

PLAINTIFF'S EXHIBIT

CT-1310

INDUSTRIAL HYGIENE SURVEY
IHS 86-11
RIVERSIDE A/C PIPE PLANT
AUGUST 18-20, 1986

IHS 86-11 RIVERSIDE A/C PIPE
AUGUST 18-20, 1986

Riverside

Travel - OHK
JW \$996.17

Analysis -

Plant Follow up -	Jan	\$375 ⁰⁰
	March	\$200 ⁰⁰
	April	\$150 ⁰⁰
	Feb	\$250 ⁰⁰

CTD021798

Smead MFG. CO. HASTINGS MN. LOS ANGELES - CHICAGO
LOGAN OH. MCGREGOR TX. LOCUST GROVE GA.

TITLE PAGE-STOCK NO. 100TP

INDUSTRIAL HYGIENE SURVEY
IHS 86-11
RIVERSIDE A/C PIPE PLANT
AUGUST 18-20, 1986

CTD021799

Preliminary
Report

CertainTeed

To J. Burke	Mail Code #260 Riverside	From <i>O. H. Kittilstad</i> O. H. Kittilstad	Mail Code 1125/4	Ext. 7505
Subject INDUSTRIAL HYGIENE SURVEY IHS 86-11 ASBESTOS SAMPLING RESULTS - PRELIMINARY REPORT				Date November 7, 1986

cc: J. McGinley - 2125/2B

Attached is a preliminary report of sample results for samples taken at your plant August 18-20, 1986 (Table I). These are the official results based on NATLSCO's analysis using the A counting rules as described in the OSHA Standard 29CFR1910.1001, Appendix A.

The results show that 27% of the time weighted average exposures exceed the OSHA action level of 0.1 f/cc with 8% exceeding the OSHA PEL of 0.2 f/cc (Table II).

When applying the OSHA confidence levels for asbestos (see Table I, column "LCL/UCL") we are 95% confident that 6 TWA exposures exceeded the OSHA PEL (0.2 f/cc), because the upper confidence level (UCL) was greater than 1.0. For a more thorough explanation of OSHA confidence levels and how they are calculated, refer to the Corporate Health and Safety Maintenance Manual, section on "Exposure Sampling Confidence Levels."

The six employees whose exposure exceeded the PEL are:

- Press Operator - Loyer
- Hydrotester - Foose
- Pipe Handler - Contreras
- ¼ Lathe Operator - Suarez
- Coupling Cut Off Operator - Cooley
- Shift Mechanic - Satharnkich

These employees should be resampled as soon as possible to substantiate the levels found during this survey.

We are awaiting receipt of the make-up samples from Larry for the fourteen employees that were not sampled during this survey.

In addition, two more employees, Saniga - Tray Loader/Truck Driver and Perry - Miller had voided samples, so a TWA could not be calculated. These employees should also be resampled.

In contrast to the results of this survey, we found no exposures exceeding 0.1 f/cc (95% confidence level) at the Hillsboro Plant.

I strongly urge you closely evaluate all of the operations which exceeded the action level of 0.1 f/cc to determine what engineering and housekeeping measures can be implemented to reduce these levels to below the action level of 0.1 f/cc prior to California's implementation of their standard expected in January, 1987.

CTD021800

J. Burke
November 7, 1986
Page Two

If you have any questions or comments, please contact me. A final industrial hygiene report on this survey will be issued in the near future.

OHK/lh

Attachment

CTD021801

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

15:18 THURSDAY, NOVEMBER 6, 1986 1

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0001A	MIXER OPERATOR MARTINEZ, P. 860819 1ST	ASBESTOS	7:01- 11:12	251	.096		OSHA PEL = 0.2 F/CC	
0001B			11:12- 14:22	190	.059	.008	DUMPING ALUMINA SILICATE 1-3PM OSHA PEL = 0.2 F/CC	.325 .475
0002A	MIXER OPERATOR BRADY 860820 3RD	ASBESTOS	0:33- 4:07	214	.083		OSHA PEL = 0.2 F/CC	
0002B			4:07- 6:56	169	0.09	.086	OSHA PEL = 0.2 F/CC	.355 .508
0003A	MACHINE TENDER MORALES, D. 860819 1ST	ASBESTOS	6:59- 11:14	255	.135		OSHA PEL = 0.2 F/CC	
0003B			11:14- 14:42	208	.074	.107	OSHA PEL = 0.2 F/CC	.435 .639
0004A	MACHINE TENDER AESCHLIMAN, K. 860818 2ND	ASBESTOS	15:03- 19:02	239	.081		OSHA PEL = 0.2 F/CC	
0004B			19:02- 22:49	227	--		SAMPLE VOIDED, HOSE DISCONNECTED	
0005A	MACHINE TENDER AESCHLIMAN, K. 860820 2ND	ASBESTOS	15:05- 19:40	275	.073		OSHA PEL = 0.2 F/CC	
0005B			19:40- 22:41	181	.208	.126	OSHA PEL = 0.2 F/CC	.515 .748

CTD021802

TABLE 1
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

15:18 THURSDAY, NOVEMBER 6, 1986 2

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0006A	MACHINE TENDER MARRON 860820 3RD	ASBESTOS	0:26- 3:48	202	.129		OSHA PEL = 0.2 F/CC	
0006B			3:48- 6:58	190	.114	.122	OSHA PEL = 0.2 F/CC	.502 .719
0007A	PRESS OPERATOR VILLALPANDO, A. 860819 1ST	ASBESTOS	6:56- 11:13	257	--		SAMPLE VOIDED, HEAVY PARTICULATE	
0007B			11:13- 14:20	187	--	--	SAMPLE VOIDED, RUSTY MANDELS FILTER HEAVILY LOADED	-- --
0008A	PRESS OPERATOR VILLALPANDO, A. 860820 1ST	ASBESTOS	6:59- 11:51	292	.044		OSHA PEL = 0.2 F/CC	
0008B			11:51- 13:36	105	.044		OSHA PEL = 0.2 F/CC	
0008C			13:36- 14:37	61	.124	.055	OSHA PEL = 0.2 F/CC	.231 .317
0009A	PRESS OPERATOR PADRON, M. 860818 2ND	ASBESTOS	14:57- 18:52	235	.125		OSHA PEL = 0.2 F/CC	
0009B			18:52- 22:35	223	.142	.133	OSHA PEL = 0.2 F/CC	.549 .784
0010A	PRESS OPERATOR LOYER 860820 3RD	ASBESTOS	0:30- 3:49	199	.244		OSHA PEL = 0.2 F/CC	

CTD021803

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

15:18 THURSDAY, NOVEMBER 6, 1986 3

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
00108			3:49- 6:57	188	.173	0.21	OSHA PEL = 0.2 F/CC	0.86 1.24
0011A	MANDREL HANDLER BRYANT, B. 860819 1ST	ASBESTOS	6:58- 11:10	252	--		SAMPLE VOIDED, FILTER HEAVILY LOADED	
00118			11:10- 14:20	190	--	--	SAMPLE VOIDED, FILTER HEAVILY LOADED	-- --
'2A	MANDREL HANDLER BRYANT, B. 860820 1ST	ASBESTOS	7:00- 10:05	185	.043		RUSTY MANDRELS, FILTER HEAVILY LOADED	
0012B			10:05- 12:01	116	--		RUSTY MANDRELS, FILTER HEAVILY LOADED	
0012C			12:01- 12:14	13	.077		RUSTY MANDRELS, FILTER HEAVILY LOADED OSHA PEL = 0.2 F/CC	
0013A	MANDREL HANDLER PLAZA, M. 860818 2ND	ASBESTOS	14:55- 18:53	238	.091		OSHA PEL = 0.2 F/CC	
0013B			18:53- 22:31	218	.184	.136	OSHA PEL = 0.2 F/CC	.554 .804
0014A	MANDREL HANDLER CANTRELL 860820 3RD	ASBESTOS	23:53- 3:50	237	.041		RUSTY MANDRELS FILTER HEAVILY LOADED OSHA PEL = 0.2 F/CC	
0014B			3:50- 6:59	189	.076	.057	RUSTY MANDRELS FILTER HEAVILY LOADED OSHA PEL = 0.2 F/CC	.232 .334

CTD021804

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

15:18 THURSDAY, NOVEMBER 6, 1986 4

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0015A	STRIPPER OPERATOR EATON, D. 860819 1ST	ASBESTOS	6:57- 11:17	260	0.03		OSHA PEL = 0.2 F/CC	
0015B			11:17- 14:26	189	.038	.034	OSHA PEL = 0.2 F/CC	.138 .198
0016A	STRIPPER OPERATOR WILLIAMS, B. 860818 2ND	ASBESTOS	14:59- 18:55	236	.012		OSHA PEL = 0.2 F/CC	
'68			18:55- 22:33	218	.025	.018	OSHA PEL = 0.2 F/CC	.074 .108
0017A	STRIPPER OPERATOR SONCRANT 860820 3RD	ASBESTOS	0:40- 3:53	193	.001		OSHA PEL = 0.2 F/CC	
0017B			3:53- 6:53	180	.003	.002	OSHA PEL = 0.2 F/CC	.008 .012
0018A	TRAY LOADER RUSSELL, R. 860819 1ST	ASBESTOS	7:00- 12:00	300	.004		OSHA PEL = 0.2 F/CC	
0018B			12:05- 14:22	137	.004	.004	OSHA PEL = 0.2 F/CC	.017 .025
0019A	TRAY LOADER HEUTON, D. 860818 2ND	ASBESTOS	14:59- 18:57	238	.007		OSHA PEL = 0.2 F/CC	
0019B			18:57- 22:30	213	.021	.014	OSHA PEL = 0.2 F/CC	.056 .083

CTD021805

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

15:18 THURSDAY, NOVEMBER 6, 1986 5

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UC
0020A	TRAY LOADER ANAYA, M. 860820 3RD	ASBESTOS	0:25- 4:00	215	.031		OSHA PEL = 0.2 F/CC	
0020B			4:00- 6:54	174	.008	.021	OSHA PEL = 0.2 F/CC	.082 .126
0021A	TRAY LOADER/TRUCK DRIVER SANIGA, E. 860819 1ST	ASBESTOS	6:58- 11:16	258	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0021B			11:16- 14:25	189	--	--	SAMPLE VOIDED, PUMP MALFUNCTION	-- --
0022A	TRAY LOADER/TRUCK DRIVER LEDFOORD, J. 860818 2ND	ASBESTOS	15:01- 18:58	237	--		SAMPLE VOIDED, HOSE DISCONNECTED	
0022B			18:58- 22:30	212	--	--	OSHA PEL = 0.2 F/CC	-- --
0023A	TRAY LOADER/TRUCK DRIVER COLE 860820 3RD	ASBESTOS	0:25- 4:02	217	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0023B			4:02- 6:54	172	--	--	SAMPLE VOIDED, PUMP MALFUNCTION	-- --
0024A	RELIEF OPERATOR RICHARDSON, J. 860819 1ST	ASBESTOS	7:01- 11:53	292	--		OSHA PEL = 0.2 F/CC	
0024B			11:53- 14:20	147	--	--	SAMPLE VOIDED, FILTER HEAVILY LOADED	-- --

CTD021806

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 6

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0025A	RELIEF OPERATOR RICHARDSON, J. 860820 1ST	ASBESTOS	7:04- 9:33	149	.053		OSHA PEL = 0.2 F/CC	
0025B			9:33- 11:50	137	.072		OSHA PEL = 0.2 F/CC	
0025C			11:50- 13:41	111	.073		OSHA PEL = 0.2 F/CC	
0025D			13:41- 14:40	59	.026	0.06	OSHA PEL = 0.2 F/CC	.259 .342
0026A	RELIEF OPERATOR CASAS 860820 3RD	ASBESTOS	0:29- 3:45	196	.074		OSHA PEL = 0.2 F/CC	
0026B			3:45- 6:59	194	.065	0.07	OSHA PEL = 0.2 F/CC	.287 0.41
0027A	SUPERVISOR GARCIA, E. 860819 1ST	ASBESTOS	7:02- 11:11	249	.047		OSHA PEL = 0.2 F/CC	
0027B			11:11- 14:21	190	.133	.084	DUMPING ALUMINA SILICATE 1-3PM OSHA PEL = 0.2 F/CC	.341 0.5
0028A	SUPERVISOR BIXLER, G. 860820 3RD	ASBESTOS	0:26- 4:04	218	.004		OSHA PEL = 0.2 F/CC	
0028B			4:04- 6:45	161	.041	.019	OSHA PEL = 0.2 F/CC	.075 .118

CTD021807

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 7

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0029A	LATHE OPERATOR EVANS, G. 860819 1ST	ASBESTOS	7:39- 11:30	231	.024		OSHA PEL = 0.2 F/CC	
0029B			11:30- 15:28	238	.116	0.07	OSHA PEL = 0.2 F/CC	.277 .427
0030A	LATHE OPERATOR PASILLAS, D. - 860818 2ND	ASBESTOS	15:35- 19:30	235	0.05		OSHA PEL = 0.2 F/CC	
0030B			19:53- 23:13	200	.099	.073	OSHA PEL = 0.2 F/CC	.297 .429
0031A	ASSISTANT LATHE OPERATOR HAMPTON, C. 860819 1ST	ASBESTOS	7:45- 11:01	196	.018		OSHA PEL = 0.2 F/CC	
0031B			11:25- 15:28	243	.094	0.06	OSHA PEL = 0.2 F/CC	.233 .365
0032A	ASSISTANT LATHE OPERATOR COOPER, H. 860818 2ND	ASBESTOS	15:33- 19:32	239	--	--	SAMPLE VOIDED, EMPLOYEE LOST CASSETTE	-- --
0033A	ASSISTANT LATHE OPERATOR COOPER, H. 860820 2ND	ASBESTOS	15:40- 19:30	230	.031		OSHA PEL = 0.2 F/CC	
0033B			20:04- 23:12	188	0.02	.026	OSHA PEL = 0.2 F/CC	.106 .155
0034A	HYDROTESTER FOOSE, D. 860819 1ST	ASBESTOS	7:40- 11:32	232	0.12		OSHA PEL = 0.2 F/CC	

CTD021808

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 8

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
00348			11:32- 15:23	231	.379	.249	OSHA PEL = 0.2 F/CC	.997 1.49
0035A	HYDROTESTER BEY, G. 860818 2ND	ASBESTOS	15:32- 19:31	239	0.06		OSHA PEL = 0.2 F/CC	
0035B			20:00- 23:15	195	.077	.068	OSHA PEL = 0.2 F/CC	.279 .398
0036A	INSPECTOR GOODWIN, L. 860820 1ST	ASBESTOS	6:59- 11:31	272	0.09		OSHA PEL = 0.2 F/CC	
0036B			11:31- 15:17	226	.121	.104	OSHA PEL = 0.2 F/CC	.427 0.61
0037A	INSPECTOR GARCIA, M. 860818 2ND	ASBESTOS	15:35- 20:03	268	.034		OSHA PEL = 0.2 F/CC	
0037B			20:03- 23:10	187	.063	.046	OSHA PEL = 0.2 F/CC	.189 .271
0038A	PIPE HANDLER NEWPRASIT 860819 1ST	ASBESTOS	7:30- 11:35	245	.163		OSHA PEL = 0.2 F/CC	
0038B			11:35- 15:19	224	.068	.117	OSHA PEL = 0.2 F/CC	.473 .701
0039A	PIPE HANDLER AVERY, A. 860819 1ST	ASBESTOS	7:30- 11:00	210	.102		OSHA PEL = 0.2 F/CC	

CTD021809

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 9

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
00398			11:26- 15:20	234	.113	.108	OSHA PEL = 0.2 F/CC	.443 .634
0040A	PIPE HANDLER LOLIE, K. 860819 1ST	ASBESTOS	7:34- 11:01	207	.041		OSHA PEL = 0.2 F/CC	
0040B			11:25- 15:26	241	.063	.053	OSHA PEL = 0.2 F/CC	.217 .315
0041A	PIPE HANDLER AMARO, R. 860818 2ND	ASBESTOS	15:38- 20:06	268	.034		OSHA PEL = 0.2 F/CC	
0041B			20:06- 23:14	188	.085	.055	OSHA PEL = 0.2 F/CC	.224 .325
0042A	PIPE HANDLER CONTRERAS, J. 860818 2ND	ASBESTOS	15:35- 20:04	269	.125		OSHA PEL = 0.2 F/CC	
0042B			20:04- 23:10	186	.398	.236	OSHA PEL = 0.2 F/CC	.959 1.41
0043A	PIPE HANDLER ZARAGOZA 860818 2ND	ASBESTOS	15:37- 19:30	233	0.18		OSHA PEL = 0.2 F/CC	
0043B			19:52- 23:11	199	.087	.137	OSHA PEL = 0.2 F/CC	.554 .816
0044A	PIPE HANDLER RODRIGUEZ, J. 860818 2ND	ASBESTOS	15:37- 19:30	233	.052		OSHA PEL = 0.2 F/CC	

CTD021810

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 10

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UC
00448			19:53- 23:10	197	.015	.035	OSHA PEL = 0.2 F/CC	.141 .214
0045A	SAW OPERATOR MEIER, S. 860819 1ST	ASBESTOS	7:25- 11:30	245	.149		OSHA PEL = 0.2 F/CC	
0045B			11:30- 15:21	231	.067	.109	OSHA PEL = 0.2 F/CC	.442 .651
0046A	SAW OPERATOR CLAUSON, J. 860818 2ND	ASBESTOS	15:37- 20:05	268	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0046B			20:05- 23:10	185	--	--	SAMPLE VOIDED, PUMP MALFUNCTION	-- --
0047A	SAW OPERATOR CLAUSON, J. 860820 2ND	ASBESTOS	15:38- 20:00	262	.144		OSHA PEL = 0.2 F/CC	
0047B			20:00- 23:10	190	.094	.123	OSHA PEL = 0.2 F/CC	.501 .733
0048A	1/4 LATHE OPERATOR SUAREZ, A. 860819 1ST	ASBESTOS	7:42- 11:01	199	.335		OSHA PEL = 0.2 F/CC	
0048B			11:29- 15:22	233	.293	.312	OSHA PEL = 0.2 F/CC	1.29 1.84
0049A	FM LATHE OPERATOR GIL, L. 860820 1ST	ASBESTOS	7:05- 11:34	269	.032		OSHA PEL = 0.2 F/CC	

CTD021811

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 11

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0049B			11:34- 15:16	222	.021	.027	OSHA PEL = 0.2 F/CC	0.11 0.16
0050A	COUPLING CUT OFF OPERATOR COOLEY, D. 860820 1ST	ASBESTOS	7:06- 11:00	234	.549		OSHA PEL = 0.2 F/CC	
0050B			11:16- 15:15	239	2.59	1.58	OSHA PEL = 0.2 F/CC	6.23 9.57
0051A	42" MILL DOBBS, P. 860820 1ST	ASBESTOS	7:09- 11:32	263	.064		OSHA PEL = 0.2 F/CC	
0051B			11:32- 15:13	221	.087	.074	OSHA PEL = 0.2 F/CC	.306 .438
0052A	WET TESTER STEWART, R. 860820 1ST	ASBESTOS	7:08- 11:30	262	.032		EMPLOYEE WORKED ON COUPLING TESTER OSHA PEL = 0.2 F/CC	
0052B			11:30- 15:12	222	.034	.033	EMPLOYEE WORKED 1 HOUR ON PLASTIC CPLGS., REST OF TIME ON CPLG. TESTER OSHA PEL = 0.2 F/CC	.135 .193
0053A	WET TESTER GASH, D. 860820 1ST	ASBESTOS	7:10- 11:31	261	.011		OSHA PEL = 0.2 F/CC	
0053B			11:31- 15:15	224	.114	.058	OSHA PEL = 0.2 F/CC	.226 .359
0054A	PLASTIC COUPLING ASKEW, W. 860819 1ST	ASBESTOS	7:32- 11:36	244	.033		ALSO WORKED AS PIPE HANDLER THIS DAY OSHA PEL = 0.2 F/CC	

CTD021812

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 12

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0054B			11:36- 15:22	226	.114	.072	ALSO WORKED AS PIPE HANDLER THIS DAY OSHA PEL = 0.2 F/CC	.297 .431
0055A	PLASTIC COUPLING ATENCIO, S. 860820 1ST	ASBESTOS	7:07- 11:42	275	.027		OSHA PEL = 0.2 F/CC	
0055B			11:42- 15:20	218	0.02	.024	WORKING IN SHIPPING DURING THIS SAMPLE OSHA PEL = 0.2 F/CC	.097 .141
0056A	FITTINGS HAMILTON, C. 860820 1ST	ASBESTOS	7:12- 9:40	148	.096		EMPLOYEE WORKED ON REWORK SAW DURING THIS SAMPLE OSHA PEL = 0.2 F/CC	
0056B			9:40- 12:42	182	.049		OSHA PEL = 0.2 F/CC	
0056C			12:42- 15:16	154	.212	.115	OSHA PEL = 0.2 F/CC	.482 .672
0057A	TRUCK OPERATOR SANDERS, A. 860820 1ST	ASBESTOS	7:03- 11:35	272	.013		OSHA PEL = 0.2 F/CC	
0057B			11:35- 15:16	221	.032	.021	OSHA PEL = 0.2 F/CC	.087 .127
0058A	TRUCK OPERATOR GALVIN, D. 860819 1ST	ASBESTOS	7:50- 11:26	216	--		OSHA PEL = 0.2 F/CC	
0058B			11:26- 13:30	124	--	--	SAMPLE VOIDED, HOSE DISCONNECTED	-- --

CTD021813

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 13

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0059A	TRUCK DRIVER SALVIN, D. 860820 1ST	ASBESTOS	7:06- 11:32	266	.048		OSHA PEL = 0.2 F/CC	
0059B			11:32- 15:17	225	.028	.039	OSHA PEL = 0.2 F/CC	.158 0.23
0060A	TRUCK OPERATOR STANFIELD, R. 860818 2ND	ASBESTOS	15:38- 20:13	275	.023		OSHA PEL = 0.2 F/CC	
0060B			20:13- 23:10	177	.008	.017	OSHA PEL = 0.2 F/CC	.067 .102
0061A	CRUSHER OPERATOR JAMES, J. 860820 1ST	ASBESTOS	7:08- 11:32	264	.275		OSHA PEL = 0.2 F/CC	
0061B			11:32- 15:18	226	.015	.155	OSHA PEL = 0.2 F/CC	0.59 0.96
0062A	FITTINGS INSPECTOR WILSON, C. 860820 1ST	ASBESTOS	7:04- 11:36	272	.099		OSHA PEL = 0.2 F/CC	
0062B			11:36- 15:15	219	.213	0.15	OSHA PEL = 0.2 F/CC	.612 .886
0063A	LAB INSPECTOR GRANILLO, B. 860820 1ST	ASBESTOS	7:13- 11:30	257	.031		OSHA PEL = 0.2 F/CC	
0063B			11:30- 15:06	216	.027	.029	OSHA PEL = 0.2 F/CC	.121 .173

CTD021814

TABLE 1

16:49 WEDDAY, NOVEMBER 5, 1986 1

RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0064A	SUPERVISOR HERRERA, J. 860819 1ST	ASBESTOS	7:50- 11:34	224	.034		OSHA PEL = 0.2 F/CC	
0064B			11:34- 15:20	226	.002	.018	OSHA PEL = 0.2 F/CC	.069 .111
0065A	SUPERVISOR SCHIELKE, R. 860818 2ND	ASBESTOS	15:39- 19:26	227	.018		OSHA PEL = 0.2 F/CC	
0065B			20:01- 23:10	189	.009	.014	OSHA PEL = 0.2 F/CC	.056 .082
0066A	BOILER OPERATOR RAMIREZ, G. 860819 1ST	ASBESTOS	7:05- 11:44	279	--		OSHA PEL = 0.2 F/CC	
0066B			11:44- 15:00	196	--	--	SAMPLE VOIDED, HOSE DISCONNECTED	-- --
0067A	BOILER OPERATOR RAMIREZ, G. 860820 1ST	ASBESTOS	6:57- 11:40	283	.029		OSHA PEL = 0.2 F/CC	
0067B			11:40- 14:35	175	.024	.027	OSHA PEL = 0.2 F/CC	0.11 .161
0068A	BOILER OPERATOR GRZYBCZYK, R. 860818 2ND	ASBESTOS	15:05- 19:07	242	.007		OSHA PEL = 0.2 F/CC	
0068B			19:07- 22:37	210	.024	.015	OSHA PEL = 0.2 F/CC	.061 .091

CTD021815

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 15

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0069A	BOILER OPERATOR VANDERTWEEL 860820 3RD	ASBESTOS	23:05- 3:54	289	.005		OSHA PEL = 0.2 F/CC	
0069B			3:54- 6:44	170	.028	.013	OSHA PEL = 0.2 F/CC	.053 .08
0070A	ELECTRICIAN SWANK, K. 860819 1ST	ASBESTOS	7:20- 11:39	259	.042		OSHA PEL = 0.2 F/CC	
0070B			11:39- 15:16	217	.009	.027	OSHA PEL = 0.2 F/CC	.106 .164
0071A	ELECTRICIAN CARON, A. 860819 1ST	ASBESTOS	7:59- 13:00	301	.039		OSHA PEL = 0.2 F/CC	
0071B			13:00- 15:55	175	.032	.036	OSHA PEL = 0.2 F/CC	.147 .215
0072A	MACHINIST MCFANN, J. 860819 1ST	ASBESTOS	7:55- 12:48	293	.016		OSHA PEL = 0.2 F/CC	
0072B			12:48- 15:49	181	.006	.012	OSHA PEL = 0.2 F/CC	.046 .071
0073A	MECHANIC MOJESKE, J. 860819 1ST	ASBESTOS	7:22- 11:39	257	.041		OSHA PEL = 0.2 F/CC	
0073B			11:39- 15:16	217	.023	.033	OSHA PEL = 0.2 F/CC	.135 .197

CTD021816

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 16

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0074A	MECHANIC DARNELL, W. 860819 1ST	ASBESTOS	7:56- 12:53	297	0.04		OSHA PEL = 0.2 F/CC	
0074B			12:53- 15:55	182	.073	.053	OSHA PEL = 0.2 F/CC	.216 .309
0075A	MECHANIC MCGREGOR, P. 860819 1ST	ASBESTOS	8:01- 12:48	287	.027		OSHA PEL = 0.2 F/CC	
0075B			12:48- 15:50	182	.123	.064	OSHA PEL = 0.2 F/CC	.259 .386
0076A	MECHANIC GEORGE, A. 860819 1ST	ASBESTOS	7:58- 12:00	242	--	--	SAMPLE VOIDED, WELDING FUMES	-- --
0077A	MECHANIC GEORGE, A. 860820 1ST	ASBESTOS	7:59- 11:29	210	.044		OSHA PEL = 0.2 F/CC	
0077B			11:29- 16:03	274	.012	.026	OSHA PEL = 0.2 F/CC	.104 .155
0078A	MECHANIC STUCKEY, J. 860820 1ST	ASBESTOS	9:30- 13:38	248	.033		EMPLOYEE IN TRAINING OSHA PEL = 0.2 F/CC	
0078B			13:38- 16:03	145	.026	.031	EMPLOYEE IN TRAINING OSHA PEL = 0.2 F/CC	.124 .182
0079A	OILER PERRY, D. 860819 1ST	ASBESTOS	7:55- 11:48	233	--		SAMPLE VOIDED, FILTER HEAVILY LOADED	

CTD021817

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 17

NO.	POSITION/AREA (NAME-CLOCK NO.)	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
86	DATE/SHIFT							
0079B			11:48- 16:14	266	--	--	SAMPLE VOIDED, HEAVY PARTICULATE	-- --
0080A	SHIFT MECHANIC WHITTAKER, W. 860819 1ST	ASBESTOS	7:08- 11:44	276	--	--	SAMPLE VOIDED, WELDING FUMES	-- --
0081A	SHIFT MECHANIC WHITTAKER, W. 860820 1ST	ASBESTOS	8:08- 11:54	226	.051		OSHA PEL = 0.2 F/CC	
0081B			11:54- 14:45	171	.039	.046	OSHA PEL = 0.2 F/CC	.188 .273
0082A	SHIFT MECHANIC BASTIANAS, H. 860818 2ND	ASBESTOS	15:20- 20:07	287	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0082B			20:07- 22:42	155	--	--	SAMPLE VOIDED, PUMP MALFUNCTION	-- --
0083A	SHIFT MECHANIC BASTIANAS, H. 860820 2ND	ASBESTOS	14:53- 19:36	283	.002		OSHA PEL = 0.2 F/CC	
0083B			19:36- 22:40	184	.009	.005	OSHA PEL = 0.2 F/CC	.018 .028
0084A	SHIFT MECHANIC SATHORNKICH 860820 3RD	ASBESTOS	23:06- 3:57	291	.021		OSHA PEL = 0.2 F/CC	
0084B			3:57- 6:47	170	.655	.255	OSHA PEL = 0.2 F/CC	.972 1.58

CTD021818

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 18

NO. 86	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0085A	STOREKEEPER WALL, F. 860820 1ST	ASBESTOS	8:05- 11:40	215	.022		OSHA PEL = 0.2 F/CC	
0085B			13:45- 16:06	141	.091	.049	OSHA PEL = 0.2 F/CC	.198 .294
0086A	TRUCK MECHANIC CHUTE, R. 860819 1ST	ASBESTOS	7:35- 11:47	252	.006		OSHA PEL = 0.2 F/CC	
0086B			11:47- 14:31	164	.019	.011	OSHA PEL = 0.2 F/CC	.044 .065
0087A	SUPERVISOR DRISKILL, G. 860819 1ST	ASBESTOS	8:02- 12:48	286	.021		OSHA PEL = 0.2 F/CC	
0087B			12:48- 15:52	184	.028	.023	OSHA PEL = 0.2 F/CC	.097 .138
0088A	SHIPPING BIVENS, J. 860820 1ST	ASBESTOS	8:02- 11:20	198	.015		OSHA PEL = 0.2 F/CC	
0088B			11:20- 16:07	287	.062	.043	OSHA PEL = 0.2 F/CC	.166 .259
0089A	SHIPPING RENFRO, E. 860820 1ST	ASBESTOS	8:03- 11:21	198	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0089B			11:21- 16:10	289	--	--	SAMPLE VOIDED, PUMP MALFUNCTION	-- --

CTD021819

TABLE 1
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

16:49 WEDNESDAY, NOVEMBER 5, 1986 19

NO.	POSITION/AREA (NAME-CLOCK NO.) DATE/SHIFT	ANALYSIS FOR	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
86								
0090A	SUPERVISOR GLOVER 860819 1ST	ASBESTOS	8:08- 11:22	194	.009		OSHA PEL = 0.2 F/CC	
0090B			11:32- 15:59	267	.006	.007	OSHA PEL = 0.2 F/CC	.031 .044

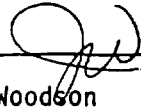
CTD021820

TABLE II
SUMMARY OF SAMPLE RESULTS
RIVERSIDE A/C PIPE PLANT
AUGUST 18-20, 1986

<u>DEPT</u>	<u>TOTAL # TWA's</u>	<u>RANGE</u>	<u>MEAN</u>	<u>OSHA PEL >.2</u>	<u>OSHA ACTION LEVEL >.1</u>
Mfg	20	.002-.21	0.07	1	6
Finishing	33	.014-1.58	0.13	4	12
Maint/Misc	20	.005-.255	0.05	1	2
Plant	73	.002-1.58	0.09	6	20
				(8%)	(27%)

CTD021821

CertainTeed

To John McGinley	Mail Code 2125/28	From Janis Woodson 	Mail Code 1125/4	Ext. 7713
Subject INDUSTRIAL HYGIENE SURVEY RIVERSIDE A/C PIPE PLANT AUGUST 18 - 20, 1986			Date 2/12/87	

Attached is the report for the Industrial Hygiene Survey conducted at the Riverside plant in August. Please excuse the delay in issuing this following our preliminary report in November, 1986. We have held up on this pending completion of the followup samples by Larry Megargee and subsequent sample analysis by NATLSCO.

Please review the report and provide me with your comments as soon as possible.

JLW

Attachements

CTD021822

CertainTeed

To	Mail Code #260	From	Mail Code	Ext.
Jim Burke	Riverside	Janis L. Woodson	1125/4	7713
Subject				Date
INDUSTRIAL HYGIENE SURVEY RIVERSIDE A/C PIPE PLANT AUGUST 18-20, 1986				February 18, 1987

cc: J. McGinley - 2125/2B
M. Simmons - 2125/2B
L. Megargee - Riverside #260

Attached is the final report for the Industrial Hygiene Survey conducted at your plant the week of August 18-20, 1986. Please excuse the delay in issuing this following our preliminary report to you in November, 1986. We have held up on this pending completion of the followup samples by Larry Megargee and subsequent sample analysis by NATLSCO.

If you have any questions or comments, please contact me.

JLW/1h

Attachment

CTD021823

Industrial Hygiene Survey - IHS 86-11
Riverside A/C Pipe Plant
August 18-20, 1986

An Industrial Hygiene Survey was conducted at the Riverside A/C Pipe Plant by Owen H. Kittilstad and Janis Woodson of Corporate Health and Safety on August 18-20, 1986.

This survey was conducted to assess employee exposure to asbestos for compliance with the initial monitoring requirements of the OSHA Asbestos Standard 29CFR1910.1001(d)(2) as revised on 6/20/86.

This report is an employee exposure record as defined in Corporate Procedure GE003.02 and OSHA Standard 29CFR1910.20 and must be retained for 30 years. Upon request, this record must be made available to those Federal officials, employee designees or employees as provided for in Corporate Procedure AD011, Paragraphs 7 and 8.

Appendix I of this report documents the air sampling methodologies; the analysis techniques; and the current standards used in evaluating the data. The field and in-house laboratory notes on this survey are on file in Corporate Health and Safety.

Summary

Three job positions were found to exceed the 0.2 f/cc PEL with a total of 12 positions exceeding the 0.1 f/cc action level.

CTD021824

Riverside A/C Pipe Plant
Production Schedule
August 18-21, 1986

	Monday 8/18/86 2nd Shift	Tuesday 8/19/86 1st Shift	Wednesday 8/20/86 1st Shift	Wednesday 8/20/86 2nd Shift	Wednesday 8/20/86 3rd Shift
Manufacturing Dept:	18"2000 88 pcs 15"2000 208 pcs No downtime	8"150 534 pcs 8"150 c/s 41 pcs No downtime	8"150 471 pcs 10"2400 49 pcs 8"150 c/s 20 pcs Down: 1 hour	12"2400 117 pcs 12"3300 135 pcs 10"2400 271 pcs 10"2000 40 pcs Down: 15 min.	10"2000 394 pcs 12"2000 36 pcs 12"2400 144 pcs Down: 45 min.
Finishing Dept:					
Coupling Cut Off		12"200 171 pcs 12"150 513 pcs 12"200 700 pcs	12"150 950 pcs		
42" Boring Mill			12"150 880 pcs		
Lathe Line #1				8"2400 PB4' 85 pcs	
Lathe Line #2	12"150 PB4' 360 pcs	12"150 PB4' 288 pcs	15"2000 UB4' 432 pcs		
Lathe Line #3	16"200 PB4' 12 pcs	20"FT80 PB8' 40 pcs	-----	18"2000 UB8' 112 pcs 20"FT80 1/2 MEO 21 pcs	
1/4 Lathe	8"150/200 spec close 120 pcs 8"150 1/8 MEO 216 pcs	spec close 8"150/200 spec close 115 pcs 8"150 1/8 MEO 38 pcs 12"200 1/8 MEO 24 pcs			
Wet Tester		8"150 cplg 700 pcs	8"150 cplg 1363 pcs		
Plastic Cplg		15"2500D - 114 pcs			
Fittings		12x12 2000D - WYE 2 pcs 12"200 x 1 1/2 TBIC NPT - 28 pcs	12" 200 x 1 1/2 TBIC NPT 17 pcs		
FM Lathe			18" 3300 1/2 MEO 34 pcs		

Industrial Hygiene Survey (IHS 86-11)
Riverside A/C Pipe Plant
August 18-20, 1986

DISCUSSION

Exposure samples during this survey were obtained by Corporate Health & Safety personnel. Several samples, e.g., employees absent during the survey period; samples which had to be voided for technical reasons, i.e. too dusty to count; and follow-up samples were subsequently obtained by Larry Megargee and forwarded to Corporate Health & Safety.

Representative 8 hour OSHA exposures were determined for each employee, in each job classification, in each work area, for each shift which was in operation during the period of this survey, with the exception of office employees.

Until such time as we can be reasonably assured that the samples accurately confirm that exposures are below the 0.1 f/cc action level measured in this survey, we recommend that the monitoring frequency requirements in paragraphs IV A2 and 3 of the Health Maintenance Manual, Asbestos Unit Program, be continued. Analysis of the samples by a certified laboratory using procedures required by the OSHA Standard is required. Corporate Health & Safety will arrange for such analysis.

The CertainTeed Asbestos Unit Program in the Health Maintenance Manual is being revised to conform with the changes in the current OSHA Standard 29CFR1910.1001 dated June 20, 1986. Until the new unit program is issued, you should refer to the OSHA Standard previously provided to you for compliance with the Standard.

All asbestos sampling and analysis was conducted in accordance with the requirements of 29CFR1910.1001, Appendix A.

FINDINGS

Exposure Sampling

The results of personal exposures from the initial monitoring survey are reported in Table I. Follow up samples taken by L. Megargee are reported in Table II.

Six employees monitored during the initial survey in August had exposures exceeding the 0.2 f/cc PEL. The six employees were resampled, their

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Industrial Hygiene Survey (IHS 86-11)
 Riverside A/C Pipe Plant
 August 18-20, 1986

results are compared below:

	<u>August (f/cc)</u>	<u>Follow-up (f/cc)</u>
Press Operator (Loyer)	.21	.039
Hydrotester Operator (Foosse)	.249	.105
Pipe Handler (Contreras)	.236	--
1/4 Lathe Operator (Suarez)	.312	.229
Coupling Cut Off (Cooley)	1.58	.269
Shift Mechanic (Satharnkich)	.255	< Det

Two job positions still have TWA's exceeding the PEL, the 1/4 Lathe Operator & Coupling Cut Off Operator.

The results of the follow-up samples for the Press Operator, Hydrotester Operator and Shift Mechanic show their exposures now to be below the PEL. Other samples taken during this survey on other employees in these same job positions substantiate the follow-up exposure levels.

J. Contreras, originally sampled as a pipe handler, was resampled but was working at the Wet Tester. His follow-up TWA exposure samples resulted in 0.405 f/cc, exceeding the PEL. It was noted that he also worked at the crusher and ran the sweeper on this day. Other samples taken on Wet Tester operators and Pipe Handlers resulted in acceptable levels.

T. Silva, Crusher Operator, was absent during the initial survey and was sampled during the follow-up period. His TWA exposure resulted in 0.31 f/cc exceeding the PEL. A prior sample (0061A) for 264 minutes taken on J. James at the crusher measured 0.275 f/cc. The results of J. James, J. Contreras and T. Silva's samples substantiate that the crusher operators exposure exceeds the PEL.

The Crusher Operator, Coupling Cut Off Operator and the 1/4 Lathe Operator all have samples exceeding the PEL. When applying the OSHA confidence level equation in the CertainTeed Health Maintenance Manual "Exposure Confidence Levels" Section, we are 95% confident that the Crusher Operator and Coupling Cut Off Operators' true exposures would exceed the 0.2 f/cc PEL. The 1/4 Lathe Operator's exposure would be classified as a possible over exposure.

Industrial Hygiene Survey (IHS 86-11)
Riverside A/C Pipe Plant
August 18-20, 1986

Nine job positions exceed the action limit of 0.1 f/cc, they are:

Machine Tender
Press Operator
Mandrel Handler
Hydrotester Operator
Inspector
Pipe Handler
Saw Operator
Fittings Operator
Fittings Inspector

We recommend that the above-mentioned job positions found to exceed the PEL and the action level be thoroughly reviewed and evaluated to determine what engineering and housekeeping measures can be implemented to reduce the exposure levels below 0.1 f/cc.

We are presently unsure of the status of the California OSHA Asbestos Regulation, as the Governor of California has proposed to eliminate the California OSHA organization and has put the proposed standard on hold. We do know that the proposed standard is similar to the Federal Standard and will be at least as stringent. Until the status of the Cal. OSHA regulation is determined, we recommend that you refer to the federal standard for compliance.

In Table III we have outlined the specific requirements of the Federal regulation which are triggered when exposure levels exceed the 0.1 f/cc action level and the 0.2 f/cc PEL. For specific details of the requirements and compliance dates you should refer to the standard.

Respirators

The results of the initial survey and follow-up samples indicate 3 job positions which mandate the use of respiratory protection as required by 29CFR 1910.1001(g). They are:

Crusher Operator
1/4 Lathe Operator
Coupling Cut Off Operator

We can also anticipate that respiratory protection may be required for operations not observed during this survey, such as mechanical breakdowns, emergency situations involving the release of asbestos fiber, occasional maintenance operations, etc. for which engineering and work practice controls are not feasible to reduce exposures below the PEL of 0.2 f/cc.

Industrial Hygiene Survey (IHS 86-11)
Riverside A/C Pipe Plant
August 18-20, 1986

Where respirators are required, the provisions of 29CFR1910.1001(g)(2), (3) and (4) must be complied with.

In the past, disposable respirators such as the 3M 8710 were used by employees in required areas and for voluntary use. These respirators are no longer approved for asbestos exposure. The OSHA standard is silent on the respirator, protection requirements for employees who wish to use respirators when they are not required by the standard.

We recommend that the use of disposable respirators be discontinued for protection against asbestos fiber exposure, including for those employees desiring to wear protection when their exposures are below 0.2 f/cc.

We further recommend that a respiratory protection program meeting the requirements of 29CFR1910.1001(g) be established for work situations where feasible engineering and work practice controls are not sufficient to reduce exposure levels to below 0.2 f/cc. Available respirators meeting the requirements of 29CFR1910.1001(g)(2) are listed in Table IV.

Miscellaneous

It is our standard procedure in taking personal exposure samples, to inform each employee of the purpose of the sample and what they should and should not do to invalidate the results.

Specific do's and don'ts are: To go about their work as normal, not to remove the sampler, disconnect the tubing or filter holder, or purposely contaminate the sampling filter. We request they inform us of any loss of integrity of the sample such as sampling cassette accidentally coming off, dropping or otherwise subjecting the devices to unnecessary impacts. We strongly encourage plant management to similarly inform the employees when conducting their sampling programs. Each employee must be informed of the exposure results in this survey by OSHA regulation. We suggest that a copy of the attached tables be posted on the employees' bulletin board. Also a Fiber Exposure Notification Form (FEN) must be completed as outlined in the Health Maintenance Manual Asbestos Unit Program, Section VII.C.

CTD021829

Industrial Hygiene Survey (IHS 86-111)
Riverside A/C Pipe Plant
August 18-20, 1986

6.

Recommendations

We recommend the following:

- IHS 86-11 1. that periodic monitoring be continued as described in the Health Maintenance Manual Asbestos Unit Program paragraphs IV A2 and 3.
- IHS 86-11 2. that job positions found to exceed the PEL and action level be thoroughly reviewed and evaluated to determine what engineering and housekeeping measures can be implemented to reduce exposure levels below 0.1 f/cc.
- IHS 86-11 3. that until the status of the CAL OSHA regulation is determined that you refer to the federal standard for compliance.
- IHS 86-11 4. that disposable respirators be discontinued for protection against asbestos fiber exposure.
- IHS 86-11 5. that a respiratory program meeting the requirements of 29CFR1910.1001(g) be established.
- IHS 86-11 6. that employees be informed of the results of this survey.
- IHS 86-11 7. that Corporate Health & Safety be informed of the status of these recommendations on a quarterly basis.

CTD021830

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0001A	MIXER OPERATOR MARTINEZ, P. 562-38-6937	ASBESTOS 860819 1ST	7:01- 11:12	251	.096		OSHA PEL = 0.2 F/CC	
0001B	MIXER OPERATOR MARTINEZ, P. 562-38-6937	ASBESTOS 860819 1ST	11:12- 14:22	190	.059	0.08	DUMPING ALUMINA SILICATE 1-3PM OSHA PEL = 0.2 F/CC	.325 .475
0002A	MIXER OPERATOR BRADY 551-02-9474	ASBESTOS 860820 3RD	0:33- 4:07	214	.083		OSHA PEL = 0.2 F/CC	
0002B	MIXER OPERATOR BRADY 551-02-9474	ASBESTOS 860820 3RD	4:07- 6:56	169	0.09	.086	OSHA PEL = 0.2 F/CC	.355 .508
0003A	MACHINE TENDER MORALES, D. 549-52-6935	ASBESTOS 860819 1ST	6:59- 11:14	255	.135		OSHA PEL = 0.2 F/CC	
0003B	MACHINE TENDER MORALES, D. 549-52-6935	ASBESTOS 860819 1ST	11:14- 14:42	208	.074	.107	OSHA PEL = 0.2 F/CC	.435 .639
0004A	MACHINE TENDER AESCHLIMAN, K. 573-76-0128	ASBESTOS 860818 2ND	15:03- 19:02	239	.081		OSHA PEL = 0.2 F/CC	
0004B	MACHINE TENDER AESCHLIMAN, K. 573-76-0128	ASBESTOS 860818 2ND	19:02- 22:49	227	--		SAMPLE VOIDED, HOSE DISCONNECTED	
0005A	MACHINE TENDER AESCHLIMAN, K. 573-76-0128	ASBESTOS 860820 2ND	15:05- 19:40	275	.073		OSHA PEL = 0.2 F/CC	

CTD021831

TABLE 1
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0005B	MACHINE TENDER AESCHLIMAN, K. 573-76-0128	ASBESTOS 860820 2ND	19:40- 22:41	181	.208	.126	OSHA PEL = 0.2 F/CC	.515 .748
0006A	MACHINE TENDER MARRON 550-78-8997	ASBESTOS 860820 3RD	0:26- 3:48	202	.129		OSHA PEL = 0.2 F/CC	
0006B	MACHINE TENDER MARRON 550-78-8997	ASBESTOS 860820 3RD	3:48- 6:58	190	.114	.122	OSHA PEL = 0.2 F/CC	.502 .719
0007A	PRESS OPERATOR VILLALPANDO, A. 568-42-8810	ASBESTOS 860819 1ST	6:56- 11:13	257	--		SAMPLE VOIDED, HEAVY PARTICULATE	
0007B	PRESS OPERATOR VILLALPANDO, A. 568-42-8810	ASBESTOS 860819 1ST	11:13- 14:20	187	--		SAMPLE VOIDED, RUSTY MANDRELS FILTER HEAVILY LOADED	
0008A	PRESS OPERATOR VILLALPANDO, A. 568-42-8810	ASBESTOS 860820 1ST	6:59- 11:51	292	.044		OSHA PEL = 0.2 F/CC	
0008B	PRESS OPERATOR VILLALPANDO, A. 568-42-8810	ASBESTOS 860820 1ST	11:51- 13:36	105	.044		OSHA PEL = 0.2 F/CC	
0008C	PRESS OPERATOR VILLALPANDO, A. 568-42-8810	ASBESTOS 860820 1ST	13:36- 14:37	61	.124	.055	OSHA PEL = 0.2 F/CC	.231 .317
0009A	PRESS OPERATOR PADRON, M. 569-80-6279	ASBESTOS 860818 2ND	14:57- 18:52	235	.125		OSHA PEL = 0.2 F/CC	
0009B	PRESS OPERATOR PADRON, M. 569-80-6279	ASBESTOS 860818 2ND	18:52- 22:35	223	.142	.133	OSHA PEL = 0.2 F/CC	.549 .784

CTD021832

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0010A	PRESS OPERATOR LOYER 570-43-6298	ASBESTOS 860820 3RD	0:30- 3:49	199	.244		OSHA PEL = 0.2 F/CC	
0010B	PRESS OPERATOR LOYER 570-43-6298	ASBESTOS 860820 3RD	3:49- 6:57	188	.173	0.21	OSHA PEL = 0.2 F/CC	0.86 1.24
0011A	MANDREL HANDLER BRYANT, B. 266-82-7813	ASBESTOS 860819 1ST	6:58- 11:10	252	--		SAMPLE VOIDED, FILTER HEAVILY LOADED	
0011B	MANDREL HANDLER BRYANT, B. 266-82-7813	ASBESTOS 860819 1ST	11:10- 14:20	190	--		SAMPLE VOIDED, FILTER HEAVILY LOADED	
0012A	MANDREL HANDLER BRYANT, B. 266-82-7813	ASBESTOS 860820 1ST	7:00- 10:05	185	.043		RUSTY MANDRELS, FILTER HEAVILY LOADED	
0012B	MANDREL HANDLER BRYANT, B. 266-82-7813	ASBESTOS 860820 1ST	10:05- 12:01	116	--		RUSTY MANDRELS, FILTER HEAVILY LOADED	
0012C	MANDREL HANDLER BRYANT, B. 266-82-7813	ASBESTOS 860820 1ST	12:01- 12:14	13	.077		RUSTY MANDRELS, FILTER HEAVILY LOADED OSHA PEL = 0.2 F/CC	
0013A	MANDREL HANDLER PLAZA, M. 570-58-2582	ASBESTOS 860818 2ND	14:55- 18:53	238	.091		OSHA PEL = 0.2 F/CC	
0013B	MANDREL HANDLER PLAZA, M. 570-58-2582	ASBESTOS 860818 2ND	18:53- 22:31	218	.184	.136	OSHA PEL = 0.2 F/CC	.554 .804
0014A	MANDREL HANDLER CANTRELL 572-64-3309	ASBESTOS 860820 3RD	23:53- 3:50	237	.041		RUSTY MANDRELS FILTER HEAVILY LOADED OSHA PEL = 0.2 F/CC	

CTD021833

TABLE 1
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
00148	MANDREL HANDLER CANTRELL 572-64-3309	ASBESTOS 860820 3RD	3:50- 6:59	189	.076	.057	RUSTY MANDRELS FILTER HEAVILY LOADED OSHA PEL = 0.2 F/CC	.232 .334
0015A	STRIPPER OPERATOR EATON, D. 568-78-9858	ASBESTOS 860819 1ST	6:57- 11:17	260	0.03		OSHA PEL = 0.2 F/CC	
0015B	STRIPPER OPERATOR EATON, D. 568-78-9858	ASBESTOS 860819 1ST	11:17- 14:26	189	.038	.034	OSHA PEL = 0.2 F/CC	.138 .198
0016A	STRIPPER OPERATOR WILLIAMS, B. 456-04-5138	ASBESTOS 860818 2ND	14:59- 18:55	236	.012		OSHA PEL = 0.2 F/CC	
0016B	STRIPPER OPERATOR WILLIAMS, B. 456-04-5138	ASBESTOS 860818 2ND	18:55- 22:33	218	.025	.018	OSHA PEL = 0.2 F/CC	.074 .108
0017A	STRIPPER OPERATOR SONCRANT 385-22-0170	ASBESTOS 860820 3RD	0:40- 3:53	193	.001		OSHA PEL = 0.2 F/CC	
0017B	STRIPPER OPERATOR SONCRANT 385-22-0170	ASBESTOS 860820 3RD	3:53- 6:53	180	.003	.002	OSHA PEL = 0.2 F/CC	.008 .012
0018A	TRAY LOADER RUSSELL, R. 568-98-4408	ASBESTOS 860819 1ST	7:00- 12:00	300	.004		OSHA PEL = 0.2 F/CC	
0018B	TRAY LOADER RUSSELL, R. 568-98-4408	ASBESTOS 860819 1ST	12:05- 14:22	137	.004	.004	OSHA PEL = 0.2 F/CC	.017 .025
0019A	TRAY LOADER HEUTON, D. 482-30-7194	ASBESTOS 860818 2ND	14:59- 18:57	238	.007		OSHA PEL = 0.2 F/CC	

CTD021834

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0019B	TRAY LOADER HEUTON, D. 482-30-7194	ASBESTOS 860818 2ND	18:57- 22:30	213	.021	.014	OSHA PEL = 0.2 F/CC	.056 .083
0020A	TRAY LOADER ANAYA, M. 557-96-3180	ASBESTOS 860820 3RD	0:25- 4:00	215	.031		OSHA PEL = 0.2 F/CC	
0020B	TRAY LOADER ANAYA, M. 557-96-3180	ASBESTOS 860820 3RD	4:00- 6:54	174	.008	.021	OSHA PEL = 0.2 F/CC	.082 .126
0021A	TRAY LOADER/TRUCK DRIVER SANIGA, E. 210-24-1301	ASBESTOS 860819 1ST	6:58- 11:16	258	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0021B	TRAY LOADER/TRUCK DRIVER SANIGA, E. 210-24-1301	ASBESTOS 860819 1ST	11:16- 14:25	189	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0022A	TRAY LOADER/TRUCK DRIVER LEDFOORD, J. 440-34-0978	ASBESTOS 860818 2ND	15:01- 18:58	237	--		SAMPLE VOIDED, HOSE DISCONNECTED	
0022B	TRAY LOADER/TRUCK DRIVER LEDFOORD, J. 440-34-0978	ASBESTOS 860818 2ND	18:58- 22:30	212	.005		OSHA PEL = 0.2 F/CC	
0023A	TRAY LOADER/TRUCK DRIVER COLE 425-68-7424	ASBESTOS 860820 3RD	0:25- 4:02	217	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0023B	TRAY LOADER/TRUCK DRIVER COLE 425-68-7424	ASBESTOS 860820 3RD	4:02- 6:54	172	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0024A	RELIEF OPERATOR RICHARDSON, J. 557-96-1876	ASBESTOS 860819 1ST	7:01- 11:53	292	<DET		OSHA PEL = 0.2 F/CC	

CTD021835

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
00248	RELIEF OPERATOR RICHARDSON, J. 557-96-1876	ASBESTOS 860819 1ST	11:53- 14:20	147	--		SAMPLE VOIDED; FILTER HEAVILY LOADED	
0025A	RELIEF OPERATOR RICHARDSON, J. 557-96-1876	ASBESTOS 860820 1ST	7:04- 9:33	149	.053		OSHA PEL = 0.2 F/CC	
0025B	RELIEF OPERATOR RICHARDSON, J. 557-96-1876	ASBESTOS 860820 1ST	9:33- 11:50	137	.072		OSHA PEL = 0.2 F/CC	
0025C	RELIEF OPERATOR RICHARDSON, J. 557-96-1876	ASBESTOS 860820 1ST	11:50- 13:41	111	.073		OSHA PEL = 0.2 F/CC	
0025D	RELIEF OPERATOR RICHARDSON, J. 557-96-1876	ASBESTOS 860820 1ST	13:41- 14:40	59	.026	0.06	OSHA PEL = 0.2 F/CC	.259 .342
0026A	RELIEF OPERATOR CASAS 573-94-2307	ASBESTOS 860820 3RD	0:29- 3:45	196	.074		OSHA PEL = 0.2 F/CC	
0026B	RELIEF OPERATOR CASAS 573-94-2307	ASBESTOS 860820 3RD	3:45- 6:59	194	.065	0.07	OSHA PEL = 0.2 F/CC	.287 0.41
0027A	SUPERVISOR GARCIA, E. 561-90-0566	ASBESTOS 860819 1ST	7:02- 11:11	249	.047		OSHA PEL = 0.2 F/CC	
0027B	SUPERVISOR GARCIA, E. 561-90-0566	ASBESTOS 860819 1ST	11:11- 14:21	190	.133	.084	DUMPING ALUMINA SILICATE 1-3PM OSHA PEL = 0.2 F/CC	.341 0.5
0028A	SUPERVISOR BIXLER, G. 304-22-6065	ASBESTOS 860820 3RD	0:26- 4:04	218	.004		OSHA PEL = 0.2 F/CC	

CTD021836

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
00288	SUPERVISOR BIXLER, G. 304-22-6065	ASBESTOS 860820 3RD	4:04- 6:45	161	.041	.019	OSHA PEL = 0.2 F/CC	.075 .118
0029A	LATHE OPERATOR EVANS, G. 566-04-8933	ASBESTOS 860819 1ST	7:39- 11:30	231	.024		OSHA PEL = 0.2 F/CC	
0029B	LATHE OPERATOR EVANS, G. 566-04-8933	ASBESTOS 860819 1ST	11:30- 15:28	238	.116	0.07	OSHA PEL = 0.2 F/CC	.277 .427
0030A	LATHE OPERATOR PASILLAS, D. 567-74-5496	ASBESTOS 860818 2ND	15:35- 19:30	235	0.05		OSHA PEL = 0.2 F/CC	
0030B	LATHE OPERATOR PASILLAS, D. 567-74-5496	ASBESTOS 860818 2ND	19:53- 23:13	200	.099	.073	OSHA PEL = 0.2 F/CC	.297 .429
0031A	ASSISTANT LATHE OPERATOR HAMPTON, C. 419-70-7035	ASBESTOS 860819 1ST	7:45- 11:01	196	.018		OSHA PEL = 0.2 F/CC	
0031B	ASSISTANT LATHE OPERATOR HAMPTON, C. 419-70-7035	ASBESTOS 860819 1ST	11:25- 15:28	243	.094	0.06	OSHA PEL = 0.2 F/CC	.233 .365
0032A	ASSISTANT LATHE OPERATOR COOPER, H. 568-13-3118	ASBESTOS 860818 2ND	15:33- 19:32	239	--		SAMPLE VOIDED, EMPLOYEE LOST CASSETTE	
0033A	ASSISTANT LATHE OPERATOR COOPER, H. 568-13-3118	ASBESTOS 860820 2ND	15:40- 19:30	230	.031		OSHA PEL = 0.2 F/CC	
0033B	ASSISTANT LATHE OPERATOR COOPER, H. 568-13-3118	ASBESTOS 860820 2ND	20:04- 23:12	188	0.02	.026	OSHA PEL = 0.2 F/CC	.106 .155

CTD021837

TABLE 1
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0034A	HYDROTESTER FOOSE, D. 568-08-6676	ASBESTOS 860819 1ST	7:40- 11:32	232	0.12		OSHA PEL = 0.2 F/CC	
0034B	HYDROTESTER FOOSE, D. 568-08-6676	ASBESTOS 860819 1ST	11:32- 15:23	231	.379	.249	OSHA PEL = 0.2 F/CC	.997 1.49
0035A	HYDROTESTER BEY, G. 546-98-9811	ASBESTOS 860818 2ND	15:32- 19:31	239	0.06		OSHA PEL = 0.2 F/CC	
0035B	HYDROTESTER BEY, G. 546-98-9811	ASBESTOS 860818 2ND	20:00- 23:15	195	.077	.068	OSHA PEL = 0.2 F/CC	.279 .398
0036A	INSPECTOR GOODWIN, L. 546-76-9626	ASBESTOS 860820 1ST	6:59- 11:31	272	0.09		OSHA PEL = 0.2 F/CC	
0036B	INSPECTOR GOODWIN, L. 546-76-9626	ASBESTOS 860820 1ST	11:31- 15:17	226	.121	.104	OSHA PEL = 0.2 F/CC	.427 0.61
0037A	INSPECTOR GARCIA, M. 527-50-6060	ASBESTOS 860818 2ND	15:35- 20:03	268	.034		OSHA PEL = 0.2 F/CC	
0037B	INSPECTOR GARCIA, M. 527-50-6060	ASBESTOS 860818 2ND	20:03- 23:10	187	.063	.046	OSHA PEL = 0.2 F/CC	.189 .271
0038A	PIPE HANDLER NEWPRASIT 564-88-3988	ASBESTOS 860819 1ST	7:30- 11:35	245	.163		OSHA PEL = 0.2 F/CC	
0038B	PIPE HANDLER NEWPRASIT 564-88-3988	ASBESTOS 860819 1ST	11:35- 15:19	224	.068	.117	OSHA PEL = 0.2 F/CC	.473 .701

CTD021838

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0039A	PIPE HANDLER AVERY, A. 572-82-0787	ASBESTOS 860819 1ST	7:30- 11:00	210	.102		OSHA PEL = 0.2 F/CC	
0039B	PIPE HANDLER AVERY, A. 572-82-0787	ASBESTOS 860819 1ST	11:26- 15:20	234	.113	.108	OSHA PEL = 0.2 F/CC	.443 .634
0040A	PIPE HANDLER LOLIE, K. 552-49-5291	ASBESTOS 860819 1ST	7:34- 11:01	207	.041		OSHA PEL = 0.2 F/CC	
0040B	PIPE HANDLER LOLIE, K. 552-49-5291	ASBESTOS 860819 1ST	11:25- 15:26	241	.063	.053	OSHA PEL = 0.2 F/CC	.217 .315
0041A	PIPE HANDLER AMARO, R. 560-98-0226	ASBESTOS 860818 2ND	15:38- 20:06	268	.034		OSHA PEL = 0.2 F/CC	
0041B	PIPE HANDLER AMARO, R. 560-98-0226	ASBESTOS 860818 2ND	20:06- 23:14	188	.085	.055	OSHA PEL = 0.2 F/CC	.224 .325
0042A	PIPE HANDLER CONTRERAS, J. 555-62-0421	ASBESTOS 860818 2ND	15:35- 20:04	269	.125		OSHA PEL = 0.2 F/CC	
0042B	PIPE HANDLER CONTRERAS, J. 555-62-0421	ASBESTOS 860818 2ND	20:04- 23:10	186	.398	.236	OSHA PEL = 0.2 F/CC	.959 1.41
0043A	PIPE HANDLER ZARAGOZA 572-82-4245	ASBESTOS 860818 2ND	15:37- 19:30	233	0.18		OSHA PEL = 0.2 F/CC	
0043B	PIPE HANDLER ZARAGOZA 572-82-4245	ASBESTOS 860818 2ND	19:52- 23:11	199	.087	.137	OSHA PEL = 0.2 F/CC	.554 .816

CTD021839

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0044A	PIPE HANDLER RODRIGUEZ, J. 556-02-2914	ASBESTOS 860818 2ND	15:37- 19:30	233	.052		OSHA PEL = 0.2 F/CC	
0044B	PIPE HANDLER RODRIGUEZ, J. 556-02-2914	ASBESTOS 860818 2ND	19:53- 23:10	197	.015	.035	OSHA PEL = 0.2 F/CC	.141 .214
0045A	SAW OPERATOR MEIER, S. 568-06-9935	ASBESTOS 860819 1ST	7:25- 11:30	245	.149		OSHA PEL = 0.2 F/CC	
0045B	SAW OPERATOR MEIER, S. 568-06-9935	ASBESTOS 860819 1ST	11:30- 15:21	231	.067	.109	OSHA PEL = 0.2 F/CC	.442 .651
0046A	SAW OPERATOR CLAUSON, J. 554-72-9301	ASBESTOS 860818 2ND	15:37- 20:05	268	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0046B	SAW OPERATOR CLAUSON, J. 554-72-9301	ASBESTOS 860818 2ND	20:05- 23:10	185	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0047A	SAW OPERATOR CLAUSON, J. 554-72-9301	ASBESTOS 860820 2ND	15:38- 20:00	262	.144		OSHA PEL = 0.2 F/CC	
0047B	SAW OPERATOR CLAUSON, J. 554-72-9301	ASBESTOS 860820 2ND	20:00- 23:10	190	.094	.123	OSHA PEL = 0.2 F/CC	.501 .733
0048A	1/4 LATHE OPERATOR SUAREZ, A. 560-68-8273	ASBESTOS 860819 1ST	7:42- 11:01	199	.335		OSHA PEL = 0.2 F/CC	
0048B	1/4 LATHE OPERATOR SUAREZ, A. 560-68-8273	ASBESTOS 860819 1ST	11:29- 15:22	233	.293	.312	OSHA PEL = 0.2 F/CC	1.29 1.84

CTD021840

TABLE 1
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0049A	FM LATHE OPERATOR GIL, L. 570-58-4041	ASBESTOS 860820 1ST	7:05- 11:34	269	.032		OSHA PEL = 0.2 F/CC	
0049B	FM LATHE OPERATOR GIL, L. 570-58-4041	ASBESTOS 860820 1ST	11:34- 15:16	222	.021	.027	OSHA PEL = 0.2 F/CC	0.11 0.16
0050A	COUPLING CUT OFF OPERATOR COOLEY, D. 344-30-3938	ASBESTOS 860820 1ST	7:06- 11:00	234	.549		OSHA PEL = 0.2 F/CC	
0050B	COUPLING CUT OFF OPERATOR COOLEY, D. 344-30-3938	ASBESTOS 860820 1ST	11:16- 15:15	239	2.59	1.58	OSHA PEL = 0.2 F/CC	6.23 9.57
0051A	42" MILL DOBBS, P. 557-68-1875	ASBESTOS 860820 1ST	7:09- 11:32	263	.064		OSHA PEL = 0.2 F/CC	
0051B	42" MILL DOBBS, P. 557-68-1875	ASBESTOS 860820 1ST	11:32- 15:13	221	.087	.074	OSHA PEL = 0.2 F/CC	.306 .438
0052A	WET TESTER STEWART, R. 570-56-5483	ASBESTOS 860820 1ST	7:08- 11:30	262	.032		EMPLOYEE WORKED ON COUPLING TESTER OSHA PEL = 0.2 F/CC	
0052B	WET TESTER STEWART, R. 570-56-5483	ASBESTOS 860820 1ST	11:30- 15:12	222	.034	.033	EMPLOYEE WORKED 1 HOUR ON PLASTIC CPLGS., REST OF TIME ON CPLG. TESTER OSHA PEL = 0.2 F/CC	.135 .193
0053A	WET TESTER GASH, D. 559-92-5466	ASBESTOS 860820 1ST	7:10- 11:31	261	.011		OSHA PEL = 0.2 F/CC	
0053B	WET TESTER GASH, D. 559-92-5466	ASBESTOS 860820 1ST	11:31- 15:15	224	.114	.058	OSHA PEL = 0.2 F/CC	.226 .359

CTD021841

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0054A	PLASTIC COUPLING ASKEW, W. 561-90-4679	ASBESTOS 860819 1ST	7:32- 11:36	244	.033		ALSO WORKED AS PIPE HANDLER THIS DAY OSHA PEL = 0.2 F/CC	
0054B	PLASTIC COUPLING ASKEW, W. 561-90-4679	ASBESTOS 860819 1ST	11:36- 15:22	226	.114	.072	ALSO WORKED AS PIPE HANDLER THIS DAY OSHA PEL = 0.2 F/CC	.287 .431
0055A	PLASTIC COUPLING ATENCIO, S. 553-88-1692	ASBESTOS 860820 1ST	7:07- 11:42	275	.027		OSHA PEL = 0.2 F/CC	
0055B	PLASTIC COUPLING ATENCIO, S. 553-88-1692	ASBESTOS 860820 1ST	11:42- 15:20	218	0.02	.024	WORKING IN SHIPPING DURING THIS SAMPLE OSHA PEL = 0.2 F/CC	.097 .141
0056A	FITTINGS HAMILTON, C. 555-74-5800	ASBESTOS 860820 1ST	7:12- 9:40	148	.096		EMPLOYEE WORKED ON REWORK SAW DURING THIS SAMPLE OSHA PEL = 0.2 F/CC	
0056B	FITTINGS HAMILTON, C. 555-74-5800	ASBESTOS 860820 1ST	9:40- 12:42	182	.049		OSHA PEL = 0.2 F/CC	
0056C	FITTINGS HAMILTON, C. 555-74-5800	ASBESTOS 860820 1ST	12:42- 15:16	154	.212	.115	OSHA PEL = 0.2 F/CC	.482 .672
0057A	TRUCK OPERATOR SANDERS, A. 431-64-0728	ASBESTOS 860820 1ST	7:03- 11:35	272	.013		OSHA PEL = 0.2 F/CC	
0057B	TRUCK OPERATOR SANDERS, A. 431-64-0728	ASBESTOS 860820 1ST	11:35- 15:16	221	.032	.021	OSHA PEL = 0.2 F/CC	.087 .127
0058A	TRUCK OPERATOR GALVIN, D. 560-48-6590	ASBESTOS 860819 1ST	7:50- 11:26	216	<DET		OSHA PEL = 0.2 F/CC	

CTD021842

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
00588	TRUCK OPERATOR GALVIN, D. 560-48-6590	ASBESTOS 860819 1ST	11:26- 13:30	124	--		SAMPLE VOIDED, HOSE DISCONNECTED	
0059A	TRUCK DRIVER GALVIN, D. 560-48-6590	ASBESTOS 860820 1ST	7:06- 11:32	266	.048		OSHA PEL = 0.2 F/CC	
0059B	TRUCK DRIVER GALVIN, D. 560-48-6590	ASBESTOS 860820 1ST	11:32- 15:17	225	.028	.039	OSHA PEL = 0.2 F/CC	.158 0.23
0060A	TRUCK OPERATOR STANFIELD, R. 548-58-3160	ASBESTOS 860818 2ND	15:38- 20:13	275	.023		OSHA PEL = 0.2 F/CC	
0060B	TRUCK OPERATOR STANFIELD, R. 548-58-3160	ASBESTOS 860818 2ND	20:13- 23:10	177	.008	.017	OSHA PEL = 0.2 F/CC	.067 .102
0061A	CRUSHER OPERATOR JAMES, J. 572-82-0622	ASBESTOS 860820 1ST	7:08- 11:32	264	.275		OSHA PEL = 0.2 F/CC	
0061B	CRUSHER OPERATOR JAMES, J. 572-82-0622	ASBESTOS 860820 1ST	11:32- 15:18	226	.015	.155	OSHA PEL = 0.2 F/CC	0.59 0.96
0062A	FITTINGS INSPECTOR WILSON, C. 422-56-9672	ASBESTOS 860820 1ST	7:04- 11:36	272	.099		OSHA PEL = 0.2 F/CC	
0062B	FITTINGS INSPECTOR WILSON, C. 422-56-9672	ASBESTOS 860820 1ST	11:36- 15:15	219	.213	0.15	OSHA PEL = 0.2 F/CC	.612 .886
0063A	LAB INSPECTOR GRANILLO, B. 557-56-8670	ASBESTOS 860820 1ST	7:13- 11:30	257	.031		OSHA PEL = 0.2 F/CC	

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TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0063B	LAB INSPECTOR GRANILLO, B. 557-56-8670	ASBESTOS 860820 1ST	11:30- 15:06	216	.027	.029	OSHA PEL = 0.2 F/CC	.121 .173
0064A	SUPERVISOR HERRERA, J. 557-68-5469	ASBESTOS 860819 1ST	7:50- 11:34	224	.034		OSHA PEL = 0.2 F/CC	
0064B	SUPERVISOR HERRERA, J. 557-68-5469	ASBESTOS 860819 1ST	11:34- 15:20	226	.002	.018	OSHA PEL = 0.2 F/CC	.069 .111
0065A	SUPERVISOR SCHIELKE, R. 546-76-6793	ASBESTOS 860818 2ND	15:39- 19:26	227	.018		OSHA PEL = 0.2 F/CC	
0065B	SUPERVISOR SCHIELKE, R. 546-76-6793	ASBESTOS 860818 2ND	20:01- 23:10	189	.009	.014	OSHA PEL = 0.2 F/CC	.056 .082
0066A	BOILER OPERATOR RAMIREZ, G. 562-38-9602	ASBESTOS 860819 1ST	7:05- 11:44	279	<DET		OSHA PEL = 0.2 F/CC	
0066B	BOILER OPERATOR RAMIREZ, G. 562-38-9602	ASBESTOS 860819 1ST	11:44- 15:00	196	--		SAMPLE VOIDED, HOSE DISCONNECTED	
0067A	BOILER OPERATOR RAMIREZ, G. 562-38-9602	ASBESTOS 860820 1ST	6:57- 11:40	283	.029		OSHA PEL = 0.2 F/CC	
0067B	BOILER OPERATOR RAMIREZ, G. 562-38-9602	ASBESTOS 860820 1ST	11:40- 14:35	175	.024	.027	OSHA PEL = 0.2 F/CC	0.11 .161
0068A	BOILER OPERATOR GRZYBCZYK, R. 347-28-4010	ASBESTOS 860818 2ND	15:05- 19:07	242	.007		OSHA PEL = 0.2 F/CC	

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TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0068B	BOILER OPERATOR GRZYBCZYK, R. 347-28-4010	ASBESTOS 860818 2ND	19:07- 22:37	210	.024	.015	OSHA PEL = 0.2 F/CC	.061 .091
0069A	BOILER OPERATOR VANDERTWEEL 092-30-9537	ASBESTOS 860820 3RD	23:05- 3:54	289	.005		OSHA PEL = 0.2 F/CC	
0069B	BOILER OPERATOR VANDERTWEEL 092-30-9537	ASBESTOS 860820 3RD	3:54- 6:44	170	.028	.013	OSHA PEL = 0.2 F/CC	.053 0.08
0070A	ELECTRICIAN SWANK, K. 540-22-6531	ASBESTOS 860819 1ST	7:20- 11:39	259	.042		OSHA PEL = 0.2 F/CC	
0070B	ELECTRICIAN SWANK, K. 540-22-6531	ASBESTOS 860819 1ST	11:39- 15:16	217	.009	.027	OSHA PEL = 0.2 F/CC	.106 .164
0071A	ELECTRICIAN CARON, A. 002-22-0623	ASBESTOS 860819 1ST	7:59- 13:00	301	.039		OSHA PEL = 0.2 F/CC	
0071B	ELECTRICIAN CARON, A. 002-22-0623	ASBESTOS 860819 1ST	13:00- 15:55	175	.032	.036	OSHA PEL = 0.2 F/CC	.147 .215
0072A	MACHINIST MCFANN, J. 567-46-5755	ASBESTOS 860819 1ST	7:55- 12:48	293	.016		OSHA PEL = 0.2 F/CC	
0072B	MACHINIST MCFANN, J. 567-46-5755	ASBESTOS 860819 1ST	12:48- 15:49	181	.006	.012	OSHA PEL = 0.2 F/CC	.046 .071
0073A	MECHANIC MOJESKE, J. 557-28-9608	ASBESTOS 860819 1ST	7:22- 11:39	257	.041		OSHA PEL = 0.2 F/CC	

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TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0073B	MECHANIC MOJESKE, J. 557-28-9608	ASBESTOS 860819 1ST	11:39- 15:16	217	.023	.033	OSHA PEL = 0.2 F/CC	.135 .197
0074A	MECHANIC DARNELL, W. 568-54-6818	ASBESTOS 860819 1ST	7:56- 12:53	297	0.04		OSHA PEL = 0.2 F/CC	
0074B	MECHANIC DARNELL, W. 568-54-6818	ASBESTOS 860819 1ST	12:53- 15:55	182	.073	.053	OSHA PEL = 0.2 F/CC	.216 .309
0075A	MECHANIC MCGREGOR, P. 485-05-0739	ASBESTOS 860819 1ST	8:01- 12:48	287	.027		OSHA PEL = 0.2 F/CC	
0075B	MECHANIC MCGREGOR, P. 485-05-0739	ASBESTOS 860819 1ST	12:48- 15:50	182	.123	.064	OSHA PEL = 0.2 F/CC	.259 .386
0076A	MECHANIC GEORGE, A. 561-90-0168	ASBESTOS 860819 1ST	7:58- 12:00	242	--		SAMPLE VOIDED; WELDING FUMES	
0077A	MECHANIC GEORGE, A. 561-90-0168	ASBESTOS 860820 1ST	7:59- 11:29	210	.044		OSHA PEL = 0.2 F/CC	
0077B	MECHANIC GEORGE, A. 561-90-0168	ASBESTOS 860820 1ST	11:29- 16:03	274	.012	.026	OSHA PEL = 0.2 F/CC	.104 .155
0078A	MECHANIC STUCKEY, J. 546-21-5084	ASBESTOS 860820 1ST	9:30- 13:38	248	.033		EMPLOYEE IN TRAINING OSHA PEL = 0.2 F/CC	
0078B	MECHANIC STUCKEY, J. 546-21-5084	ASBESTOS 860820 1ST	13:38- 16:03	145	.026	.031	EMPLOYEE IN TRAINING OSHA PEL = 0.2 F/CC	.124 .182

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TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0079A	OILER PERRY, D. 550-52-1674	ASBESTOS 860819 1ST	7:55- 11:48	233	--		SAMPLE VOIDED, FILTER HEAVILY LOADED	
0079B	OILER PERRY, D. 550-52-1674	ASBESTOS 860819 1ST	11:48- 16:14	266	--		SAMPLE VOIDED, HEAVY PARTICULATE	
0080A	SHIFT MECHANIC WHITTAKER, W. 294-40-4086	ASBESTOS 860819 1ST	7:08- 11:44	276	--		SAMPLE VOIDED, WELDING FUMES	
0081A	SHIFT MECHANIC WHITTAKER, W. 294-40-4086	ASBESTOS 860820 1ST	8:08- 11:54	226	.051		OSHA PEL = 0.2 F/CC	
0081B	SHIFT MECHANIC WHITTAKER, W. 294-40-4086	ASBESTOS 860820 1ST	11:54- 14:45	171	.039	.046	OSHA PEL = 0.2 F/CC	.188 .273
0082A	SHIFT MECHANIC BASTIANAS, H. 557-56-8797	ASBESTOS 860818 2ND	15:20- 20:07	287	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0082B	SHIFT MECHANIC BASTIANAS, H. 557-56-8797	ASBESTOS 860818 2ND	20:07- 22:42	155	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0083A	SHIFT MECHANIC BASTIANAS, H. 557-56-8797	ASBESTOS 860820 2ND	14:53- 19:36	283	.002		OSHA PEL = 0.2 F/CC	
0083B	SHIFT MECHANIC BASTIANAS, H. 557-56-8797	ASBESTOS 860820 2ND	19:36- 22:40	184	.009	.005	OSHA PEL = 0.2 F/CC	.018 .028
0084A	SHIFT MECHANIC SATHORNKICH 558-88-2907	ASBESTOS 860820 3RD	23:06- 3:57	291	.021		OSHA PEL = 0.2 F/CC	

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TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO.	POSITION/AREA (NAME-CLOCK NO.)	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
86	SOC SEC NBR							
0084B	SHIFT MECHANIC SATHORNKICH 558-88-2907	ASBESTOS 860820 3RD	3:57- 6:47	170	.655	.255	EMPLOYEE CHANGED HAMMERS IN CRUSHER AND WORKED ON BAG OPENER TWICE DUR- ING THIS SAMPLE	.972 1.58
0085A	STOREKEEPER WALL, F. 118-22-5805	ASBESTOS 860820 1ST	8:05- 11:40	215	.022		OSHA PEL = 0.2 F/CC	
0085B	STOREKEEPER WALL, F. 118-22-5805	ASBESTOS 860820 1ST	13:45- 16:06	141	.091	.049	OSHA PEL = 0.2 F/CC	.198 .294
0086A	TRUCK MECHANIC CHUTE, R. 556-13-5705	ASBESTOS 860819 1ST	7:35- 11:47	252	.006		OSHA PEL = 0.2 F/CC	
0086B	TRUCK MECHANIC CHUTE, R. 556-13-5705	ASBESTOS 860819 1ST	11:47- 14:31	164	.019	.011	OSHA PEL = 0.2 F/CC	.044 .065
0087A	SUPERVISOR DRISKILL, G. 557-48-8759	ASBESTOS 860819 1ST	8:02- 12:48	286	.021		OSHA PEL = 0.2 F/CC	
0087B	SUPERVISOR DRISKILL, G. 557-48-8759	ASBESTOS 860819 1ST	12:48- 15:52	184	.028	.023	OSHA PEL = 0.2 F/CC	.097 .138
0088A	LOADER BIVENS, J. 547-72-9345	ASBESTOS 860820 1ST	8:02- 11:20	198	.015		OSHA PEL = 0.2 F/CC	
0088B	LOADER BIVENS, J. 547-72-9345	ASBESTOS 860820 1ST	11:20- 16:07	287	.062	.043	OSHA PEL = 0.2 F/CC	.166 .259
0089A	LOADER RENFRO, E. 553-54-5445	ASBESTOS 860820 1ST	8:03- 11:21	198	--		SAMPLE VOIDED, PUMP MALFUNCTION	

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TABLE 1
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

10:47 MONDAY, FEBRUARY 9, 1987

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
00898	LOADER RENFRO, E. 553-54-5445	ASBESTOS 860820 1ST	11:21- 16:10	289	--		SAMPLE VOIDED, PUMP MALFUNCTION	
0090A	SUPERVISOR GLOVER, D. 235-56-0052	ASBESTOS 860819 1ST	8:08- 11:22	194	.009		OSHA PEL = 0.2 F/CC	
0090B	SUPERVISOR GLOVER, D. 235-56-0052	ASBESTOS 860819 1ST	11:32- 15:59	267	.006	.007	OSHA PEL = 0.2 F/CC	.031 .044

CTD021849

TABLE II
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

17:19 WEDNESDAY, FEBRUARY 11, 1987 1

NO. 96	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0091A	MIXER OPERATOR REYES, P. 260-04-6091	ASBESTOS 861204 3RD	23:15- 3:15	240	--		SAMPLE VOIDED - SAMPLE NUMBERS MIXED UP	
0091B	MIXER OPERATOR REYES, P. 260-04-6091	ASBESTOS 861204 3RD	3:15- 6:15	180	--		SAMPLE VOIDED - SAMPLE NUMBERS MIXED UP	
0092A	MIXER OPERATOR REYES, P. 260-04-6091	ASBESTOS 870107 2ND	3:30- 7:30	240	.029		OSHA PEL = 0.2 F/CC	
0092B	MIXER OPERATOR REYES, P. 260-04-6091	ASBESTOS 870107 2ND	7:30- 10:40	190	0.02	.025	OSHA PEL = 0.2 F/CC	.102 .148
0093A	PRESS OPERATOR LOYER, D. 570-43-6298	ASBESTOS 861204 1ST	7:50- 11:45	235	.051		OSHA PEL = 0.2 F/CC	
0093B	PRESS OPERATOR LOYER, D. 570-43-6298	ASBESTOS 861204 1ST	11:45- 14:54	189	.025	.039	OSHA PEL = 0.2 F/CC	.159 .235
0094A	PRESS OPERATOR SALAS, J. 570-76-5774	ASBESTOS 861208 3RD	22:59- 3:01	242	.302		OSHA PEL = 0.2 F/CC	
0094B	PRESS OPERATOR SALAS, J. 570-76-5774	ASBESTOS 861208 3RD	3:01- 6:45	224	0.04	.176	OSHA PEL = 0.2 F/CC	.683 1.08
0095A	MANDREL HANDLER BRYANT, B. 266-82-7813	ASBESTOS 861104 1ST	8:01- 11:28	207	.034		OSHA PEL = 0.2 F/CC	
6.	MANDREL HANDLER BRYANT, B. 266-82-7813	ASBESTOS 861104 1ST	11:28- 14:53	205	0.02	.027	OSHA PEL = 0.2 F/CC	0.11 0.16

CTD021850

TABLE II
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

17:19 WEDNESDAY, FEBRUARY 11, 1987 2

NO.	POSITION/AREA (NAME-CLOCK NO.)	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
86	SOC SEC NBR							
0096A	TRAY LOADER LEDFORD, J. 440-34-0978	ASBESTOS 861204 3RD	23:30- 3:35	245	0.01		OSHA PEL = 0.2 F/CC	
0097A	TRAY LOADER LEDFORD, J. 440-34-0878	ASBESTOS 870107 2ND	3:33- 7:32	239	<DET		OSHA PEL = 0.2 F/CC	
0097B	TRAY LOADER LEDFORD, J. 440-34-0878	ASBESTOS 870107 2ND	7:32- 10:42	190	.014	.006	OSHA PEL = 0.2 F/CC	.023 .038
0098A	TRAYLOAD/TRUCK OPERATOR SANIGA, G. 210-24-1301	ASBESTOS 861113 1ST	8:00- 11:40	220	.003		OSHA PEL = 0.2 F/CC	
0098B	TRAYLOAD/TRUCK OPERATOR SANIGA, G. 210-24-1301	ASBESTOS 861113 1ST	11:40- 14:55	195	0.01	.007	OSHA PEL = 0.2 F/CC	.027 0.04
0099A	TRAY LOADER/TRUCK OPERATOR COLE, H. 525-68-7424	ASBESTOS 861204 1ST	7:58- 13:50	352	.005		OSHA PEL = 0.2 F/CC	
0099B	TRAY LOADER/TRUCK OPERATOR COLE, H. 525-68-7424	ASBESTOS 861204 1ST	13:50- 14:56	66	.005	.005	OSHA PEL = 0.2 F/CC	.019 .029
0100A	SUPERVISOR VOIGHTLANDER, C. 553-70-9511	ASBESTOS 861104 1ST	8:02- 11:28	206	.063		OSHA PEL = 0.2 F/CC	
0100B	SUPERVISOR VOIGHTLANDER, C. 553-70-9511	ASBESTOS 861104 1ST	11:28- 15:00	212	0.01	.036	OSHA PEL = 0.2 F/CC	.141 .219
01	HYDROTESTER OPERATOR FOOSE, D. 568-08-6676	ASBESTOS 861113 1ST	8:05- 11:41	216	.136		OSHA PEL = 0.2 F/CC	

CTD021851

TABLE II
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

17:19 WEDNESDAY, FEBRUARY 11, 1987 3

NO.	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0101B	HYDROTESTER OPERATOR FOOSE, D. 568-08-6676	ASBESTOS 861113 1ST	11:41- 15:23	222	.075	.105	OSHA PEL = 0.2 F/CC	.429 0.62
0102A	PIPE HANDLER ASKEW, W. 561-90-4679	ASBESTOS 861113 1ST	8:09- 11:44	215	.019		OSHA PEL = 0.2 F/CC	
0102B	PIPE HANDLER ASKEW, W. 561-90-4679	ASBESTOS 861113 1ST	11:44- 15:25	221	.052	.036	OSHA PEL = 0.2 F/CC	.145 .215
0103A	1/4 LATHE OPERATOR SUAREZ, A. 560-68-8273	ASBESTOS 861113 1ST	8:07- 11:43	216	.344		OSHA PEL = 0.2 F/CC	
0103B	1/4 LATHE OPERATOR SUAREZ, A. 560-68-8273	ASBESTOS 861113 1ST	11:43- 15:24	221	.117	.229	OSHA PEL = 0.2 F/CC	0.92 1.37
0104A	COUPLING CUT-OFF OPERATOR COOLEY, D. 344-30-3938	ASBESTOS 861112 1ST	7:58- 11:30	212	.476		EMPLOYEE WORE RESPIRATOR OSHA PEL = 0.2 F/CC	
0104B	COUPLING CUT-OFF OPERATOR COOLEY, D. 344-30-3938	ASBESTOS 861112 1ST	11:30- 15:22	232	.079	.269	EMPLOYEE WORE RESPIRATOR OSHA PEL = 0.2 F/CC	1.05 1.63
0105A	WET TESTER CONTRERAS, J. 553-62-0421	ASBESTOS 861211 1ST	8:25- 13:40	315	.376		EMPLOYEE ALSO WORKED AT CRUSHER AND RAN SWEEPER DURING SAMPLE OSHA PEL = 0.2 F/CC	
0105B	WET TESTER CONTRERAS, J. 553-62-0421	ASBESTOS 861211 1ST	13:40- 15:18	98	.497	.405	EMPLOYEE ALSO WORKED AT CRUSHER AND RAN SWEEPER DURING SAMPLE OSHA PEL = 0.2 F/CC	1.64 2.41
0106A	CRUSHER OPERATOR SILVA, T. 573-24-9440	ASBESTOS 861106 1ST	8:11- 11:36	205	.343		OSHA PEL = 0.2 F/CC	

CTD021852

TABLE II
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

17:19 WEDNESDAY, FEBRUARY 11, 1987 4

NO. 86	POSITION/AREA (NAME-CLOCK NO.) SOC SEC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
0106B	CRUSHER OPERATOR SILVA, T. 573-24-9440	ASBESTOS 861106 1ST	11:36- 15:21	225	.279	0.31	OSHA PEL = 0.2 F/CC	1.27 1.82
0107A	SUPERVISOR PRICE, L. 349-32-8861	ASBESTOS 861105 1ST	8:10- 15:21	431	.004	.004	OSHA PEL = 0.2 F/CC	.013 .022
0108A	SUPERVISOR BEESON, J. 550-32-5531	ASBESTOS 861105 1ST	8:08- 15:10	422	.011	.011	OSHA PEL = 0.2 F/CC	.041 .069
0109A	OILER PERRY, D. 550-52-1674	ASBESTOS 861204 1ST	7:54- 11:48	234	.017		OSHA PEL = 0.2 F/CC	
0109B	OILER PERRY, D. 550-52-1674	ASBESTOS 861204 1ST	11:46- 15:42	234	.029	.023	OSHA PEL = 0.2 F/CC	.094 .136
0110A	MECHANIC STEEN, T. 107-32-3415	ASBESTOS 861106 1ST	8:07- 15:20	433	<DET	<DET	OSHA PEL = 0.2 F/CC	
0111A	SHIFT MECHANIC SATORKICH, J. 555-88-2907	ASBESTOS 861113 1ST	8:18- 11:50	212	<DET		OSHA PEL = 0.2 F/CC	
0111B	SHIFT MECHANIC SATORKICH, J. 555-88-2907	ASBESTOS 861113 1ST	11:50- 14:52	182	<DET	<DET	OSHA PEL = 0.2 F/CC	
0112A	LIFT TRUCK OPERATOR CORRAL, R. 551-74-3367	ASBESTOS 861030 1ST	8:16- 16:08	472	.028	.028	OSHA PEL = 0.2 F/CC	.107 .178
0113A	LIFT TRUCK OPERATOR MORGAN, J. 554-82-2494	ASBESTOS 861030 1ST	8:12- 16:08	476	.006	.006	OSHA PEL = 0.2 F/CC	.024 0.04

CTD021853

TABLE 1:
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

17:19 WEDNESDAY, FEBRUARY 11, 1987 5

NO.	POSITION/AREA (NAME-CLOCK NO.)	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
86	SOC SEC NBR							
0114A	LOADER RENFR0, E. 553-54-5445	ASBESTOS 861104 1ST	8:13- 15:35	442	.041	.041	OSHA PEL = 0.2 F/CC	.153 .254

CTD021854

TABLE III

OSHA GENERAL INDUSTRY STANDARD REQUIREMENTS (§ 1910.100)
(Effective July 21, 1986, unless indicated) (§o)

(8-Hour TWA)

<u>At Any Exposure</u>	<u>Above 0.1 Action Level (§b)</u>	<u>Above 0.2 PEL (§c)</u>
No compressed air use by July 20, 1988 (§§ e & k)	Training program and records by Oct. 20, 1986 (§ j)	"Regulated Area" by Nov. 17, 1986 (§ e)
No spraying by July 20, 1988 (§ f)	Medical surveillance by Nov. 17, 1986 (§§ l & m)	Warning signs by Nov. 17, 1986 (§§ e & j)
Clean up spills ASAP (§ k)		Limited access by Nov. 17, 1986 (§ e)
Dry clean-up only if wet or vacuuming not feasible (§ k)	Monitor initially by Oct. 20, 1986 and every 6 months until below 0.1 unless process changes and keep record (§ d & m) ^{1/}	Respiratory use by Nov. 17, 1986, unless above 2.0, then by July 21, 1986 (§ e)
Vacuum only with HEPA filters (§ k)	Let employees watch monitoring (§ n)	No eating, drinking or smoking by Nov. 17, 1986 (§ e)
Seal and label all asbestos-containing waste (§ k)	Notify employee of monitoring results (§ d)	Protective clothing and laundering (§ h)
	Label products and provide MSDS (§j) ^{2/}	Must use all feasible engineering controls to reduce exposures below PEL by July 20, 1988 (§ f)
	^{1/} Objective data or earlier monitoring below 0.1 exceptions (§d).	Must in certain operations use engineering controls to get to 0.5 by July 20, 1988 (§ f)
	^{2/} Exception if product asbestos content below 0.1X (§ j).	PAPR required upon employee request by Jan. 16, 1987
		Respiratory program (§ g)
		Change rooms (§ i) ^{3/}
		Showers (§ i) ^{3/}
		Lunchrooms (§ i) ^{3/}
		Double lockers (§ i)
		Local exhaust on tools by July 20, 1988 (§ f)
		Use wet methods if feasible by July 20, 1988 (§ f)
		Institute compliance program by July 20, 1987 (§ e)
		^{3/} Complete plans by Jan. 16, 1987, build by July 20, 1987 unless engineering controls coming by July 20, 1988.

CTD021855

TABLE IV

Respiratory Protection for Asbestos

Airborne concentration of asbestos, tremolite, anthophyllite, actinolite or a combination of the minerals	Required respirator	Source Information*
Not in excess of 2 f/cc (10 X PEL).	1. Half-mask air-purifying respirator equipped with high-efficiency filters.	MSA Comfo II with Filter 464035
Not in excess of 10 f/cc (50 X PEL).	1. Full facepiece air-purifying respirator equipped with high-efficiency filters.	MSA Ultra Twin with Filter 464035
Not in excess of 20 f/cc (100 X PEL).	1. Any powered air-purifying respirator equipped with high-efficiency filters.	MSA Comfo 463354 or Ultra Twin 463355 with Filter 463284 and Battery Pak & Charger 463441
	2. Any supplied-air respirator operated in continuous flow mode.	MSA Constant Flow Airline respirator 460863 or 461717
Not in excess of 200 f/cc (1000 X PEL).	1. Full facepiece supplied-air respirator operated in pressure demand mode.	MSA Ultralite with Composite Cylinder 481216 or with Steel Cylinder 481219
Greater than 200 f/cc (> 1000 X PEL) or unknown concentration.	1. Full facepiece supplied air respirator operated in pressure demand mode equipped with an auxiliary positive pressure self-contained breathing apparatus.	MSA Ultralite Custom 4500 Series SCBA

Note: a. Respirators assigned for higher environmental concentrations may be used at lower concentrations.

b. A high-efficiency filter means a filter that is at least 99.97 percent efficient against mono-dispersed particles of 0.3 micrometers or larger.

*Similar acceptable equipment is available from other sources.

APPENDIX I

Sampling and Analytical Methods and Current Standards

Asbestos

The sampling and analysis was conducted following the current OSHA Standard 29CFR1910.1001, Appendix A ORM (Mandatory).

Personal samples were obtained open faced on a 25mm 0.8 micron mixed cellulose ester Millipore filter with a 50mm extension cowl. DuPont Alpha I, P4000 and P2500 air sampling pumps were calibrated before and after each sampling day to approximately 1 liter per minute. In most cases, a series of two, three or four different filter samples were obtained for the person to establish an 8 hour time weighted average (TWA) concentration.

The analysis was conducted by NATLSCO Labs, Long Grove, Illinois. The counts were made following the A counting rules as described in the Standard, Appendix A.

The current Standard calls for a personal exposure limit of 0.2 fibers, longer than 5 microns per cubic centimeter of air (f/cc) and an action limit of 0.1 f/cc.

CertainTeed

To L. Megargee	Mail Code #260 Riverside	From Janis L. Woodson	Mail Code 1125/4	Ext. 7713
Subject ASBESTOS SAMPLING CASSETTES			Date August 26, 1986	

Enclosed are twenty (20) cassettes, which in addition to the other ones we left should be ample to complete the sampling.

When returning the samples, please include 10% blanks or a minimum of two (2) blanks if there are less than twenty (20) samples.

Thanks for all your help during our visit. It was appreciated!

JLW/1h -

Enclosures

3-12-87

Janis —

This memo + the 20 cassettes was
left in my office TODAY, 3/12/87! By
persons unknown! 'Nuff said!
Thanks, belatedly

Larry M.

OSHA HEALTH & SAFETY

MAR 16 1987

CTD021858

CertainTeed

Date

March 20, 1987

To

J. P. McGinley

Location and mail code

2125/2B V.F.

Subject

DUST SAMPLES

From

J. A. Burke

Location and mail code

Riverside 260

Back in September we started an engineering project on the coupling cutoff machine to get this area below the .2 f/cc Pel., and furthermore, below the action level of .1 f/cc. The following are the recent in-plant personal readings (D. Cooley) for the coupling cutoff: 3/3/87 at .09; 3/13/87 at .08; 3/17/87 at .07, and 3/18/87 at .09 f/cc.

We are at present preparing samples to send to Corporate Health and Safety. Attached are pictures of the coupling cutoff. As you can see, it is completely enclosed.

Secondly, the crusher area has been studied, and with new work habit instructions, the latest in-plant reading on operator Silva was .08 f/cc. This area is still being studied, and we will supply Corporate Health and Safety with samples at a later date.

At the 1/4 FM lathe we are at present engineering better dust collection and work habits by the operator. The latest in-plant reading on operator Suarez was .17 f/cc. Further work and monitoring is to be done in this area and samples sent to Corporate Health and Safety.

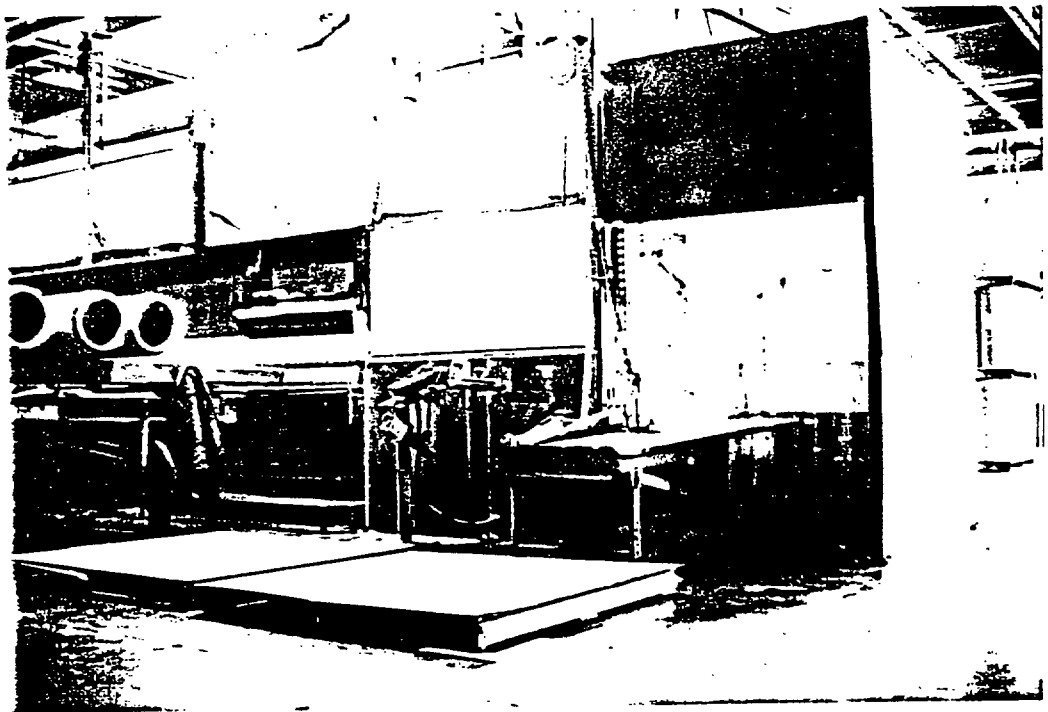
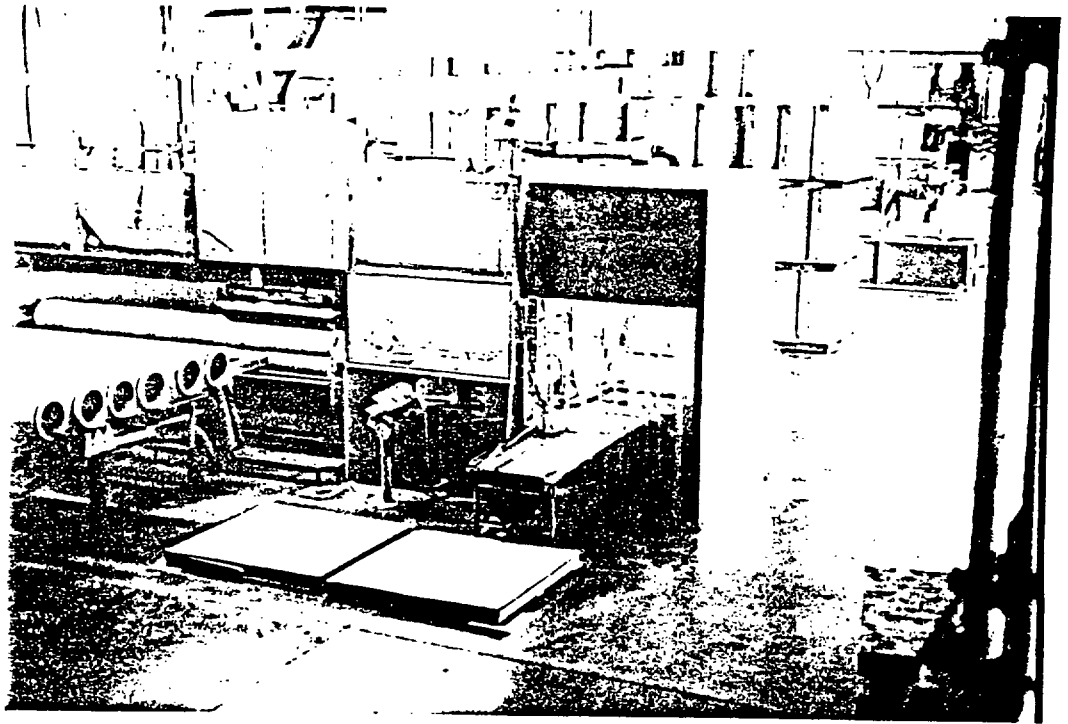
Another part of our program is to install plastic strip doors in the manufacturing and finishing departments to cut down on air currents in the plant when these doors are open. Also, we are looking at buying a new up-to-date and more efficient sweeper for the plant.

JAB:sj

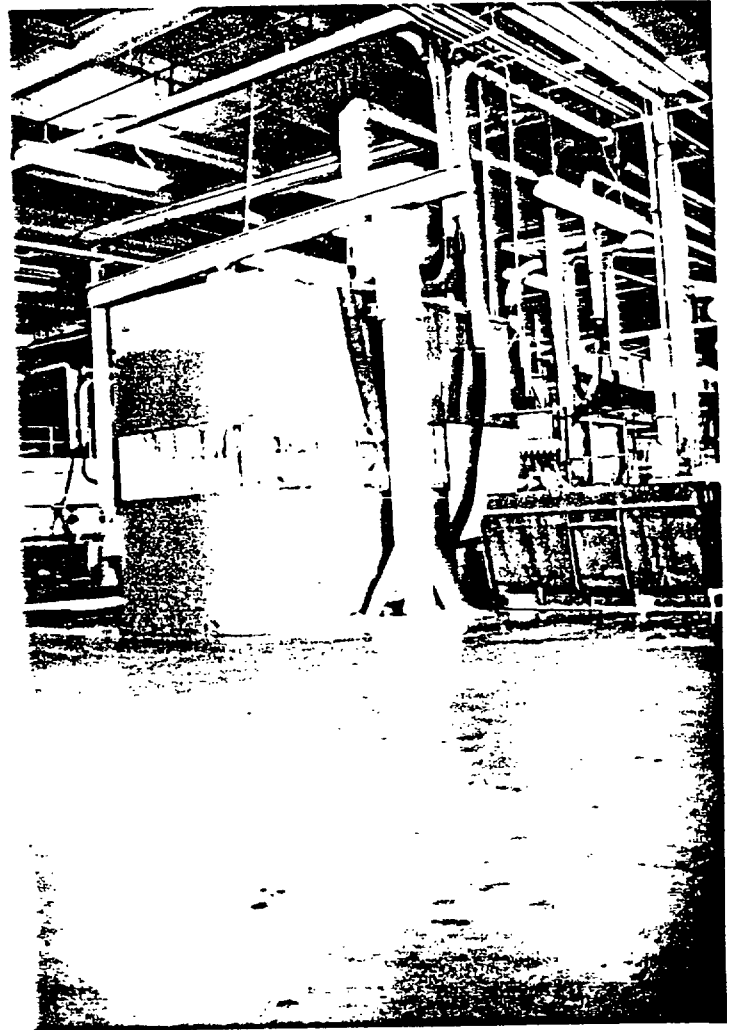
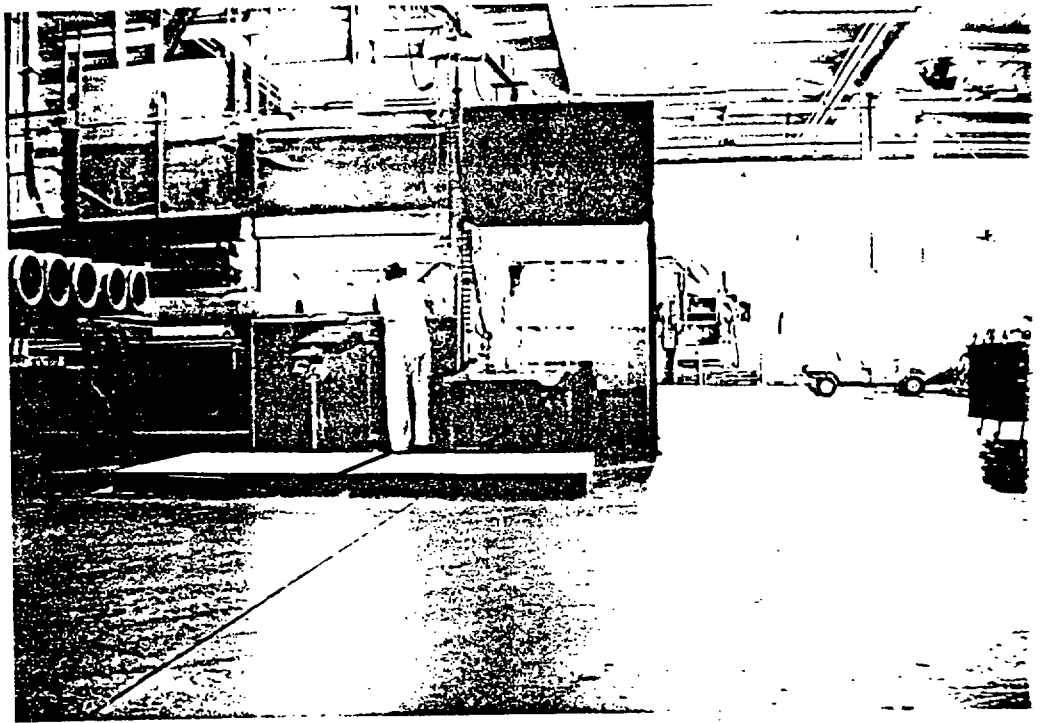
Enclosures: 4

*Circulate to J. McGinley
information only. Please return to file
J. McGinley
2/25/87*

1987



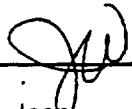
CTD021860



CTD021861

Follow-Up

CertainTeed

To Jim Burke	Mail Code #260 Riverside	From Janis L. Woodson 	Mail Code 1125/4	Ext. 7713
Subject COUPLING CUT OFF OPERATOR ASBESTOS EXPOSURE SAMPLES			Date April 29, 1987	

cc: Larry Megargee - Riverside
John McGinley - 2125/2B

Attached are the results of the exposure samples you took on the Coupling Cut Off Operator March 23-26, 1987 (Table I). The raw data is given in Table II.

The TWA results ranged 0.05 to 0.22 f/cc with the sample taken on 3/26 exceeding the OSHA PEL of 0.2 f/cc. No real differences were noted on the data sheets to indicate the possible reason for the increased exposure on this day.

I understand engineering changes have been made to the Coupling Cut Off Operation. From the samples taken on 3/23 and 3/25, it shows you have made some major improvements in dust collection.

If I can be of further assistance, please contact me.

JLW/1h

Attachments

CTD021862

TABLE I
RIVERSIDE
SAMPLE RESULTS FOR ASBESTOS

NO.	POSITION/ABBA (NAME-CLOCK NO.) SOC SRC NBR	ANALYSIS/ DATE/SHIFT	TIME	MIN	RESULT F/CC	TWA FOR SAMPLE PERIOD	REMARKS	LCL/ UCL
	CPLG CUT-OFF OPER COOLBY, D	ASBESTOS 03/23/87	1 8:30- 11:42	192	.032	.052	MANUFACTURING 12" 200 COUPLINGS OSHA PEL = 0.2 F/CC	.211 .312
			2 11:42- 15:20	218	0.07			
	CPLG CUT-OFF OPER COOLBY, D	ASBESTOS 03/25/87	3 7:59- 12:43	284	.051	.048	MANUFACTURING 10" 200 COUPLINGS OSHA PEL = 0.2 F/CC	.195 .286
			4 12:43- 15:15	152	.043			
	CPLG CUT-OFF OPER COOLBY, D	ASBESTOS 03/26/87	5 8:10- 12:40	270	.138	0.22	MANUFACTURING 12" 150 COUPLINGS OSHA PEL = 0.2 F/CC	.901 1.3
			6 12:40- 15:08	148	0.37			

CTD021863

**NATLSCO**

National Loss Control Service Corporation
Long Grove, Illinois 60049-0075 (312) 540-2488

ENVIRONMENTAL SCIENCES LABORATORY, K-2

TO:

JANTS WOODSON
CERTAINTED CORP.
750 E. SWEDESFORD RD.
VALLEY Forge PA 19482

TABLE II

LABORATORY ANALYSIS REPORT

REPORT DATE APR. 20, 1987SAMPLES REC'D APR. 16, 1987REQUEST NUMBER 70388PAGE NUMBER 1 OF REQUEST.

SAMPLE NUMBER	ANALYSIS REQUESTED	RESULTS
		Fibers/100 Flds
0519	ASBESTOS(NIOSH 7400) ANALYSES	14
520	ASBESTOS(NIOSH 7400) ANALYSES	30.5
521	ASBESTOS(NIOSH 7400) ANALYSES	119.5
522	ASBESTOS(NIOSH 7400) ANALYSES	81
523	ASBESTOS(NIOSH 7400) ANALYSES	0 Blank
524	ASBESTOS(NIOSH 7400) ANALYSES	32.5
525	ASBESTOS(NIOSH 7400) ANALYSES	13
526	ASBESTOS(NIOSH 7400) ANALYSES	0 Blank

CORP. HEALTH & SAFETY
APR 22 1987
RECEIVED

COMMENTS:
OSHA RECOMMENDS A LOWER LIMIT OF DETECTION OF LESS THAN 2 FIBERS/100 FIELDS.
METHODS: PHASE CONTRAST MICROSCOPY

Respectfully submitted,

Joan A. Wronski, CIH, Manager
Environmental Sciences Laboratory

ACCREDITED BY THE AMERICAN INDUSTRIAL HYGIENE ASSOCIATION

CertainTeed

To J. Burke	Mail Code #260 Riverside	From Janis L. Woodson	Mail Code 1125/4	Ext. 7713
Subject ASBESTOS EXPOSURE SAMPLES - ¼ LATHE AND CRUSHER OPERATORS			Date May 15, 1987	

cc: J. McGinley - 2125/2B
L. Megargee - Riverside

Attached are the results of the exposure samples that were taken on the Crusher and ¼ Lathe Operators on April 23, 1987 (Table I). The raw data is given in Table II.

The TWA results ranged 0.10-0.26 f/cc with the samples on the Crusher exceeding the 0.1 f/cc action level and the ¼ Lathe Operator exceeding the 0.2 OSHA PEL.

These results show the Crusher Operator's exposure has been reduced, but the ¼ Lathe Operator exposure is relatively unchanged. Respiratory protection should be required for the ¼ Lathe Operator.

If I can be of further assistance, please contact me.

JLW/lh

Attachments

CTD021865

Industry 1 Hygiene Samples - L. Megargee
Riverside A/C Pipe Plant
April 23, 1987

TABLE I

SAMPLE RESULTS FOR ASBESTOS

NO.	POSITION/AREA (NAME-CLOCK NO.) DATE	ANALYSIS FOR	TIME	MIN	RESULT	TWA FOR SAMPLE PERIOD	REMARKS
	Crusher Operator (James, J.) 4/23/87	Asbestos 7	8:25a	190	0.02 f/cc	0.10 f/cc	Employee crushed pipe and couplings. Employee wore Willson 1212/R12 respirator during clean-up. OSHA PEL = 0.2 f/cc
			11:35a				
			11:35a 3:25p	230	0.16 f/cc		
	Lathe Operator (Suarez, A.) 4/23/87	Asbestos 9	8:15a	200	0.38 f/cc	0.26 f/cc	Manufactured 6" closures. OSHA PEL = 0.2 f/cc
			11:35a				
			11:35a 3:13p	218	0.15 f/cc		

CTD021866

**NATLSCO**

TABLE II

LABORATORY ANALYSIS REPORT

National Loss Control Service Corporation
Long Grove, Illinois 60049-0075 (312) 540-2488

ENVIRONMENTAL SCIENCES LABORATORY, K-2

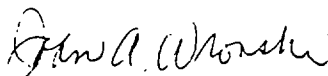
REPORT DATE MAY. 7, 1987SAMPLES REC'D MAY. 6, 1987REQUEST NUMBER 70461PAGE NUMBER 1 OF REQUEST.

TO: JANIS WOODSON
CERTAINTIED CORP.
750 E. SWEDSFORD RD.
VALLEY FORGE PA 19482

SAMPLE NUMBER	ANALYSIS REQUESTED	RESULTS
Q357 ✓	ASBESTOS(NIOSH 7400) ANALYSES	Fibers/ 60 Flds 100
Q347 ✓	ASBESTOS(NIOSH 7400) ANALYSES	Fibers/100 Flds 70.5
Q363 ✓	ASBESTOS(NIOSH 7400) ANALYSES	7.5
Q358 ✓	ASBESTOS(NIOSH 7400) ANALYSES	83.5
Q528	ASBESTOS(NIOSH 7400) ANALYSES	0
Q527	ASBESTOS(NIOSH 7400) ANALYSES	0

COMMENTS:
REPORT TOTAL FIBERS
SEE COMMENTS
METHODS: PHASE CONTRAST MICROSCOPY

Respectfully submitted,


Joan A. Wronski, CIH, Manager
Environmental Sciences Laboratory

ACCREDITED BY THE AMERICAN INDUSTRIAL HYGIENE ASSOCIATION

CTD021867

86 (T⁴) Riverside

Seq T Name STEEN, THEODORE C.
 0001 P Soc Sec 107-32-3415
 Date 11/06/1986
 Shift 1ST 8 HOUR

Dept PRODUCTION
 Locn GENERAL
 Proc
 Job MECHANIC

Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
 TWA 0.000000 F/CC
 Pel/Exp Limit OSHA PEL = 0.2 F/CC
 Product

1. 4976 Equip Samp Start Stop Min LPM Analysis-f/FLD Conc-f/CC ST Exp Limit Respirator Comments
 08:07 15:20 433 0.9600 100.0 0.0000

Seq T Name SANIGA, EUGENE
 0002 P Soc Sec 210-24-1301
 Date 11/13/1986
 Shift 1ST 8 HOUR

Dept PRODUCTION
 Locn TRAY LOADING
 Proc
 Job OPERATOR

Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
 TWA 0.006700 F/CC
 Pel/Exp Limit OSHA PEL = 0.2 F/CC
 Product

1. 4976 Equip Samp Start Stop Min LPM Analysis-f/FLD Conc-f/CC ST Exp Limit Respirator Comments
 08:00 11:40 220 0.9700 1.5000/ 100.0 0.0034 N
 2. 4976 Equip Samp Start Stop Min LPM Analysis-f/FLD Conc-f/CC ST Exp Limit Respirator Comments
 11:40 14:55 195 0.9700 4.0000/ 100.0 0.0100 N

Seq T Name BRYANT, BIRK
 0003 P Soc Sec 266-82-7813
 Date 11/04/1986
 Shift 1ST 8 HOUR

Dept PRODUCTION
 Locn MANDREL
 Proc
 Job HANDLER

Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
 TWA 0.027000 F/CC
 Pel/Exp Limit OSHA PEL = 0.2 F/CC
 Product

1. 4976 Equip Samp Start Stop Min LPM Analysis-f/FLD Conc-f/CC ST Exp Limit Respirator Comments
 08:01 11:28 207 0.9700 14.0000/ 100.0 0.0340
 2. 4976 Equip Samp Start Stop Min LPM Analysis-f/FLD Conc-f/CC ST Exp Limit Respirator Comments
 11:28 14:53 205 0.9700 8.0000/ 100.0 0.0200

Seq T Name COOLEY, DENNIS D.
 0004 P Soc Sec 344-30-3938
 Date 11/12/1986
 Shift 1ST 8 HOUR

Dept PRODUCTION
 Locn COUPLING CUT OFF
 Proc
 Job OPERATOR

Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
 TWA 0.270000 F/CC
 Pel/Exp Limit OSHA PEL = 0.2 F/CC
 Product

1. 8125 Equip Samp Start Stop Min LPM Analysis-f/FLD Conc-f/CC ST Exp Limit Respirator Comments
 07:58 11:30 212 0.9300 115.5000/ 60.0 0.4800 Y EMPLOYEE WORE RESPIRATOR
 2. 8125 Equip Samp Start Stop Min LPM Analysis-f/FLD Conc-f/CC ST Exp Limit Respirator Comments
 11:30 15:22 232 0.9300 35.0000/ 100.0 0.0800 Y EMPLOYEE WORE RESPIRATOR

Seq T Name PRICE, LEWIS L.
0005 P Soc Sec 349-32-8861
Date 11/05/1986
Shift 1ST 8 HOUR
Dept PRODUCTION
Locn FINISHING
Proc
Job SUPERVISOR
Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA 0.003500 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/FLD	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1. 4976	Q205	08:10	15:21	431	0.9700	3.0000/ 100.0	0.0035			N	

Seq T Name COLE, HARRISON
0006 P Soc Sec 425-68-7424
Date 12/04/1986
Shift 1ST 8 HOUR
Dept PRODUCTION
Locn TRAY LOADING
Proc
Job OPERATOR
Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA 0.007900 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/FLD	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1. 4976	Q382	07:58	13:50	352	0.7400	3.5000/ 100.0	0.0066			N	
2. 4976	Q383	13:50	14:56	66	0.7400	1.5000/ 100.0	0.0150			N	

Seq T Name LEDFORD, JOE D.
0007 P Soc Sec 440-34-0878
Date 12/04/1986
Shift 3RD 8 HOUR
Dept PRODUCTION
Locn TRAY LOADING
Proc
Job OPERATOR
Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA 0.012000 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/FLD	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1. 8125	Q377	23:30	27:35	245	1.0200	6.0000/ 100.0	0.0120			N	

Seq T Name BEESON, JAMES R.
0008 P Soc Sec 550-32-5531
Date 11/05/1986
Shift 1ST 8 HOUR
Dept QUALITY CONTROL
Locn GENERAL
Proc
Job SUPERVISOR
Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA 0.011000 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/FLD	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1. 5185	Q209	08:08	15:10	422	0.9500	9.0000/ 100.0	0.0110			N	

Seq T Name PERRY, DALE C.
0009 P Soc Sec 550-52-1674
Date 12/04/1986
Shift 1ST 8 HOUR
Dept MAINTENANCE
Locn GENERAL
Proc
Job MECHANIC
Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA 0.026000 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/FLD	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1. 3155	Q378	07:54	11:48	234	0.8400	8.0000/ 100.0	0.0200			N	

2. 3155 Q379 11:48 15:42 234 0.8400 12.5000/ 100.0 0.0310 N
=====

Seq T Name CORRAL, RICHARD Q.
0010 P Soc Sec 551-74-3367
Date 10/30/1986
Shift 1ST 8 HOUR

Dept WAREHOUSE
Locn SHIPPING
Proc
Job FORKLIFT OPERATOR

Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA 0.028000 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

1. 8591 Q215 08:16 16:08 472 0.7300 20.0000/ 100.0 0.0280 N
=====

Seq T Name RENFRO, EDWARD T.
0011 P Soc Sec 553-54-5445
Date 11/04/1986
Shift 1ST 8 HOUR

Dept WAREHOUSE
Locn SHIPPING
Proc
Job LOADER

Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA 0.041000 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

1. 8591 Q200 08:13 15:35 442 0.4500 16.5000/ 100.0 0.0410
=====

Seq T Name VOIGHTLANDER, CHRIS W.
0012 P Soc Sec 553-70-9511
Date 11/04/1986
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn MANUFACTURING
Proc
Job SUPERVISOR

Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA 0.036000 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

1. 5185 Q221 08:02 11:28 206 0.9300 24.5000/ 100.0 0.0630 N
2. 5185 Q222 11:28 15:00 212 0.9300 4.0000/ 100.0 0.0100 N
=====

Seq T Name MORGAN, J W.
0013 P Soc Sec 554-82-2494
Date 10/30/1986
Shift 1ST 8 HOUR

Dept WAREHOUSE
Locn SHIPPING
Proc
Job FORKLIFT OPERATOR

Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA 0.006400 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

1. 4926 Q204 08:12 16:08 476 0.9700 6.0000/ 100.0 0.0064 N
=====

Seq T Name
0014 P Soc Sec
Date
Shift

Dept
Locn
Proc
Job

Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

CTD021870

Seq T Name CONTRERAS, JOE L.

0014 P Soc Sec 555-62-0421

Date 12/11/1986

Shift 1ST 8 HOUR

Dept PRODUCTION
Locn COUPLING TESTER
Proc
Job OPERATORContaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA 0.410000 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product I

Equip	Samp	Start	Stop	Min	LPM	Analysis-f/FLD	Conc-f/CC	ST Exp Limit	Respirator	Comments
1. 2899	Q391	08:25	13:40	315	1.0200	101.5000/	41.0	0.3800	N	EMPLOYEE ALSO WORKED AT CRUSHER AND RAN SWEEPER DURING SAMPLE
2. 2899	Q390	13:40	15:18	98	1.0200	100.5000/	98.0	0.5000	N	EMPLOYEE ALSO WORKED AT CRUSHER AND RAN SWEEPER DURING SAMPLE

Seq T Name SATHORNKICH, KACHONSAK J.

0015 P Soc Sec 555-88-2907

Date 11/13/1986

Shift 1ST 8 HOUR

Dept MAINTENANCE
Locn GENERAL
Proc
Job MECHANICContaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA 4619.300000 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-f/FLD	Conc-f/CC	ST Exp Limit	Respirator	Comments
1. 3155	Q216	08:18	11:50	212	0.8400	0.0000/	100.0	0.0000	N	
2. 3155	Q211	11:50	14:52	182	0.8400	0.0000/	100.0	10000.0000	N	

Seq T Name REYES, PETER C.

0016 P Soc Sec 560-04-6091

Date 12/04/1986

Shift 3RD 8 HOUR

Dept BATCH/FORMING
Locn MIXER
Proc
Job OPERATORContaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA V0.000000 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-f/FLD	Conc-f/CC	ST Exp Limit	Respirator	Comments
1. 4452	2	03:15	06:15	180	0.9400	0.0000/	0.0	V0.0000	S	SAMPLE VOIDED - SAMP LE NUMBERS MIXED UP
2. 4452	1	23:15	27:15	240	0.0000	0.0000/	0.0	V0.0000	S	SAMPLE VOIDED - SAMP LE NUMBERS MIXED UP

Seq T Name SUAREZ, ANDRES L.

0017 P Soc Sec 560-68-8273

Date 11/13/1986

Shift 1ST 8 HOUR

Dept PRODUCTION
Locn LATHE - 1/4
Proc
Job OPERATORContaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
TWA 0.230000 F/CC
Pel/Exp Limit OSHA PEL = 0.2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-f/FLD	Conc-f/CC	ST Exp Limit	Respirator	Comments
1. 2899	Q210	08:07	11:43	216	0.8900	108.5000/	80.0	0.3500	S	
2. 2899	Q213	11:43	15:24	221	0.8900	47.0000/	100.0	0.1200	S	

Seq T Name ASKEW, WILLIAM E. Dept PRODUCTION Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule

0018 P Soc Sec 561-90-4679 Locn LATHE LINE TWA 0.036000 F/CC
Date 11/13/1986 Proc Pel/Exp Limit OSHA PEL = 0.2 F/CC
Shift 1ST 8 HOUR Job HANDLER Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/FLD	Conc-F/CC	ST Exp Limit	Respirator	Comments
1. 4452	Q214	08:09	11:44	215	0.8900	7.5000/	100.0	0.0190	N	
2. 4452	Q202	11:44	15:25	221	0.8900	21.0000/	100.0	0.0520	N	

Seq T Name FOOSE, DENNIS J. Dept PRODUCTION Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
0019 P Soc Sec 568-08-6676 Locn HYDROTTESTER TWA 0.100000 F/CC
Date 11/13/1986 Proc Pel/Exp Limit OSHA PEL = 0.2 F/CC
Shift 1ST 8 HOUR Job OPERATOR Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/FLD	Conc-F/CC	ST Exp Limit	Respirator	Comments
1. 5185	Q206	08:05	11:41	216	0.9300	55.5000/	100.0	0.1400	N	
2. 5185	Q198	11:41	15:23	222	0.9300	31.5000/	100.0	0.0750	N	

Seq T Name LOYER, DAVID F. Dept PRODUCTION Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
0020 P Soc Sec 570-43-6298 Locn PRESS TWA 0.042000 F/CC
Date 12/04/1986 Proc Pel/Exp Limit OSHA PEL = 0.2 F/CC
Shift 1ST 8 HOUR Job OPERATOR Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/FLD	Conc-F/CC	ST Exp Limit	Respirator	Comments
1. 2899	Q380	07:50	11:45	235	1.0000	25.5000/	100.0	0.0530	N	
2. 2899	Q381	11:45	14:54	189	1.0000	10.5000/	100.0	0.0270	N	

Seq T Name SALAS, JOHN Dept PRODUCTION Contaminant Asbestos / CEF 25mm .8u NATLSCO/N7400 NATLSCO A Rule
0021 P Soc Sec 570-76-5774 Locn PRESS TWA 0.180000 F/CC
Date 12/08/1986 Proc Pel/Exp Limit OSHA PEL = 0.2 F/CC
Shift 3RD 8 HOUR Job OPERATOR Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/FLD	Conc-F/CC	ST Exp Limit	Respirator	Comments
1. 8125	Q389	03:01	06:45	224	0.8800	17.5000/	100.0	0.0440	N	
2. 8125	Q388	22:59	27:01	242	0.8800	100.5000/	76.0	0.3000	N	

RIH01 Industrial Hygiene Survey: 86PT04 PIPE & PLASTICS-EPG RIVERSIDE

Seq T Name SILVA, TONY G. Dept PRODUCTION Contaminant Asbestos / CEF 25mm .8u MATLSCO/N7400 MATLSCO A Rule

0022 P Soc Sec 573-24-9440

Date 11/06/1986

Shift 1ST 8 HOUR

TWA 0.310000 F/CC

Pel/Exp Limit OSHA PEL = 0.2 F/CC

Product I

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/FLD	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1.	5185	Q220	08:11	11:36	205	0.9200	105.5000/	80.0	0.3400	N	
2.	5185	Q217	11:36	15:21	225	0.9200	106.0000/	90.0	0.2800	N	

Seq T Name NOBLES, PATRICK R.

0023 P Soc Sec 526-21-9066

Date 07/29/1986

Shift 1ST 8 HOUR

TWA 0.180000 F/CC

Pel/Exp Limit OSHA PEL = 2 F/CC

Product 8" 150 CPLGS

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1.	649		08:19	14:41	382	0.0000	0.1800/	0.0	0.1800	Y	DISPOSABLE SINGLE USE ASSISTED IN 1 CHANGE -OVER KEPT WORK AREA CLEAN-MOP AND VAC

Seq T Name COOLEY, DENNIS D.

0024 P Soc Sec 344-30-3938

Date 07/17/1986

Shift 1ST 8 HOUR

TWA 0.240000 F/CC

Pel/Exp Limit OSHA PEL = 2 F/CC

Product 8" 150

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1.	647		08:24	15:05	401	0.0000	0.2400/	0.0	0.2400	S	DISPOSABLE SINGLE USE KEPT AREA CLEAN-MADE 3 CHANGE-OVERS

Seq T Name ATENCIO, SR, STEVEN A.

0025 P Soc Sec 553-88-1692

Date 07/10/1986

Shift 1ST 8 HOUR

TWA 0.070000 F/CC

Pel/Exp Limit OSHA PEL = 2 F/CC

Product 8" 150 - 200 SPECIAL CLOSURES 20' 80 CPS

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1.	643		08:45	14:07	322	0.0000	0.0700/	0.0	0.0700	S	DISPOSABLE SINGLE USE KEPT WORK AREA CLEAN

Seq T Name COOLEY, DENNIS D.

0026 P Soc Sec 344-30-3938

Date 06/18/1986

Shift 1ST 8 HOUR

TWA 0.190000 F/CC

Pel/Exp Limit OSHA PEL = 2 F/CC

Product 8" 150 CPLGS

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1.	14		08:21	14:47	386	0.0000	0.1860/	0.0	0.1900	S	DISPOSABLE SINGLE USE CLEANED AREA

CTD021873

Seq T Name CONTRERAS, JOE L.
0027 P Soc Sec 555-62-0421
Date 04/04/1986
Shift 1ST 8 HOUR

Dept BATCH/FORMING
Locn MIXER
Proc
Job OPERATOR

1. Equip Samp 707 Start Stop Min 08:48 14:31 343 LPM 0.0000 Conc-F/CC 0.0900/ 0.0 ST Exp Limit 0.0900 F/CC
Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.090000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product 12" 150 & 8" 150

Analysis-F/CC 0.0900/ 0.0
Respirator
Comments Y DISPOSABLE SINGLE USE SET UP FIBER BATCHES OPERATED BAG OPENER
MAINTAINED HOUSEKEEPING

Seq T Name MARRON, DOUGLAS J.
0028 P Soc Sec 550-76-8997
Date 04/04/1986
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn PIPE MACHINE
Proc
Job TENDER

1. Equip Samp 708 Start Stop Min 08:47 14:34 347 LPM 0.0000 Conc-F/CC 0.0800/ 0.0 ST Exp Limit 0.0800 F/CC
Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.080000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product 12" 150 & 8" 150

Analysis-F/CC 0.0800/ 0.0
Respirator
Comments N
KEPT AREA CLEAN

Seq T Name COOLEY, DENNIS D.
0029 P Soc Sec 344-30-3938
Date 03/27/1986
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn COUPLING CUT OFF
Proc
Job OPERATOR

1. Equip Samp 645 Start Stop Min 08:46 14:51 365 LPM 0.0000 Conc-F/CC 0.2500/ 0.0 ST Exp Limit 0.2500 F/CC
Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.250000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product 18' 50 CPLG BLANKS

Analysis-F/CC 0.2500/ 0.0
Respirator
Comments S DISPOSABLE SINGLE USE PALLETIZED CPLGS-KEP T AREA CLEAN.

Seq T Name BRADY, SR, JEFFERY L.
0030 P Soc Sec 551-02-9474
Date 03/27/1986
Shift 2ND 8 HOUR

Dept PRODUCTION
Locn PRESS
Proc
Job OPERATOR

1. Equip Samp 646 Start Stop Min 08:49 14:46 357 LPM 0.0000 Conc-F/CC 0.0800/ 0.0 ST Exp Limit 0.0800 F/CC
Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.080000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product 6" 150

Analysis-F/CC 0.0800/ 0.0
Respirator
Comments OPERATED PRESS SECTI ON

Seq T Name SALAS, JOHN
0031 P Soc Sec 570-76-5774
Date 03/14/1986
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn PRESS
Proc
Job OPERATOR

1. Equip Samp 626 Start Stop Min 08:38 14:21 343 LPM 0.0000 Conc-F/CC 0.0800/ 0.0 ST Exp Limit 0.0800 F/CC
Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.080000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product 10" 150

Analysis-F/CC 0.0800/ 0.0
Respirator
Comments OPERATED PRESS SECTI ON OF PIPE MACHINE

Seq T Name REYES, PETER C.
0032 P Soc Sec 560-04-6091
Date 03/14/1986
Shift 1ST 8 HOUR

Dept BATCH/FORMING
Locn MIXER
Proc
Job OPERATOR

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.160000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product 10" 150

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1.	629	07:00	12:41	341	0.0000	0.1600/	0.0	0.1600		S	DISPOSABLE SINGLE USE SET UP BATCH TABLE; UNLOADED FIBER TRUCK; OPERATED BAG OPENER; CHECKED MT BA

Seq T Name AESCHLIMAN, KENNETH M.
0033 P Soc Sec 573-76-0128
Date 03/14/1986
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn PIPE MACHINE
Proc
Job TENDER

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.100000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product 10" 150

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1.	634	08:39	12:40	241	0.0000	0.1000/	0.0	0.1000		N	TENDED PIPE MACHINE- KEPT AREA CLEAN

*** End Of Report *** DREXLES

CTD021875

PLANT RIVERSIDE		PLANT 260	DATE OF TEST 7/29/86
EMPLOYEE NAME M. P. L. S. D.	PAYROLL NUMBER 388	JOB TITLE COUPLING CUTOFF OPERATOR	CODE
PUMP MANUFACTURER HICHA	SERIAL NUMBER 5791	FLOW RATE (lpm) 2.0	

SAMPLE NUMBER	START	TIME	ACTIVITY DURING SAMPLING PERIOD	CODE
0649	0819	1411	OPERATED CPLG CUT-OFF -	
			ASSISTED (LEARNING) IN 1-CHANGE-OVER	
			KEPT WORK AREA CLEAN- MOP & VAC.	
			2-10 MINUTE BREAKS	
			1 30 ✓ LUNCH ✓	

DID EMPLOYEE WEAR RESPIRATOR? ☒ YES ☐ NO ☐ SOMETIMES	RESPIRATOR TYPE & MODEL MOLDEX 2200	REMARKS
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MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.) 8150 CPLGS PRODUCED 684 PCS	CODE
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EXHAUST CONTROL SYSTEMS ☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY	REMARKS
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WEATHER CONDITIONS (AVERAGE) OUTSIDE TEMPERATURE °F 89 WIND DIRECTION SW WIND VELOCITY 0.5	SUNNY ☒ CLOUDY ☐ HUMID ☐ RAIN ☐ PARTLY CLOUDY ☐ FOG ☐ SHOWERS ☐ SNOW ☐
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BLANK FIBER COUNT FIBERS IN _____ FIELDS = fff	MICROSCOPE MAKE & MODEL B-L	FIELD AREA .0061 mm²	CONSTANT K = 855 FIELD AREA x .1000 = 140
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SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED =	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (l)	CORRECTED fff + VOLUME x K = f/cc	TOTAL SAMPLE TIME (MIN)	f/cc x MIN.
0649	76.5	100	.765	-	764	fff x K = LITERS .18	382	68.76

CTD021876

TIME WEIGHTED AVERAGE TOTAL / CC MIN. x 2 FIELD MIN. x 2	116
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SIGNATURE OF SAMPLER	SIGNATURE OF ANALYST
DISTRIBUTION: ONE COPY TO PLANT, ONE TO STATE, ONE TO EPA, ONE TO LOCAL HEALTH DEPT.	

PLANT RIVERSIDE		PLANT 260	DATE OF TEST 7/17/86
EMPLOYEE NAME COOLEY D	PAYROLL NUMBER 131	JOB TITLE CPLG CUTOFF OPERATOR	CODE
PUMP MANUFACTURER MSA	SERIAL NUMBER 5185	FLOW RATE (lpm) 2.0	

SAMPLE NUMBER	TIME		ACTIVITY DURING SAMPLING PERIOD	CODE
	START	TIME		
0647	2324	5:05	OPERATED COUPLING CUTOFF -	
			KEPT AREA CLEAN -	
			MADE 3 CHANGE-OVERS	
			2-10 MIN. BREAKS	
			1-30 ✓ LUNCH ✓	

DID EMPLOYEE WEAR RESPIRATOR? ☐ YES ☐ NO ☒ SOMETIMES	RESPIRATOR TYPE & MODEL MOLDEX 2200	REMARKS
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MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.) 8150 -	CODE
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EXHAUST CONTROL SYSTEMS ☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY	REMARKS
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WEATHER CONDITIONS (AVERAGE) OUTSIDE TEMPERATURE °F 89 WIND DIRECTION SW WIND VELOCITY 05	SUNNY ☒ CLOUDY ☐ HUMID ☐ RAIN ☐ PARTLY CLOUDY ☐ FOG ☐ SHOWERS ☐ SNOW ☐
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BLANK FIBER COUNT FIBERS IN _____ FIELDS = flf	MICROSCOPE MAKE & MODEL B-L	FIELD AREA .0061 mm ²	CONSTANT K = $\frac{855}{\text{FIELD AREA} \times 1000} = 140$
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SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (L)	CORRECTED flf ÷ VOLUME × K = flcc	TOTAL SAMPLE TIME (MIN)	flcc × MIN.
0647	134.5	100	1.345		802	$\frac{flf}{LITERS} \times K = .24$	401	94.50

TIME WEIGHTED AVERAGE TOTAL flcc × MIN. = TWA TOTAL MIN. =
94.50

SIGNATURE OF SAMPLER <i>[Signature]</i>	SIGNATURE OF ANALYST <i>[Signature]</i>
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ASBESTOS MONITORING DATA SHEET

NO. 86-269-016

PLANT										PLANT		DATE OF TEST	
RIVERSIDE										260		7/10/86	
EMPLOYEE NAME					PAYROLL NUMBER			JOB TITLE			CODE		
ATENCIO STEVE					180			CPLG CUT-OFF OPERATOR					
PUMP MANUFACTURER					SERIAL NUMBER			FLOW RATE (lpm)					
MSA					5791			2.0					

SAMPLE NUMBER	TIME		ACTIVITY DURING SAMPLING PERIOD	CODE
	START	END		
0643	0845	1407	OPERATED CPLG CUT-OFF - (DURING COOLEY'S ABSENCE)	
			KEPT WORK AREA CLEAN -	
			3-10 MIN. BREAKS	
			1-30 + LUNCH BREAK	

DID EMPLOYEE WEAR RESPIRATOR?		RESPIRATOR TYPE & MODEL	REMARKS
☐ YES ☐ NO ☒ SOMETIMES		MOLDEX 2200	

MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.)	CODE
8150-200 SPECIAL CLOSURES; 20 FT 80 CPLGS.	

EXHAUST CONTROL SYSTEMS	REMARKS
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY	

WEATHER CONDITIONS		(AVERAGE)	SUNNY		☒ CLOUDY	☐ HUMID	☐ RAIN
OUTSIDE TEMPERATURE °F	87	WIND DIRECTION	SW	WIND VELOCITY	05	PARTLY CLOUDY	☐ FOG ☐ SHOWERS ☐ SNOW

BLANK FIBER COUNT	MICROSCOPE MAKE & MODEL	FIELD AREA	CONSTANT
FIBERS IN _____ FIELDS = <u>flf</u>	B-L	0061 mm ²	K = $\frac{855}{\text{FIELD AREA} \times 1000} = 140$

SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (l)	CORRECTED flf ÷ VOLUME × K = flcc	TOTAL SAMPLE TIME (MIN)	flcc × MIN.
0643	33.5	100	.335	-	644	$\frac{\text{flf} \times K}{\text{LITERS}} = \frac{.335 \times 140}{.0061} = 7.67$	322	23.44

CTD021878

TIME WEIGHTED AVERAGE	
TOTAL flcc × MIN.	TWA
23.44	7.67

SIGNATURE OF SAMPLER: _____ SIGNATURE OF ANALYST: _____

ASBESTOS MONITORING DATA SHEET

NO. 86-260-014

PLANT RIVERSIDE - CERTAINTIED		PLANT 260	DATE OF TEST 6/18/86
EMPLOYEE NAME COCKLEY D	PAYROLL NUMBER 131	JOB TITLE COUPLING CUT-OFF OPERATOR	CODE
PUMP MANUFACTURER MSA	SERIAL NUMBER 5185	FLOW RATE (lpm) 2.0	

SAMPLE NUMBER	START	TIME	ACTIVITY DURING SAMPLING PERIOD	CODE
014	0821	1447	OPERATED MACHINE TO 10T CPLG BLANKS	
			CLEANED AREA	
			2-10 MIN. BREAK PERIODS	
			1-30 V LUNCH V	

DID EMPLOYEE WEAR RESPIRATOR?	RESPIRATOR TYPE & MODEL	REMARKS
☐ YES ☐ NO ☒ SOMETIMES	MDLDEX 2200	

MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.)	CODE
8-150 COUPLINGS	

EXHAUST CONTROL SYSTEMS	REMARKS
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY	HEAVY PARTICULATE BACKGROUND -

WEATHER CONDITIONS	(AVERAGE)	SUNNY	CLOUDY	HUMID	RAIN
OUTSIDE TEMPERATURE °F 80	WIND DIRECTION DW	WIND VELOCITY 04	PARTLY CLOUDY	FOG	SHOWERS

BLANK FIBER COUNT	MICROSCOPE MAKE & MODEL	FIELD AREA	CONSTANT
FIBERS IN 100 FIELDS = 1025 f/f	B-L	10061 mm ²	$K = \frac{855}{\text{FIELD AREA} \times 1000} = 140$

SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (l)	CORRECTED f/f + VOLUME x K = f/cc	TOTAL SAMPLE TIME (MIN)	f/cc x MIN.
014	1025	100	1.025	-	772	$\frac{f/f \times K}{\text{LITERS}} = \frac{1025 \times 140}{10061} = 11.86$	386	71.75

CTD021879

TOTALS: **386** **71.75**

TIME WEIGHTED AVERAGE
TOTAL f/cc x MIN. = TWA
TOTAL MIN.
11.86 f/cc

SIGNATURE OF SAMPLER	SIGNATURE OF ANALYST
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PLANT <i>Riverside</i>		PLANT 260	DATE OF TEST 4/4/86
EMPLOYEE NAME C. CONTRERAS	PAYROLL NUMBER 240	JOB TITLE MIXERMAN	CODE
PUMP MANUFACTURER MSA	SERIAL NUMBER 5185	FLOW RATE (lpm) 2.0	

SAMPLE NUMBER	TIME		ACTIVITY DURING SAMPLING PERIOD	CODE
	START	END		
0707	7:34	8:43	SET UP FIBER BATCHES; OPERATED BAG OPENING MAINTAINED HOUSEKEEPING	
			2-10 MIN. BREAKS	
			1-20 ✓ LUNCH BREAK	

DID EMPLOYEE WEAR RESPIRATOR? ☒ YES ☐ NO ☐ SOMETIMES	RESPIRATOR TYPE & MODEL MOLDEX 2200	REMARKS
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MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.) 12" 150 & 8" 150	CODE
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EXHAUST CONTROL SYSTEMS ☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY	REMARKS
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WEATHER CONDITIONS OUTSIDE TEMPERATURE °F <u>78</u> (AVERAGE)	WIND DIRECTION <u>SW</u>	WIND VELOCITY <u>05</u>	SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐
			PARTLY CLOUDY ☒ FOG ☐ SHOWERS ☐ SNOW ☐

BLANK FIBER COUNT FIBERS IN _____ FIELDS = <u>fff</u>	MICROSCOPE MAKE & MODEL <u>B-L</u>	FIELD AREA <u>.0061</u> mm ²	CONSTANT K = $\frac{855}{\text{FIELD AREA} \times 1000} = 140$
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SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (L)	CORRECTED f/cc	TOTAL SAMPLE TIME (MIN)	f/cc x MIN.
0707	43.5	100	.435		686	$\frac{fff \times K}{\text{LITERS}} = \frac{.435 \times 140}{.0061} = 10.9$	343	31.87

CTD021880

TIME WEIGHTED AVERAGE TOTAL f/cc x MIN. = TWA TOTAL MIN. = TWA
343 31.87

SIGNATURE OF SAMPLER _____ SIGNATURE OF ANALYST _____

PLANT RIVERSIDE		PLANT	DATE OF TEST 260 4/04/86
EMPLOYEE NAME MARION D	PAYROLL NUMBER 171	JOB TITLE MACHINE TENDER	CODE
PUMP MANUFACTURER MSA	SERIAL NUMBER 5791	FLOW RATE (lpm) 2.0	

SAMPLE NUMBER	START TIME	ACTIVITY DURING SAMPLING PERIOD	CODE
0718	0847	OPERATED PIPE MACHINE KEPT AREA CLEAN -	
		2 - 10 MIN. BREAKS	
		1 - 20 V LUNCH BREAK	

DID EMPLOYEE WEAR RESPIRATOR? ☐ YES ☒ NO ☐ SOMETIMES	RESPIRATOR TYPE & MODEL	REMARKS
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MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.) 12" 50 4' 8" 50	CODE
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EXHAUST CONTROL SYSTEMS ☐ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY	REMARKS
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WEATHER CONDITIONS OUTSIDE TEMPERATURE °F 78 (AVERAGE)	WIND DIRECTION SW	WIND VELOCITY 25	SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐
			PARTLY CLOUDY ☒ FOG ☐ SHOWERS ☐ SNOW ☐

BLANK FIBER COUNT FIBERS IN _____ FIELDS = fff	MICROSCOPE MAKE & MODEL B-V	FIELD AREA 2061 mm²	CONSTANT $K = \frac{855}{\text{FIELD AREA} \times 1000} = 140$
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SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (l)	CORRECTED fff ÷ VOLUME × K = fsec	TOTAL SAMPLE TIME (MIN)	fsec × MIN.
0708	39	100	.39	694		$\frac{fff \times K}{\text{LITERS}} = .08$	347	27.76
TOTALS							347	27.76

CTD021881

TIME WEIGHTED AVERAGE TOTAL fsec × MIN. = TWA TOTAL MIN.
.08 fsec

SIGNATURE OF SAMPLER	SIGNATURE OF ANALYST
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PLANT RIVERSIDE		PLANT 260	DATE OF TEST 3/27/86
EMPLOYEE NAME CODLEY, D	PAYROLL NUMBER 131	JOB TITLE CPLG CUT-OFF OPER.	CODE
PUMP MANUFACTURER MISA	SERIAL NUMBER 0287	FLOW RATE (lpm) 2.0	

SAMPLE NUMBER	START	TIME	ACTIVITY DURING SAMPLING PERIOD	CODE
0645	1846	1451	OPERATED CPLG CUT-OFF MACHINE TO CUT CPLGS. PALLETIZED CPLGS KEPT WORK AREA CLEAN	
			2-10 MIN. REST BREAKS	
			1-30 " LUNCH PERIOD	

DID EMPLOYEE WEAR RESPIRATOR?	RESPIRATOR TYPE & MODEL	REMARKS
☐ YES ☐ NO ☒ SOMETIMES	2200	

MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.)	CODE
18FT50 CPLG BLANKS	

EXHAUST CONTROL SYSTEMS	REMARKS
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY	

WEATHER CONDITIONS	(AVERAGE)	SUNNY	☒ CLOUDY	☐ HUMID	☐ RAIN
OUTSIDE TEMPERATURE °F	78	WIND DIRECTION	WIND VELOCITY	PARTLY CLOUDY	FOG
				SHOWERS	SNOW

BLANK FIBER COUNT	MICROSCOPE MAKE & MODEL	FIELD AREA	CONSTANT
FIBERS IN 100 FIELDS = 129.5 f/f	B-L	0061 mm²	$K = \frac{855}{\text{FIELD AREA} \times 1000} = 140$

SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (L)	CORRECTED f/f ÷ VOLUME × K = f/cc	TOTAL SAMPLE TIME (MIN)	f/cc × MIN.
0645	129.5	100	1.30	1.30	730	$\frac{f/f \times K}{\text{LITERS}} = 1.25$	365	91.25

CTD021882

TIME WEIGHTED AVERAGE
TOTAL f/cc × MIN. = TWA
TOTAL MIN.
2.5 f/cc

SIGNATURE OF SAMPLER	SIGNATURE OF ANALYST

NO. 86-260- [REDACTED]

PLANT	DATE OF TEST
260	3/27/56

SAMPLE NUMBER	TIME		ACTIVITY DURING SAMPLING PERIOD	CODE
	START			
664608791446			OPERATED PRESS SECTION	
			2-10 MIN. BREAKS	
			1-20 MIN. LUNCH BREAKS	

MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.)		CODE
6" 150		

WEATHER CONDITIONS

(AVERAGE)

OUTSIDE TEMPERATURE °F 78 ☒ WIND DIRECTION ☒ WIND VELOCITY ☒

SUNNY ☒ CLOUDY ☐ HUMID ☐ RAIN ☐
PARTLY CLOUDY ☐ FOG ☐ SHOWERS ☐ SNOW ☐

BLANK FIBER COUNT	MICROSCOPE MAKE & MODEL	FIELD AREA	CONSTANT
_____ FIBERS IN _____ FIELDS = _____ f/f	B-L	_____ mm ²	K = $\frac{855}{\text{FIELD AREA} \times 1000}$ = 140

[illegible]

TIME WEIGHTED AVERAGE

$$\frac{\text{TOTAL } f \text{ sec} \times \text{MIN.}}{\text{TOTAL MIN.}} = \text{TWA}$$

SIGNATURE OF SAMPLER: *[Signature]* SIGNATURE OF ANALYST: *[Signature]*

DISTRIBUTION: WHITE PINE COUNTY, WYOMING; COPIES: 10; STEEL JOINTS: 10; PERSONNEL: 1; GOLDEN ROD GROUP: HEALTH & SAFETY

CertainTeed  **ASBESTOS MONITORING DATA SHEET**
Pipe and Plastic Group

NO 86-240-~~005~~
005

PLANT															PLANT										DATE OF TEST																			
															RIVERSIDE										260 3/14/86																			
EMPLOYEE NAME															PAYROLL NUMBER										JOB TITLE										CODE									
SALES J															368										PRESS OPERATOR																			
PUMP MANUFACTURER															SERIAL NUMBER										FLOW RATE (lpm)																			
MSA															5791										2.04																			

SAMPLE NUMBER	TIME		ACTIVITY DURING SAMPLING PERIOD	CODE
	START			
0026	0838	1421	OPERATES PRESS SECTION OF PIPE MACHINE.	
			3-10 MIN BREAKS	
			1-20 " LUNCH BREAK	

DID EMPLOYEE WEAR RESPIRATOR?	RESPIRATOR TYPE & MODEL	REMARKS
☐ YES ☒ NO ☐ SOMETIMES		

MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.)	CODE
10"-150	

EXHAUST CONTROL SYSTEMS		REMARKS
☒ FUNCTIONING NORMALLY	☐ NOT FUNCTIONING NORMALLY	

WEATHER CONDITIONS		(AVERAGE)			SUNNY	☐	CLOUDY	☐	HUMID	☐	RAIN	☐	
OUTSIDE TEMPERATURE °F	65	WIND DIRECTION	SW	WIND VELOCITY	07	PARTLY CLOUDY	☒	FOG	☐	SHOWERS	☐	SNOW	☐

BLANK FIBER COUNT _____ FIBERS IN _____ FIELDS = _____ f/f	MICROSCOPE MAKE & MODEL B-L	FIELD AREA 0.061 mm ²	CONSTANT $K = \frac{855}{\text{FIELD AREA} \times 1000} = 140$
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SAMPLE NUMBER	TOTAL FIBERS FIBERS ÷ COUNTED = FIELD	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (L)	CORRECTED f/f ÷ VOLUME × K = f/cc	TOTAL SAMPLE TIME (MIN)	f/cc × MIN.
0626	38.0	100	.38	69972	$\frac{f/f}{\text{LITERS}} \times K =$ 1.08	343	27.44
							CTD

CTD021884

TIME WEIGHTED AVERAGE

$$\frac{\text{TOTAL } f\% \times \text{MIN.}}{\text{TOTAL MIN.}} = \text{TWA}$$

				$f\%$
	.08			

SIGNATURE OF SAMPLER

SIGNATURE OF ANALYST

DISTRIBUTION: KITE PLANT SAFETY / ICE/CANARY CORP HEALTH SAFETY / PINK PLANT PERSONNEL FILE / GOLDENROD GROUP HEALTH SAFETY

[illegible]

PLANT RIVERSIDE		PLANT 260	DATE OF TEST 3/14/86
EMPLOYEE NAME KEYES P	PAYROLL NUMBER 259	JOB TITLE MIXER MAN	CODE
PUMP MANUFACTURER MSA	SERIAL NUMBER 4452	FLOW RATE (lpm) 2.0	

SAMPLE NUMBER	START TIME	ACTIVITY DURING SAMPLING PERIOD	CODE
01129		SET UP BATCH TABLE; UNLOADED FIBER TRUCK	
		OPERATED BAG OPENING; CHECKED MT BAGS -	
		KEPT AREA CLEAN.	
		2 - 10 MIN. BREAKS	
		1 - 20 MIN. LUNCH BREAK	

DID EMPLOYEE WEAR RESPIRATOR?	RESPIRATOR TYPE & MODEL	REMARKS
☐ YES ☐ NO ☒ SOMETIMES	MIDEX 2200	

MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.)	CODE
10" 150	

EXHAUST CONTROL SYSTEMS	REMARKS
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY	

WEATHER CONDITIONS (AVERAGE)	SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐
OUTSIDE TEMPERATURE °F 65 WIND DIRECTION SW WIND VELOCITY 07 PARTLY CLOUDY ☒ FOG ☐ SHOWERS ☐ SNOW ☐	

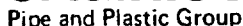
BLANK FIBER COUNT	MICROSCOPE MAKE & MODEL	FIELD AREA	CONSTANT
FIBERS IN 79 FIELDS = 100 f/f	B-V	.0061 mm ²	$K = \frac{855}{\text{FIELD AREA} \times 1000} = 140$

SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (L)	CORRECTED f/f + VOLUME x K = f/cc	TOTAL SAMPLE TIME (MIN)	f/cc x MIN.
0629	79	100	.79		682	$\frac{\text{f/f} \times K}{\text{LITERS}} = \frac{.79 \times 140}{.0061} = 18.16$	341	54.56
TOTALS							341	54.56

CTD021885

TIME WEIGHTED AVERAGE
TOTAL f/cc x MIN. = TWA
TOTAL MIN.
18.16 f/cc

SIGNATURE OF SAMPLER	SIGNATURE OF ANALYST
<i>[Signature]</i>	<i>[Signature]</i>



NO. 86-260-003

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