DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE

February 15, 1967

REFER TO:

Occupational Health Research
and Training Facility
1014 Broadway
Cincinnati, Ohio 45202

Dr. Lee B. Grant
Medical Director
Pittsburgh Plate Glass Company
One Gateway Center
Pittsburgh, Pennsylvania 15222

Dear Dr. Grant:

As Dr. Cralley mentioned in his telephone conversation with you on February 14, 1967, we would like to include the Unibestos Plant of Pittsburgh-Corning, at Tyler, Texas, in our study of occupational health hazards in the asbestos products industry. I would like to summarize the main points of this study as an aid to consideration of our request for your participation.

The Occupational Health Program of the National Center for Urban and Industrial Health, U. S. Public Health Service, has for many years been engaged in research into the origin and control of occupational diseases. This research has most often taken the form of epidemiologic studies in which the worker's health and work environment are measured over a period of time, and levels of various potential hazards in the environment are correlated with worker health so as to yield an estimate of the safe level of exposure to an occupational hazard in a particular industry.

Several years ago various industry groups requested that we conduct such a study in the asbestos products industry. The need for a study to redefine the health problems associated with this known occupational hazard developed from reported observations of an association between lung cancer and asbestos. Since our agency was known as a technically competent impartial research organization we were asked to conduct a study.

Some of the companies who have participated in this study to date are as follows:

Johns-Manville
H. K. Porter
Raybestos-Manhattan

PLAINTIFF'S EXHIBIT WV-11211

PLAINTIFF'S EXHIBIT 9652.0

7

Dr. Lee B. Grant - 2/15/67

Ruberoid
Philip Carey
Certain-Teed
American Brake Shoe

The design of this research project is detailed in the enclosed paper "Study of the Asbestos Products Manufacturing Industry in the United States" by Lewis J. Cralley. The baseline in-plant data development involves the collecting of airborne dust and other samples and the interviewing of all workers using the attached questionnaire. The Tyler, Texas, plant would require about four days for the air sampling phase and about fifteen minutes per worker for the interviews. The medical studies referred to are not being considered at this time and will only involve selected plants as arranged by further discussions.

If Pittsburgh-Corning agrees to participate in our study we would like to commence the survey of the Unibestos plant on March 20, 1967, so as to follow our survey of the National Gypsum plant at New Orleans.

Thank you for your interest and assistance.

Sincerely yours,

Jeremiah R. Lynch
Senior Sanitary Engineer
Engineering Section
Research and Technical
Services Branch

Enclosures (2)

SJ 00354

Study of the Asbestos Products Manufacturing Industry in the United States

Lewis J. Cralley

Division of Occupational Health
Bureau of Disease Prevention and Environmental Control
Public Health Service
Department of Health, Education, and Welfare
Cincinnati, Ohio 45202

The Division of Occupational Health, Public Health Service, has underway an extensive epidemiologic study of the asbestos products manufacturing industry in the United States.

Purpose of Study

The study is designed to (a) obtain information on the health effects of exposure to the major types of asbestos used in the United States (chrysotile, crocidolite, and amosite), (b) develop criteria for safe exposure levels, and (c) establish medical and environmental criteria for surveillance where asbestos is encountered or used.

Scope of Study

Baseline and longitudinal studies will be done on approximately 10,000 workers employed in the following asbestos products manufacturing areas: (a) asbestos textile materials, (b) asbestos insulating materials, (c) asbestos friction materials, and (d) asbestos cement building materials including asbestos cement piping.

Comparative cohorts, approximately 2,500 in each group, will be constructed from each of the four product manufacturing groups on which ongoing in-plant environmental exposure data will be obtained, along with personnel data characterizing each individual in the cohorts. In addition to available retrospective environmental exposure data, similar prospective data

will be added to the cohorts for the duration of the study. Pertinent medical data will be obtained through baseline and follow-up examinations on a substantial group within each cohort for clinical evaluation of the workers during the period of the study.

Individuals in the four cohort groups, including those who may have left the industry, will be followed until appreciable periods of exposure, 25 years and longer, as well as latent periods from time of first exposure have been covered.

Through records of the Bureau of Old Age and Survivor's Insurance, death certificates will be located on those in the cohorts on whom benefit claims have been made. Copies of the death certificates will be obtained from the respective state departments of health, evidence confirming causes of death will be studied, and specific mortality rates established. These data, along with environmental exposure, clinical and other data characterizing individuals in the cohorts, will be studied to establish trends and relationships.

Baseline In-plant Data on Cohorts

The entire in-plant employment of each participating plant will be included in constructing the four cohorts of workers. The following information will be obtained on each individual: (a) identifying information, including date and place of birth, sex, places of residence, and social security number, (b) work history before and since entering the industry, (c) job classification and description, (d) smoking history, and (e) hobbies.

Environmental data will be obtained characterizing in detail the nature and extent of in-plant exposures for each worker included in the study. Special attention will be given to assessing exposures to asbestos fibers, including different parameters of measurements such as total particulate count, fiber count, respirable mass, etc. In addition, other associated exposures such as metals, silica, specific polycyclic aromatic compounds, and radioactivity levels will be assessed.

Medical studies will be made to define the health status and trend in the cohorts throughout the study. The nature and design of these studies will evolve from the recommendations of the medical consultants to the study.

Since the entire in-plant employment of the participating plants will be included in the study, the range of exposure levels will permit those with minimal exposure to serve as an internal control group. Controls will also be drawn from other on-going studies by the Division.

Status of Study

Environmental studies were started during the early part of 1963. To date baseline environmental and personnel data have been collected on over 7,000 workers in the four groups. This phase of the study should be completed by the fall of 1967.

Medical studies on workers in the cohorts are anticipated to start during the latter part of 1967. In the meantime, a panel of roentgenologists is drawing up a scheme for reading the films of asbestos workers. A contract is also underway to design the pulmonary function tests to be used.

Supplemental Studies

Tissue analysis. Selective tissues taken at autopsy are being analyzed for metals from the following categories: (a) individuals dying from lung cancer, with and without known exposures to asbestos; other known exposures to metals will be sought out, (b) individuals dying from mesothelioma, with and without known exposures to asbestos; other known exposures to metals will be sought out, (c) individuals having advanced asbestosis, and (d) controls from the same communities. When ferruginous bodies are found in the tissues, their specific identity will be attempted.

Sources and identity of respirable fibers. A broad scope program is underway to determine the sources and identity of respirable fibers of vegetable, animal and mineral nature, both of natural and synthetic origin from industrial, community and residential sources as well as hobbies and personal activities.

Records study. The mortality rates by cause, of approximately 10,000 workers employed in the asbestos textile, asbestos cement products and asbestos friction material manufacturing industry during 1948-51 and have since died are being defined for comparison with expected rates.

December, 1966

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
DIVISION OF OCCUPATIONAL HEALTH

Budget Bureau No. 68-R466
Approval Expires 3-31-66

STUDY OF ASBESTOS PRODUCTS INDUSTRY

DATE ____________

PLANT NAME ____________

IDENTIFICATION (CARD 1)

PLANT NUMBER	EMPLOYEE NUMBER	SOCIAL SECURITY NUMBER		NAME AND ADDRESS
(1)	(3)	(6)		Last(20) First(35) Middle (44)
DATE OF BIRTH	AGE, LAST BIRTHDAY	SEX	MARITAL STATUS	Number and Street City or Town State
Mo. Da. Yr. (13)	______	M [ ]1. F [ ]2. (18)	Mar. [ ]1. Sep/Div. [ ]3. Wid. [ ]2. Nev.Mar. [ ]4. (19)	CITY OR COUNTY, STATE OF BIRTH (45)

RESIDENCE HISTORY (CARD 1)

(ENTER THE ANSWERS BELOW)

A. Mr. (X), we'd like to get some information about the places you have lived since birth. Now you said that you were born in (City and State). How long did you live there? Then you lived there from about 19XX to 19XX, is that right?

B. Where did you live next? How long did you live there?

INSTRUCTIONS

1. If Rural Residence, enter County & State.
2. Enter only Residence of more than one year.
3. Calculate years of Residence as follows:
   a. If less than 1/2 year, disregard.
   b. If more than 1/2 year, consider as one year.

CITY AND STATE. ENTER COUNTY IF IN RURAL AREA	NUMBER YEARS THIS RESIDENCE	FROM (YR.) TO (YR.)
		BIRTH TO
		TO
		TO
		TO
		TO
		TO
PRESENT ADDRESS AS INDICATED ABOVE		TO PRESENT

FOR HDOS. USE ONLY	Metropolitan Areas	Rural Areas	Urban Areas
RESIDENCE SUMMARY:	(48) ______ Yrs.	(50) ______ Yrs.	(52) ______ Yrs.

OCCUPATIONAL HISTORY (CARD 2)

C. Now we would like to know the various places you have worked and the types of jobs you have done.

NOTE: Enter answers on Page 2, beginning with first job.

(1) For what company or firm did you first work?
(2) In what City and State was that located?
(3) From what year until what year did you work there?
(4) What kind of business or industry was that?
(5) What kind(s) of work did you do?
(6) Did you hold any other jobs (full or part-time) while working for that company? YES [ ] NO [ ] → If yes, repeat Q. C(1) - C(4) and enter data on Occupational History Sheet, EXCLUDING any other job that lasted less than one year. UNDERLINE dates on other job(s) to indicate multiple job(s).
(7) For what company or firm did you next work?
   (Repeat Q. C(1) - C(4) until present job is reached)
(8) What kind(s) of work do you do on your present job at this plant?
(9) What year did you start work here?
(10) Do you presently hold any other jobs? YES [ ] NO [ ] → If yes, repeat Q. C(1) - C(4) and enter data on Occupational History Sheet, EXCLUDING any other job that lasted less than one year. UNDERLINE dates on other job(s) to indicate multiple job(s).

9. Now that we have listed all your jobs, I need to ask you about specific kinds of work even though we may have covered them earlier.

(11) In which of the jobs did you work with or near asbestos?
(12) Have you ever done or worked near spray painting?
   (If yes, ask, "Which job was that?" and record.)
(13) Have you ever operated or worked near power saws, grinders or sanders?
   (If yes, ask, "Which job was that?" and record.)
(14) Have you ever worked in an area where you were heavily exposed to dust, smoke, fumes or gases?

SJ 00359

FHS-5132
9-65

OCCUPATIONAL HISTORY SHEET

(Exclude all jobs of less than one year's duration - Except Present Job)

NAME AND ADDRESS OF BUSINESS OR INDUSTRY (List first job on top line.)	YEARS WORKED From	YEARS WORKED To	KIND OF BUSINESS OR INDUSTRY	KIND(S) OF WORK DONE / Occupation Code	SPECIFIC KINDS OF WORK (Enter No. Years where applicable; dash where never worked.) Asbestos	Welding, Burning	Spray Painting	Power Saws Grinders Sanders	Dust, Smoke, Fumes, Gases
	No. Yrs.				Textile ____ Fric.Mat'l ____ Cement Prod ____ Insulation ____				
	No. Yrs.				Textile ____ Fric.Mat'l ____ Cement Prod ____ Insulation ____				
	No. Yrs.				Textile ____ Fric.Mat'l ____ Cement Prod ____ Insulation ____				
	No. Yrs.				Textile ____ Fric.Mat'l ____ Cement Prod ____ Insulation ____				
	No. Yrs.				Textile ____ Fric.Mat'l ____ Cement Prod ____ Insulation ____				
	No. Yrs.				Textile ____ Fric.Mat'l ____ Cement Prod ____ Insulation ____				
	No. Yrs.				Textile ____ Fric.Mat'l ____ Cement Prod ____ Insulation ____				
THIS PLANT	No. Yrs. (15)	Present		(17)	Textile ____ Fric.Mat'l ____ Cement Prod ____ Insulation ____				
[illegible] Appropriate Number 1. Work this plant only. 2. Held two jobs at present. 3. Held three jobs at present. (26)				TOTAL 1. Textile ____ (38) 2. Fric. Mat'l ____ (40)	3. Cement Prod. ____ (42) 4. Insulation ____ (44)	TOTAL ____ (48)	TOTAL ____ (50)	TOTAL ____ (52)	TOTAL ____ (54)

PHS-T132 (Page 2)
9-65

SJ 00360

LEISURE TIME EXPOSURES (CARD 2)

E. These next few questions are about things you may do in your spare time, away from your job, at home or any other place.

FOR EXAMPLE: (1) In your spare time, do you do anything that exposes you to dust, smoke, fumes or gases such as using spray guns, power saws, grinders or sanders? Yes ☐/1. No ☐/2.

If yes, what is it that you do?_____

(2) What are you exposed to?_____ (56)

(3) In the warm weather, do you do a lot of gardening, just a little, or none at all? A Lot ☐/1. A Little ☐/2. None ☐/3. (57)

If a lot, do you use chemicals, pesticides, weed-killers or sprays in your gardening? Yes ☐/1. No ☐/2. (58)

SMOKING HISTORY (CARD 2)

F. Now I have some questions to ask you about smoking.

(1) Have you ever smoked cigarettes? Yes ☐/1. No ☐/2.

If Yes, do you smoke cigarettes now? Yes ☐/1. No ☐/2. If No, see Q. F(5)bel

(2) About how many cigarettes a day do you usually smoke?_____

(3) For about how many years have you smoked cigarettes?_____

(4) Have you ever smoked more cigarettes a day than you do now? Yes ☐/1. No ☐/2.

If Yes, a. About how many a day?_____
b. For about how many years?_____

(5) Do you inhale -- I mean draw the smoke into your chest? Yes ☐/1. No ☐/2.

(6) When you used to smoke, about how many cigarettes a day did you smoke?_____

(7) For about how many years did you smoke cigarettes?_____

(8) Did you inhale -- I mean draw the smoke into your chest? Yes ☐/1. No ☐/2.

FOR NDOS. USE ONLY	(59)	(60)	(61)	(62)

(9) Have you ever smoked cigars? Yes ☐/1. No ☐/2.

(10) Do you smoke cigars now? Yes ☐/1. No ☐/2.

(11) About how many cigars a day do you usually smoke?_____

(12) For about how many years have you smoked cigars?_____

(13) Have you ever smoked a pipe? Yes ☐/1. No ☐/2.

(14) Do you smoke a pipe now? Yes ☐/1. No ☐/2.

(15) About how many pipefuls of tobacco a day do you usually smoke?_____

(16) For about how many years have you smoked a pipe?_____

(17) Have you ever chewed tobacco? Yes ☐/1. No ☐/2. If No, terminate interview

(18) Do you chew tobacco now? Yes ☐/1. No ☐/3.

(19) If you chew tobacco now,

FOR NDOS. USE ONLY	(63)

a. Do you chew scrap or plug tobacco? Scrap ☐/1. Plug ☐/2.

b. (If scrap), How many bags do you chew a week?_____

c. (If plug), About how many plugs do you chew a week?_____

d. How many years have you chewed tobacco?_____