

CertainTeed

Date	July 14, 1980	To	Jack Anderson	Location	Hillsboro, 257
Subject	INDUSTRIAL HYGIENE SURVEY-HILLSBORO May 27-30, 1980	From	J. Woodson/ejb	Location and mail code	VF 1125/4

cc: F. Timpe - 2125/2B
 J. McGinley - 2125/2B
 W. Blakeslee - 2126/BB
 N. Pocock - Hillsboro, 257
 O. H. Kittilstad - VF 1125/4

I would like to thank you and all the employees at the Hillsboro Plant for the hospitality and fine cooperation extended to me during my recent visit to your plant.

Please find attached a completed log of the personal/area air samples and audio-dosimetry results.

Of the air samples taken, one -115 minute sample taken on #1 Boring Mill Operator, J. Slovsk, was 2.52 f/cc (Sample 064). This sample is above the current OSHA 8-hour Time Weighted Average (TWA) of 2.0 f/cc. The TWA for this employee was 1.79 f/cc.

All other air samples taken were within the OSHA standard with only 4 samples being above 1.0 f/cc (Samples 066, 087, 088 and 089).

In reference to our conversation of 6/3/80 advising you of the #1 Boring Mill Operators results and our recommendation that further sampling be done, I am also now recommending that any area with samples exceeding 1.0 f/cc be monitored to insure that the employees exposure remains below the 2.0 f/cc level. If a level exceeding 2.0 f/cc is found, respirators are required until an acceptable level is again achieved.

The results of the audiodosimetry noise survey indicated 8 job positions with a daily dose percentage above 100% (90 dBA dosimetry). The current OSHA standard limits the daily noise dose to 100% with a 90 dBA dosimeter.

Those positions, exceeding the 100% are:

Line #2 Lathe Operator	Samples 113, 114 & 115
Line #2 Hydrotester Operator	Sample 117 & 118
Line #3 Lathe Operator	Sample 123
Line #3 Hydrotester Operator	Sample 124
Crusher Operator	Sample 127
#1 Boring Mill Saw Operator	Sample 131
Large Coupling Saw Operator	Sample 137 & 138
Fittings Maker	Sample 139

It is recommended that hearing protection be required at these job positions until proper and permanent noise controls can be instituted.

A complete and comprehensive survey report is forthcoming detailing sample analysis and observations.

Attachment

CertainTeed

Date
October 30, 1980

To
Nick Pocock

File
Location and mail code
Hillsboro 527

Subject
AIR SAMPLE RESULTS

From
Janis Woodson *JW*

Location and mail code
VF Corp #4

cc: J. McGinley - 2125/2B
J. Anderson - Hillsboro 257
D. Hall - 2125/2B

Attached find the results for your 17 air samples taken on the operators at the #1 Boring Mill/#2 Boring Mill, Large Coupling Saw, Coupling Cut Off Machine, Coupling Pallentizer, and the Inspector.

Per our conversation of 10/28/80, the TWA for the Boring Mill Operator is 1.75 f/cc. When the engineering changes you mentioned in our conversation are completed on the #1 Boring Mill please sample another 8 hour work day to see the effect of your changes. Please keep me informed of the changes and results of your samples.

The results of the other job positions are well within the present OSHA Standard of 2.0 f/cc except that of the Large Coupling Saw Operator. This job position should be sampled again for a full 8 hour shift. Specific details such as the weather (wind direction and velocity specifically) should be noted. Also note the position of the doors and windows in the area as to open and closed position. Again, keep me informed of the sample results.

If I can be of any further assistance please give me a call.

JLW/cmf

CTD020676

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Pipe and Plastic Group

ASBESTOS MONITORING DATA SHEET

PLANT <i>Hillsboro</i>		DATE OF TEST <i>10/16/80</i>	
EMPLOYEE NAME <i>J. Slovak</i>		PAYROLL NUMBER	JOB TITLE <i>#1 Boring Mill Operator</i>
MANUFACTURER <i>Bondup</i>		SERIAL NUMBER	FLOW RATE (lpm) <i>2.0</i>

SAMPLE NUMBER	TIME		ACTIVITY DURING SAMPLING PERIOD
	START	STOP	
171	7:58a	9:58a	#2 Boring Mill Idle 8" manhole adaptor Operator wearing respirator
172	10:14a	11:56a	#5 Boring Mill Idle 8" manhole adaptor wearing resp. some dust falling from conveyor
173	1:04p	1:59p	#1 Boring Mill Idle running #2 6" 3300 cplg wearing Resp.
174	2:16p	4:07p	#1 Boring Mill Idle running #2 6" 3300 cplg wearing Resp.

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

MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.)
8" Manhole adaptor / 6" 3300 cplg

EXHAUST CONTROL SYSTEMS	REMARKS
☒ FLOWING NORMALLY ☐ NOT FUNCTIONING NORMALLY	

WEATHER CONDITIONS

SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐

OUTSIDE TEMPERATURE _____ WIND DIRECTION _____ WIND VELOCITY _____ PARTLY CLOUDY ☐ FOG ☐ SHOWERS ☐ SNOW ☐

BLANK FIBER COUNT	MICROSCOPE MAKE & MODEL	FIELD AREA	CONSTANT
FIBERS IN _____ FIELDS = <i>115</i>	<i>Nikon Suht</i>	<i>.013 mm²</i>	K = <i>855</i> <i>65.77</i> FIELD AREA x 1000

SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (l)	CORRECTED ffl + VOLUME x K = f/cc	TOTAL SAMPLE TIME (MIN)	f/cc x MIN.
171	2215	20	11.075	—	240	$\frac{11.075 \times 115}{240} = 3.03 \text{ f/cc}$	120	363.60
172	150.5	20	7.525	—	204	$\frac{7.525}{204} = 2.42 \text{ f/cc}$	102	246.84
173	59.5	100	.595	—	110	$\frac{.595}{110} = .36 \text{ f/cc}$	55	19.8
174	109	75	1.453	—	222	$\frac{1.453}{222} = .43 \text{ f/cc}$	111	47.73
TOTALS							388	677.97

(222 min.)
TWA
2.75

TIME WEIGHTED AVERAGE
TOTAL f/cc x min. - TWA
TOTAL min.
1.75 f/cc

SIG. <i>Nick Pocock</i> URE OF SAMPLER	SIGNATURE OF ANALYST <i>J. Slovak</i> <i>10/28/80</i>
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DISTRIBUTION: WHITE - CORP. HEALTH & SAFETY / BLUE - PLANT SAFETY FILE / PINK - PLANT PERSONNEL FILE / YELLOW - TEMPORARY PLANT COPY

Bendix

HILLSBORO PLANT

8" Manhole adapter

ASBESTOS COUNT RECORD SHEET

SAMPLE # 171

OPERATION #1 Boring Mill

J. Slovák 10/16/80

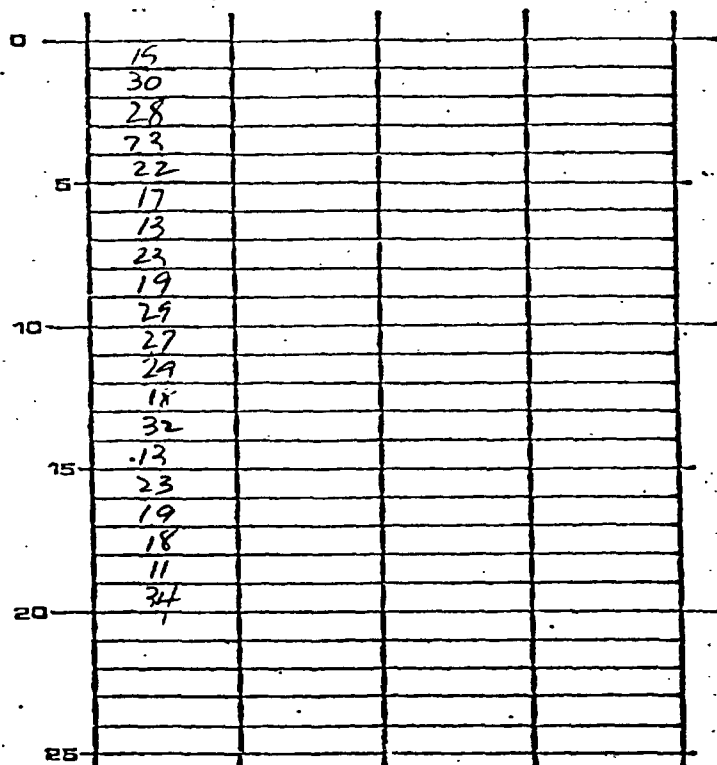
FLOW 2 l.p.m. TIME 120 min. VOLUME 240 l. DATE / /

INITIALS N.G.P. F.AREA .0064 BLK.CNT.AV.

AV.COUNT CONCENTRATION fibers > 5 μ m / c.c.

COMMENTS Operator wearing respirator. #2 Boring Mill idle.

7:58 a.m. - 9:58 a.m.

SUB-TOTALS $443/2 = 221.5/20 = 11.075$

3.0349/fiber

10/29/80
JWSlide too dusty
greater than count

$$\text{Concentration, } C = \frac{(\text{ave. fiber count} - \text{control}) \times 855 \text{ m}^2}{(\text{Field area}) \times (\text{flow rate l.p.m.} \times \text{time mins.}) \times 1000}$$

$$= \frac{11.075 \times 855}{.013 \times .0064 \times 2.0 \times 120 \times 1000} = \frac{9469.125}{3120.0} = 3.0349$$

Bendix

HILLSBORO PLANT

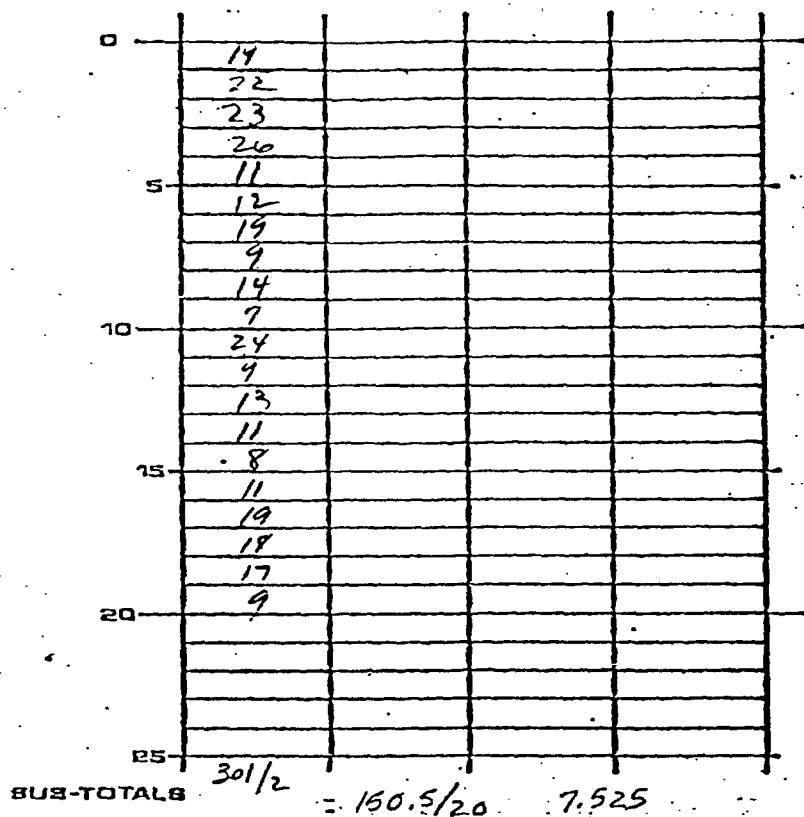
8" Manhole adapter

ASBESTOS COUNT RECORD SHEET

SAMPLE # 172 OPERATION # 1 Boring Mill J. Slovak 10/16/80
 FLOW 2 l.p.m. TIME 102 m. VOLUME 204 l. DATE 11
 INITIALS N.G.P. F.AREA .0064 BLK.CNT.AV. _____
 AV.COUNT _____ CONCENTRATION fibers > 5 μ m / c.c. ☐

COMMENTS Operator wearing respirator. # 2 Boring mill idle.

10.14 a.m. - 11.56 a.m. Some dust falling from couplings on conveyor.



(2.426 f/cc)

10/24/80

JW

$$\text{Concentration, } C = \frac{(\text{Ave. fiber count} - \text{control}) \times 855 \text{ m}^2}{(\text{Field area}) \times \frac{(\text{flow rate l.p.m.} \times \text{time mins.}) \times 1000}{\text{Volume}} \text{ "c.c."/l}}$$

$$= \frac{7.525 \times 855}{.013 \times .0064 \times 2.0 \times 102 \times 1000} = \frac{6432.88}{2652.00} \text{ fibers/c.c.}$$

$$= \text{---} \times 133.59 = \text{2.426}$$

Bendix

HILLSBORO PLANT

6" 3300 coupling

ASBESTOS COUNT RECORD SHEET

SAMPLE # 173 OPERATION # 2 Boring mill J. Slouch 10/16/80FLOW 2 l.p.m. TIME 55 m. VOLUME 110 l. DATE 11INITIALS N.G.P. F.AREA .0064 BLK.CNT.AV. _____

AV.COUNT _____ CONCENTRATION _____

COMMENTS Operator wearing respirator. # 1 Boring mill idle

1.04 p.m. - 1.59 p.m.

0	0	1	0	2
1	0	0	0	1
2	2	7	0	0
3	0	0	0	0
4	4	1	0	0
5	0	0	17	0
6	0	0	0	0
7	0	2	0	0
8	2	3	0	0
9	1	2	0	0
10	0	2	0	1
11	4	4	0	3
12	5	0	0	0
13	0	0	0	0
14	0	0	0	0
15	2	2	0	0
16	0	0	0	2
17	0	0	5	0
18	0	3	0	0
19	0	2	4	4
20	0	0	10	0
21	4	0	2	0
22	2	0	2	0
23	0	0	4	0
24	0	0	0	2

SUB-TOTALS

356 f/cc

10/28/80

JW

119/2 = 59.5/100

$$\text{Concentration, } C = \frac{(\text{Ave. fiber count} - \text{control}) \times 855 \text{ m}^3}{(\text{Field area}) \times (\text{flow rate l.p.m.} \times \text{time min.}) \times 1000}$$

$$= \frac{.595 \times 855}{.0064 \times 2.0 \times 55 \times 1000} = \frac{508.73}{1435.6} = .356 \text{ fibers/c.c.}$$

$$= \text{---} \times 133.59 = \text{---}$$

Bendix

HILLSBORO PLANT

6" 3300 coupling

ASBESTOS COUNT RECORD SHEET

SAMPLE# 174 OPERATION #2 Boring mill J. Slovack 10/16/80
 FLOW 2 lpm TIME 111 m. VOLUME 222 l. DATE 11
 INITIALS N.G.P. F.AREA .0064 BLK.CNT.AV. _____

AV. COUNT _____ CONCENTRATION _____

COMMENTS Operator wearing respirator #1 Boring mill idle

2.16 p.m. - 4.07 p.m.

0	3	1	4
	3	0	2
	2	6	2
	2	0	2
	2	4	3
5	8	5	2
	3	5	1
	0	0	4
	7	4	4
10	4	2	0
	3	2	4
	8	3	2
	6	2	1
	3	0	2
15	0	3	9
	3	2	5
	1	0	2
	3	4	6
	6	4	2
20	4	4	0
	6	2	2
	5	4	0
	0	4	0
	3	2	2
25	2	4	2
SUB-TOTALS	88	67	63

$$218/2 = 109/75 = 1.4533$$

$$\text{Concentration, } C = \frac{(\text{ave. fiber count} - \text{control}) \times 855 \text{ mm}^2}{(\text{Field area}) \times \frac{(\text{flow rate l.p.m.} \times \text{time mins.}) \times 1000}{\text{Volume}}}$$

$$= \frac{1.4533 \times 855}{.0064 \times 2.0 \times 111 \times 1000} = 1242.57$$

$$= \frac{1242.57}{2886.0 \text{ fibers/c.c.}} \times 133.59 = .4305$$

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ASBESTOS MONITORING DATA SHEET

NU.

NAME <i>Hillchord</i>		DATE OF TEST <i>10/20/80</i>	
EMPLOYEE NAME <i>L. Hill</i>		PAYROLL NUMBER	
JOB TITLE <i>Large Cplg Saw Oper</i>		SERIAL NUMBER	
MANUFACTURER <i>Bundix</i>		FLOW RATE (lpm) <i>2.0</i>	

SAMPLE NUMBER	TIME		ACTIVITY DURING SAMPLING PERIOD
	START	STOP	
75	8:30 a	9:59 a	9:59 a Operator transferred to another duty.

EMPLOYEE WEAR RESPIRATOR? YES ☐ NO ☐ SOMETIMES ☐	RESPIRATOR TYPE & MODEL	REMARKS
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MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.) <i>16" 150 cplg</i>
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FAN CONTROL SYSTEMS FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY ☐	REMARKS
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OTHER CONDITIONS			
OUTSIDE TEMPERATURE	WIND DIRECTION	WIND VELOCITY	SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐ PARTLY CLOUDY ☐ FOG ☐ SHOWERS ☐ SNOW ☐

BANK FIBER COUNT FIBERS IN _____ FIELDS = <i>slf</i>	MICROSCOPE MAKE & MODEL	FIELD AREA _____ mm ²	CONSTANT $K = \frac{855}{\text{FIELD AREA} \times 1000}$
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SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (l)	CORRECTED $slf \times K =$ VOLUME $\times K =$ $slcc$	TOTAL SAMPLE TIME (MIN)	$slcc \times \text{MIN.}$
75	1645	33	4.985	—	178	$\frac{4.985 slf \times K = 1.84 slcc}{1781}$	89	163.76
						— $slcc$		
						— $slcc$		
						— $slcc$		
TOTALS								

TIME WEIGHTED AVERAGE $\frac{\text{TOTAL } slcc \times \text{MIN.}}{\text{TOTAL MIN.}}$ <i>1.84</i>

SIGNATURE OF SAMPLER <i>N. Pocock</i>	SIGNATURE OF ANALYST <i>J. Woodson</i> <i>10/28/80</i>
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DISTRIBUTION: WHITE - CORP. HEALTH & SAFETY / BLUE - PLANT SAFETY FILE / PINK - PLANT PERSONNEL FILE / YELLOW - TEMPORARY PLANT COPY

Bendix

HILLSBORO PLANT

16" 150 couplings

ASBESTOS COUNT RECORD SHEET

SAMPLE # 175 OPERATION Large coupling saw. L. Hill 10/20/80FLOW 2 l.p.m. TIME 89 m. VOLUME 17.8 l. DATE 11INITIALS N.G.P. F.AREA .0064 BLK.CNT.AV. _____AV. COUNT _____ CONCENTRATION _____ fibers > 5 μ m / c.c. ☐COMMENTS 8:30 a.m. - 9:59 p.m. then operator transferred to another duty.

0	1	7
	2	1
	2	11
	20	0
	4	1
5	5	2
	1	1
	17	17
	5	
10	7	
	13	
	13	
	12	
	15	
15	11	
	13	
	8	
	12	
	13	
	12	
20	7	
	0	
	0	
	2	
25	12	

SUB-TOTALS

1.84 f/cc

10/28/80
JW

329/2

164.5/33 fibers

$$\text{Concentration, } C = \frac{(\text{Ave. fiber count} - \text{control}) \times 855 \text{ m}^2}{(\text{Field area}) \times (\text{flow rate l.p.m.} \times \text{time mins.}) \times 1000} \times 1000$$

$$= \frac{4.985 \times 855}{.013 \times 89 \times 2.0 \times 1000} = \frac{4262.18}{2314.9} \text{ fibers/c.c.}$$

$$= \text{---} \times 133.59 = 1.84 \text{ f/cc}$$

ASBESTOS MONITORING DATA SHEET

PLANT HILLSBORO 257		DATE OF TEST 10/21/80
EMPLOYEE NAME LLOYD HILL	PAYROLL NUMBER 332	JOB TITLE COUPLING CUT-OFF OPERATOR
COMP. MANUFACTURER BENDIX	SERIAL NUMBER 08 78 94	FLOW RATE (lpm) 2

SAMPLE NUMBER	TIME		ACTIVITY DURING SAMPLING PERIOD
	START	STOP	
176	8.00 a.m.	9.59 a.m.	Operating both coupling cut-off machines.
177	10.21 a.m.	11.54 a.m.	
178	1.07 p.m.	1.58 p.m.	
179	2.13 p.m.	3.57 p.m.	

CORP. HEALTH & SAFETY

DID EMPLOYEE WEAR RESPIRATOR? ☐ YES ☒ NO ☐ SOMETIMES	RESPIRATOR TYPE & MODEL	REMARKS OCT 27 1980 RECEIVED
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MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.)

6" 200

E DUST CONTROL SYSTEMS ☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY	REMARKS
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WEATHER CONDITIONS	75°F	LIGHT & VARIABLE	SUNNY ☐ CLOUDY ☒ HUMID ☐ RAIN ☐
OUTSIDE TEMPERATURE	75°F	WIND DIRECTION SE	WIND VELOCITY
		PARTLY CLOUDY ☒ FOG ☐ SHOWERS ☐ SNOW ☐	

BLANK FIBER COUNT	FIBERS IN	FIELDS	SLF	MICROSCOPE MAKE & MODEL Nikon Sukt	FIELD AREA .013 mm ²	CONSTANT K = 855	657
						FIELD AREA x 1000	

SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (l)	CORRECTED SLF + VOLUME x K = SLCC	TOTAL SAMPLE TIME (MIN)	SLCC x MIN.
176	106	89	1.191	—	238	$\frac{1.191 \text{ SLF} \times K}{2381} = .22 \text{ SLCC}$	119	39.27
177	100.5	77	1.305	—	184	$\frac{1.305}{184} = .4 \text{ SLCC}$	92	42.32
178	88.5	119	.7436	—	102	$\frac{.75}{102} = .48 \text{ SLCC}$	51	24.48
179	106	91	1.1648	—	208	$\frac{116.5}{208} = .37 \text{ SLCC}$	104	38.48
TOTALS							366	144.55

TIME WEIGHTED AVE
TOTAL SLCC x MIN
TOTAL MIN
.395

SIGNATURE OF SAMPLER <i>[Signature]</i>	SIGNATURE OF ANALYST 10/29/80 <i>[Signature]</i>
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DISTRIBUTION: WHITE - CORP. HEALTH & SAFETY / BLUE - PLANT SAFETY FILE / PINK - PLANT PERSONNEL FILE / YELLOW - TEMPORARY PLANT C

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ASBESTOS MONITORING DATA SHEET

NU.

ANT HILLSBORO 257		DATE OF TEST 10/22/80
EMPLOYEE NAME ONY BROWN	PAYROLL NUMBER 555	JOB TITLE (COUPLING PALLETIZER) * LIFT TRUCK OPERATOR
JMP MANUFACTURER BENDIX	SERIAL NUMBER 08 78 94	FLOW RATE (lpm) 2.0

SAMPLE NUMBER	TIME		ACTIVITY DURING SAMPLING PERIOD
	START	STOP	
180	8.15 a.m.	9.57 a.m.	^{10¹} Taking couplings from boring mill discharge
181	10.20 a.m.	11.55 a.m.	⁹⁵ conveyor and palletizing
182	12.48 p.m.	1.56 p.m.	⁶⁸ * (Not his usual job)
183	2.12 p.m.	3.53 p.m.	¹⁰¹

DID EMPLOYEE WEAR RESPIRATORY? ☐ YES ☒ NO ☐ SOMETIMES	RESPIRATORY TYPE & MODEL	REMARKS
		601 27 1980

MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.)

6" 200

LIST CONTROL SYSTEMS ☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY	REMARKS

WEATHER CONDITIONS

OUTSIDE TEMPERATURE **80°F** WIND DIRECTION **S.E.** WIND VELOCITY **5** MPH

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

BLANK FIBER COUNT FIBERS IN 315 FIELDS	MICROSCOPE MAKE & MODEL Nikon Sukt.	FIELD AREA .013 mm ²	CONSTANT K = 855 FIELD AREA x 1000
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SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (l)	CORRECTED $\text{flf} \rightarrow \text{VOLUME} \times K = \text{flcc}$	TOTAL SAMPLE TIME (MIN)	$\text{flcc} \times \text{MIN.}$
180	126.5	83	1.52	—	204	$\frac{152 \text{ flf} \times K}{204} = 49 \text{ flcc}$	102	49.98
181	121.5	64	1.898	—	190	$\frac{1898}{190} = 65 \text{ flcc}$	95	61.75
182	103	80	1.288	—	136	$\frac{1288}{136} = 62 \text{ flcc}$	68	42.16
183	122.5	139	.8812	—	202	$\frac{8812}{202} = 28 \text{ flcc}$	101	28.28
TOTALS							366	182.17

TIME WEIGHTED AVER
TOTAL $\text{flcc} \times \text{MIN.}$
TOTAL MIN.

SIGNATURE OF SAMPLER 	SIGNATURE OF ANALYST 10/29/80
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DISTRIBUTION: WHITE - CORP. HEALTH & SAFETY / BLUE - PLANT SAFETY FILE / PINK - PLANT PERSONNEL FILE / YELLOW - TEMPORARY PLANT CC

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ASBESTOS MONITORING DATA SHEET

NU.

ANT HILLSBORO 257 DATE OF TEST 10/23/80

EMPLOYEE NAME <u>JOBERT JONES</u>	PAYROLL NUMBER	JOB TITLE <u>INSPECTOR</u>
EMP MANUFACTURER <u>BENDIX</u>	SERIAL NUMBER <u>08 78 94</u>	FLOW RATE (lpm) <u>2.0</u>

SAMPLE NUMBER	TIME		ACTIVITY DURING SAMPLING PERIOD
	START	STOP	
184	8:01 a.m.	9:57 p.m.	Inspecting (including 6" 200 couplings from boring mill.)
185	10:26 a.m.	11:51 a.m.	
186	12:58 p.m.	1:57 p.m.	
187	2:16 p.m.	2:33 p.m.	At 2:33 p.m. assigned to another area.

DID EMPLOYEE WEAR RESPIRATOR? ☒ YES ☒ NO ☐ SOMETIMES
RESPIRATOR TYPE & MODEL
REMARKS
CORP. HEALTH & SAFETY

MANUFACTURING INFORMATION (Size - Type of pipe - Downtime - Etc.)
OCT 27 1980

RECEIVED

JUST CONTROL SYSTEMS
☒ FUNCTIONING NORMALLY ☐ NOT FUNCTIONING NORMALLY
REMARKS

WEATHER CONDITIONS
OUTSIDE TEMPERATURE WIND DIRECTION WIND VELOCITY
SUNNY ☐ CLOUDY ☐ HUMID ☐ RAIN ☐
PARTLY CLOUDY ☐ FOG ☐ SHOWERS ☐ SNOW ☐

BLANK FIBER COUNT
FIBERS IN FIELDS 115
MICROSCOPE MAKE & MODEL Nikon Sub
FIELD AREA 1013 mm²
CONSTANT 855 65
FIELD AREA x 1000

SAMPLE NUMBER	TOTAL FIBERS	FIELDS COUNTED	FIBERS PER FIELD	CORRECT BY SUBTRACTING BLANK	TOTAL SAMPLE VOLUME (l)	CORRECTED $\text{fl} \times \text{VOLUME} = \text{K} \times \text{flcc}$	TOTAL SAMPLE TIME (MIN)	$\text{flcc} \times \text{MIN.}$
184	173.5	135	1.285	—	232	$\frac{1.285 \text{ fl} \times \text{K}}{232} = .36 \text{ flcc}$	116	41.76
185	29.5	100	.295	—	170	$\frac{.295}{170} = .11 \text{ flcc}$	85	9.35
186	18.5	105	.176	—	118	$\frac{.176}{118} = .09 \text{ flcc}$	59	5.31
187	6	103	.058	—	34	$\frac{.058}{34} = .11 \text{ flcc}$	17	1.87
TOTALS							277	58.29

TIME WEIGHTED AVE
TOTAL $\text{flcc} \times \text{MIN.}$
TOTAL MIN.
210

SIGNATURE OF SAMPLER [Signature] SIGNATURE OF ANALYST [Signature] 10/29/80

DISTRIBUTION: WHITE - CORP. HEALTH & SAFETY / BLUE - PLANT SAFETY FILE / PINK - PLANT PERSONNEL FILE / YELLOW - TEMPORARY PLANT C

CTD020686