

FILE NAME: Shree Digvijay (SDV)

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DOCUMENT DESCRIPTION: Letter to SDV from J-M with Recommendations

C O P Y

Johns Manville
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MADRAS, INDIA
NOVEMBER 29, 1980

S.R. Bhandari
General Manager
Shree Digvijay Cement Co. Ltd.
P.O. Digvijaynagar
AHMEDABAD - 382 470, INDIA

Dear Mr. Bhandari:

As per our discussion in Ahmedabad on November 22, 1980 I am reporting my observations and recommendations based on my visit to your factory during the week of November 17th.

The items requiring actions are listed in order of importance.

1. ASBESTOS FIBER - Manual handling, weighing, and feeding of willowed fiber.

The present method results in heavy concentrations of fibers being released into the work place environment. This is undesirable both from the environmental health standpoint and also the loss of valuable virgin fibers to the atmosphere.

RECOMMENDATION - Proceed at once with the installation of the live-bottom Bin system for handling willowed fiber. The L.B. Bin system drawing shown to me by your Mr. V.R. Natarajan appears satisfactory and is compatible with similar Johns-Manville installations in our U.S. Plants.

Upon my return to the U.S. I will advise you, and send you details on load cell technology for automatic weighing/batching systems.

2. ASBESTOS BAG OPENING - Willow Feeding

The present work method and equipment design permits loose fibers to become scattered around the work area.

RECOMMENDATION - I will supply you with working drawings and photos of an improved bag opening station with ventilation.

In the meantime the following steps are recommended.

- A. Workers handling and opening bagged fiber should wear Respirators at all times. I have left with Mr. Natarajan a Norton Model 7170 Respirator. This particular Respirator has an exhalation valve that provides the user with more comfort than ordinary Respirators.

2. B. The use of hooks by all workers who handle Asbestos Fiber Bags should be stopped. The use of hooks creates unnecessary release and loss of fibers.

3. DUST COLLECTOR - Willow System

Inspection of your Dust Collector indicated that there had been malfunction of the shaker mechanisms causing complete plugging of the center compartment, and partial plugging of the two outer compartments.

RECOMMENDATION

- A. Institute a formal dust collector inspection system. The inspection system should be not less than weekly, and should include a simple written report form stating the condition of the collector and maintenance requirements if any.
- B. Manometers recommended by the collector manufacturer should be installed and serviced so that Manometer readings can be observed and recorded on a regular (preferably daily) basis.

4. PORTABLE VACUUM CLEANER

Hand sweeping with Swish brooms in the fiber handling and storage areas should be discontinued. Sweeping actually disturbs settled dusts and makes the dust airborne.

RECOMMENDATION - Purchase 1 or 2 Heavy duty industrial vacuum cleaners to pick up dusts and fines in all areas of the Plant. If suitable vacuum cleaners are not available in India, we will recommend suitable foreign make vacuum cleaners.

5. FINISHING COLLECTORS - EMISSIONS

The cyclone type collectors installed at the finishing lathe centers are successfully collecting dust from Pipe and Socket Machining Operations. Much of the collected dust however is being exhausted to the air just outside the building. These exhausted dusts will precipitate to the ground and be returned partially into the work place by wind and vehicle traffic.

RECOMMENDATION - There are available wet scrubbers mechanisms which can eliminate much of these types of emissions. We will provide advice and design on some type of wet scrubber.

6. DUST CONTROL - CORRUGATED SHEET CUTTING

Present dust collection is not adequate. Dust emissions are easily visible.

RECOMMENDATION - It is my understanding that the 2 saws are to be moved and adequate collection is to be provided. I would recommend a water spray and enclosed blade type of dust control. Please advise if you require assistance on this.

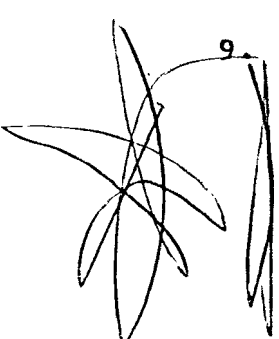
7. SCRAP GRINDING - SHEET

I observed a small grinding operation south of the Manufacturing building. I understand that this is a sporadic type operation and that the Ground sheet is used as a filler in making hollow blocks for use in workers housing.

RECOMMENDATION - This operation is fairly dusty and does not create direct income to the company. I would recommend that other material be used for building blocks - such as the chips from the finishing cyclone collectors. This material (chips) would require no processing and could be mixed directly with cement for blocks.

8. AIR SAMPLING - ASBESTOS

Sometime soon in the future it will become necessary to know what the dust levels are in the factory. I would recommend that sampling equipment be obtained and personnel trained to take and analyse air samples. I would recommend that sampling be done in accordance with U.S. methods and not with the I.S.O. method which collects Air at a rate of 1.0 litre/minute, while U.S. method is at a rate of 2.0 litres/minute. I might mention that Hyderabad Asbestos Cement is now doing air sampling, and Southern Asbestos has sampling equipment on order.



9. ASBESTOS-CEMENT SCRAP - There are A-C scrap piles on both sides of the road east of the factory. Although I don't believe that these piles pose a health risk, they are unsightly and could be photographed and used detrimentally (again) against all Asbestos-cement producers. I recommend that these piles be levelled off and covered with earth fill from your new settling pond excavation. Completion and attainment of the above recommendations will provide the following benefits to Shree Digvijay.

A. A major reduction in dust levels, which will provide a safe and healthful environment for all employees.

B. Your Mr. Natarajan and others have indicated that you experience approximately a 2% loss of fiber (purchase weight VS weight of fiber weighed at scales).

I am convinced that you are losing approximately 1% of your fiber due to handling methods, spillage, etc. Based on your current usage of approximately 7500 tons of fiber and assuming a blend of .60 PV, your cost per ton of fiber is approx. 8400 Rs/Ton (1980 prices.) A 1% loss or 75 tons is worth Rs. 630,000 or U.S. \$84,000.

C. Any and all environmental improvements made at any A/C producing facility will enhance the image of the A/C industry and circumvent criticisms from environmentalists and Government Agencies, regulatory or otherwise.

We wish to acknowledge that some improvements have already been accomplished - (Negative Willow system, finishing lathes dust collection, clean UP and Painting of building and equipment, etc.)

In closing I have one last recommendation. I suggest that your Mr. Natarajan and Mr. Gupta should visit a Johns-Manville Plant in the near future. I would suggest that they visit the Stockton Plant. I believe it would be most beneficial to Shree Digvijay to have these two gentlemen visit a U.S. Plant.

I wish to thank you for the courtesy, hospitality and co-operation shown to Mr. Hay and myself during our visit to your factory.

Sincerely,

CECIL P. BONZO
Environmental Control Engineer.

cc: B.S. Thakkar - Shree Digvijay
V.R. Natarajan - Shree Digvijay
M.L. Gupta - Shree Digvijay