Form OC 31-D

OWENS-CORNING
FIBERGLAS CORPORATION

INTRA-COMPANY CORRESPONDENCE

Laboratories · Newark, Ohio

PLAINTIFF'S EXHIBIT 04924.00

Attention of MEMORANDUM FOR RECORD

April 29, 1947

From Mr. C. A. Smucker

Subject INDUSTRIAL HEALTH COMMITTEE

cc: Mr. W. P. Zimmerman - Toledo
Mr. B. E. Boyd - Toledo
Mr. Games Slayter
Mr. D. A. O'Neill - Toledo
Mr. F. R. Coumbe
Mr. E. F. Burow
Mr. M. D. Burch - Huntingdon
Mr. R. H. Donnald - Kansas City
Mr. H. N. Jones - Ashton
Dr. H. A. Campbell
Mr. A. L. Simison
Mr. C. A. Smucker
File

MEMBERS PRESENT
Mr. C. A. Smucker
Dr. H. A. Campbell

MEMBERS ABSENT
Mr. A. L. Simison

The Industrial Health Committee met at Newark, Monday, April 28th to discuss the status of current programs and problems and consider plans for future operations.

This committee was appointed by Mr. B. E. Boyd and is concerned with the evaluation of new materials used in our manufacturing processes.

The committee recommends:

1. That the group be increased from three to five and include a representative from the General Personnel and General Engineering departments. This recommendation was made after discussion with the Industrial Hygiene Foundation of Mellon Institute who cited the experience of other companies whose industrial hygiene program is set up on a similar basis. It is assumed that the Personnel Department representative will be able to better integrate the recommendations of the committee concerned with personnel problems and the General Engineering representative be responsible for the creation of facilities to implement the findings of the committee. It is recommended that the selection of these individuals be made with due consideration for ability and experience along these lines.

2. The committee recommends that an individual be selected to collect and assemble analytical data on specific problems at the direction of the committee. The committee as now constituted, because of other duties and responsibilities, is unable to discharge its assignment without technical assistance. Tentative arrangements have been made to assign Mr. William Kashner of the Works Laboratory to this responsibility. Mr. Kashner is a

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well qualified analytical chemist and it is felt that he will be able to carry out this work satisfactorily. It is believed that for the time being, the arrangements whereby he use the facilities of the Works Laboratory is entirely satisfactory.

3. It is recommended that appropriate funds be made available for the procurement of necessary equipment and supplies to carry on this project. At present, it appears that this will be approximately $1,000 to $1,500 annually.

4. It is recommended that the committee serve as an advisory body until the technologist assigned to collect and assemble information is properly qualified and experienced at which time the committee be dismissed and the responsibility be placed entirely upon him.

The utmost cooperation between various divisions of the company must be obtained in order that this program be successfully prosecuted. It is particularly important that situations requiring the efforts of this group be properly called to the attention of one of its members. The committee desires to have as much time as possible to consider the effects of new materials and processes before they are put into actual operation.

The aims of this committee are:

1. Protect the health of the employees.

2. To consider effect of new materials on the ultimate consumer.

SPECIFIC PROBLEMS CONSIDERED DURING THE PAST FOUR MONTHS

1. Fluoride Exposure in Glass Melting Operations

The Aetna Insurance Company report indicated that our textile glass melting was attended by the evolution of volatile floride materials. The concentration, as measured by the insurance group, was above the threshold recommended for long time exposure. Special Fluoride analysis equipment was obtained by us. In the meantime, the marble operation has been suspended and to date there has been no opportunity to make Fluoride determinations at this location. However, a series of air samples have been collected in the Glass Research and Fiber Forming Laboratories where glass melting operations in a restricted area are continuously in operation. Fluoride concentrations in this area were well below threshold as measured by this equipment. It is planned to resume these determinations in the Marble House as soon as the opportunity is presented.

2. Silica Dust in Batch Mixing Operations

The Aetna Insurance report recommended that attention should be given to silica dust exposure in batch handling operations. The committee feels that current medical programs are adequate to cover this contingency.

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3. Formaldehyde Exposure in Oil House

Certain processes in the Oil House are attended by the presence of excess formaldehyde vapors. This condition will be relieved when:

1. The use of furfuryl alcohol extender is discontinued.

2. Better ventilation facilities are secured in the Oil House. It is understood that this ventilation program is currently underway.

4. Urea-Formaldehyde Wool Binder

Urea-formaldehyde is an interesting material for wool binder because of its color, non-punking, and low cost. It is impossible to use this material without the evolution of considerable quantities of free formaldehyde. It is impossible chemically to cure this condition completely and the only solution of this problem is to provide adequate ventilation between forming hood and curing oven section. Exposure for limited periods to considerable quantities of formaldehyde results in marked irritation to the mucous membranes of the nose and eyes. These effects are only temporary and there is no systemic effect beyond twenty-four to forty-eight hours after exposure. This comment is made since it is highly desirable to make a number of one-half hour or forty-five minute runs to establish product properties before expensive engineering changes are requested. It is appreciated that the employees reaction to this condition has been quite unfavorable and the only reason to continue short runs of urea-formaldehyde is to establish these product properties.

5. GRS Rubber Latex Wool Binder

GRS latex was used in combination with phenol-formaldehyde as a binder for compression packaging over a period of three or four days. Machine tenders and operators complained of headaches and other anaphlactic reactions. Information was solicited from people in the synthetic rubber business and it was determined that this reaction probably arose from the free styrene or low molecular weight butadiene products left in the rubber latex which can be removed by prior steam distillation. Steam stripped rubber latices will be used for further experimental work. If and when application of this material is resumed it will be observed for recurrence of this condition.

6. Neoprene Rubber Latices for Wool Binder

No effect has been observed from the use of neoprene latex and Flintkote, who are manufacturers of this material, assure us that none should be expected.

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7. Styrene Latex for Wool Binder

Styrene latex obtained from Dow Chemical Company is being considered as an extender for wool binder materials. Experimental runs of this material have been of short duration. No ill effects have been observed. This material is known to contain of the order of 0.25-0.5% styrene which is held quite tenaciously by the styrene polymer. Careful observation will be made for employee reactions during the initial extended runs of this material.

8. Asbestos Dust Exposure in Insulating Cement Operation

Asbestos dust samples were collected with a "Konimeter" and it was determined that dust exposures were near the threshold for continued exposure over long periods of time. Impinger equipment is being assembled for further study of this potential hazard. Present exposures indicated no particular danger unless it is continued for five years or longer. Chest studies will be made of employees in this department when company x-ray equipment is installed, which will probably be sometime around July 1st.

9. Pipe Wrap Bonded Mat

A new specification consisting of Hycar Latex and phenolic resin is being used in bonded mat manufacturing. No deleterious effects are anticipated from this program.

10. Styrene Bonded Battery Retainer Mats

A specification consisting of styrene latex for manufacture of battery retainer mats has been written. No health problems are anticipated in this program.

11. Pipe Shield Operations

The management had considered the possibility of manufacturing a pipe shield product consisting of bonded mat impregnated with petroleum asphalt and/or coal tar pitch. Coal tar pitches are known to be severe carcigenic agents. This operation has been discontinued as a plant operating process and the problem has ceased to be of concern to this committee. This product will probably be manufactured by one of our customers but the committee does not feel any responsibility for the customers' operation.

12. Continuous Filament Binder for T-36 Products

A new binder consisting of polyvinyl acetate emulsion and Graselli G-1050M is used for this product. The polyvinyl acetate resin is the same material used as a chewing gum base and the G-1050 M is a chrome derivative (chromium valence 3) which is essentially of the same order of toxicity as an iron salt.

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Inasmuch as there is no vegetable oil in this binder, it has been recommended that the operators use a lanolin base cream to protect the skin from excessive de-fatting. The Pureco, which is an ingredient in standard 630 binder, serves this purpose and probably protects the operators from excessive skin de-fatting and resulting skin irritation. It is recommended that this process be observed for some time before final judgment is passed on the effect of these materials.

13. Silicone Sized Textiles

Silicone resins have been applied experimentally at textile forming for the preparation of molding materials for Navy applications. These specifications are still in the tentative stage and proper consideration will be given to the choice of materials which will result in the minimum of employee health problems.

14. Special Exposures - Product Laboratory

Certain special operations in the Product Laboratory such as preparation of paint brush bristles, T-36 mat, fabric coating and treating are being observed for possible employee reaction. It is anticapted that some of these may ultimately be transferred to factory supervision. This transfer should be accompanied by proper recommendation to safeguard employee health.

15. Sulphur Dioxide from Power Plant

The use of low grade high sulphur containing coal plus the high rate of coal consumption results in the evolution of considerable sulphur dioxide The Aetna Insurance report indicates that this may be in part responsible for the deleterious effect on vegetation in the area surrounding the plant. It is planned to collect additional air samples and evaluate the exact extent of this contamination. The only real remedy lies in the procurement of coal with lower sulphur content.

CONCLUSIONS

The committee has designated Mr. A. R. Morrison, of the Chemistry Laboratory, (formerly employed by the Industrial Health Division of the Ohio Department of Health) to procure, assemble, and test air sample equipment. When completed this will include all necessary items for collecting dust, fumes, gases and vapors incident to our manufacturing operations. This will then be turned over to Mr. Kashner with proper instruction for its use. The committee will prepare a docket for Mr. Kashner including the evaluation of enviornmental conditions in order of importance. The committee will maintain contact with the Purchasing Department on inventories on chemical raw materials so that unsuspected items may not be overlooked.

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CONCLUSIONS CONT'D

In addition to Mr. Kashner's work in analyzing all samples, it is planned to have him, in cooperation with the Medical Department Technician, make blood, urine, and serological determinations on employees.

The committee as individuals have visited the Huntingdon, Ashton and Kansas City plants and have requested the plant managers and personnel departments to call to their attention any conditions which should receive their consideration.

It is planned that the committee meet every two weeks.

C A Smucker

H. A. Campbell M. D.

A L Simison

C. A. Smucker
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