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FIBERGLAS | INTRA-COMPANY CORRESPONDENCE

To J. M. Briley

From Jon L. Konren, M.D.

Subject MEDICAL SERVICES DEPARTMENT - STATUS REPORT

Date March 10, 1969

cc: J. E. Thomas
W. W. Boeschenstein
M. D. Burch

The Medical Director is responsible for supervision of the Corporate medical program. This includes the following activities relating to medical programs:

1. Formulating major Corporate objectives, policies, plans and programs for management's approval.

2. Establishing necessary controls (such as Company standards, systems, procedures and policies) to assure that major Corporate objectives, plans, and programs are carried out.

3. Measuring performance of activity through the media of reports, the review of plans, programs and operations.

4. Provide medical consultation and technical advice relating to:

   a. Employees health and working conditions
   b. Industrial compensation cases
   c. Litigation
   d. Customer complaints
   e. Corporation safety programs

5. Concurring in the selection and change in assignment of medical personnel.

In the performance of these responsibilities, the Medical Director is assisted by F. H. Edwards and C. W. Handel. An Industrial Hygienist will be employed by the Medical Services Department when a capable and qualified candidate becomes available.

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SUMMARY OF ACTIVITIES

I CORPORATE SPONSORED MEDICAL RESEARCH PROGRAMS

These programs are funded by the Corporation and administered by the Medical Services Department.

A. Industrial Hygiene Foundation, Pittsburgh, Pa.

The five research projects listed below are now in varying states of completion at the Foundation.

The combined costs of all of the four on-going studies to Owens-Corning Fiberglas Corp. is $6062 for the years 1968 and 1969 due to the participation of three other manufacturers in these projects.

1. Fibrous Dust Study

An animal intra-tracheal injection study to determine the biologic effects of various fibrous dusts, including fibrous glass and asbestos.

Results demonstrate that fibrous glass, although biologically inert, can elicit a non-specific, foreign body reaction in the lungs which is referred to as a "ferruginous" body or a pseudo-asbestos body. Research to date suggests almost any fibrous material can illicit this reaction.

The intra-tracheal injection phase of this study has been completed and the reports to sponsors are forthcoming.

Another phase of the study in which an analysis was made of 100 sets of human lungs taken at autopsy from Pittsburgh area residents revealed that 25 of these lungs contained ferruginous bodies. The core or nucleus of each of these bodies was examined by electron microscopy and none contained fibrous glass.

2. Fibrous Glass Inhalation Study

The purpose of this study is to determine the biologic effects of the inhalation of large quantities of both coated and uncoated glass fibers into the lungs of laboratory animals.

The inhalation study has been in progress for 15 months and the laboratory exposure phase will been completed in 9 more months.

Indications, to date, are that fibrous glass is biologically inert.

The 1968 & 1969 costs of the study are covered in in paragraph 2, Section A.

3. Emphysema Study

This project is intended to determine whether or not exposure to air-borne fibrous glass will aggravate an existing emphysematous condition in the lungs of laboratory animals.

The study is now in progress after a delay due to a technical flaw. To date, no animals have been sacrificed to determine the effects of exposure. The project will be completed in 12 months.

See paragraph 2 of Section A for cost information.

4. Pulmonary Function Tests

Over 200 employees, selected at random from the Newark plant, received screening pulmonary function tests to determine possible effects on the lungs that could not be revealed by chest x-rays.

Preliminary data demonstrate only aging effects with no effect attributed to exposure to air-borne fibrous glass.

4. Pulmonary Function Tests (continued)

A more detailed pulmonary function testing program is being conducted on a smaller selected group of Newark employees to substantiate the preliminary findings.

The study is expected to be complete by June, 1969.

See paragraph 2 of Section A for cost information.

5. Human Lung Study

As a further documentation of the biologic effects of exposure to fibrous glass upon humans, Dr. Gross of the Foundation has received 13 sets of human lungs obtained at autopsy from former employees of the Newark plant.

The lungs will be subjected to detailed study and analysis to determine: (1) whether glass has caused any lung pathology, and (2) the quantity and size of any glass particles that have entered and remained in the lungs.

Eleven of the thirteen sets of lungs have been examined and found to be without anything remarkable and without specific disease.

Reports will be completed in July, 1969.

See paragraph 2, Section A for cost information.

B. Epidemiologic Survey - U.S.P.H.S.

Under the direction of Dr. Lewis Cralley, the Occupational Health Section of the U.S. Public Health Service, is conducting a study of the health and employment records of former and present employees of fibrous glass manufacturers.

B. Epidemiologic Survey - U.S.P.H.S. (continued)

The purpose of the study is to determine if fibrous glass workers have a greater incidence of premature disability or death than other groups of industrial employees. Particular emphasis is being placed on the study of former employees.

The value of the study is that it will provide data about the health effects of both long and short term exposures to fibrous glass and may negate the argument that our present employees are a selected population.

A preliminary report of the findings will be released in late 1969 or early 1970.

The cost of the study is financed by the U.S.P.H.S.

C. Institute of Industrial Health, University of Michigan - Dr. Carey P. McCord

A study has been made under the direction of Dr. C. P. McCord to evaluate the chest x-rays of our Newark plant employees. This project is a corollary to that carried out by Dr. George W. Wright in 1963 but adds many epidemiological and statistical refinements lacking in Dr. Wright's work. It also brings the record forward by five years thus covering an exposure period of importance in long-term fibrous glass workers.

The study is approximately 90% complete with only supplemental analyses to be added. The final report will be correlated with the industrial hygiene survey of the Newark plant by Mr. George Tubich (see subdivision D).

Final reports are expected before July, 1969.

All major charges for the study have been paid.

D. Industrial Hygiene Survey - Newark Plant - Mr. George Tubich

Mr. George Tubich, Consulting Industrial Hygienist, conducted a limited industrial hygiene survey of the Newark plant to determine the amount of air-borne fibrous glass dust. (This is a corollary project to the study made by the Institute of Industrial Health, University of Michigan.)

This information is needed to validate the in-plant environmental contamination to which Newark employees are exposed. A report of the findings was received in 1968.

Mr. Tubich is also preparing a manuscript for possible publication to be based on this survey. The manuscript is to be completed in the spring of 1969.

Major charges for the survey have been paid.

E. Implantation Studies - N.I.H. - Dr. Merl Stanton

The original purpose of this study was to use fibrous glass as a carrying agent for asbestos. Fibrous glass Aerocor was chosen as the carrier because of its biological inertness.

Animals with the implanted asbestos demonstrated serious pathological changes. Animals with only fibrous glass implants demonstrated no serious change.

The study has been in progress for one year and is expected to continue for another year. These animals with fibrous glass implants who died from natural causes showed no serious abnormalities.

There is no cost to the company other than supplying the fibrous glass.

F. Glass Fiber Erosion from Ducts - Kettering Laboratory

Under the auspices of N.I.M.A., Fiberglas and three other glass duct manufacturers have commissioned Kettering Laboratory to investigate glass fiber erosion and a variety of existing ventilating systems. The current study differs from a similar Kettering study in that it is a field study of systems five years old or older. Only new duct was used in the previous duct study which was conducted under laboratory conditions.

Kettering has investigated one of a total of five test sites and found no fibrous glass in the systems' airstreams.

Estimated completion date July, 1969.

OCP cost $2500.

G. Environmental Studies, University of California - Dr. W. Clark Cooper

Under the auspices of N.I.M.A. the four glass fiber manufacturing companies have requested Dr. Cooper, Institute of Public Health, University of California, to undertake two investigations of environmental conditions that are particularly pertinent to alleged health problems. One study involves the determination of both the quantity and the diameter of glass fibers to be found in the working environments of insulation applicators (asbestos workers). The second study will determine the extent of fiber erosion in actual fibrous glass. All studies will be made at West Coast sites.

The second phase of the study will amplify the work being done by Kettering Laboratory. It has the advantage of being conducted on the West Coast. Dr. Cooper has the respect of Dr. Selikoff and other influential members of the environmental health community.

The study was authorized in February, 1969. Usable information concerning dust spall should be available within 4-6 months. Working environment data will be available in approximately one year.

The cost of both phases of the project to OCP is $8250.

II ENVIRONMENTAL STUDIES

A. Skin Irritations - Dr. E. B. Heisel, Ohio State University

To determine skin irritation levels of Beta, modified Beta and "C" fiber material.

Washing machine studies demonstrated that clothing would be contaminated with glass lint when washed with glass fabrics. These studies demonstrated that irritation could be expected by a significant number of individuals wearing the contaminated clothing if the fiber diameter was greater than 18 MT. Currently studies are being carried out by women wearing nightgowns fabricated from "B" modified "B" and "C" fiber. The preliminary results suggest that Beta diameter fiber can be incorporated in clothing without contributing to irritation.

ECD - May, 1969 Estimated Cost - $5000

B. Basic Studies in Skin Irritation - Dr. Leo J. Miedler & Dr. Jon L. Kocsis

Basic pilot studies have been initiated to more precisely determine the fiber diameter causing adverse skin sensation. This study will require approximately two months to complete. Information from this study will be used to design follow on research into the effect of finishes in causing adverse skin sensation.

ECD - May 15, 1969 Estimated Cost - $10,000

C. Task Force

At the request of Mr. V. Blauvelt a task force has been established to determine what environmental testing of our products should be conducted. As head of this task force, I will define the overall program to determine the projects, responsibilities, priorities of research and financial suppprt. An effective method for accumulation, analysis and handling of product complaints from the general public will be included in the task forces duties.

D. Environmental Control Committee

As an active member of the Environmental Control Committee, the Medical Director works in close cooperation with Mr. S. M. Thomas. Areas of activity are the environmental pollution problems, outside and inside the manufacturing plants at Barrington, Berlin, Huntingdon, Anderson, Santa Clara, Kansas City, and the new Jackson plant. We are working as a team to obtain the necessary hygiene and toxicology consultants, to advise management of the necessary control device and appraise them of pending legislation with regard to the community and the in-plant working environment.

We are currently deeply involved with the health aspects of our plant effluents, especially Santa Clara. Dr. Goldsmith, Health Consultant representing the California Department of Health to the Bay Area Pollution Control District, has indicated from the information supplied him, there is no immediate hazard to health without giving us a "clean bill of health".

III INQUIRIES, COMPLAINTS, LITIGATION & WORKMEN'S COMPENSATION

A. Inquiries

Inquiries involving health effects from exposure to fibrous glass are directed to the Medical Services Department for analysis and resolution. Many such inquiries are received every year and are initiated by Fiberglas representatives, by companies using fibrous glass products, by physicians and by research groups or laboratories.

B. Complaints

Complaints are received from the consumer or through Fiberglas field representatives. The resolution of these complaints often is very time consuming.

Health complaints are categorized as follows:

	No. in 1968
a. Respiratory	43
b. Skin (irritation & alleged dermatoses)	52
c. Itch	37
d. Eye	4
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C. Litigation

The Medical Services Department supplies consultation to the Law Department for pending litigation involving alleged bioeffects of exposure to Fiberglas products.

On occasion it is necessary to enlist the services of an impartial medical consultant to evaluate the physical condition of a claimant.

C. Litigation (continued)

As of December 31, 1968 three court suits are pending against Owens-Corning Fiberglas. One suit alleges disabling asbestosis, a second alleges severe discomfort from air-borne "fly" originating from glass fabrics, and the third alleges development of malignant melanoma and the aggravation of an asthmatic condition from exposure to air-borne particles from a U-THIN-IT filter.

D. Workmen's Compensation Cases

Workmen's Compensation cases can involve all Fiberglas employees.

Although all Workmen's Compensation claims are of interest to this department, each company unit has been directed to notify the department of all claims involving a respiratory complaint. Following analysis, the employing unit is instructed in the handling of each case. By this means precedent-setting claims are contested, payment of false claims reduced and Workmen's Compensation costs are controlled.

During 1968, 23 respiratory claims were filed against the company by employees. Eighteen claims were filed against the S&C units, and five claims were filed against the manufacturing units. In addition there is one claim of "glass-blowers" cataract filed against the Newark plant.

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IV GENERAL PROGRAMS

A. Threshold Limit Value for Fibrous Glass

Dr. Paul Cross, Research Pathologist of I.H.F. is a member of the Threshold Limit Value Committee and is representing the interests of the fibrous glass manufacturers in an attempt to get the current limit on fibrous glass raised to that of an inert dust.

The TLV Committee believes that the current research by Dr. Cross with fibrous glass dusts will prove invaluable to them in establishing a realistic and fair threshold limit value for glass dusts.

Although Dr. Cross is to present current medical data about fibrous glass and its binders to the TLV Committee in mid-March, 1969, it is possible that a final decision on a TLV for glass will be postponed until Dr. Cross has completed his current glass studies. Dr. Cross reports that the Committee Chairman has said that so long as fibrous glass tends to irritate the skin they cannot classify it as an inert dust.

There is no charge to the company for this project.

B. Service to Sales

The Medical Services Departme cooperates with the Sales Divisions to assure the use and applications of fibrous glass products are medically correct. Factual information was supplied to Kimberly-Clark and Stevens-Van Heusen which assisted in a favorable decision to use fibrous glass materials in their product.

C. Safety and Industrial Hygiene

The Medical Services Department cooperates in the Corporate Safety and Industrial Hygiene programs. Meetings have been held with the Aetna representatives; administrative and industrial hygiene personnel, to explain our needs and develop a satisfactory working relationship with them. Periodic Safety and I.H. reports are reviewed and recommendations for correction of poor practices and working conditions are submitted.

D. Trade Organizations

Dr. Kocsen and Mr. Edwards are members of the Health and Safety Committee of N.I.M.A. Other committee members representing fibrous glass producers are: Lee B. Grant, PPG; Cliff Sheckler, Johns-Manville; and Walter Guber, Certainteed-Custin Bacon.

The Medical Director is a member of the Health & Safety Committee for the S.P.I. The purpose of this committee is to identify the potential health hazards of working with reinforced plastics and define safety practices to eliminate these hazards. The results of the committee's studies and recommendations will be extended to the small FRP fabricators via safety pamphlets and manuals.

E. FRP Research

Dr. Marvin Kuschner, New York University, is conducting inhalation studies with FRP material. We have cooperated with him by suggesting firms who could supply the necessary amount of FRP dust of a known composition for use in his studies. Arrangements were made for him to visit the Aiken, Newark and Granville facilities to broaden his knowledge about the manufacture of Fiberglas and the complexities of FRP products. We are not contributing any financial support to Dr. Kuschner's project.

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F. Professional & Community Relations

The Medical Director meets with professional groups in order to supply them with proper and correct factual knowledge of fibrous glass products. These presentations include the possible effects of exposure under defined environmental conditions. Through these talks the professional groups become acquainted with the functions of the Medical Services Department.

The Medical Director has authored a paper, "Health of Fibrous Glass Workers", presented to the Industrial Health Foundation in October, 1968. Invitation has been accepted to talk to the Industrial Hygiene Association of Michigan in April, 1969. In May, 1969 he will present a paper at the Industrial Hygiene Association Annual Meeting in Denver.

The Medical Director plans to increase his contacts and participation in the occupational and environmental medical community. This will provide opportunities to tell the true story regarding the health aspects of fibrous glass materials and diminish the erroneous connotation that our products represent a health hazard.

G. Intra-Company Orientation

It is of advantage for certain areas in the company such as Sales and Purchasing to have accurate information concerning the health effects of fibrous glass products and raw materials. Several meetings were held with department managers and their key personnel.

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V IN-PLANT MEDICAL PROGRAM

An important function of the Medical Services Department is the design and maintenance of an effective in-plant medical program. Activities initiated to implement this program are as follows:

A. Major Medical Equipment

A list of major medical equipment and cost estimates have been developed for each plant and the Technical Center for the proposed in-plant medical program. This basic equipment is required to carry out the necessary pre-employment and periodic physical examinations. This includes the following:

1. Electrocardiograms
2. Pulmonary function
3. Sight screening
4. Audiometric testing
5. X-rays (x-ray examinations are contracted out in all locations except Newark).

ECD - April 1, 1969

B. Survey of Existing Medical Equipment

A survey of the existing in-plant medical equipment has been completed. From the results of this survey, a cost estimate will be prepared for management approval to replace obsolete equipment. This will be a part of the overall recommendation to equip existing and new manufacturing plants with the minimum of medical equipment for an effective in-plant medical program.

ECD - April 1, 1969

C. Monthly Medical Report

In January a Monthly Medical Report was initiated for all manufacturing plants and the technical center. The purpose of this report is to statistically record the the medical personnel, plant population at risk, expense, case load, special information, statistical references, and financial and case load. From this report we will be able to analyze the workload and cost of our various medical centers, be alerted to hazardous working conditions and judge the effectiveness of the medical departments. In those cases where the medical service rate is out of proportion, an analysis can be conducted and corrective action recommended.

ECD - Continuing.

D. Medical Guide

The preparation of a Medical Guide has been initiated. The purpose of this Medical Guide is to establish Corporate standards for the operation of a medical services center. It will include the recommended pre-employment and periodic employee physical examinations for each manufacturing plant, technical center and general offices. Examination procedures and frequencies will be included. An important aspect of the Guide will be direction in handling a wide variety of medical administrative problems.

ECD - May 1, 1969

E. Medical Facilities Layout and Equipment Recommendations

Facility layouts and equipment recommendations have been submitted for the Jackson and Valparaiso plants and the Toledo Fiberglas Tower. The medical department layout and the equipment recommendations for the Fairborn plant will be developed when we receive the criteria of the manufacturing operation. Revised layouts of existing medical departments are being developed.

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F. Selection of Plant Physicians and Nurses

Assistance was provided in the selection of the plant physician and nurse for the Jackson and Valparaiso plants. Candidates are being interviewed for the Toledo Fiberglas Tower.

G. Industrial Hygiene Surveys

Arrangements were made with appropriate industrial hygiene and medical consultants to survey the following manufacturing plants: Berlin, Huntingdon and Anderson. Upon receiving their reports, recommendations were submitted for the correction of hazardous working conditions.

H. Identification of Medical Problem Areas

Visits were made to the Huntingdon and Anderson plants to analyze the cause of severe dermatitis problems. The source of the problem was the use of epoxys and silanes in the textile size formulations. Recommended personal hygiene programs were submitted to ease the employee irritation.

Jim L. Kemp, M.D.

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JLK/ca

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