

COMMONWEALTH OF PENNSYLVANIA



DEPARTMENT OF HEALTH

THOMAS G. BECHTOLD, JR., M.D.
SECRETARY OF HEALTH

October 25, 1967

Pittsburgh Corning Corporation
Box 37
Port Allegany, Pennsylvania 16743

Attention: Mr. L. O. Griffith
Plant Manager

Gentlemen:

Surveys were conducted on September 19 and 20, 1967 to evaluate asbestos dust exposures to employees manufacturing asbestos pipe insulation and to heat in the Glass Block and Pottsglass plants. Mr. H. J. Baker, personnel manager, accompanied.

Air samples for dust containing asbestos were collected in midget impingers containing distilled water. A standardized light-field microscopic technique was used to count dust. Results indicate that exposures in all areas except Number 2 building machine (24 x 1 inch pipe insulation) are less than the threshold limit value of 5 million particles per cubic foot of air based on an 8-hour daily exposure.

Based on the results of this survey the following recommendations are made:

1. Check building machine number 2 pneumatic conveying and local exhaust ventilation systems to insure proper operation. There is a positive pressure in the building machine enclosure.
2. Check the pressure of the sodium silicate spraying apparatus.
3. Consider lowering the hood located at building machine number 2 to a point where it will effectively control dust. Presently it is located much too high for any control.
4. Proceed with your plans to redesign the sawing area.
5. Turn the convective heater located at the southeast corner of the scrap storage bin so that the air blast is directed away from the bin entrance. This air blast is now disrupting the bin and blender local exhaust ventilation systems.
6. Continue your program of periodic chest x-ray examinations for workers exposed to dust.

PLAINTIFF'S
EXHIBIT
WV-11051

PLAINTIFF'S
EXHIBIT
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To evaluate heat exposures, sling psychrometers were used to measure dry (DB) and wet bulb (WB) temperatures. A black globe thermometer was used to measure radiant heat and Anor Valometers and Valmeter Juniors were used to measure air velocities. All air velocities were measured at the man's position and not in the duct. These measurements and pertinent calculations are included in the attached table.

At the onset of this survey the outside temperature was 77°F with a relative humidity of 48 percent. Measurements were first made in the Glass Block plant. Air temperatures measured in the man cooling ducts were about 10°F hotter than the outside temperature indicating that the ductwork was acting like a furnace. Should the outside air temperature rise above 85°F, the air delivered by the man cooling ducts would impose a heat load on the men rather than cool them. Heat exposures are now considered severe with an outside temperature of 77°F.

Heat Stress Indices of 70 to 90 based on an 8-hour daily exposure are considered conditions that may result in severe heat strain. All employees at operations evaluated except the number 4 press operator, are exposed to situations that can lead to severe heat strain. This is taking into consideration rotation of job and rest periods.

Based on the findings in this survey the following recommendations are made:

Glass Block Plant:

7. Provide evaporative cooling or air conditioning for the man cooling air system.
8. Paint the man cooling duct system with aluminum paint.
9. Install reflective shielding immediately below the man cooling air ducts where it crosses infrared heat sources.
10. Interpose reflective shielding between men and infrared sources. Examples are the molding machines and conveyors. Polished aluminum will reflect about 95 percent of the radiant heat.

Foamglass Plant:

11. Operate evaporative coolers when outdoor temperatures exceed 50°F.
12. Interpose reflective shielding between men and infrared sources.

In Regard to Heat Exposed Personnel:

13. Continue to provide salt tablets and encourage workers to drink water even if not thirsty. Encourage workers to salt food heavily.

12. Provide preplacement and periodic physical examinations. Personnel with circulatory or other physiological deficiencies, such as respiratory infections and digestive disturbances, should not be permitted to remain in occupations requiring excessive heat exposures.

Please let us know within 30 days of the steps taken to comply with the above recommendations and their approximate dates of completion.

Enclosed are our Hygienic Information Guides entitled "Asbestos", "Heat" and Regulation 432, as amended.

Sincerely,



Jan Lieben, M.D., Director
Division of Occupational Health

Enclosures

Copies made for : H.J. BAKER (3)
W.J. BINDER (3)
B.H. STOUT (2)
T.C. BURGERSON

Commonwealth of Pennsylvania
Department of Health
DIVISION OF OCCUPATIONAL HEALTH

Table 2

Dust Concentrations

Pittsburgh Corning Corporation
Port Allegany, Pennsylvania

Location	Dust Concentrations* (millions of particles per cubic foot of air)	Remarks
Asbestos pipe insulation area	2.5	Operator's exposure, builder #1
	18.2	Operator's exposure, builder #2
	1.6	Operator's exposure at take off of 2 1/2 x 1 Unibestos
	1.9	Operator's exposure attending saw
	1.6	General air, ground storage bin area
	3.1 3.5	Operator's exposure at blender

*Threshold limit value for dust containing asbestos:
5 million particles per cubic foot of air based on an 8-hour daily
exposure

Survey by:

Paul A. Gronka
Regional Industrial Hygienist

George J. Tomchick
Industrial Hygienist

PAO/b