	08:00	13:10	310	2.0000	0.0360/	0.0	0.0580	Y DISPOSABLE	SNGLE USE

Seq T Name COOLEY, DENNIS D. Dept PRODUCTION Contaminant sll-RD-Chry Quartz / CT PVC 5u 37mm +Cycl/OSHA ID142 EQUIVALEN
0004 P Soc Sec 344-30-3938 Locn COUPLING CUT OFF TWA 0.093000 MG/M3
Date 10/11/1982 Proc Pel/Exp Limit OSHA PEL CALCULATED
Shift 1ST 8 HOUR Job OPERATOR Product 12" 150 CPLG BLANKS

Equip	Samp	Start	Stop	Min	LPM	Analysis-MG	Conc-MG/M3	ST Exp Limit	Respirator	Comments
1. 5791	433	07:40	12:00	260	1.7000	0.0410/	0.0	0.0930	Y DISPOSABLE	SNGLE USE

Seq T Name COOLEY, DENNIS D. Dept PRODUCTION Contaminant Total Nuisance Dust / PVC 5u 37mm2 /N0500
0005 P Soc Sec 344-30-3938 Locn COUPLING CUT OFF TWA 0.560000 MG/M3
Date 10/28/1982 Proc Pel/Exp Limit OSHA PEL = 15 MG/M3
Shift 1ST 8 HOUR Job OPERATOR Product 6" 150 CPLGS

Equip	Samp	Start	Stop	Min	LPM	Analysis-MG	Conc-MG/M3	ST Exp Limit	Respirator	Comments
1. 3153	430	08:00	13:00	300	1.7000	0.2850/	0.0	0.5600	S DISPOSABLE	SNGLE USE

Seq T Name	DOBBS, JEFF M.	Dept PRODUCTION	Contaminant	Total Nuisance Dust / PVC 5u 37mm2	/N0500
0011 P Soc Sec	571-92-9159	Locn LATHE - 1/4	TWA	0.620000 MG/M3	
Date	10/29/1982	Proc	Pel/Exp Limit	OSHA PEL = 15 MG/M3	
Shift	1ST	Job OPERATOR	Product	8" 150 1/4 MEO	
Equip	Samp	LPM	ST Exp Limit	Respirator	Comments
1. 3155	431	2.0000	0.4930/	0.0	Y DISPOSABLE SINGLE USE
Seq T Name	GIL, LARRY L.	Dept PRODUCTION	Contaminant	Sil-RD-Chry Quartz / CT PVC 5u 37mm +Cycl/OSHA ID142 EQUIVALEN	
0012 P Soc Sec	570-58-4041	Locn LATHE LINE	TWA	<0.001500 MG/M3	
Date	10/29/1982	Proc	Pel/Exp Limit	OSHA PEL CALCULATED	
Shift	1ST	Job OPERATOR	Product	24" 2400 SEWER 1/2 MEO	
Equip	Samp	LPM	ST Exp Limit	Respirator	Comments
1. 5791	432	1.7000	0.0010/	0.0	<0.0015
Seq T Name	GIL, LARRY L.	Dept PRODUCTION	Contaminant	Total Nuisance Dust / PVC 5u 37mm2	/N0500
0013 P Soc Sec	570-58-4041	Locn LATHE LINE	TWA	0.150000 MG/M3	
Date	10/21/1982	Proc	Pel/Exp Limit	OSHA PEL = 15 MG/M3	
Shift	1ST	Job OPERATOR	Product	16" 150 1/4 MEO & 14" 150 1/4 MEO	
Equip	Samp	LPM	ST Exp Limit	Respirator	Comments
1. 3155	437	2.0000	0.1160/	0.0	0.1500
Seq T Name	HAMILTON, CHRISTOPHER	Dept PRODUCTION	Contaminant	Sil-RD-Chry Quartz / CT PVC 5u 37mm +Cycl/OSHA ID142 EQUIVALEN	
0014 P Soc Sec	555-74-5800	Locn FITTINGS	TWA	0.051000 MG/M3	
Date	11/02/1982	Proc	Pel/Exp Limit	OSHA PEL CALCULATED	
Shift	1ST	Job MAKER	Product	6" 150 x 1" TBIC	
Equip	Samp	LPM	ST Exp Limit	Respirator	Comments
1. 5791	448	1.7000	0.0360/	0.0	0.0510
Seq T Name	HAMILTON, CHRISTOPHER	Dept PRODUCTION	Contaminant	Total Nuisance Dust / PVC 5u 37mm2	/N0500
0015 P Soc Sec	555-74-5800	Locn FITTINGS	TWA	0.330000 MG/M3	
Date	11/01/1982	Proc	Pel/Exp Limit	OSHA PEL = 15 MG/M3	
Shift	1ST	Job MAKER	Product	12" 150 x 1" TAPS	
Equip	Samp	LPM	ST Exp Limit	Respirator	Comments
1. 3155	445	2.0000	0.2850/	0.0	0.3300

*** End Of Report *** DREXLES

CTD027365



INDUSTRIAL HYGIENE MONITORING DATA SHEET

82PT013

PLANT NAME		LOC NO.	SAMPLE TAKEN BY	DATE OF TEST					
RIVERSIDE		260	L.M.	11-1-82					
EMPLOYEE NAME		DEPARTMENT/LINE							
ATENCIO, STEVEN A. #180		FINISHING							
JOB TITLE/ENVIRONMENTAL LOCATION		MANUFACTURING PRODUCT							
SAW OPERATOR		6150, 8150, 10150 1/4 LGTHS 1/4 LGTHS RANDOM LGTHS							
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA					
☐ FIBERGLASS	☐ OPEN FACE	☐ 0.8μ MCEF, MILLIPORE FILTER							
☐ ASBESTOS	☐ CLOSED FACE	☐ 5μ PVC FILTER							
☐ TOTAL DUST	☒ CYCLONE	☐ GLASS FIBER-SILVER MEM FILTER							
☒ SILICA DUST	☐ CLOSED FACE	☐ 150 mg. CHARCOAL							
☐ ASPHALT FUMES	☐ CHARCOAL TUBE	☐ SODIUM BISULFITE							
☐ VINYL CHLORIDE (MONOMER)	☐ IMPINGERS, TWO IN SERIES	☐ 300 mg. SILICA GEL							
☐ FORMALDEHYDE	☐ SILICAL GEL	☐ 150 mg. SKC FLORISIL TUBE							
☐ PHENOL	☐ FLORISIL TUBE	☐ GLASS FIBER FILTER							
☐ PCB	☐ CLOSED FACE	☐ 80dba ☐ 85dba ☐ 90dba							
☐ NOISE	☐ AUDIO DOSIMETER								
EQUIPMENT									
☐ DUPONT P4000 PUMP	☐ DUPONT P2500 PUMP	☐ DUPONT P200A PUMP	☒ MSA PUMP	☐ DUPONT D376 DOSIMETER					
☐ DUPONT D381 DOSIMETER									
EXHAUST SYSTEMS/REMARKS									
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY									
WEATHER CONDITIONS									
OUTSIDE TEMP	WIND DIRECTION	WIND VELOCITY	☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN						
68-78 °F			☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY						
CNTRL NO.	PUMP SERIAL NO.	T _h	SAMPLE NO.	MILITARY TIME	TOTAL MINS	LPM/CC	VOLUME LITERS	ANALYSIS RESULT	AIRBORNE CONCENTRATION
12	815791	R	B440	0755 1205	250	2.0	500	<0.001	<0.001
059									
DID EMPLOYEE WEAR RESPIRATOR?					IF SOMETIMES WHEN?	RESPIRATOR MAKE & MODEL			
☒ YES ☐ NO ☐ SOMETIMES						3M 871D			
CNTRL NO.	DOS SERIAL	CELL	START (TIME)	STOP	TOTAL MIN	READ OUT RESULT	SHR CORR %	CONVERTED DINA LEVEL	
DID EMPLOYEE WEAR HEARING PROTECTV					IF SOMETIMES WHEN?	MAKE & MODEL			
☒ YES ☐ NO ☐ SOMETIMES						BILSON 5603 PLUGS			
COMMENTS/SKETCHES									

PUMP SHOWED DROP IN LPM - SO REMOVED IT AT 1205

1 - 10 MIN. BREAK

1 - 30 MIN. LUNCH-BREAK



INDUSTRIAL HYGIENE MONITORING DATA SHEET

PLANT NAME		LOC NO.	SAMPLE TAKEN BY	DATE OF TEST					
RIVERSIDE		260	L.M.	11-2-82					
EMPLOYEE NAME		DEPARTMENT/LINE							
ATENCIO, STEVEN A #180		FINISHING - SAW							
JOB TITLE/ENVIRONMENTAL LOCATION		MANUFACTURING PRODUCT							
SAW OPERATOR - CUT OFF		6'50, 8'50. 1/4 LOTS, 1/2 LOTS, RANDOMS							
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA					
☐ FIBERGLASS	☐ OPEN FACE	☐ 0.8μ MCEF, MILLIPORE FILTER							
☐ ASBESTOS	☒ CLOSED FACE	☐ 5μ PVC FILTER							
☒ TOTAL DUST	☐ CYCLONE	☐ GLASS FIBER-SILVER MEM FILTER							
☐ SILICA DUST	☐ CLOSED FACE	☐ 150 mg. CHARCOAL							
☐ ASPHALT FUMES	☐ CHARCOAL TUBE	☐ SODIUM BISULFITE							
☐ VINYL CHLORIDE (MONOMER)	☐ IMPINGERS, TWO IN SERIES	☐ 300 mg. SILICA GEL							
☐ FORMALDEHYDE	☐ SILICAL GEL	☐ 150 mg. SKC FLORISIL TUBE							
☐ PHENOL	☐ FLORISIL TUBE	☐ GLASS FIBER FILTER							
☐ PCB	☐ CLOSED FACE	☐ 80dba ☐ 85dba ☐ 90dba							
☐ NOISE	☐ AUDIO DOSIMETER								
EQUIPMENT									
☐ DUPONT P4000 PUMP	☐ DUPONT P2500 PUMP	☐ DUPONT P200A PUMP	☒ MSA PUMP	☐ DUPONT D376 DOSIMETER					
☐ DUPONT D381 DOSIMETER									
EXHAUST SYSTEMS/REMARKS									
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY									
WEATHER CONDITIONS									
OUTSIDE TEMP	WIND DIRECTION	WIND VELOCITY	WEATHER						
68-78 °F	NE	20 MPH	☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY						
CNTRL NO.	PUMP SERIAL NO.	T/R	SAMPLE NO.	MILITARY TIME	TOTAL MINS	LPM/CC	VOLUME LITERS	ANALYSIS RESULT	AIRBORNE CONCENTRATION
15	3155	T	B436	0754	1445	411	2.0	822	0.292 mg
058									0.36 mg/m ³
									% SiO ₂ C 25 mg = 8.6
DID EMPLOYEE WEAR RESPIRATORY?					IF SOMETIMES WHEN		RESPIRATOR MAKE & MODEL		
☒ YES ☐ NO ☐ SOMETIMES							3M 8710		
CNTRL NO	DOS SERIAL	CELL	START (TIME)	STOP	TOTAL MIN	READ OUT RESULT	8HR CORR %	CONVERTED DBA LEVEL	
DID EMPLOYEE WEAR HEARING PROTECTN					IF SOMETIMES WHEN		MAKE & MODEL		
☒ YES ☐ NO ☐ SOMETIMES							BILSON 5603 PLUGS		
COMMENTS/SKETCHES									

2 - 10 MIN. BREAKS
1 - 30 MIN. LUNCH-BREAK



INDUSTRIAL HYGIENE MONITORING DATA SHEET

PLANT NAME RIVERSIDE		LOC. NO. 260	SAMPLE TAKEN BY L.M.	DATE OF TEST 10-11-82					
EMPLOYEE NAME CLAUSON, JOHN # 334		DEPARTMENT/LINE FINISHING							
JOB TITLE/ENVIRONMENTAL LOCATION SAW OPER. - SAWS # 1 & 2		MANUFACTURING PRODUCT 21-3360 RANDOMS 8-150 1/4 LGTHS; 1/2 LENGTHS							
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA					
☐ FIBERGLASS		☐ OPEN FACE		☐ 0.8μ MCEF, MILLIPORE FILTER					
☐ ASBESTOS		☐ CLOSED FACE		☐ 5μ PVC FILTER					
☒ TOTAL DUST		☒ CYCLONE		☐ GLASS FIBER-SILVER MEM FILTER					
☐ SILICA DUST		☐ CLOSED FACE		☐ 150 mg. CHARCOAL					
☐ ASPHALT FUMES		☐ CHARCOAL TUBE		☐ SODIUM BISULFITE					
☐ VINYL CHLORIDE (MONOMER)		☐ IMPINGERS, TWO IN SERIES		☐ 300 mg. SILICA GEL					
☐ FORMALDEHYDE		☐ SILICAL GEL		☐ 150 mg. SKC FLORISIL TUBE					
☐ PHENOL		☐ FLORISIL TUBE		☐ GLASS FIBER FILTER					
☐ PCB		☐ CLOSED FACE		☐ 80dba ☐ 85dba ☐ 90dba					
☐ NOISE		☐ AUDIO DOSIMETER							
EQUIPMENT									
☐ DUPONT P4000 PUMP ☐ DUPONT P2500 PUMP ☐ DUPONT P200A PUMP ☒ MSA PUMP ☐ DUPONT D376 DOSIMETER ☐ DUPONT D381 DOSIMETER									
EXHAUST SYSTEMS/REMARKS									
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY GOOD - Pick up AT CUTTING WHEEL CONTACT									
WEATHER CONDITIONS									
OUTSIDE TEMP 70 °F		WIND DIRECTION NE		WIND VELOCITY 10-12 MPH					
☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY									
CNTRL. NO.	PUMP SERIAL NO.	T/F	SAMPLE NO.	MILITARY TIME START STOP	TOTAL MINS	LPM/CC	VOLUME LITERS	ANALYSIS RESULT	AIRBORNE CONCENTRATION
2	3155	T	B.446	0800 1310	310	2.0	620	0.036 mg	0.06 mg/m³
NOTE: REMOVED PUMP - SEEMED LOSE ITS CHARGE - CALIBRATED AT 1.4 LPM.									
DID EMPLOYEE WEAR RESPIRATOR?			IF SOMETIMES WHEN?			RESPIRATOR MAKE & MODEL			
☒ YES ☐ NO ☐ SOMETIMES									
CNTRL NO	DOS SERIAL	CELL	START (TIME)	STOP	TOTAL MIN	READ OUT RESULT	8HR CORR %	CONVERTED DBA LEVEL	
DID EMPLOYEE WEAR HEARING PROTECTN			IF SOMETIMES WHEN?			MAKE & MODEL			
☒ YES ☐ NO ☐ SOMETIMES						BILSDOM 5603 PWGS			

COMMENTS/SKETCHES

1-10 MIN. BREAK
1-30 MIN LUNCH BREAK



2-10 MIN. BREAKS
1-30 MIN. LUNCH-BREAK



INDUSTRIAL HYGIENE MONITORING DATA SHEET

PLANT NAME		LOC NO.	SAMPLE TAKEN BY	DATE OF TEST					
RIVERSIDE		260	L.M.	10-28-82					
EMPLOYEE NAME		DEPARTMENT/LINE							
COOLEY, DENNIS #131		FINISHING - CPLG CUT-OFF							
JOB TITLE/ENVIRONMENTAL LOCATION		MANUFACTURING PRODUCT							
CPLG CUT-OFF OPERATOR		6-150 CPLGS (2562 pcs)							
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA					
☐ FIBERGLASS		☐ OPEN FACE		☐ 0.8µ MCEF, MILLIPORE FILTER					
☐ ASBESTOS		☐ CLOSED FACE		☐ 5µ PVC FILTER					
☒ TOTAL DUST		☒ CYCLONE		☐ GLASS FIBER-SILVER MEM FILTER					
☐ SILICA DUST		☐ CLOSED FACE		☐ 150 mg. CHARCOAL					
☐ ASPHALT FUMES		☐ CHARCOAL TUBE		☐ SODIUM BISULFITE					
☐ VINYL CHLORIDE (MONOMER)		☐ IMPINGERS, TWO IN SERIES		☐ 300 mg. SILICA GEL					
☐ FORMALDEHYDE		☐ SILICAL GEL		☐ 150 mg. SKC FLORISIL TUBE					
☐ PHENOL		☐ FLORISIL TUBE		☐ GLASS FIBER FILTER					
☐ PCB		☐ CLOSED FACE		☐ 80dba ☐ 85dba ☐ 90dba					
☐ NOISE		☐ AUDIO DOSIMETER							
EQUIPMENT									
☐ DUPONT P4000 PUMP ☐ DUPONT P2500 PUMP ☐ DUPONT P200A PUMP ☒ MSA PUMP ☐ DUPONT D376 DOSIMETER ☐ DUPONT D381 DOSIMETER									
EXHAUST SYSTEMS/REMARKS									
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY									
WEATHER CONDITIONS									
OUTSIDE TEMP		WIND DIRECTION	WIND VELOCITY	☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN					
70-75 °F		NE	7 MPH	☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY					
CNTRL NO.	PUMP SERIAL NO.	T/F	SAMPLE NO.	MILITARY TIME	TOTAL MINS	LPM/CC	VOLUME LITERS	ANALYSIS RESULT	AIRBORNE CONCENTRATION
8	03153	T	3430	0800	1300	300	1.7	STD	0.285 mg
661									0.59 mg/m ³
									SiO ₂ : 48µg = 16.8 %
DID EMPLOYEE WEAR RESPIRATOR?					IF SOMETIMES WHEN?		RESPIRATOR MAKE & MODEL		
☐ YES ☐ NO ☒ SOMETIMES					CLEANING MACHINE, PALLETS FROM		3M 8710		
CNTRL NO	DOS SERIAL	CELL	START (TIME)	STOP	TOTAL MIN	READ OUT RESULT	SHR CORR %	CONVERTER DBA LEVEL	
DID EMPLOYEE WEAR HEARING PROTECTN					IF SOMETIMES WHEN?		MAKE & MODEL		
☒ YES ☐ NO ☐ SOMETIMES							BUSEN 5203 RUGS		
COMMENTS/SKETCHES									

2 - 10 MIN. BREAKS
1 - 30 MIN. LUNCH BREAK



INDUSTRIAL HYGIENE MONITORING DATA SHEET

PLANT NAME		LOC NO.	SAMPLE TAKEN BY	DATE OF TEST
RIVERSIDE		260	L.M.	10-2-82
EMPLOYEE NAME		DEPARTMENT/LINE		
DOBBS, P. #295		FINISHING - BORING MILL - 30"		
JOB TITLE/ENVIRONMENTAL LOCATION		MANUFACTURING PRODUCT		
BORING MILL OPERATOR		6-150 CPLG (828 pcs.)		
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA
☐ FIBERGLASS		☐ OPEN FACE		☐ 0.8µ MCEF, MILLIPORE FILTER
☐ ASBESTOS		☐ CLOSED FACE		☐ 5µ PVC FILTER
☐ TOTAL DUST		☐ CYCLONE		☐ GLASS FIBER SILVER MEM FILTER
☒ SILICA DUST		☐ CLOSED FACE		☐ 150 mg. CHARCOAL
☐ ASPHALT FUMES		☐ CHARCOAL TUBE		☐ SODIUM BISULFITE
☐ VINYL CHLORIDE (MONOMER)		☐ IMPINGERS, TWO IN SERIES		☐ 300 mg. SILICA GEL
☐ FORMALDEHYDE		☐ SILICAL GEL		☐ 150 mg. SKC FLORISIL TUBE
☐ PHENOL		☐ FLORISIL TUBE		☐ GLASS FIBER FILTER
☐ PCB		☐ CLOSED FACE		☐ 80dba ☐ 85dba ☐ 90dba
☐ NOISE		☐ AUDIO DOSIMETER		
EQUIPMENT				
☐ DUPONT P4000 PUMP ☐ DUPONT P2500 PUMP ☐ DUPONT P200A PUMP ☒ MSA PUMP ☐ DUPONT D376 DOSIMETER ☐ DUPONT D381 DOSIMETER				
EXHAUST SYSTEMS/REMARKS				
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY				
WEATHER CONDITIONS				
OUTSIDE TEMP		WIND DIRECTION	WIND VELOCITY	☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN
70 °F		Ø	Ø	☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY
CNTRL NO.	PUMP SERIAL NO.	T.F.	SAMPLE NO.	MILITARY TIME
7	R815791	R	B 442	0802 1402 360
062				
DID EMPLOYEE WEAR RESPIRATOR?		IF SOMETIMES WHEN?		RESPIRATOR MAKE & MODEL
☐ YES ☒ NO ☐ SOMETIMES				
CNTRL NO.	DOS SERIAL	CELL	START (TIME)	STOP
DID EMPLOYEE WEAR HEARING PROTECTN		IF SOMETIMES WHEN?		MAKE & MODEL
☒ YES ☐ NO ☐ SOMETIMES				TA5CO - SWIVEL BAND
COMMENTS/SKETCHES				

2 - 10 MIN. BREAK
1 - 30 MIN. LUNCH-BREAK

PLANT NAME		LOC NO.	SAMPLE TAKEN BY	DATE OF TEST
RIVERSIDE		260	L.M.	10-20-82
EMPLOYEE NAME		DEPARTMENT/LINE		
P. DOBBS #295		FINISHING - #2 BORING MILL		
JOB TITLE/ENVIRONMENTAL LOCATION		MANUFACTURING PRODUCT		
BORING MILL OPER		8-150 CPLGS - (951 PCS)		
CONTAMINANT		SAMPLING METHOD	SAMPLING MEDIA	
☐ FIBERGLASS ☐ ASBESTOS ☒ TOTAL DUST ☐ SILICA DUST ☐ ASPHALT FUMES ☐ VINYL CHLORIDE (MONOMER) ☐ FORMALDEHYDE ☐ PHENOL ☐ PCB ☐ NOISE		☐ OPEN FACE ☒ CLOSED FACE ☐ CYCLONE ☐ CLOSED FACE ☐ CHARCOAL TUBE ☐ IMPINGERS, TWO IN SERIES ☐ SILICAL GEL ☐ FLORISIL TUBE ☐ CLOSED FACE ☐ AUDIO DOSIMETER	☐ 0.8μ MCEF, MILLIPORE FILTER ☐ 5μ PVC FILTER ☐ GLASS FIBER SILVER MEM FILTER ☐ 150 mg. CHARCOAL ☐ SODIUM BISULFITE ☐ 300 mg. SILICA GEL ☐ 150 mg. SKC FLORISIL TUBE ☐ GLASS FIBER FILTER ☐ 80dba ☐ 85dba ☐ 90dba	
EQUIPMENT				
☐ DUPONT P4000 PUMP ☐ DUPONT P2500 PUMP ☐ DUPONT P200A PUMP ☒ MSA PUMP ☐ DUPONT D376 DOSIMETER ☐ DUPONT D381 DOSIMETER				
EXHAUST SYSTEMS/REMARKS				
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY				
WEATHER CONDITIONS				
OUTSIDE TEMP		WIND DIRECTION	WIND VELOCITY	☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY
68-79°		Ø	Ø	
CNTRL NO.	PUMP SERIAL NO.	T _R	SAMPLE NO.	MILITARY TIME
				START STOP TOTAL MINS
3	8153	1	8441	0801 1400 359
663				
NOTE: PUMP REMOVED -- BEGAN TO LOSE ITS CHARGE - CHECKED CALIBRATION = 1.5 LPM, 1.4 LPM				
SiO ₂ = 55ug = 16.1%				
DID EMPLOYEE WEAR RESPIRATOR?		IF SOMETIMES WHEN?		RESPIRATOR MAKE & MODEL
☐ YES ☐ NO ☒ SOMETIMES		CLEAN UP B.M.		E710 - 3M
CNTRL NO.	DOS SERIAL	CELL	START (TIME)	STOP TOTAL MIN READ OUT RESULT SHR CORR % CONVERTER DIA LEVEL
DID EMPLOYEE WEAR HEARING PROTECTN		IF SOMETIMES WHEN?		MAKE & MODEL
☒ YES ☐ NO ☐ SOMETIMES				TASCO - SANNIEL BAND

COMMENTS/SKETCHES

2-10 MIN. BREAKS
1-30 MIN. LUNCH-BREAK



INDUSTRIAL HYGIENE MONITORING DATA SHEET

PLANT NAME		LOC NO.	SAMPLE TAKEN BY	DATE OF TEST
RIVERSIDE		260	L. M.	10-21-82
EMPLOYEE NAME		DEPARTMENT/LINE		
JAMES, JIMMY L. # 161		FINISHING - 4 1/2" BORING MILL		
JOB TITLE/ENVIRONMENTAL LOCATION		MANUFACTURING PRODUCT		
BORING MILL OPER.		24FT 35 COUPLINGS (208 PCS)		
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA
☐ FIBERGLASS	☐ OPEN FACE	☐ 0.8μ MCEF, MILLIPORE FILTER		
☐ ASBESTOS	☐ CLOSED FACE	☐ 5μ PVC FILTER		
☐ TOTAL DUST	☒ CYCLONE	☐ GLASS FIBER-SILVER MEM FILTER		
☒ SILICA DUST	☐ CLOSED FACE	☐ 150 mg. CHARCOAL		
☐ ASPHALT FUMES	☐ CHARCOAL TUBE	☐ SODIUM BISULFITE		
☐ VINYL CHLORIDE (MONOMER)	☐ IMPINGERS, TWO IN SERIES	☐ 300 mg. SILICA GEL		
☐ FORMALDEHYDE	☐ SILICAL GEL	☐ 150 mg. SKC FLORISIL TUBE		
☐ PHENOL	☐ FLORISIL TUBE	☐ GLASS FIBER FILTER		
☐ PCB	☐ CLOSED FACE	☐ 80dba ☐ 85dba ☐ 90dba		
☐ NOISE	☐ AUDIO DOSIMETER			
EQUIPMENT				
☐ DUPONT P4000 PUMP	☐ DUPONT P2500 PUMP	☐ DUPONT P200A PUMP	☒ MSA PUMP	☐ DUPONT D376 DOSIMETER
EXHAUST SYSTEMS/REMARKS				
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY				
WEATHER CONDITIONS				
OUTSIDE TEMP		WIND DIRECTION	WIND VELOCITY	☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN
68. °F		Ø	Ø	☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY
CNTRL NO.	PUMP SERIAL NO.	T/R	SAMPLE NO.	MILITARY TIME
5	R81-519	R	8439	0805 1435
064				390
				1.7
				663
				0.031 mg
				0.05 mg/m³
DID EMPLOYEE WEAR RESPIRATOR?		IF SOMETIMES WHEN?		RESPIRATOR MAKE & MODEL
☐ YES ☒ NO ☐ SOMETIMES				
CNTRL NO.	DOS SERIAL	CELL	START (TIME)	STOP
DID EMPLOYEE WEAR HEARING PROTECTN		IF SOMETIMES WHEN?		MAKE & MODEL
☒ YES ☐ NO ☐ SOMETIMES				BILSON S603 PLUS
COMMENTS/SKETCHES				

2-10 MIN. BREAKS
1-30 MIN. LUNCH-BREAKS



INDUSTRIAL HYGIENE MONITORING DATA SHEET

PLANT NAME		LOC. NO.	SAMPLE TAKEN BY	DATE OF TEST
RIVERSIDE		260	L.M.	10-29-82
EMPLOYEE NAME		DEPARTMENT/LINE		
JAMES, JIMMY L #161		FINISHING - 42" BORING MILL		
JOB TITLE/ENVIRONMENTAL LOCATION		MANUFACTURING PRODUCT		
BORING MILL OPERATOR		24 FT 35 COUPLINGS (278 pcs)		
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA
☐ FIBERGLASS	☐ OPEN FACE	☐ 0.8μ MCEF, MILLIPORE FILTER		
☐ ASBESTOS	☐ CLOSED FACE	☐ 5μ PVC FILTER		
☒ TOTAL DUST	☒ CYCLONE	☐ GLASS FIBER-SILVER MEM FILTER		
☐ SILICA DUST	☐ CLOSED FACE	☐ 150 mg. CHARCOAL		
☐ ASPHALT FUMES	☐ CHARCOAL TUBE	☐ SODIUM BISULFITE		
☐ VINYL CHLORIDE (MONOMER)	☐ IMPINGERS, TWO IN SERIES	☐ 300 mg. SILICA GEL		
☐ FORMALDEHYDE	☐ SILICAL GEL	☐ 150 mg. SKC FLORISIL TUBE		
☐ PHENOL	☐ FLORISIL TUBE	☐ GLASS FIBER FILTER		
☐ PCB	☐ CLOSED FACE	☐ 80dba ☐ 85dba ☐ 90dba		
☐ NOISE	☐ AUDIO DOSIMETER			
EQUIPMENT				
☐ DUPONT P4000 PUMP	☐ DUPONT P2500 PUMP	☐ DUPONT P200A PUMP	☒ MSA PUMP	☐ DUPONT D376 DOSIMETER
☐ DUPONT D381 DOSIMETER				
EXHAUST SYSTEMS/REMARKS				
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY				
WEATHER CONDITIONS				
OUTSIDE TEMP		WIND DIRECTION	WIND VELOCITY	☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN
70-79 °F		Ø	Ø MPH	☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY
CNTRL NO.	PUMP SERIAL NO.	T/R	SAMPLE NO.	MILITARY TIME
				START STOP TOTAL MINS
11	1617	T	B-435	0805 1435 390
065				
DID EMPLOYEE WEAR RESPIRATORY?		IF SOMETIMES WHEN?		RESPIRATOR MAKE & MODEL
☐ YES ☒ NO ☐ SOMETIMES				
CNTRL NO	DOS SERIAL	CELL	START (TIME)	STOP
DID EMPLOYEE WEAR HEARING PROTECTN		IF SOMETIMES WHEN?		MAKE & MODEL
☒ YES ☐ NO ☐ SOMETIMES				BILSON - 5603 PLUGS.
COMMENTS/SKETCHES				

2 - 10 MIN. BREAKS
1 - 30 MIN. LUNCH BREAK



INDUSTRIAL HYGIENE MONITORING DATA SHEET

PLANT NAME RIVERSIDE		LOC NO. 260	SAMPLE TAKEN BY L.A.	DATE OF TEST 10-20-82					
EMPLOYEE NAME J. DOBBS # 323		DEPARTMENT/LINE 1/4 LINE OPER (FINISHING)							
JOB TITLE/ENVIRONMENTAL LOCATION LATHE OPER. AT 1/4 LINE		MANUFACTURING PRODUCT 6" 50 1/4 FM (145 PCS)							
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA					
☐ FIBERGLASS		☐ OPEN FACE		☐ 0.8μ MCF, MILLIPORE FILTER					
☐ ASBESTOS									
☐ TOTAL DUST		☐ CLOSED FACE		☐ 5μ PVC FILTER					
☒ SILICA DUST		☒ CYCLONE							
☐ ASPHALT FUMES		☐ CLOSED FACE		☐ GLASS FIBER-SILVER MEM FILTER					
☐ VINYL CHLORIDE (MONOMER)		☐ CHARCOAL TUBE		☐ 150 mg. CHARCOAL					
☐ FORMALDEHYDE		☐ IMPINGERS, TWO IN SERIES		☐ SODIUM BISULFITE					
☐ PHENOL		☐ SILICAL GEL		☐ 300 mg. SILICA GEL					
☐ PCB		☐ FLORISIL TUBE		☐ 150 mg. SKC FLORISIL TUBE					
		☐ CLOSED FACE		☐ GLASS FIBER FILTER					
☐ NOISE		☐ AUDIO DOSIMETER		☐ 80dba ☐ 85dba ☐ 90dba					
EQUIPMENT									
☐ DUPONT P4000 PUMP ☐ DUPONT P2500 PUMP ☐ DUPONT P200A PUMP ☒ MSA PUMP ☐ DUPONT D376 DOSIMETER ☐ DUPONT D381 DOSIMETER									
EXHAUST SYSTEMS/REMARKS									
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY									
WEATHER CONDITIONS									
OUTSIDE TEMP 68-73°F		WIND DIRECTION Ø	WIND VELOCITY MSH						
☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY									
CNTRL NO.	PUMP SERIAL NO.	T/F	SAMPLE NO.	MILITARY TIME START STOP	TOTAL MINS	LPM/CC	VOLUME LITERS	ANALYSIS RESULT	AIRBORNE CONCENTRATION
4	815711	R	438	0810 1520	430	1.7	731	0.055 mg	0.08 mg/m³
Dobbs									
DID EMPLOYEE WEAR RESPIRATORY?		IF SOMETIMES WHEN?		RESPIRATOR MAKE & MODEL					
☐ YES ☒ NO ☐ SOMETIMES									
CNTRL NO	DOS SERIAL	CELL	START (TIME)	STOP	TOTAL MIN	READ OUT RESULT	SHR CORR %	CONVERTED PPM LEVEL	
DID EMPLOYEE WEAR HEARING PROTECTN?		IF SOMETIMES WHEN?		MAKE & MODEL					
☒ YES ☐ NO ☐ SOMETIMES				BUSOM EARPLUGS # 2308					

COMMENTS/SKETCHES

2 - 10 MIN. BREAKS
1 - 30 MIN. LUNCH BREAK

CTD027375



INDUSTRIAL HYGIENE MONITORING DATA SHEET

PLANT NAME RIVERSIDE		LOC NO. 260	SAMPLE TAKEN BY L.M.	DATE OF TEST 10-29-82					
EMPLOYEE NAME DOBBS, JEFF M # 323		DEPARTMENT/LINE FINISHING - LATHE - FM							
JOB TITLE/ENVIRONMENTAL LOCATION 1/4 LINE LATHE OPERATOR - (LATHE HAS ITS OWN MINI HYDROTESTER)		MANUFACTURING PRODUCT 8" 150 1/4 MEO (175 pcs)							
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA					
☐ FIBERGLASS		☐ OPEN FACE		☐ 0.8μ MCEF, MILLIPORE FILTER					
☐ ASBESTOS		☐ CLOSED FACE		☐ 5μ PVC FILTER					
☒ TOTAL DUST		☒ CYCLONE		☐ GLASS FIBER-SILVER MEM FILTER					
☐ SILICA DUST		☐ CLOSED FACE		☐ 150 mg. CHARCOAL					
☐ ASPHALT FUMES		☐ CHARCOAL TUBE		☐ SODIUM BISULFITE					
☐ VINYL CHLORIDE (MONOMER)		☐ IMPINGERS, TWO IN SERIES		☐ 300 mg. SILICA GEL					
☐ FORMALDEHYDE		☐ SILICAL GEL		☐ 150 mg. SKC FLORISIL TUBE					
☐ PHENOL		☐ FLORISIL TUBE		☐ GLASS FIBER FILTER					
☐ PCB		☐ CLOSED FACE		☐ 80dba ☐ 85dba ☐ 90dba					
☐ NOISE		☐ AUDIO DOSIMETER							
EQUIPMENT									
☐ DUPONT P4000 PUMP ☐ DUPONT P2500 PUMP ☐ DUPONT P200A PUMP ☒ MSA PUMP ☐ DUPONT D376 DOSIMETER ☐ DUPONT D381 DOSIMETER									
EXHAUST SYSTEMS/REMARKS									
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY									
WEATHER CONDITIONS									
OUTSIDE TEMP 70-79 °F		WIND DIRECTION Ø	WIND VELOCITY Ø MPH	☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY					
CNTRL NO. 10	PUMP SERIAL NO. 3155	T/R 1	SAMPLE NO. B431	MILITARY TIME START 0802 STOP 1438	TOTAL MINS 396	LPM/CC 2.0	VOLUME LITERS 992	ANALYSIS RESULT 0.493μg	AIRBORNE CONCENTRATION 6.62 μg/m³
067								SiO₂ = 225μg = 5.1%	
DID EMPLOYEE WEAR RESPIRATOR?					IF SOMETIMES WHEN?		RESPIRATOR MAKE & MODEL		
☒ YES ☐ NO ☐ SOMETIMES									
CNTRL NO.	DOS SERIAL	CELL	START (TIME)	STOP	TOTAL MIN	READ OUT RESULT	SHR CORR %	CONVERTED DBA LEVEL	
DID EMPLOYEE WEAR HEARING PROTECTN?					IF SOMETIMES WHEN?		MAKE & MODEL		
☒ YES ☐ NO ☐ SOMETIMES							EAR MUFFS - BILSON 2308		
COMMENTS/SKETCHES									

2 - 10 MIN BREAKS
1 - 30 MIN LUNCH-BREAK

CTD027376



INDUSTRIAL HYGIENE MONITORING DATA SHEET

PLANT NAME		LOC NO.	SAMPLE TAKEN BY	DATE OF TEST
RIVERSIDE		260	L.M.	10-29-82
EMPLOYEE NAME		DEPARTMENT/LINE		
GIL, LARRY #118		FINISHING - FM LATH		
JOB TITLE/ENVIRONMENTAL LOCATION		MANUFACTURING PRODUCT		
LATH OPERATOR		24" 2400 S&W 1/2 MEO (10 pcs) 24" FT35/150 PAD-19 (11 pcs) 12 FT60x40 PAD 18 (2 pcs)		
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA
☐ FIBERGLASS	☐ OPEN FACE	☐ 0.8µ MCEF, MILLIPORE FILTER		
☐ ASBESTOS	☐ CLOSED FACE	☐ 5µ PVC FILTER		
☐ TOTAL DUST	☒ CYCLONE	☐ GLASS FIBER-SILVER MEM FILTER		
☒ SILICA DUST	☐ CLOSED FACE	☐ 150 mg. CHARCOAL		
☐ ASPHALT FUMES	☐ CHARCOAL TUBE	☐ SODIUM BISULFITE		
☐ VINYL CHLORIDE (MONOMER)	☐ IMPINGERS, TWO IN SERIES	☐ 300 mg. SILICA GEL		
☐ FORMALDEHYDE	☐ SILICAL GEL	☐ 150 mg. SKC FLORISIL TUBE		
☐ PHENOL	☐ FLORISIL TUBE	☐ GLASS FIBER FILTER		
☐ PCB	☐ CLOSED FACE	☐ 80dba ☐ 85dba ☐ 90dba		
☐ NOISE	☐ AUDIO DOSIMETER			
EQUIPMENT				
☐ DUPONT P4000 PUMP	☐ DUPONT P2500 PUMP	☐ DUPONT P200A PUMP	☒ MSA PUMP	☐ DUPONT D376 DOSIMETER
☐ DUPONT D381 DOSIMETER				
EXHAUST SYSTEMS/REMARKS				
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY				
WEATHER CONDITIONS				
OUTSIDE TEMP	WIND DIRECTION	WIND VELOCITY	☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN	
70-79 °F	Ø	Ø	☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY	
CTRL NO.	PUMP SERIAL NO.	T/R	SAMPLE NO.	MILITARY TIME
				START STOP TOTAL MINS
9	815791	R	B 432	0758 1432 392
DID EMPLOYEE WEAR RESPIRATOR?		IF SOMETIMES WHEN?		RESPIRATOR MAKE & MODEL
☒ YES ☐ NO ☐ SOMETIMES				3M 8710
CTRL NO	DOS SERIAL	CELL	START (TIME)	STOP TOTAL MIN READ OUT RESULT
DID EMPLOYEE WEAR HEARING PROTECTN		IF SOMETIMES WHEN?		MAKE & MODEL
☒ YES ☐ NO ☐ SOMETIMES				BILSON 5603 PLUGS

COMMENTS/SKETCHES

2-10 MIN. BREAKS
1-30 MIN. - LUNCH-BREAK

CTD027377



INDUSTRIAL HYGIENE MONITORING DATA SHEET

PLANT NAME		LOC NO.	SAMPLE TAKEN BY	DATE OF TEST						
RIVERSIDE		260	L.M.	10-21-82						
EMPLOYEE NAME		DEPARTMENT/LINE								
GIL, LARRY L. #118		FINISHING - FM LATHE								
JOB TITLE/ENVIRONMENTAL LOCATION		MANUFACTURING PRODUCT								
LATHE OPERATOR		16-150 1/4 ME0 ; 14-150 1/4 ME0 (24 PCS) (10 PCS)								
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA						
☐ FIBERGLASS		☐ OPEN FACE		☐ 0.8µ MCEF, MILLIPORE FILTER						
☐ ASBESTOS		☐ CLOSED FACE		☐ 5µ PVC FILTER						
☒ TOTAL DUST		☒ CYCLONE		☐ GLASS FIBER SILVER MEM FILTER						
☐ SILICA DUST		☐ CLOSED FACE		☐ 150 mg. CHARCOAL						
☐ ASPHALT FUMES		☐ CHARCOAL TUBE		☐ SODIUM BISULFITE						
☐ VINYL CHLORIDE (MONOMER)		☐ IMPINGERS, TWO IN SERIES		☐ 300 mg. SILICA GEL						
☐ FORMALDEHYDE		☐ SILICAL GEL		☐ 150 mg. SKC FLORISIL TUBE						
☐ PHENOL		☐ FLORISIL TUBE		☐ GLASS FIBER FILTER						
☐ PCB		☐ CLOSED FACE		☐ 80dba ☐ 85dba ☐ 90dba						
☐ NOISE		☐ AUDIO DOSIMETER								
EQUIPMENT										
☐ DUPONT P4000 PUMP ☐ DUPONT P2500 PUMP ☐ DUPONT P200A PUMP ☒ MSA PUMP ☐ DUPONT D376 DOSIMETER ☐ DUPONT D381 DOSIMETER										
EXHAUST SYSTEMS/REMARKS										
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY										
WEATHER CONDITIONS										
OUTSIDE TEMP		WIND DIRECTION	WIND VELOCITY	☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN						
68 °F		Ø	Ø MPH	☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY						
CNTRL NO.	PUMP SERIAL NO.	T	SAMPLE NO.	MILITARY TIME	TOTAL MINS	LPM/CC	VOLUME LITERS	ANALYSIS RESULT	AIRBORNE CONCENTRATION	
6	9155	T	B497	0810	1448	398	2.0	796	0.116 µg	0.15 µg/m³
069										
DID EMPLOYEE WEAR RESPIRATOR?					IF SOMETIMES WHEN?		RESPIRATOR MAKE & MODEL			
☒ YES ☐ NO ☐ SOMETIMES							3M 8710			
CNTRL NO	DOS SERIAL	CELL	START (TIME)	STOP	TOTAL MIN	READ OUT RESULT	8HR CORR %	CONVERTED RES LEVEL		
DID EMPLOYEE WEAR HEARING PROTECTN					IF SOMETIMES WHEN?		MAKE & MODEL			
☒ YES ☐ NO ☐ SOMETIMES							BILSON 5603 PLUGS			
COMMENTS/SKETCHES										

2 - 10 MIN. BREAKS
1 - 30 MIN. LUNCH BREAK

CTD027378



INDUSTRIAL HYGIENE MONITORING DATA SHEET

PLANT NAME RIVERSIDE		LOC NO. 260	SAMPLE TAKEN BY L.M.	DATE OF TEST 11-2-82				
EMPLOYEE NAME HAMILTON, CHRIS #132		DEPARTMENT/LINE FINISHING - FITTINGS						
JOB TITLE/ENVIRONMENTAL LOCATION FITTINGS MAKER		MANUFACTURING PRODUCT GLUES 6" (50 x 1") T.B.C (80 pc)						
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA				
☐ FIBERGLASS		☐ OPEN FACE		☐ 0.8µ MCEF, MILLIPORE FILTER				
☐ ASBESTOS		☐ CLOSED FACE		☐ 5µ PVC FILTER				
☐ TOTAL DUST		☐ CYCLONE		☐ GLASS FIBER SILVER MEM FILTER				
☒ SILICA DUST		☒ CLOSED FACE		☐ 150 mg. CHARCOAL				
☐ ASPHALT FUMES		☐ CHARCOAL TUBE		☐ SODIUM BISULFITE				
☐ VINYL CHLORIDE (MONOMER)		☐ IMPINGERS, TWO IN SERIES		☐ 300 mg. SILICA GEL				
☐ FORMALDEHYDE		☐ SILICAL GEL		☐ 150 mg. SKC FLORISIL TUBE				
☐ PHENOL		☐ FLORISIL TUBE		☐ GLASS FIBER FILTER				
☐ PCB		☐ CLOSED FACE		☐ 80dba ☐ 85dba ☐ 90dba				
☐ NOISE		☐ AUDIO DOSIMETER						
EQUIPMENT								
☐ DUPONT P4000 PUMP ☐ DUPONT P2500 PUMP ☐ DUPONT P200A PUMP ☒ MSA PUMP ☐ DUPONT D376 DOSIMETER ☐ DUPONT D381 DOSIMETER								
EXHAUST SYSTEMS/REMARKS								
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY								
WEATHER CONDITIONS								
OUTSIDE TEMP 68 - 78 °F		WIND DIRECTION NE	WIND VELOCITY 20 MPH	☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY				
CNTRL NO.	PUMP SERIAL NO.	T/R	SAMPLE NO.	MILITARY TIME START STOP TOTAL MINS	LPM/CC	VOLUME LITERS	ANALYSIS RESULT	AIRBORNE CONCENTRATION
14	815791	R	8-448	0750 1448 418	1.7	710.6	0.036 mg	0.05 mg/m³
076								
DID EMPLOYEE WEAR RESPIRATOR?		IF SOMETIMES WHEN?		RESPIRATOR MAKE & MODEL				
☐ YES ☒ NO ☐ SOMETIMES								
CNTRL NO.	DOS SERIAL	CELL	START (TIME)	STOP	TOTAL MIN	READ OUT RESULT	SHR CORR %	CONVERTED DBA LEVEL
DID EMPLOYEE WEAR HEARING PROTECTN?		IF SOMETIMES WHEN?		MAKE & MODEL				
☒ YES ☐ NO ☐ SOMETIMES				BILSON 3603 PLUGS				
COMMENTS/SKETCHES								

2 - 10 MIN. BREAKS

1. 30 MIN. LUNCH BREAK



INDUSTRIAL HYGIENE MONITORING DATA SHEET

PLANT NAME RIVERSIDE		LOC NO. 260	SAMPLE TAKEN BY L.M.	DATE OF TEST 11-1-82				
EMPLOYEE NAME HAMILTON, CHRIS #132		DEPARTMENT/LINE FINISHING - FITTINGS						
JOB TITLE/ENVIRONMENTAL LOCATION FITTINGS MAKER		MANUFACTURING PRODUCT 12150 X 1" L.B. TAPS (36 pcs) DRILLED 6250 TBC X 1" (100 pcs)						
CONTAMINANT		SAMPLING METHOD		SAMPLING MEDIA				
☐ FIBERGLASS		☐ OPEN FACE		☐ 0.8μ MCEF, MILLIPORE FILTER				
☐ ASBESTOS		☐ CLOSED FACE		☐ 5μ PVC FILTER				
☒ TOTAL DUST		☒ CYCLONE		☐ GLASS FIBER-SILVER MEM FILTER				
☐ SILICA DUST		☐ CLOSED FACE		☐ 150 mg. CHARCOAL				
☐ ASPHALT FUMES		☐ CHARCOAL TUBE		☐ SODIUM BISULFITE				
☐ VINYL CHLORIDE (MONOMER)		☐ IMPINGERS, TWO IN SERIES		☐ 300 mg. SILICA GEL				
☐ FORMALDEHYDE		☐ SILICAL GEL		☐ 150 mg. SKC FLORISIL TUBE				
☐ PHENOL		☐ FLORISIL TUBE		☐ GLASS FIBER FILTER				
☐ PCB		☐ CLOSED FACE		☐ 80dba ☐ 85dba ☐ 90dba				
☐ NOISE		☐ AUDIO DOSIMETER						
EQUIPMENT								
☐ DUPONT P4000 PUMP ☐ DUPONT P2500 PUMP ☐ DUPONT P200A PUMP ☒ MSA PUMP ☐ DUPONT D376 DOSIMETER ☐ DUPONT D381 DOSIMETER								
EXHAUST SYSTEMS/REMARKS								
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY								
WEATHER CONDITIONS								
OUTSIDE TEMP 68-78 °F		WIND DIRECTION —	WIND VELOCITY — MPH	☒ SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐ FOG ☐ SHOWERS ☐ SNOW ☐ PTLY. CLOUDY				
CNTRL. NO.	PUMP SERIAL NO.	T/F	SAMPLE NO.	MILITARY TIME START STOP TOTAL MINS	LPM/CC	VOLUME LITERS	ANALYSIS RESULT	AIRBORNE CONCENTRATION
13	3155	T	8445	0800 1515 435	2.0	870	0.285 mg	0.33 mg/m³
67							SiO₂ = 25.4 = 8.7%	
DID EMPLOYEE WEAR RESPIRATOR?					IF SOMETIMES WHEN?		RESPIRATOR MAKE & MODEL	
☐ YES ☒ NO ☐ SOMETIMES								
CNTRL. NO.	DOS. SERIAL	CELL	START (TIME)	STOP	TOTAL MIN	READ OUT RESULT	SHR CORR %	CONVERTED PPM LEVEL
DID EMPLOYEE WEAR HEARING PROTECTN					IF SOMETIMES WHEN?		MAKE & MODEL	
☒ YES ☐ NO ☐ SOMETIMES							BUSDM S603 PLUGS	

COMMENTS/SKETCHES

2-10 MIN. BREAKS
1-30 MIN. LUNCH BREAK