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London:
BUREAU OF HYGIENE & TROPICAL DISEASES
Keppel Street, W.C.1

SPECIAL HAZARDS SURVEY

[redacted]

PREPARED FOR

[redacted]

BY

[redacted]

April 28 and May 2, 1958

PLAINTIFF'S EXHIBIT 168

RECEIVED
DEC 04 1970
OWENS-CORNING FIBERGLAS CORP.

ANOTHER SERVICE FROM THE OFFICE OF
[redacted]

OWENS-ILLINOIS
KAYLO DIVISION
KENILL, N. J.

April 28 and May 2, 1953

Purpose: The purpose of this visit was to determine the employee exposure to dust in production operations.

Contacts: Mr. F. W. Sehl and the writer contacted Mr. Pfeiffer, Plant Manager, Mr. Justice, Personnal Director, Mr. Casserio, Personnal Assistant, and Mr. [redacted]mis, Production Superintendent. Also present were Mr. Gardner, Safety Director for Owens-Illinois, and Mr. Paul Shoe, Area Safety Engineering Representative who services this plant.

Procedure: Air samples were taken using both the standard Greenburg-Smith impinger and the midget impinger using isopropyl alcohol as the collecting medium. Dust counts were made on a light field following the procedure as outlined by the United States Public Health Service.

Findings:

Air Sample No. 1 - Main Mixer Charging - Asbestos - taken at the breathing level of the operator on his left side.

6.3 million particles per cubic foot of air.

Air Sample No. 2 - Hydropulper Charging - taken at the breathing level to the right of the operator.

4.0 million particles per cubic foot of air.

Air Sample No. 3 - Horizontal Splitting Saw - taken at the breathing level of the operator separating the pieces as they came through the saw - taken between the saw and the operator.

91.6 million particles per cubic foot of air.

Air Sample No. 4 - Mattress Finishing - Charging end - taken at breathing level of operator feeding flat ware to the trim saw.

46.3 million particles per cubic foot of air.

Air Sample No. 5 - Flat ware Finishing - Turnover at Rubber - taken at breathing level of operator

9.5 million particles per cubic foot of air.

Air Sample No. 6 – Packaging – Taken at the breathing level midway between the two men filling boxes.

11.5 million particles per cubic foot of air.

Air Sample No. 7 – Router – taken at the discharge end at the breathing level of the two men applying cloth wrapping to the pieces.

16.3 million particles per cubic foot of air.

Air Sample No. 8 – Molded Pipe – Trim Saw B – taken at breathing level of operator as he fed saw.

5.1 million particles per cubic foot of air.

Air Sample No. 9 – Tubular Mold – taken at breathing level between the cut-off and slitting saws.

9.5 million particles per cubic foot of air.

Air Sample No. 10– No. 2 Stripping Line – taken at breathing level on right side of line to the left of the first operator.

10.2 million particles per cubic foot of air.

Air Sample No. 11 – Box Car Unloading – taken in box car in breathing level of man piling Kenite onto pallets.

20.0 million particles per cubic foot of air.

Air Sample No. 12 – Mixing – Tubular Mold – taken at breathing level while operator weighed out and mixed up two complete batches.

7.5 million particles per cubic foot of air.

Discussion: To assist in the interpretation of the above dust counts, we would like to point out that the maximum acceptable concentration of the dust which is 100% free silica or 100% asbestos is 5 million particles per cubic foot of air. As we know that the dust here is considerably less than 100% free silica or 100% asbestos, the maximum acceptable limits generally has been established as 10 million particles for an operation of this type. With reference to the above, our results from the air sampling show that a number of the counts are above the

limits and several are closely approaching the limits. Air Samples Nos. 1, 2 and 12, which are the mixing operations, are acceptable, as is also Sample No. 8.

→ While taking Air Sample No. 1, we did note that the bagged asbestos was quite wet, in fact some were actually dripping. This would help considerably to keep the amount of asbestos dust down. In discussing this matter, we found that this plant had received a large shipment of asbestos and it was necessary to store this outside, so that the rains had thoroughly wet this material. If it would be possible to wet down all bagged asbestos before it is opened and mixed, we feel that the dust exposure in the mixing operations would be greatly reduced. We would suggest that this be considered.

→ Air Sample No. 3 shows a dangerously high count. In the operation here, which is the splitting of flat ware on a band saw, the man removing the pieces separates the two pieces and the dust is due to this handling of the ware. The band saw itself does not create too great a problem, as it is equipped with a dust collector which is working quite effectively. We feel that an exhaust system should be installed which will remove this excessive dust from the breathing area of the man. We noted that this operator was not wearing a respirator. Use of a respirator for this operation should be mandatory.

→ Air Sample No. 4 shows a high count also. As in the operation discussed in the above paragraph, the dust is not due to a sanding operation but rather to a handling of the flat ware. The operator in placing the flat ware on the line stirs up considerable dust. The saw collector itself appears to be working effectively. Here again we feel that an exhaust system should be considered for removal of the dust from the breathing level of this man. At the time of this visit, this operator was wearing a respirator and we feel that this is essential for this work.

→ The results of Air Sample No. 5 are approaching the threshold limits. At this point a man turns over the flat ware as it leaves the No. 1 rubber. The rubbers are a sanding operation which smooths off the flat ware. Recently a brush was installed on the No. 1 rubber to remove loose dust from the top surface after sanding. This appears to be quite effective. We did note that there had been an exhaust hookup at the end of the belt of the No. 1 rubber and this was not connected up. If such were connected, we feel that the dust here might be reduced still further. The man working here was using a respirator and we feel that this is a desirable practice.

Air sample No. 6 was taken at the packaging of flat ware. Here two men were placing the flat ware in cartons. Again the dust was due mainly to the handling operation. We would suggest that further studies be made for removing dust from the ware as it comes off the No. 2 rubber. Perhaps additional brushes here could eliminate most of this dust. One man on the line was wearing a respirator. We would like to see both men wearing respirators for this operation.

Our Sample No. 7 was taken at the discharge end of the router where three men were applying a cloth backing to the pipe covering. Our sample here is above the threshold limit, but this high count may be due to the adhesive spray being applied to the pieces. In our counting, we noted that the particles had a tendency to bunch together, which would indicate that the adhesive spray was also scoring on the count. For this reason we are not overly concerned with the results here.

Air Sample No. 9 was taken at tubular mold finishing. This operation is performed by one man who operates two cars. Besides the collectors on the cars, there is also a small exhaust fan in back of the machines. This fan was not running during our test. The operator here was not wearing a respirator. With the exhaust fan in operation, the counts here might be reduced enough so that a man working here would not need to wear a respirator.

Air Sample No. 10 was taken on the No. 2 stripping line. Although the count is only 10.2 million particles per cubic foot of air, we feel that the amount of dust here is greater than shown. We were not able to set up our equipment to get a true sample of the general breathing level of all men working here. There appears to be an excessive amount of dust stirred up when the molds are broken open and the ware removed from same. We were told that consideration has been given to an exhaust system for this operation. We would very much like to see one installed here, but in the meantime we feel respirators should be worn here. None were being used at this time.

In the box car unloading (Air Sample No. 11) the men were handling bags of Nonite. This is a form of free silica. There was considerable dust here due to the type of bag used by the shipper and also due to bags breaking in the car. It would be desirable if arrangements could be made with the suppliers to use a leakproof bag and to stack them in the car so that they would not be broken by the movement of the car. The men here were all wearing respirators and they should be worn at all times for this operation.

We checked on the respirator program at this plant. We find that it does not come up to Owens-Illinois' standards. The men are provided with respirators but they change their own filters. In the mixing department we found a respirator in a carton on a desk in quite a dusty area. The cover was not tight fitting and dust could seep in, contaminating the respirator. We are recommending that the respirator program be reviewed with the purpose of bringing it up to Owens-Illinois standards.

In discussing the x-ray program, we find that production workers exposed to dust are given x-rays once a year and for all other employees once every two years. X-rays are sent to Dr. Trieb at Jerome Lake for interpretation. There has been no reported cases of either silicosis or asbestosis at this plant.

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

J.H.Robinson:ill

J. M. Robinson

OWENS-ILLINOIS
KRAFT DIVISION
KERLIN, N. J.

RECOMMENDATIONS

1. A review should be made of the present respirator program in order to bring it up to Owens-Illinois standards and should include the following:

   A. Two respirators should be provided for each employee exposed to dust so that one respirator can be cleaned, checked and sterilized while the other is being used.

   B. A clean dust-free cabinet should be provided for storage of respirators at some convenient place when not in use.

   C. Someone should be assigned to handle this cleaning on a daily basis - possibly the plant nurse.

   D. Respirators should be worn in all dust producing areas which include take-off at the splitter, charging of flat ware line, unloading box cars, molded stripping, between rubbers on flat ware line, and packaging of flat ware.

2. A study should be made in regard to the possibility of installing exhaust systems in order to remove the excess dust from the operator's breathing zone where flat ware is removed from the splitter, where flat ware is charged on the finishing line, and on the No. 1 and No.2 stripping operations.

3. The section of exhaust should be connected up at the end of the belt on the No. 1 rubber.

4. Would suggest that consideration be given for providing a vacuum cleaning system to eliminate hard broom sweeping and blowing dam of overhead.