

**PLAINTIFF'S
EXHIBIT**

K-1012



SPECIAL HAZARDS SURVEY

DUST STUDY

PREPARED FOR

**OWENS-CORNING FIBERGLAS CORP.
BERLIN, N. J.**

BY

J.M. ROBINSON

DECEMBER 9, 1959

ANOTHER SERVICE FROM THE OFFICE OF

PICTON-CAVANAUGH

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OWENS-CORNING FIBERGLAS CORP.
BERLIN, N.J.
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PURPOSE: This visit and report covers a study made to determine the employee exposure to dust in production operations.

CONTACTS: Mr. Justice, Personnel Director, and Mr. [redacted] Director, were the main contacts during this visit. Also present was Mr. D.M. Stayton, AIAA Representative, who regularly services the plant.

PROCEDURES: Air Samples were taken with the widget impinger using isopropyl alcohol as a collecting medium. Dust counts were made on a light field following the procedure as outlined by the United States Public Health Service.

RESULTS:

Air Sample No. 1 - Flatware Packing. Taken at breathing level to the right of the two men who are filling boxes.

13.9 million particles of dust per cubic ft. of air.

Air Sample No. 2 - Mixing - Taken in the breathing zone of the operator as he added dry ingredients to the mix, both at the hydropulper and at the point where asbestos was added. This sample consisted of three periods while the man was adding the dry ingredients.

4.3 million particles of dust per cubic ft. of air.

Air Sample No. 3 - Mixing Department - General room sample - Taken at the breathing level about 3' from the north-east corner of panel board between the hydropulper and dry mix - continuous sampling.

2.6 million particles of dust per cubic ft. of air.

Air Sample No. 4 - Flatware Finishing - Taken at breathing level to the left of the operator who turns over the flatware at the rubber.

5.2 million particles of dust per cubic ft. of air.

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Air Sample No. 5 - Router - Taken at breathing level to operator's left as he feeds blocks to router.

10.3 million particles of dust per cubic ft. of air.

Air Sample No. 6 - Flatware Finishing - Taken at breathing level of operator feeding flatware to the trim saw - taken between saw and man.

24.2 million particles of dust per cubic ft. of air.

Air Sample No. 7 - Molded Ware - Taken at the breathing level of man feeding trim saw B.

3.8 million particles of dust per cubic ft. of air.

Air Sample No. 8 - Molded Ware - Taken at breathing level of man taking parts off the B saw.

4.1 million particles of dust per cubic ft. of air.

DISCUSSION: To assist in interpretation of the above results, we would like to point out that the maximum acceptable concentration of dust, which contains asbestos is 5 million particles of dust per cubic ft. of air. This figure has been adopted at the 21st Annual Meeting of the American Conference of Governmental Industrial Hygienists in April of 1959. A review of the results show that half of our Air Samples are over this limit.

The mixing operations (Air Samples Nos. 2 and 3) appear to be fairly well controlled in regard to dust. Where the dry ingredients are added, there is an exhaust hood which takes care of most of the dust when bags are dumped into the hydropulper. We did note, though, that the fan for this exhaust is on a time switch which allows it to operate for three minutes and then shuts off. Due to atmospheric conditions at the time of this visit, every time the fan shut off, any dust which was in the pipe blew back into the room. If while the operator was emptying bags of material the fan shut off, quite a cloud of dust escaped into the room. We would suggest that this time switch be removed and the fan control be on a manual switch, so that the fan can be kept running at all times when necessary.

The operations at the mold trim, (Air Samples Nos. 7 and 8) are also under control in regard to dust. The two sawing operations are provided with exhausted hoods and connected to a collector. This collector appears to be doing a good job of removing the dust created at this sawing operation.

The most serious dust exposures are at the flatware finishing and at the router. Air Sample No. 1 was taken at the point where two men are packaging the flatware. The dust here is that which remains on the pieces after they have been finished. We would like to suggest that consideration be given to exhausting the packaging area. It might be possible to arrange this exhaust under the conveyor so that all dust would be pulled down and away from the breathing zone of the packers.

One man at this operation was wearing a respirator, the other man was not. It would be desirable, until such time as dust is brought within safe limits, that both men wear respirators here.

Air Sample No. 4 is slightly over the Threshold Limit. This sample was taken at the point where the flatware leaves the No. 1 rubber. This man checks the finish and turns the pieces over before it passes on to the next operation. Most of the dust here is from the handling of the pieces which contain some residual dust from the No. 1 rubber. We would suggest that consideration be given to the same type of an exhaust as is mentioned above at the packaging operation.

Air Sample No. 6 was taken at the start of the flatware finishing. Our dust counts here are dangerously high. There is two sources of dust. One of from the handling of the pieces as they are put on the line and the other is from the dust created at the sawing operation. I feel that the exhaust system for the saw is not removing this dust adequately. I would suggest that the design of this hood be studied and attempt be made to better control the dust which is thrown off here. The operator here had a respirator which he was not wearing but rather had hung around his neck. We feel that the respirator here should be required until such time as the dust is brought under control.

Most of the dust in Air Sample No. 5, which was taken at the feed and of the router was from this machining operation. This is exhausted but we feel that improvements can be made here which would reduce the amount of the exposure. We would suggest that this exhaust system and enclosure be checked to see if it cannot be adjusted so that it will more effectively remove the dust from this operation.

There are two operations here which we were not able to sample at this time due to the fact that these operations were not in progress. The one is the slitting saw on the flatware line and the other is the unloading of raw material.

Attached is a list of recommendations which we feel would improve conditions at the plant and decrease the occupational disease exposure from dust.

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RECOMMENDATIONS

1. Would suggest that consideration be given to installing an exhaust which would remove effectively the dust from the operator's breathing zone at the charging end of flatware finishing, at flatware packaging, and at flatware turnover area.
2. Would suggest that the exhaust and enclosure on the router be checked and adjusted so that the dust created by this operation be effectively removed at the source.
3. Respirators should be worn by the men working at flatware charging, at flatware turnover, at flatware packaging, and at the feed end of the router until such time as the dust in these areas has been reduced to safe limits.
4. Would suggest that the time switch for the exhaust fan at the hydropulper be changed to one that is manually controlled.

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