D.N.CO.

Jacksonville
Safety/Hygiene
Inspection

INTER-OFFICE MEMORANDUM

TO J. H. Walton
AT 1586 KB

DATE April 30, 1974
FROM A. J. Trommershausen

COPIES TO D. R. Canham - 2462 KB
P. D. Orleman - KCG, Jacksonville
P. J. Franklin - 2453 KB

AT 2675 OB

SUBJECT Industrial Hygiene Survey - Jacksonville

A. Asbestos

Personal samplers were used to take air samples in the breathing zones of the workmen as they dumped the asbestos bags and operated the bagging machines.

Experience has shown that accurate dust counts can only be made if the extraneous materials such as lime, mica, etc., are kept to a minimum. Consequently, samples were only taken during the two to three minutes required to handle the asbestos bag, dump and discard the empty bag(s). The results are then calculated as if the samples were taken during the complete cycles.

For the K-Spray, only one bag of asbestos (7D1-Course) is dumped every 45 minutes; and for the Pre-Mix, 1-1/2 bags of asbestos (7RF1D-Fine) on a 60-minute cycle.

The packaging operation was sampled continuously; however, this turned out to be inappropriate as the filter paper samples were too heavily loaded to make a fiber count.

RESULTS

Sample No.	Operation	Time Sampled	Time of Sample	Time Weighted* Average	Operator
J-1	K-Spray	2.5 min.	45 min.	3.4 fibers/cc	B. T. Anderson
J-2	Pre-Mix	1.5 min.	60 min.	0.5 fibers/cc	R. W. Lloyd
J-3	K-Spray	3.0 min.	45 min.	6.3 fibers/cc	B. T. Anderson
J-4	Pre-Mix	3.0 min.	60 min.	0.3 fibers/cc	R. W. Lloyd
J-5	K-Spray	2.0 min.	45 min.	4.6 fibers/cc	B. T. Anderson
J-6	Pre-Mix	3.0 min.	60 min.	0.5 fibers/cc	R. W. Lloyd

*The present standard allows 5 fibers/cc, but will be reduced to 2 fibers/cc in 1976 (or sooner).

PLAINTIFF'S EXHIBIT

KG-354

Discussion

The results indicate that the exhaust ventilation system was much more effective on the Pre-Mix line than the K-Spray operation. This is particularly noteworthy when one considers that in a Pre-Mix operation, more asbestos is dumped and the material has a smaller particle size. The obvious conclusion is to improve the hooding on the Pre-Mix line. It is possible that the air flow was incorrectly adjusted with the insufficient air flow at the K-Spray line hopper. Another possibility is the overhead hood on the K-Spray hopper tends to pull the dust upward into the breathing zone of the operator.

The system would be more effective if the slot ventilation was brought along the sides and enclosed with a flexible material between the grating and the hopper. This was discussed with Paul Orleman at Jacksonville.

The empty asbestos bags should be carefully folded while still on top of the hopper so any dust created will be picked up by the ventilation. The empty bag should then be placed in a plastic bag which is placed next to the hopper. Tossing of empty asbestos bags or any handling that generates air-borne asbestos particles is intolerable.

As in many of our plants, the hoppers are smaller than the 100-pound bags of asbestos. This causes unnecessary spilling over the sides which wastes materials, but more importantly, creates a possible hazard if not immediately vacuumed up. Either the hopper should be enlarged, or asbestos purchased in 50-pound bags. Fifty-pound bags would also eliminate the need for splitting.

It was noticed that a number of bags were broken in the asbestos storage piles. Serious consideration should be given to the purchase of asbestos in plastic encapsulated pallets.

The exhaust ducts leading from the bagging machines were plugged during my visit; and after cleaned, were plugged again in a few hours. The air flow was reduced to such an extent that the dust settled out in the ducts. An engineering study of the system needs to be done. In the meantime, the packers should continue to wear their respirators and be considered part of the crew "exposed to asbestos."

"Workers exposed to asbestos" should have the following:

1. Physical examinations (arrangements made and separate memo previously sent).

2. Double lockers so street clothes can be kept separate from work clothes.

3. Weekly change of work clothes. (Best method is to receive coveralls weekly from a laundry service.)

Items 2 and 3 are to prevent the workers from inadvertently taking asbestos home and exposing their families.

B. Noise

A few noise levels were taken and the results were about the same as taken in January 1971.

Ear protection should be mandatory in the following areas:

1. Metal line
2. Hog
3. Crusher - Dryer area
4. Calcining area

Noise hazard signs should also be posted.

In the near future, when noise dosimeters are available, more definitive noise evaluations will be made and precise audiometric test programs set up. However, in the meantime, it is essential that an ear protection program be set up and maintained until noise control is attained.

Paul Orleman mentioned that he believes a number of things can be done to reduce noise levels in the plant, and I would urge that these steps be taken without delay. As we know, OSHA is (appropriately) taking a strong position on the need for noise control programs. Let me know if I can be of any assistance on any of these matters.

The assistance of "Kirby" Karobeinich was greatly appreciated during the studies.

llm