| CertainTeed | Date | To | Location and mail code |
|---|---|---|---|
| | December 18, 1980 | Jack Anderson | Hillsboro 257 |
| Subject INDUSTRIAL HYGIENE SURVEY "B" PLANT - NOVEMBER 12-14, 1980 | | From Janis Woodson | Location and mail code VF Corp #4 |

cc: F. Timpe - 2125/2B
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Attached find a completed log of the personal/area air samples and audiodosimetry results. These samples were obtained November 12-14 during the new B-Plant start-up, with some follow-up air sampling and noise work done in A-Plant.

A total of 52 air samples were obtained with 44 being in B-Plant and 8 in A-Plant. One 20 minute sample (#171) taken on a Maintenance person was heavily loaded with particulate and an exact count was not possible, however, in order to determine an exposure level an attempt was made to count the sample. The results were found to be in excess of 61 f/cc. Insufficient data was obtained, therefore a TWA was not calculated for this employee. This sample was found to be above the current OSHA ceiling concentration of 10 f/cc.

Sample number 150 taken on the Mixer Operator for 60 minutes was found to be 4.6 f/cc. This employees time weighted average (TWA) was 1.1 f/cc. The current OSHA 8 hour time weighted average (TWA) is 2.0 f/cc.

Both of these samples (#150/171) were taken on employees involved in clean-up and repairing a block up at the Bag Opener flat conveyor. The Maintenance person (sample #171) was in the pit unclogging raw fiber and putting it in plastic bags while the Mixer Operator (sample #150) was on the upper level emptying the bags back into the bag opener. All employees in the area wore 3M-8710 air purifying respirators.

While the current OSHA Asbestos Standard 1910.1001 d2(i) of the Federal Register (attached) requires only air purifying respirators for levels from 10-100 f/cc short term exposures, it is our recommendation that when a block up of this type occurs or when an exposure of this level is expected or unknown the employees involved should be outfitted with powered air purifying respirators or supplied air respirators (continuous flow or pressure demand).

All other samples taken during this survey were within the OSHA standard with only 2 other samples being above 1.0 f/cc (samples #153/#169). They were taken on the Mixer Operator (#153) and the Crusher Operator (#169). Both wore 3M-8710 respirators. It is recommended that any area/job position that exceeds 1.0 f/cc should be reviewed for possible engineering changes and monitored regularly for all sizes and classes of pipe to insure that the employees exposure remains below the 2.0 f/cc level. If a level of 2.0 f/cc or greater is found, respirators are required until an acceptable level is again achieved.

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Also, more testing is needed at the Mandrel Handler job position. Of the 5 samples taken at this position during this survey, 4 were voided due to heavy particulate concentration. It is recommended that plant personnel sample this job position for personal and area exposures for an 8 hour shift, limiting each sample to no more than 60 minutes each.

The results of the audiodosimetry noise survey indicated 3 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:

| | |
|---|---|
| Mandrel Handler (Sample 197) | 185% |
| Relief Person (Sample 198) | 111% |
| Crusher Operator (Sample 199) | 193% |

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

One thing to keep in mind when reviewing all of the sampling results from this survey, is that these samples were taken during a shakedown period and that these levels are not necessarily the same levels that would be found during normal operations. Continued surveillance and follow-up work of the new B-Plant by plant personnel, along with help from Corporate Health and Safety should be made. All equipment and operation changes and improvements should be noted when documenting the new exposure levels.

A complete and comprehensive survey report combining the May 27-30, 1980 survey and the November 12-14, 1980 survey is forthcoming detailing sample analysis and observations.

If you have any questions or comments don't hesitate to contact me.

JLW/tmf

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Table III

Personal Dust Exposures "A" Plant

| No. 80 | POSITION/ LOCATION (Date) | NAME/AREA | ANALYSIS FOR | TIME | MIN. | RESULTS F/CC | TWA FOR SAMPLE PERIOD | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 142 | #1 Boring Mill Operator (11/14/80) | J. Slovk | Fiber | 7:50a 11:45a | 235 | 0.29 | 0.27 | Boring 6" cplgs |
| 143 | | | | 11:45a 3:00p | 195 | 0.24 | | |
| 144 | #1 F M Lathe Operator (11/14/80) | A. Coaster | Fiber | 7.55a 10:00a | 125 | 0.10 | 0.084 | 6" 1/4 length FM's |
| 145 | | | | 10:00a 3:05p | 305 | 0.078 | | |
| 146 | #1 F M Lathe Helper (11/14/80) | T. Brown | Fiber | 8:20a 10:00a | 100 | 0.11 | 0.15 | 6" 1/4 length FM's |
| | | | | 10:00a 3:10p | 310 | 0.16 | | |
| 148 | Large Coupling Saw and Rework Saw Operator (11/14/80) | J. Foster | Fiber | 8:00a 1:35p | 335 | VOID | — | 1/4 hour Coupling Saw 3 1/4 hrs. putting rings in couplings 1 1/2 hrs Rework Saw Void sample heavy particulate |
| 149 | | | | 1:35p 3:05p | 90 | 0.55 | | 6" Rework |

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TABLE _____

Personal Dust Exposures "B" Plant

| No. 80 | POSITION/ LOCATION (Date) | NAME/AREA | ANALYSIS FOR | TIME | MIN. | RESULT F/CC | TWA FOR SAMPLE PERIOD | REMARKS |
|---|---|---|---|---|---|---|---|---|
| Manufacturing Department | | | | | | | | |
| 150 | Mixer Operator 11/13/80 | R. Lacy | Fiber | 8:05a 9:05a | 60 | 4.6 | | 6"150 pipe Helping unblock bucket elevator at Bag opener |
| 151 | | | | 9:05a 9:35a | 30 | 0.26 | | Bag opener not working with 100% efficiency having to slit Bags by hand |
| 152 | | | | 9:35a 11:20a | 105 | 0.36 | 1.1 | One window to Bag opener open all the time |
| 153 | | | | 11:20a 1:40p | 140 | 1.0 | | Employee wore a 3M 8710 Respirator throughout the entire shift. |
| 154 | | | | 1:40p 3:50p | 130 | 0.46 | | |
| 155 | Machine Tender 11/13/80 | J. Owens | Fiber | 8:15a 11:01a | 166 | 0.21 | | 6"150 pipe |
| 156 | | | | 11:01a 1:45p | 164 | 0.17 | 0.20 | |
| 157 | | | | 1:45p 3:55p | 130 | 0.23 | | |
| 158 | Control Operator 11/13/80 | H. Cox | Fiber | 8:07a 11:00a | 173 | 0.025 | | 6"150 pipe visable mist at press section |
| 159 | | | | 11:00a 1:42p | 162 | 0.027 | 0.026 | |
| 160 | | | | 1:42p 3:50p | 128 | 0.026 | | |
| 161 | Mandrel Handler 11/13/80 | C. Salinas | Fiber | 8:10a 11:01a | 171 | 0.11 | | 6"150 pipe |
| 162 | | | | 11:01a 1:46p | 165 | VOID | — | Void sample - heavy particulate |
| 163 | | | | 1:46p 3:55p | 129 | VOID | | Steamy area feel mist in air<br>Void sample - heavy particulate |

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Hillsboro A/C Pipe Plant
Industrial Hygiene Survey
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TABLE _____

Personal Dust Exposures "B" Plant

| No. 80 | POSITION/ LOCATION (Date) | NAME/AREA | ANALYSIS FOR | TIME | MIN. | RESULT F/CC | TWA | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 164 | Take off Person 11/13/80 | J. Payne | Fiber | 10:35a 1:35a | 180 | 0.022 | 0.022 | 6"150 pipe Trayloader |
| 165 | | | | 1:35p 5:00p | 205 | 0.022 | | |
| 166 | Relief Person 11/13/80 | R. Pavelka | Fiber | 10:26a 1:52p | 206 | 0.13 | 0.14 | 6"150 pipe |
| 167 | | | | 1:52p 5:00p | 188 | 0.15 | | |
| | Miscellaneous Departments | | | | | | | |
| 168 | Crusher Operator 11/13/80 | C. Harris | Fiber | 8:45a 10:36a | 111 | 0.36 | 0.78 | Secondary Crusher Block-up 8:45a - 9:30a |
| | | | | 10:36a 12:00N | 84 | 1.7 | | Employee wore a 3M 8710 Respirator throughout entire shift |
| 170 | | | | 1:30p 2:50p | 80 | 0.37 | | |
| 171 | Maintenance Person 11/13/80 | M. Ruda | Fiber | 8:42a 9:02a | 20 | >61* | -- | *Working on a mixing system Block-up at flat conveyor for the Bag opener. All employees in the area wore 3M 8710 Respirators |
| 172 | | | | 9:02a 9:55a | 53 | 0.32 | | at water treatment slurry tank. |

* Note - filter heavily loaded with particulate actual count would be greater than 60f/cc.

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