JUN 7 1984

CAMBRIDGE

PLAINTIFF'S EXHIBIT WRG-776a

To: J. Danel/Enoree Date: 5 June 1984

From: T. E. Hamilton Subject: Air Sampling in Mine and Mill Shops

cc: S. Ahern

[redacted]

The results of the air sampling done by Eric Moeller and me in Enoree show levels of fibers in the mine and mill shops to be below 0.008 f/cc. The total dust sample collected on Bobo in the dry mill is below the 10 mg/m³ Permissible Exposure Limit for Total Dust.

In my opinion the fiber levels are not above what we would expect for normal background levels.

Thomas E Hamilton
T. E. Hamilton

TEH/al

Attachments

HO

10035090

[redacted]

CONFIDENTIAL

CONSTRUCTION [redacted]

PRODUCTS [redacted]

DIVISION [redacted]

Report: 76029 [redacted]
Group: BPD Manufacturing
Date: 21 May 1984
Charge No.: 1174 [redacted]
Requestor: Thomas E. Hamilton
Marketing or Manufacturing Approvals:
Name: Thomas E. Hamilton
Approved: Thomas Hamilton

REQUEST FOR TECHNICAL SERVICE

PROBLEM TITLE: Environmental Evaluation -- Air -- Fibrous Materials

SIGNIFICANCE: The evaluation of workplace air on a periodic basis is necessary to comply with the air sampling section of the OSHA Asbestos Standard.

SPECIFIC OBJECTIVE: Determine fiber counts for filter media.

SUGGESTED APPROACH: Phase contrast microscopy.

DEADLINE (last information will be of value) Two (2) w[illegible]

DETAILS OF PROBLEM: *Please evaluate Engineering samples from Enoree sample numbers E-1 through E-5*

cc

ACCEPTED BY RESEARCH DEPT.: [signature] DATE: 5/22/84

ASSIGNED TO: M. L. Raffaele

ADDITIONAL COPIES: Original to Library; J.W.Wolter, H.C.Duecker, F.W.Eaton T.E.Hamilton, W.R.Wright

10035091

REQUEST FOR TECHNICAL SERVICE

NUMBER: [redacted]6029

GROUP: [redacted]BPD Manufacturing

ACTUAL COST: [redacted]$150.00

REPORTING DATE: [redacted]5/25/84

SUMMARY AND RESULTS:

[redacted] are submitted for analysis of [redacted]

The results are as shown on the attached Air Sampling Record Sheet.

Mary L. Raffaele

Mary L. Raffaele

MRL/ph

Attachment

10035092

GRACE

AIR SAMPLING RECORD SHEET

HEALTH, SAFETY & TOXICOLOGY DEPT.

Plant Location Enoree, S.C
Division
Sampling by Hamilton Jr. Date See below
Contaminant Fiber per BRK Mueller

Weather Rain
Temperature 70's
Pressure
Housekeeping OK

Type of Sampling: Personal ✓ Engineering
Collection Media 0.5 µm MF
Pump (type & model) Du Pont P3500

Sample No.	DATE Employee Name & Soc. Sec. No.	Sampled by Personal Protective Equipment	Job Location and Description	Pump No.	Sampling Time Off	On	Total	Flow Rate L/m	Total Volume Sampled	f/ml Lab Evaluation
E-1	27 April 84	TEH	Mill Shop	50	14:10	9:35	295	1.7	501.5	0.008
E-2	27 April 84	TEH	Mine Shop 6" from front wall filter facing down	51	14:15	9:25	290	1.7	493	<0.001 *
E-3	30 April 84	EM	" " 6" from front wall filter facing up	54	14:40	7:15	445	1.7	756.5	0.003
E-4	1 May 84	EM	" " 6" from front wall filter facing up	54	15:07	7:12	475	1.7	807.5	0.00 *
E-5	2 May 84	EM	" " Center of shop Filter facing down	54	13:57	7:12	376	1.7	639.2	<0.001 *

Additional Comments E-4 = weather was clear + dry
* no fibers visible on slide

Laboratory Evaluation by: Mary L. Raffaele
Date 5/25/84

TEH/mc/cc

1003093

CONSTRUCTION

PRODUCTS

DIVISION

Report: 76030

Group: BPD/Manufacturing

Date: 21 May 1984

Charge No.: 1174

Requestor: Thomas E. Hamilton

Marketing or Manufacturing Approvals

Name: Thomas E. Hamilton

Approved: Tom Hamilton

REQUEST FOR TECHNICAL SERVICE

PROBLEM TITLE: Environmental Evaluation -- Air -- Total Dust

SIGNIFICANCE: The evaluation of workplace air on a periodic basis is necessary to comply with the air sampling section of the OSHA Air Contaminants Standard.

SPECIFIC OBJECTIVE: Determine the Total Dust on the sample and calculate the rate of deposition in mg/M^3.

SUGGESTED APPROACH: Analytical Balance -- Filters have been pre-weighed.

DEADLINE (last day information will be of value): Two (2) weeks.

DETAILS OF PROBLEM: *Please evaluate total dust sample from Enoree*

Sample # CH-5

ACCEPTED BY RESEARCH DEPT.: [signature] **DATE:** 5/24/84

ASSIGNED TO M. E. Caffrey

ADDITIONAL COPIES: Original to Library; *J.W. Wolter, H.C.Duecker, F.W.Eaton T.E.Hamilton, W.R.Wright*

CONFIDENTIAL

10035094

REQUEST FOR TECHNICAL SERVICE

NUMBER: 76030
GROUP: BPD Manufacturing
ACTUAL COST: $25.00
REPORTING DATE: 5/25/84

SUMMARY AND RESULTS:

One air sample was submitted from Enoree, S. C. for total dust content.

The results are as shown on the attached Air Sampling Record Sheet.

Barbara J. O'Leary

Barbara J. O'Leary

BJO/ph

Attachment

10035095

GRACE

AIR SAMPLING RECORD SHEET

HEALTH, SAFETY & TOXICOLOGY DEPT.

Plant Location Enoree, S.C
Division CPD
Sampling by [illegible] Hamilton Date 27 Apr. 84
Contaminant Total Dust

Weather Rain
Temperature 70's
Pressure
Housekeeping OK

Type of Sampling: Personnel ✓ Engineering
Collection Media Gum Polycarbonate
Pump (type & model) DuPont 2500

Sample No.	Employee Name & Social Security No.	Personal Protective Equipment	Job Location and Description	Pump No.	CLOCK TIME Off	CLOCK TIME On	CLOCK TIME Total	Flow Rate L/M	Total Volume Sampled L	mg/M3 Lab Evaluation
CH-5	John Bobo	3M 8710 + 3M Air hat	cleaning dry mill	54	1430	9:42	289	1.7	489.6	4.371

Additional Comments

Laboratory Evaluation by Barbara J. O'Lear

Date 5/24/84

10035096

CONFIDENTIAL

1020208

GRACE

Construction Products Division

To: J. W. Wolter

Date: May 19, 1983

From: R. E. Schneider

Subject: Asbestos Abatement at Travelers Rest and Enoree, SC

cc: R. C. Abernathy
F. W. Eaton
H. A. Eschenbach
R. T. Frohlich

On may 11 and 12 I visited the Travelers Rest and Enoree, SC facilities, and along with Mr. Ken Nash of W. W. Nash & Sons, Inc. evaluated the work and costs associated with asbestos abatement in the three buildings containing the experimental coatings. According to R. T. Frohlich, W. W. Nash & Sons, Inc. of Richmond, VA are eminently qualified to pursue this activity. I found Mr. Nash to be knowledgeable and capable.

In order to assemble costs, I have assumed that disposal of the waste material may be accomplished on site at the Enoree facility. If this is not possible or desired, the expected costs for waste disposal at the nearest approved land fill site are in the $12-15M range based upon an assumed 1000-1100 cu. ft. volume. (Distributed costs in the following estimation are $6.0M.)

The expected costs for each building may be described as follows:

		Expense ($000)		Capital ($000)	
1)	Machine Shop & Office area of Fabrication Shop - Travelers Rest	(95-035)	49.2	(96-035)	14.6
2)	Mill Maintenance Building - Enoree	(08-558)	20.9		-
3)	Mine Maintenance Building - Enoree	(08-558)	40.3		-

In all instances some preparatory work is necessary prior to removal of the asbestos laden material. Also, additional work is required in all instances to prepare the buildings for use as originally intended after the abatement work is complete. At Travelers Rest the insulation will be replaced, while at Enoree any insulation value attributed to the coating will not be replaced or recovered. The only capital involved, by R. Abernathy's

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Eschenbach 78
8-7-86

(R001130)

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analysis, will be at Travelers Rest. All of the insulation on the shop ceiling and walls and the insulation and ceiling material in the office area will be destroyed and removed. In all instances, it will be advisable and necessary to repaint the metal immediately.

Another assumption I have made is that the air sampling and monitoring to be done during the removal operations will be provided by the ICG Health/Safety group. Additional unknown costs should be scheduled if this is done by outside laboratories and monitors.

The work will require completely relinquishing the buildings to the contractor. It is suggested that an August time frame is most acceptable to our operations and to the contractor. An elapsed time table for the three buildings may be presented as follows:

Building	Preparation Calendar Days	Cleaning Calendar Days	Restoration Calendar Days	Total
TR - Machine Shop & Office	4	7	17	28
Enoree - Mill Maint.	2	5	3	10
Enoree - Mine Maint.	1	10	2	13

If the purchasing policy being currently promulgated is to be followed, it will be necessary to develop two additional quotes for the abatement work. R. T. Frohlich has indicated that perhaps other qualified contractors can be asked to quote on the work.

Shop order numbers have been assigned for this work but have not been prepared pending your decision on procedure.

R. E. Schneider

RES/al

R001131

PLAINTIFF'S EXHIBIT

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