

NOV - 9 1999



NO. 94-CI-10078

BARON & BUDD

IN RE: ASBESTOS LITIGATION

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§

IN THE DISTRICT COURTS OF
BEXAR COUNTY, TEXAS

VERIFICATION OF DEFENDANTS' OBJECTIONS, ANSWERS AND RESPONSES TO
MASTER INTERROGATORIES AND REQUESTS FOR PRODUCTION OF DOCUMENTS

TO: Plaintiffs in Bexar County, Texas, by and through their attorneys of record, Baron & Budd, A Professional Corporation, The Centrum, 3102 Oak Lawn Avenue, Suite 1100, Dallas, Texas 75219.

COME NOW, Garlock Inc and The Anchor Packing Company, Defendants herein and by and through their counsel of record, file the attached Verifications of their Objections, Answers and Responses to Master Set of Interrogatories and Request For Production of Documents.

Respectfully submitted,

BROWN MCCARROLL & OAKS HARTLINE,
A REGISTERED LIMITED LIABILITY PARTNERSHIP
INCLUDING PROFESSIONAL CORPORATIONS

BY:

A handwritten signature in black ink, appearing to read "Bill D. Fountain".

BILL D. FOUNTAIN
STATE BAR NO. 07300100
ATTORNEY IN CHARGE

T. JOHN WARD
STATE BAR NO. 20848000
WALTER CLAY COOKE
STATE BAR NO. 04759800
MELISSA K. FERRELL
STATE BAR NO. 06937020
1300 Wortham Tower
2727 Allen Parkway
Houston, Texas 77019-2100
Phone: (713) 529-3110
Fax: (713) 525-6295

ATTORNEYS FOR DEFENDANTS GARLOCK INC
AND THE ANCHOR PACKING COMPANY



Certificate of Service

I hereby certify that a true and correct copy of the above and foregoing instrument was sent by certified mail, return receipt requested, to counsel for Plaintiffs and by regular mail to all other counsel of record on the 8th day of November, 1994.

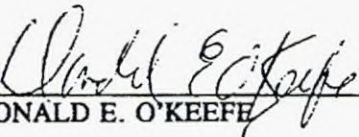
1/10/94 K. K. K.

Mr. Russell W. Budd
BARON & BUDD
3102 Oak Lawn Avenue
Suite 1100
Dallas, Texas 75219-4257

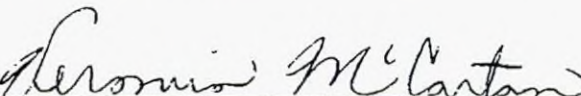
ATTORNEYS FOR PLAINTIFFS

STATE OF NEW YORK
COUNTY OF NEW YORK

I hereby certify that I am authorized to respond to these interrogatories and requests for production on behalf of Garlock Inc in my capacity as Assistant Secretary and that to the extent that I am personally familiar with the information set forth in the answers, I certify that the answers are correct, and to the extent that I am not personally familiar with the information provided in the said answers, I certify that the information is correct to the best of my information and belief based on my investigation of these matters.


DONALD E. O'KEEFE

Sworn to and subscribed before me this
28 day of October, 1994


NOTARY PUBLIC
State of New York

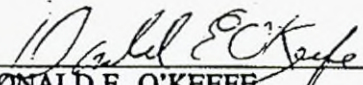
My commission expires _____

VERONICA MCCARTAN
Notary Public, State of New York
No. 31-7794225
Qualified in New York County
Commission Expires Aug. 31, 1996

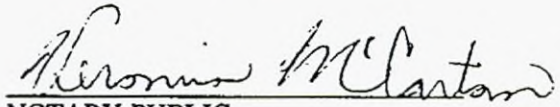
Bexar County, Texas

STATE OF NEW YORK
COUNTY OF NEW YORK

I hereby certify that I am authorized to respond to these interrogatories and requests for production of documents on behalf of The Anchor Packing Company in my capacity as Assistant Secretary and that to the extent that I am personally familiar with the information set forth in the answers, I certify that the answers are correct, and to the extent that I am not personally familiar with the information provided in the said answers, I certify that the information is correct to the best of my information and belief based on my investigation of these matters.


DONALD E. O'KEEFE

Sworn to and subscribed before me this 28 day of October, 1994


NOTARY PUBLIC
State of New York

My commission expires _____

VERONICA McCARTAN
Notary Public, State of New York
No. 31-7794225
Qualified in New York County
Commission Expires: Aug. 31, 1996

RECEIVED

OCT 31 1994

NO. 94-CI-10078

BARON & BUDD

IN RE: ASBESTOS LITIGATION

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IN THE DISTRICT COURTS OF

BEXAR COUNTY, TEXAS

GARLOCK INC'S
ANSWERS TO MASTER INTERROGATORIES AND
REQUESTS FOR PRODUCTION OF DOCUMENTS

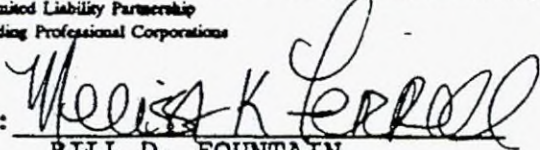
TO: Plaintiffs in Bexar County, Texas, by and through their attorneys of record, Baron & Budd, A Professional Corporation, The Centrum, 3102 Oak Lawn Avenue, Suite 1100, Dallas, Texas 75219.

Pursuant to the Texas Rules of Civil Procedure, Defendant Garlock Inc ("Garlock") answers Interrogatories propounded by Baron & Budd as per the attached.

Respectfully submitted,

BROWN MCCARROLL & OAKS HARTLINE,
A Limited Liability Partnership
Including Professional Corporations

BY:


BILL D. FOUNTAIN
STATE BAR NO. 07300100
ATTORNEY IN CHARGE

T. JOHN WARD
STATE BAR NO. 20848000
WALTER CLAY COOKE
STATE BAR NO. 04759800
MELISSA K. FERRELL
STATE BAR NO. 06937020
1300 Wortham Tower
2727 Allen Parkway
Houston, Texas 77019-2100
Phone: (713) 529-3110
Fax: (713) 525-6295

ATTORNEYS FOR DEFENDANT GARLOCK INC



CERTIFICATE OF SERVICE

This is to certify that a true and correct copy of the above and foregoing has been served on counsel of record this 27th day of October, 1994.

MAURIS K. FARRELL

GENERAL OBJECTIONS

Garlock makes the following general objections to plaintiffs' interrogatories and incorporates each of these objections by reference to every answer provided hereafter.

1. The interrogatories request information going back many years and Garlock has found it difficult, if not impossible, to reconstruct or retrieve much of the information requested. The answers given are based on the present facts known or believed by Garlock at the time of its answer.
2. The interrogatories are overly broad, burdensome, and in places, vague and ambiguous. In addition, the interrogatories are not sufficiently limited in time and use terms which do not refer to products manufactured by Garlock.
3. Garlock does not now manufacture or sell, and has never manufactured or sold, asbestos-containing insulation products as that term is commonly used and understood in this litigation. Therefore, Garlock objects to any interrogatory referring to or assuming that such products are or have been manufactured by Garlock. Garlock presumes that questions referring to insulation products are thus not applicable to Garlock.
4. Garlock does not now manufacture or sell, and has never manufactured or sold, asbestos-containing building products as that term is commonly used and understood in this litigation. Therefore, Garlock objects to any interrogatory referring to or assuming that such products are or have been manufactured by Garlock. Garlock presumes that questions referring to building products are thus not applicable to Garlock.
5. The interrogatories themselves are overly broad in that they tend to group together all of the defendants. There has never been any competent scientific or medical evidence or reason to believe that Garlock products, upon reasonable use, release asbestos fibers in sufficient quantities, if any, to pose a health hazard, potential or otherwise, to persons using said products. Garlock denies that the use of, or exposure to, its asbestos-containing products poses any health hazard. Furthermore, the plaintiff's alleged problems are not related to Garlock products.

INTERROGATORIES

INTERROGATORY NO. 1 :

State the name, address, job title, length of time employed by Defendant, and a year-by-year list of all other positions, titles, or jobs held when working for Defendant of each person who has supplied any information used in answering these interrogatories.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is unduly burdensome, unnecessary and harassing. Subject to and without waiving the foregoing objections, Garlock states that the information used to answer these interrogatories was gathered from answers to interrogatories previously filed in this and other jurisdictions over the last several years and involved obtaining and confirming information from many present and former employees. The names of the individuals who provided information include: Clayton M. Jewett, formerly Manager of Marketing - Gasket Products, Garlock Inc, Reno, Nevada, Roy L. Whittaker, Director, Engineering, Industrial Packing, Garlock Inc, 1666 Division Street, Palmyra, New York 14522 and Richard W. Watson, former Paralegal and Patent Agent, c/o 1666 Division Street, Palmyra, New York 14522.

INTERROGATORY NO. 2:

State whether or not you are a corporation. If so, state your correct corporate name, the state of your incorporation, the address of your principal place of business, the name and address

of the person or entity authorized to accept service of process on your behalf, and whether or not you have ever held a Certificate of Authority to do business in the State of Texas.

ANSWER:

Defendant's legal name is Garlock Inc (no punctuation). Garlock Inc is an Ohio corporation with offices located at 430 Park Avenue, New York, New York 10022 and a principal manufacturing facility and sales office at 1666 Division Street, Palmyra, New York 14522.

CT Corporation System is the entity authorized to accept service of process on behalf of Garlock. Garlock does hold a Certificate of Authority to do business in the State of Texas.

INTERROGATORY NO. 3:

Has Defendant or any of its predecessor or subsidiary companies at any time engaged in the mining and subsequent sale of material containing asbestos fibers? If so, identify the location of the mine(s), the years of its operation, the type of asbestos mined and whether you sold any asbestos to any Defendants in the Dallas County asbestos litigation.

ANSWER:

No.

INTERROGATORY NO. 4:

Identify by name each product containing asbestos fibers that Defendant or any of its predecessor or subsidiary companies at any time manufactured or sold.

ANSWER:

Garlock objects to this interrogatory for the reasons set forth in General Objections Nos. 1 and 2, which are incorporated as if they were fully set out herein, and for the further reason that the only Garlock products at issue in this case are those to which plaintiffs allege to have been exposed. To require Garlock to identify the hundreds of different products it has produced over the years constitutes a request for masses of irrelevant information, is unduly burdensome and beyond the scope of permissible discovery. Notwithstanding and without waiving the foregoing objections, since at least as early as 1907, Garlock has produced and sold encapsulated asbestos-containing gaskets and packing products which do not emit asbestos fibers into the air when in operation. Garlock has not been a manufacturer or seller of asbestos thermal insulation, such as pipe covering, block or cement. The great majority of products which Garlock has manufactured are gaskets and compressed asbestos sheet, packing and other gasket materials. Garlock compressed asbestos sheet is a mixture of asbestos fiber, curing agents, reinforcing fillers and elastomers (natural rubber or synthetic polymers having the elastic qualities of rubber). Other gasket material was made from woven asbestos impregnated and encased in a rubberized coating. Other gaskets have had asbestos encased by layers of metal or encapsulated within a P.T.F.E. (polytetrafluoroethylene) resin envelope. Manufacture and sale of such other gasket products has been

discontinued, mostly during the decade of the 1980's. Garlock once manufactured and sold, but has now discontinued, asbestos packing encapsulated in either elastomeric compound or metal foils and/or impregnated with lubricants. Garlock believes its last such packing sale was in approximately 1982.

INTERROGATORY NO. 5:

Identify by name each product containing asbestos fibers that Defendant or any of its predecessor or subsidiary companies at any time marketed or sold.

ANSWER:

See Answer to Interrogatory No. 4.

INTERROGATORY NO. 6:

If the answer to one or more of the last three interrogatories is in the affirmative or lists any products, state as to each named product the following:

- A. As to each product, state whether such product was mined, manufactured, marketed, and/or sold.
- B. The names of the companies mining, manufacturing, marketing, and/or selling each product mined, manufactured, marketed, and/or sold.
- C. The trade or brand name of each of those products mined, manufactured, marketed and/or sold.
- D. The date each of the named products was placed on the market.

- E. A description of the physical (chemical) composition of each of the named products, including the type of asbestos contained in the product and the percentage of asbestos put in each product.
- F. The date each of the products was removed from the market and no longer sold or distributed and the reason or reasons therefor.
- G. The date asbestos was removed from such products, if ever, and the reasons therefor.
- H. A description of the physical appearance of each of the named products.
- I. A detailed description of the intended uses of the named products.
- J. Identify the last year that you sold each asbestos-containing product.

ANSWER:

Garlock objects to this interrogatory for the reasons set forth in General Objections Nos. 1 and 2, which are incorporated as if they were fully set out herein, and for the further reason that the only Garlock products at issue in this case are those to which plaintiffs allege to have been exposed. To require Garlock to identify the hundreds of different products it has produced over the years constitutes a request for masses of irrelevant information, is unduly burdensome and beyond the scope of permissible discovery. Garlock further objects to this interrogatory to the extent it calls for production of proprietary information. Garlock will

produce this information if a proper protective order is entered by this Court. Notwithstanding and without waiving the foregoing objections, Garlock states that it has and does make a wide variety of products, many of which have contained asbestos and many of which have contained no asbestos. Among the specific products which Garlock has and does manufacture are asbestos gasket and asbestos sheet (from which the purchaser cuts gaskets). Garlock asbestos sheet is a mixture of asbestos fibers, curing agents, reinforcing fillers and elastomers (natural rubber or synthetic polymers having the elastic qualities of rubber). Asbestos fibers are machine blended with the rest of the mixture until they are thoroughly coated. The entire compound is then heated and rolled into sheets and is continually compressed to form a tough, impermeable, homogeneous material that looks like linoleum. Other gasket materials were made from woven, long fiber, asbestos yarn impregnated and encased in a rubberized coating. Other gaskets have had asbestos encased by layers of metal or encapsulated with a P.T.F.E. (polytetrafluoroethylene) resin envelope. Garlock asbestos packing materials consisted of woven asbestos encapsulated in either elastomeric compounds or metal foils and/or impregnated with lubricants. Garlock gasket materials are primarily used for static sealing of steam line flanges, cylinder heads of engines, compressors and refrigeration equipment, fluid conduits, etc. Garlock packing materials are primarily used for dynamic sealing of machinery.

Finished compressed asbestos sheet is either cut into gaskets by Garlock or sold for use by others in cutting gaskets. Garlock's flexible and durable gasketing material is handled, installed and removed in all intended applications without releasing meaningful quantities, if any, of asbestos fibers into the air. Garlock's compressed asbestos sheets and gaskets are treated with an anti-stick releasing agent which reduces any tendency of the gaskets to adhere to pipe flanges during removal and replacement. This anti-stick agent facilitates the removal of old gaskets without generating dust. Other Garlock products come in specific sizes for application and do not generally require modification before or during application or use. Garlock states that from 95% to 98% of its asbestos-containing products have been made only with chrysotile asbestos fibers and that the remaining 2% to 5% of such products were made with crocidolite asbestos fiber. Depending upon the type of product involved, the percentage of asbestos contained in these products has ranged from about 10% to about 85%.

This Defendant has never mined, supplied, distributed, marketed and/or sold raw asbestos fibers to others.

INTERROGATORY NO. 7:

Do any documents, including but not limited to written memoranda, specifications, recommendations, blueprints, or other written materials of any kind or character, relating to the design,

preparation, or introduction into the market of the products listed in Interrogatory No. 6 still exist? If so, state:

- A. A description of each such document.
- B. The name, address, and job title of each person who currently has possession of each document, and where the documents are currently located.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, oppressive and not reasonably calculated to lead to the discovery of admissible evidence and for the further reason that the only products at issue in this case are those to which plaintiff alleges to have been exposed. Notwithstanding and without waiving the foregoing objections, Garlock states that the design and/or development of new products and the improvement of existing Garlock products has been the responsibility of the technical staff involved in each particular project. All relevant, discoverable documents are available for inspection and copying at Garlock's offices: 1666 Division Street, Palmyra, New York 14522.

INTERROGATORY NO. 8:

Before distributing, selling, or placing the products listed in your response to Interrogatory Nos. 3-6 into the streams of commerce, were any tests conducted to determine potential health hazards involved in the use of, or exposure to, the materials such

as asbestos, contained in those products? If the answer is affirmative, state:

- A. The names of the products tested and the date of each test.
- B. The name, address, and job title of each person conducting the tests or involved with conducting the tests.
- C. The results of the tests.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and for the further reason that it presupposes that the asbestos-containing products of Garlock emit dust at levels harmful to the human body.

Notwithstanding and without waiving the foregoing objections, Garlock states that it is unaware of any investigations, tests, examinations or experiments concerning the asbestos-containing products of Garlock and any effect thereof on the human body.

INTERROGATORY NO. 9:

Do any documents, including but not limited to written memoranda, specifications, recommendations, blueprints, or other written materials of any kind or character, relating to the testing of the products referred to in Interrogatory No. 6 now exist? If so, state:

- A. A description of each such document.

- B. The name, address, and job title of each person who currently has possession of each document, and where it is presently located.

ANSWER:

Garlock objects to the extent this Interrogatory seeks information which is neither relevant nor likely to lead to the discovery of relevant evidence. The only products relevant are the ones the Plaintiffs are claiming exposure to. Garlock also objects to the interrogatory as overly broad and vague. Subject to and without waiving any of the foregoing objections, see Answers to Interrogatories Nos. 8 and 56.

INTERROGATORY NO. 10:

Did Defendant or any of its predecessor or subsidiary companies make any design changes or modifications as a result of those tests described in responses to Interrogatory No. 8? If the answer is affirmative, state:

- A. The trade names of the products changed.
- B. The nature of the changes made and the date of such changes or modifications.
- C. The name, address, and job title of each person responsible for having caused a change to be made, or having made a change or modification.

ANSWER:

Not Applicable. See Answer to Interrogatory No. 8.

INTERROGATORY NO. 11:

After releasing the products listed in Interrogatory No. 6 to the public, were any tests conducted on them to determine potential health hazards resulting from the use of or exposure to the materials, such as asbestos, contained in those products? If the answer is affirmative, state:

- A. The names of the products tested and the dates of such tests.
- B. The name, address, and job title of each person who conducted those tests.
- C. The results of those tests.
- D. Whether, as a result of the tests, any products were removed from the market.
- E. The names of all products removed from the market as a result of these tests.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and for the further reason that it presupposes that the asbestos-containing products of Garlock emit dust at levels harmful to the human body. Notwithstanding and without waiving the foregoing objections, Garlock states that it is unaware of any investigations, tests, examinations or experiments concerning the asbestos-containing products of Garlock and any effect thereof on the human body.

INTERROGATORY NO. 12:

Do any documents, including written memoranda, specifications, recommendations, blueprints, or other written materials of any kind or character, relating to the potential health hazards of the products listed in Interrogatory No. 6 now exist? If so, state:

- A. The name of each product.
- B. A description of each document and how it relates to each product.
- C. The name, address, and job title of each person who currently has possession of each document, and where it is presently located.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and for the further reason that it presupposes that the asbestos-containing products of Garlock emit dust at levels harmful to the human body. Notwithstanding and without waiving the foregoing objections, Garlock states that it is unaware of any investigations, tests, examinations or experiments concerning the asbestos-containing products of Garlock and any effect thereof on the human body.

INTERROGATORY NO. 13:

Did Defendant or any of its subsidiary companies make any design changes as a result of the tests discussed in your response to Interrogatories No. 8 or 11? If the answer is affirmative, state:

- A. The names of the products changed or modified.
- B. The name, address, and job title of each person responsible for having made a change or modification.
- C. The nature of the hazard or defect which resulted in such change or modification.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and for the further reason that it presupposes that the asbestos-containing products of Garlock emit dust at levels harmful to the human body. Notwithstanding and without waiving the foregoing objections, Garlock states that it is unaware of any investigations, tests, examinations or experiments concerning the asbestos-containing products of Garlock and any effect thereof on the human body.

INTERROGATORY NO. 14:

Has Defendant or any of its predecessor or subsidiary companies at any time published or distributed any printed material, including brochures, pamphlets, catalogs, packaging or other written material or any kind or character containing any warnings concerning the possibility of injury resulting from the use of the asbestos-containing products listed in Interrogatory No. 6? If so, state:

- A. The names of each relevant product.
- B. The exact wording of each warning statement on each printed material.

- C. A description of the printed material other than the warning statement.
- D. The method used to distribute the warning to persons likely to use the product.
- E. The date each warning was first issued, distributed, or placed on packaging.
- F. The name, address, and job title of each person responsible for having drafted or issued the warning.
- G. The current location of any such printed material and the custodian thereof.
- H. The form in which such literature or printed material can be accessed, i.e., the manner in which such literature is indexed or stored.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and assumes the truth of matters in dispute in this litigation, specifically that there are dangers associated with the use of Garlock products. Notwithstanding and without waiving the foregoing objections, Garlock states that there has never been any competent scientific or medical evidence or reason to believe that its asbestos-containing products, upon reasonable use, release asbestos fibers in sufficient quantities, if any, to pose a health hazard, potential or otherwise, to persons using such products. Garlock denies that use of, or exposure to, its asbestos-containing products poses any health hazard, or any significant possibility of inhalation of asbestos fibers. The

asbestos fibers in Garlock products are encapsulated or otherwise retained, and, therefore, fall within the exception provided in the OSHA regulations requiring warnings on asbestos products and materials. Nevertheless, Garlock places the warning set forth in section 1910.1001, paragraph 2(ii) of the OSHA regulations on its asbestos-containing products. The name of the person who formulated this warning is not known. The warning reads: "CAUTION: Contains Asbestos fibers. Avoid creating dust. Breathing Asbestos dust may cause serious bodily harm." This warning has been present on all Garlock asbestos-containing products and/or the product packaging since late 1977. A similar warning notice has been contained in product literature published since 1977 that describes one or more asbestos-containing products.

See attached Exhibit "A". All relevant discoverable printed material is available for inspection and copying at Plaintiffs expense at Garlock's offices: 1666 Division Street, Palmyra, New York 14522.

INTERROGATORY NO. 15:

Before 1970, had you received notice that any individual or individuals, other than those Plaintiffs who have filed personal injury actions in Dallas County, Texas, is or are claiming or has or have claimed an injury as a result of using asbestos products manufactured and/or sold by your company or any of its predecessors or subsidiaries before 1970? If so, state:

A. The name and address of each claimant.

- B. The date of notice of each claim.
- C. A description of the claim.
- D. The type of injuries allegedly sustained.
- E. The name and address of each attorney who represents each individual making a claim.
- F. The style and court number of each claim.
- G. The disposition of each claim that has been settled or taken to judgment.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and that the information sought is irrelevant in this case and is not reasonably calculated to lead to the discovery of admissible evidence. Without waiving the foregoing objections, Garlock states that it had no such personal injury claims alleging asbestos-related disease or injury based on product handling or use before 1970.

INTERROGATORY NO. 16:

Were your asbestos products distributed, marketed, packaged, labeled and/or sold by companies other than your own? If the answer is affirmative, list the names and addresses of each of those companies, and the products in question.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, does not call for relevant evidence and is not calculated to lead to the discovery of

admissible evidence and the further reason that the only garlock products at issue in this case are those to which plaintiff alleges to have been exposed. Notwithstanding and without waiving the foregoing objections, Garlock states that most of its product sales were on a direct basis until the mid-1960's. At that time, the decision was made to utilize distributors for sales to maintenance and repair customers and after a conversion period of several years, the majority of Garlock product sales were made through distributors. Garlock has continued to sell directly to original equipment manufacturers who use Garlock products in making their products.

A listing of Garlock distributors in Texas is attached as Exhibit "B".

Garlock does not have records of its direct sales prior to the utilization of distributors nor of sales by its distributors to specific customers.

INTERROGATORY NO. 17:

Did you or any of your predecessors, successors, or subsidiaries have any distributors or sales representatives of asbestos products in the States of Alabama, Florida, Mississippi, Oregon, Washington, Georgia, Tennessee, Texas, and Virginia? If so, state:

- A. The name and address of each such distributor or sales representatives.

- B. The years in which such company or person distributed, marketed, or sold your products.
- C. What products were distributed, marketed, or sold and in what years.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, does not call for relevant evidence and is not calculated to lead to the discovery of admissible evidence and the further reason that the only Garlock products at issue in this case are those to which plaintiff alleges to have been exposed. Garlock further objects to this request, with respect to its reference to the States of Alabama, Florida, Mississippi, Oregon, Washington, Georgia, Tennessee and Virginia, on the grounds that it is overly broad, unduly burdensome, irrelevant to any issue in this case and not reasonably calculated to lead to the discovery of admissible evidence. With respect to its reference to Texas, Garlock also objects on the grounds that it is overly broad, unduly burdensome, irrelevant to any issue in this case and not reasonably calculated to lead to the discovery of admissible evidence. Notwithstanding and without waiving the foregoing objections, Garlock states that it did have sales representatives responsible for different portions of Texas (see Exhibit "B", and answer to Interrogatory No. 16). Upon receipt of specific information from the plaintiffs as to the time periods and specific locations at issue,

Garlock will attempt to review available records in order to provide a more specific response. Discovery is continuing.

INTERROGATORY NO. 18:

List each employee (including only physicians and/or hygienists) who has acted in a medical advisory capacity to your company at any time during the past 40 years, including, but not limited to, physicians and industrial hygienists, and the current address, telephone number and job title of each of those individuals and who has, had or may have had any knowledge regarding the hazards of asbestos.

ANSWER:

Garlock has not employed, retained or otherwise engaged physicians, industrial hygienists or others to conduct medical research. Garlock has had six part-time plant physicians since 1920. They are as follows:

<u>Name</u>	<u>Dates of Service</u>
Dr. C. C. Nesbitt (deceased)	8/30/20 - 8/ 1/56
Dr. J. D. Bramer (deceased)	8/ 1/56 - 7/24/72
Dr. K. K. Kapur 1269 Pittsford Palmyra Road Macedon, New York 14502	10/23/72 - 8/14/79
Dr. William G. Fallon 602 7th Street Liverpool, New York 13088	10/31/79 - 3/ 1/88
Dr. B. Maureen Merritt P. O. Box 477 Celoron, New York 14720	9/15/88 - 8/28/90

Dr. Tillman F. Farley 10/9/90 to Present
Garlock Inc
1666 Division Street
Palmyra, New York 14522

All of these physicians served on a part-time basis and were at Garlock primarily for incoming employee physicals, treatment of minor injuries, etc. Any existing records, reports or memoranda written by any of these physicians and pertaining to Garlock are in the hospital records which are all maintained by patient name at Garlock.

INTERROGATORY NO. 19:

Does Defendant have in its possession any books, pamphlets, memoranda, or written materials of any kind or character that would indicate that asbestos fibers, when inhaled, can be hazardous to the health of human beings? If so, state:

- A. The name of each such publication.
- B. The date of publication and the names of the author and publisher (if any).
- C. The date received by Defendant, if known.
- D. The name, job title, and address of each person who currently has possession of each publication and its present location.

ANSWER:

Garlock objects to this request on the grounds that it is overly broad, unduly burdensome and seeks information which is irrelevant in this case and not reasonably calculated to lead to discovery of admissible evidence. Subject to and without

waiving the foregoing objections, Garlock states that it may have obtained documents responsive to this request throughout the course of asbestos litigation but these documents are irrelevant since they do not relate to this Defendant's knowledge.

INTERROGATORY NO. 20:

Has Defendant or any of its subsidiary or predecessor companies at any time been a member of any trade organization or association that published or disseminated any documents or information relating to the hazards of asbestos comprised of other manufacturers, miners, marketers, and/or sellers of asbestos products? If so, state:

- A. The name and address of each such association or organization.
- B. The dates during which Defendant or any of its subsidiaries or predecessors were members.
- C. The names and dates of any publications, minutes, or reports published, written, or disseminated by any of the named associations or organizations.
- D. Whether any of those publications are still in your possession, and if so:
 - 1. A description of the publications, including the date.
 - 2. The current location of such publications.
 - 3. The custodian of such publications.

4. The method or manner in which such publications are maintained.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad. Notwithstanding and without waiving the foregoing objection, Garlock states that it has been a member of five organizations which may have dealt with asbestos-containing products:

1. The Fluid Sealing Association (formerly Mechanical Packing Association) (member from 1933 to present).
2. Asbestos Textile Institute, Inc. (member from approximately 1966 to 1979 - Garlock acknowledges that a review of ATI minutes discloses an earlier membership period during the 1940's, but Garlock has no independent record or information as to such period.)
3. Asbestos Information Association of North America (member from approximately 1974 to 1980).
4. American Society for Testing and Materials (member from 1945 to present).
5. National Safety Council (member from 1922 to present).

Subject to and without waiving the foregoing objections, Garlock states that it may have obtained documents responsive to this request throughout the course of asbestos litigation but these documents are irrelevant since they do not relate to this Defendant's knowledge.

INTERROGATORY NO. 21:

Identify by name and location each plant or manufacturing facility in which the products listed in your answers to

Interrogatory Nos. 3-6 were manufactured, assembled, or prepared for sale or marketing, specifying which plants produced each item, the dates each plant is or was in operation, and the time span during which each named item was produced or manufactured..

ANSWER:

Garlock objects to this interrogatory on the grounds that the information sought is irrelevant in this case and is not reasonably calculated to lead to discovery of admissible evidence. The plaintiff has never been a Garlock employee and does not allege ever visiting any Garlock facility. The only relevant issues in this action pertain to finished asbestos-containing products after they have left the Garlock facilities. Notwithstanding and without waiving the foregoing objections, Garlock states that it has a principal manufacturing facility and sales office located at 1666 Division Street, Palmyra, New York 14522.

INTERROGATORY NO. 22:

Have printed sales materials been prepared by Defendant or any of its subsidiary or predecessor companies or their agents for purposes of marketing or advertising products containing asbestos?

If so, state:

ANSWER:

Garlock objects to this interrogatory as being overly broad, unduly burdensome, not properly limited as to time and not reasonably calculated to lead to the discovery of admissible evidence. Notwithstanding and without waiving the foregoing

objections, Garlock states that over the years it has prepared hundreds of writings, instruction sheets, brochures and the like regarding its products. The majority of said writings have long since been discarded. All existing writings (several file cabinets full) are available for inspection and copying at plaintiff's expense at Garlock Inc, 1666 Division Street, Palmyra, New York 14522.

INTERROGATORY NO. 23:

Have any written or printed materials or instructions of any kind or character been prepared by Defendant or any of its subsidiary or predecessor companies or their agents indicating how asbestos products should be used and maintained? If so, state:

- A. The name, address, and job title of each person who prepared such materials or instructions or assisted in their preparation.
- B. The name, address and job title of each person who currently has possession of such materials or instructions and their present location.
- C. The dates of distribution or use and the manner in which such materials or instructions were distributed to purchasers of Defendant's products or those of its subsidiaries or predecessors.
- D. The year each such written material or instruction was prepared and disclosed to potential consumers.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, not properly limited as to time and for the further reason that the only Garlock products at issue in this case are those to which plaintiff alleges to have been exposed. Notwithstanding and without waiving the foregoing objections, Garlock states that it has continually provided its customers with instructions as to the proper handling, installation and use of its products. Such instructions have been in various forms, including instruction sheets, advertising literature and user seminars.

INTERROGATORY NO. 24:

Does Defendant have insurance policies that might cover the claims made by Plaintiffs in these cases? If so, list the name of each insurance carrier, the amount of initial coverage, amount of coverage remaining at the present time, and the effective dates of each policy. (If properly answered, this Interrogatory need not be supplemented as to the remaining amount of coverage).

ANSWER:

Product liability insurance coverage for Garlock has been available under various policies, including the following primary policies:

<u>Carrier</u>	<u>Year</u>
Travelers Insurance Company	1951 - 1961
Employers Mutual of Wausau	1961 - 1976
Aetna Life and Casualty Company	1975 - 1986

The full amount of coverage available under such policies is subject to differing views between the insured and the insurers.

INTERROGATORY NO. 25:

As to the disease asbestosis, state:

- A. The date on which Defendant or its subsidiary or predecessor first learned that such disease was caused by inhalation of asbestos fibers by humans.
- B. How Defendant became aware of the existence of the disease.
- C. Who within the company first discovered, recognized or understood the adverse consequences or effects of the disease and/or of asbestos exposure.
- D. What information was disseminated within Defendant's company or its subsidiary or predecessor regarding such adverse consequences or effects.
- E. Whether any such information is still maintained by Defendant or its subsidiary or predecessor in any written form.
- F. Who is the custodian of such information.

G. The date on which you first received knowledge or information that asbestosis was caused by inhalation of asbestos fibers.

ANSWER:

Garlock objects to this interrogatory on the grounds that it calls for an expert medical opinion which Garlock is not qualified to give. Notwithstanding and without waiving the foregoing objection, some Garlock personnel have been aware for a number of years that excessive exposure to asbestos dust may be hazardous to one's health. Garlock is unable to pinpoint when or how such personnel first became aware of the possible health hazard. However, there has never been any competent scientific or medical evidence or reason to believe that Garlock products, through normal use, have caused or contributed to any hazardous condition, potential or otherwise, since they are bonded and/or encapsulated.

INTERROGATORY NO. 26:

As to the disease lung cancer, state:

- A. The date on which Defendant or its subsidiary or predecessor first learned that such disease was caused by inhalation of asbestos fibers by humans.
- B. How Defendant or its subsidiary or predecessor became aware of the disease and its relationship to asbestos exposure.

- C. Who within the company or its subsidiary or predecessor first discovered or recognized the adverse consequences or effects of asbestos exposure.
- D. What information was disseminated within Defendant's company or its subsidiary or predecessor regarding such adverse consequences or effects.
- E. Whether any such information is still maintained by Defendants or its subsidiaries or predecessors in a written form.
- F. Who is the custodian of such information.
- G. The date on which you first received knowledge or information that lung cancer was caused by inhalation of asbestos dust and fibers.

ANSWER:

Garlock objects to this interrogatory on the grounds that it calls for an expert medical opinion which Garlock is not qualified to give. Notwithstanding and without waiving the foregoing objection, some Garlock personnel have been aware for a number of years that excessive exposure to asbestos dust may be hazardous to one's health. Garlock is unable to pinpoint when or how such personnel first became aware of the possible health hazard. However, there has never been any competent scientific or medical evidence or reason to believe that Garlock products, through normal use, have caused or contributed to any hazardous condition, potential or otherwise, since they are bonded and/or encapsulated.

INTERROGATORY NO. 27:

As to pleural disease, pleural thickening or pleural plaques, state:

- A. The date on which Defendant or its subsidiary or predecessor learned such disease was caused by inhalation of asbestos fibers by humans.
- B. How Defendant or its subsidiary or predecessor became aware of the disease and that it was caused by exposure to asbestos.
- C. Who within the company or its subsidiary or predecessor first discovered or recognized the adverse consequences or effects of asbestos exposure.
- D. What information was disseminated within Defendant's company or its subsidiary or predecessor regarding such adverse consequences or effects.
- E. Whether any such information is still maintained by Defendant or its subsidiary or predecessor in a written form.
- F. Who is the custodian of such information.

ANSWER:

Garlock objects to this interrogatory on the grounds that it calls for an expert medical opinion which Garlock is not qualified to give. Notwithstanding and without waiving the foregoing objection, some Garlock personnel have been aware for a number of years that excessive exposure to asbestos dust may be hazardous to one's health. Garlock is unable to pinpoint when or how such personnel first became aware of the

possible health hazard. However, there has never been any competent scientific or medical evidence or reason to believe that Garlock products, through normal use, have caused or contributed to any hazardous condition, potential or otherwise, since they are bonded and/or encapsulated.

INTERROGATORY NO. 28:

As to the disease mesothelioma, state:

- A. The date on which Defendant or its subsidiary or predecessor first learned such disease was caused by inhalation of asbestos fibers by humans.
- B. The date on which Defendant first suspected that mesothelioma was caused by inhalation of asbestos dust and fibers by humans.
- C. How Defendant or its subsidiary or predecessor became aware of the disease and that it was caused by exposure to asbestos.
- D. Who within the company or its subsidiary or predecessor first discovered or recognized the adverse consequences or effects of asbestos exposure.
- E. What information was disseminated within Defendant's company or its subsidiary or predecessor regarding such adverse consequences or effects.
- F. Whether any such information is still maintained by Defendant or its subsidiary or predecessor in a written form.
- G. Who is the custodian of such information.

H. Whether Defendant agrees that there is no medical cure for mesothelioma.

ANSWER:

Garlock objects to this interrogatory on the grounds that it calls for an expert medical opinion which Garlock is not qualified to give. Notwithstanding and without waiving the foregoing objection, some Garlock personnel have been aware for a number of years that excessive exposure to asbestos dust may be hazardous to one's health. Garlock is unable to pinpoint when or how such personnel first became aware of the possible health hazard. However, there has never been any competent scientific or medical evidence or reason to believe that Garlock products, through normal use, have caused or contributed to any hazardous condition, potential or otherwise, since they are bonded and/or encapsulated.

INTERROGATORY NO. 29:

As to gastro-intestinal cancer, laryngeal cancer, pharyngeal cancer or lymphatic cancer, state:

- A. The type of cancer and the date on which Defendant or its subsidiary or predecessor first learned that such diseases were caused by inhalation of asbestos fibers by humans.
- B. What cancers has the Defendant or its subsidiary or predecessor become aware can be caused by exposure to asbestos fibers?

- C. The date on which Defendant first suspected other cancers were caused by asbestos inhalation.
- D. Who within the company or its subsidiary or predecessor first discovered the adverse consequences or effects of asbestos exposure.
- E. What information was disseminated within Defendant's company or its subsidiary or predecessor regarding such adverse consequences or effects.
- F. Whether any such information is still maintained by Defendant or its subsidiary or predecessor in a written form.
- G. Who is the custodian of such information.

ANSWER:

Garlock objects to this interrogatory on the grounds that it calls for an expert medical opinion which Garlock is not qualified to give. Garlock objects to making a general review of literature having no relevance to Garlock asbestos-containing products on the grounds that to do so would put defendant in the position of doing the plaintiffs' work. Subject to and without waiving the foregoing objections, some Garlock personnel have been aware for a number of years that excessive exposure to asbestos dust may be hazardous to one's health. Garlock is unable to pinpoint when or how such personnel first became aware of the possible health hazard. However, there has never been any competent scientific or medical evidence or reason to believe that Garlock products, through normal use, have caused or contributed to any

hazardous condition, potential or otherwise, since they are bonded and/or encapsulated.

INTERROGATORY NO. 30:

Does Defendant contend that asbestos products can be manufactured or designed so as to eliminate all potential health hazards to persons working with or exposed to them? If the answer is affirmative, explain in detail, and attach any studies or surveys on which this answer is based.

ANSWER:

Garlock objects to this interrogatory on the grounds that it calls for an expert medical opinion which Garlock is not qualified to give. Garlock objects to making a general review of literature having no relevance to Garlock asbestos-containing products on the grounds that to do so would put defendant in the position of doing the plaintiffs' work. Subject to and without waiving the foregoing objections, Garlock states that there has never been any competent scientific or medical evidence or reason to believe that its asbestos-containing products, upon reasonable use, release asbestos fibers in sufficient quantities, if any, to pose a health hazard, potential or otherwise, to persons using such products. Garlock denies that use of, or exposure to, its asbestos-containing products pose any health hazard or any significant possibility of inhalation of asbestos fiber. This defendant does not know of or have in its possession any

books, pamphlets, memoranda or other written materials of any kind or character which present any evidence or which would otherwise indicate that Garlock asbestos-containing products, upon reasonable use, release asbestos fibers in sufficient quantities, if any, to pose a health hazard, potential or otherwise, to persons using such products. Garlock has no knowledge about any products other than gaskets and packing and cannot answer with respect to products manufactured or sold by other companies.

INTERROGATORY NO. 31:

Describe in detail the types of packages or packaging which Defendant or any of its subsidiary or predecessor companies used for asbestos material or products, listing the dates each type of package was used, a physical description of each type of package, and providing a description of any printed material or trademarks that appeared thereon.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad and burdensome. Notwithstanding and without waiving the foregoing objections, Garlock states that it does not have records which would indicate when it started and/or stopped using any particular type or style of packaging. For probably at least 50 years, the dominant colors of our packaging materials have been yellow, red and black. Sometimes black has predominated, and at other times, yellow

has been the dominant color. However, the three colors have usually been used together.

The form in which Garlock asbestos-containing products are shipped varies, depending upon the size and configuration of each item, the number of items called for by the customer's order and the customer's own desires. Among the containers used are burlap bags, cardboard boxes and wooden crates. In addition, asbestos sheet is occasionally shipped flat on wooden pallets.

All of its products, both those containing asbestos and those containing no asbestos, have always been sold under the GARLOCK name. In addition, the Calipers and Scale trademark was used with all of its products from about 1900 until approximately 1968. A number of secondary trademarks have also been used over the years. Principal marks which have been used in connection with asbestos-containing products, as well as non-asbestos-containing products, have been BELMONT, GUARDIAN, CHEVRON, LATTICE BRAID, PALMYRA and PAPERPAK.

INTERROGATORY NO. 32:

Has Defendant or any of its subsidiary or predecessor companies at any time entered into a "rebranding" agreement with any other company, either as buyer or seller, concerning asbestos materials or asbestos products? If so, state, as to each such agreement:

- A. The name of the company manufacturing the asbestos products.

- B. The trade name affixed to those products.
- C. The periods of time covered by each such agreement.
- D. The volume, in dollar amount, of each transaction.
- E. The initial purchaser of the products.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, not properly limited as to time and for the further reason that the only products at issue in this case are those to which plaintiff alleges to have been exposed. Notwithstanding and without waiving the foregoing objections, Garlock states that it has, from time to time, sold some of its products for resale under other labels. Some of these products contained asbestos, others contained no asbestos. Garlock has no record, knowledge or recollection of any written distribution or sales agreement concerning such products. There is no reason to believe that such products are germane to this litigation.

INTERROGATORY NO. 33:

List the name and address of each company from which Defendant or its subsidiary or predecessor purchased materials or asbestos products which Defendant sold or distributed in any form, stating the form of the materials, the dates of such purchases, and the ultimate disposal of such materials.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, not properly limited to a relevant time period and for the further reason that the only products at issue in this case are those to which plaintiff alleges to have been exposed. Notwithstanding and without waiving the foregoing objections, Garlock states that it has, from time to time, purchased products from others for resale under the Garlock label. Some of these products contained asbestos, others contained no asbestos. Garlock has no record, knowledge or recollection of any written distribution or sales agreement concerning such products. There is no reason to believe that such products are germane to this litigation.

INTERROGATORY NO. 34:

Does Defendant or any of its subsidiaries or predecessors currently have possession of any writings or contracts on those rebranding agreements set forth in answer to Interrogatory No. 32?

If the answer is affirmative, state:

- A. The name, address, and job title of each person having custody of each of those documents and their current location.
- B. A brief discussion of each such document, including the dates and the parties signatory.

ANSWER:

This Defendant has no record, knowledge or recollection of any such writings or contracts. Discovery is continuing.

INTERROGATORY NO. 35:

Prior to 1968, did any person file a claim against a Worker's Compensation carrier covering Defendant or any of its subsidiaries or predecessors alleging that he/she contracted a disease from inhaling asbestos fibers? If so, provide:

- A. A list of the claims, including each claimant's name, address and the date each claim was filed, and including the caption and jurisdiction of the claim.
- B. The disease alleged in each such claim.
- C. A brief summary of the disposition of each such claim.
- D. The name, address and title of the person having custody of the records pertaining to each such claim.

ANSWER:

Garlock objects to this interrogatory insofar as it pertains to Workers' Compensation claims on the grounds that it is overly broad, unduly burdensome and that the information sought is irrelevant in this case and is not reasonably calculated to lead to discovery of admissible evidence. The plaintiff has never been a Garlock employee and does not allege ever visiting any Garlock facility. The only relevant issues in this action pertain to finished asbestos-containing products after they have left Garlock facilities.

INTERROGATORY NO. 36:

Did Defendant or any of its subsidiaries or predecessors maintain written minutes of corporate meetings, either board of directors, departmental, or otherwise, which reflect discussion pertaining to any subject matter related to asbestos, asbestos health hazards or asbestos products? If so, for each such set of minutes, state:

- A. The dates of each such meeting.
- B. The general subject matter discussed at each meeting.
- C. Who was in attendance at each meeting.
- D. Where and by whom the written minutes are presently maintained.
- E. By whom the minutes were taken and put into final format.
- F. Whether the minutes were abstracted and reports disseminated to other individuals, and if so, the names and job titles of those individuals.

ANSWER:

This Defendant has no record, knowledge or recollection of any such writings.

INTERROGATORY NO. 37:

Do you or any of your subsidiaries, including foreign business entities, currently manufacture any products containing asbestos? If so, state:

- A. As to each product, whether such product is mined, manufactured, and/or marketed or sold.

- B. The names and addresses of the companies mining manufacturing, marketing, and/or selling each of those products.
- C. The trade or brand name of each of those products mined, manufactured, marketed, and/or sold.
- D. The date each of the named products was placed on the market.
- E. A description of the physical (chemical) composition of each of the named products, including the type of asbestos contained in the product.
- F. A description of the physical appearance of each product and its packaging.
- G. A detailed description of the intended uses of each of the named products.
- H. Whether there are any warning labels on said products or containers regarding potential asbestos-related health hazards.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad and unduly burdensome and for the further reason that the only products at issue in this case are those to which plaintiff alleges to have been exposed during the time periods at issue. Notwithstanding and without waiving the foregoing objections, Garlock still produces some products containing asbestos.

INTERROGATORY NO. 38:

State whether you or any of your predecessors and/or subsidiaries maintain, from 1940 through the present or for any portion thereof, copies of invoices, shipping documents, bills of lading, purchase orders, or other documents of a similar nature relating to the mining, manufacture, marketing, sale or distribution of asbestos products. If so, state:

- A. The location of such documents.
- B. The name and address of the custodian of the documents.
- C. The format in which the documents are kept, i.e., hard copy, microfilm, microfiche, etc.
- D. In what form the documents can be accessed, i.e., by state, by product, etc., and if by product, whether kept according to asbestos or non-asbestos.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, irrelevant to any issue in this case, not reasonably calculated to lead to discovery of admissible evidence and for the further reason that the only products at issue in this case are those to which the plaintiffs allege to have been exposed. Subject to and without waiving the foregoing objections, Garlock states that it does not maintain separate compilations of sales records for its asbestos-containing products or for sales in specific states or sub-divisions thereof. Such older records as still exist are retained in Palmyra in 40" x 40" x 40" cardboard boxes, each containing several cartons of records.

These records will be made available to plaintiff for inspection and copying at plaintiff's expense and upon appropriate prior arrangements. It is believed that the oldest such paper records generally date from approximately 1978.

Upon receipt of specific information from the Plaintiffs as to the products to which they allege to have been exposed, the dates of the alleged exposure and the locations at issue, this Defendant will attempt to identify whether or not it sold such asbestos-containing products to the locations specified, at the time periods in question.

INTERROGATORY NO. 39:

Will you call company representatives as witnesses at the trial of any of these cases? If so, list:

- A. The name, address, and job title of each company representative who may be called.
- B. A summary of the testimony expected to be given by each such witness.
- C. List any and all previous times that the named witnesses have either given deposition or trial testimony in an asbestos-related case, including the jurisdiction, style of the case, case number, date of testimony, and the name of the attorney taking the deposition for the Plaintiffs in that case.

ANSWER:

Defendant objects to this interrogatory as beyond the scope of discovery. Defendant has not yet determined exactly which witnesses it will call. Defendant will provide this information to Plaintiffs pursuant to the Texas Rules of Civil Procedure or court order. Subject to and without waiving the foregoing objections:

Any present or former employee of Garlock. Garlock specifically identifies Mr. Clayton Jewett and Mr. Roy Whittaker as former and current employees who may testify on behalf of Garlock. Mr. Jewett and/or Mr. Whittaker will provide testimony on the process involved in the manufacture of various asbestos containing and non-asbestos containing Garlock gaskets and packing material. Mr. Jewett and/or Mr. Whittaker may also describe the various products manufactured by Garlock and the proper application and use of said products. Garlock reserves the right to call any current or past Garlock employees in response to the evidence presented in plaintiff's case-in-chief.

Garlock has not yet completed its determination of witnesses and reserves the right to supplement and amend this list up to and including the time of trial.

INTERROGATORY NO. 40:

Have Defendant or its subsidiaries or predecessors ever acquired through purchase, reorganization, or merger another

corporation, company, or business which manufactured, sold, processed, distributed, or contracted or supplied products containing asbestos? If so, for each such entity, state:

- A. Full and correct name;
- B. Principal place of business;
- C. State of incorporation;
- D. Date of acquisition by Defendant;
- E. Whether or not the business entity was ever authorized to transact business in the State of Texas;

ANSWER:

In past years, Garlock acquired four subsidiary companies which made and/or sold at least some asbestos-containing products. Those companies were the Belmont Packing & Rubber Company, Crandall Packing Company, Dealers' Steam Packing Company and U.S. Gasket Company. The only asbestos-containing products of which Garlock is aware that were made and/or sold by these companies were sealing products substantially equivalent to similar such products made and sold by Garlock. The Belmont Packing & Rubber Company was located in Philadelphia, Pennsylvania; Crandall Packing Company and Dealers' Steam Packing Company were located in Palmyra, New York and U.S. Gasket Company was located in Camden, New Jersey. Ultimately, each of the four subsidiaries was merged or otherwise absorbed into Garlock, including all assets and liabilities. As far as Garlock is aware, all business records of these former subsidiaries were destroyed many years ago in accordance with Garlock's long-standing record retention and

destruction program. It is probable that old corporate minute books still exist, but Garlock would not expect them to contain any information pertinent to this litigation. In June, 1987, Garlock Inc acquired The Anchor Packing Company of Philadelphia, Pennsylvania which has sold asbestos-containing gaskets, gasket materials and packing.

Garlock has no information regarding the state in which these entities were incorporated. Garlock has no information regarding whether these entities were ever authorized to do business in Texas.

INTERROGATORY NO. 41:

Was each of your asbestos products generally expected to reach, or packaged to reach, the consumer or user, without substantial change in the condition in which it was sold? If not, with respect to any such product, explain in what way the Defendant claims its products were altered or substantially changed after sale or distribution and before reaching the user.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, and for the further reason that the only products at issue in this case are those to which the plaintiffs allege to have been exposed. Subject to and without waiving the foregoing objections, Garlock states that it does sell gasket sheets and other packing materials that may be cut to proper size by the user or pre-cut by Garlock or by others.

INTERROGATORY NO. 42:

For each asbestos-containing product identified in response to Interrogatory No. 6, identify all foreseeable users such as insulators, helpers, pipefitters, welders, machinists, plasterers, drywall finishers, carpenters, boilermakers, shipwrights and riggers, etc. of any of Defendant's asbestos-containing products.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, irrelevant to any issue in this case, not reasonably calculated to lead to discovery of admissible evidence and for the further reason that the only products at issue in this case are those to which the plaintiffs allege to have been exposed. Subject to and without waiving the foregoing objections, this Defendant states that gasket materials were primarily used for static sealing of steam line flanges, cylinder heads of engines, compressors, refrigeration equipment, etc. Packing materials were primarily used for dynamic sealing of machinery. We assumed certain workers would remove and install our products.

INTERROGATORY NO. 43:

Based upon the material contents of your asbestos-containing products, the method of manufacturing, and the method of application, can such products be generally applied without liberating asbestos fibers into the air?

- A. If there is a different answer concerning different products manufactured, sold, distributed, or used by your company, then specify the different products by precise manufacturer's name and popular name.
- B. If there is a difference in your answer depending on the year or years in which a particular product was used, then specify in detail what year or years you are referring to and the specific products you are referring to and year involved.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad and unduly burdensome and for the further reason that the only products at issue in this case are those to which the plaintiffs allege to have been exposed. Subject to and without waiving the foregoing objections, Garlock states that there has never been any competent scientific or medical evidence or reason to believe that Garlock asbestos-containing products, upon reasonable use, release asbestos fibers in sufficient quantity, if any, to pose a health hazard, potential or otherwise, to persons using such products. Garlock denies that use of, or exposure to, its asbestos-containing products poses any health hazard, or any significant possibility of inhalation of asbestos fibers, since they are bonded and/or encapsulated.

INTERROGATORY NO. 44:

Was it a foreseeable use of your asbestos-containing products that they may have been removed, stripped, or replaced at some time after installation?

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, irrelevant to any issue in this case, not reasonably calculated to lead to discovery of admissible evidence and for the further reason that the only products at issue in this case are those to which the plaintiffs allege to have been exposed. Notwithstanding, Garlock states that it is anticipated that its sealing products, of whatever material, may have to be replaced from time to time.

INTERROGATORY NO. 45:

Before 1970, did you or your subsidiaries or predecessor(s) ever arrange for any labor inspectors, insurance company inspectors or anyone from your company to go to job sites where your products were being used or installed to make or take dust level counts? If so, state when this procedure started, the purpose of such procedures, and all results of such procedures.

ANSWER:

No.

INTERROGATORY NO. 46:

If Defendant performed or had performed any dust level counts, what action, based on the results, did your company take?

ANSWER:

Not Applicable. See Answer to Interrogatory No. 45.

INTERROGATORY NO. 47:

Has your company or its subsidiaries or predecessor(s) ever conducted or caused to be conducted any studies designed to assist in minimizing or eliminating the inhalation of asbestos dust and fibers by those exposed to the use of your company's products? If so, give the following:

- A. Name of the person or firm conducting such studies;
- B. The date the studies began and the date they were completed;
- C. Any publication or other written dissemination of the results of the studies;
- D. The nature of any action to eliminate or minimize the inhalation of asbestos dust fibers;

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and for the further reason that it presupposes that the asbestos-containing products of Garlock emit dust at levels harmful to the human body.

Notwithstanding and without waiving the foregoing objections, Garlock states that it is unaware of any investigations, tests, examinations or experiments concerning the asbestos-

containing products of Garlock and any effect thereof on the human body.

INTERROGATORY NO. 48:

Does your company have, has it ever had, or have your predecessor(s) or subsidiaries ever had, a Research Department?

If so, give the year such Research Department was established, and whether or not such Research Department has operated continuously since being established. State also:

- A. The amount of time and money expended each year on research concerning asbestos or asbestos-containing products?
- B. What percentage of gross sales did your company or its predecessor(s) spend on research concerning the health effects of asbestos?
- C. State in detail the purposes, duties, and responsibilities of such Research Department.

ANSWER:

A Research and Development Department existed during most of the 1960's. The exact dates of its formation and termination are not available. A new Research and Development Department was established early in 1984 and functioned for approximately two years. In both instances, the Department worked on the development of new and/or improved products and processes. The Department never conducted any medical research.

INTERROGATORY NO. 49:

Does your company have, has it ever had, or have your predecessor(s) or subsidiaries ever had, a Medical Department?

- A. The year such Medical Department was established;
- B. Whether or not such Medical Department has operated continuously since being established;
- C. The name of each director, chief, or head of your Medical Department year by year, beginning with the first year you had a Medical Director or Medical Department, and the last known address and phone number of each;
- D. State the duties and responsibilities of such Medical Department.

ANSWER:

Garlock has not employed, retained or otherwise engaged physicians, industrial hygienists or others to conduct medical research. By way of further answer, see Answer to Interrogatory No. 18.

INTERROGATORY NO. 50:

Did your company or its predecessor(s) or subsidiaries ever place any warning directly on any of its asbestos-containing product or on their packaging. If so, identify the product(s) and year said warning was first applied.

ANSWER:

See Answer to Interrogatory No. 14.

INTERROGATORY NO. 51:

Did your company or its predecessor(s) or subsidiaries ever stamp or place the name of the company, its initials, or any identifying logo on any of its asbestos-containing products? If so, please state the name brand names of such products, a description of such stamp or logo and the dates such were placed on the referred products.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and for the further reason that the only products at issue in this case are those to which the plaintiffs allege to have been exposed. Subject to and without waiving the foregoing objections, see Exhibit "C".

INTERROGATORY NO. 52:

Has your company, or your predecessor(s) or subsidiaries, ever devised a research plan to develop, or actually developed or had developed, a product which did not contain asbestos and which could be substituted for one or more of your asbestos-containing products? If so, state the date that such research plan was begun and when such asbestos-free product was first placed on the market.

ANSWER:

This Defendant has always made available non-asbestos containing sealing products as well as asbestos-containing sealing products to its customers. This Defendant has not recommended asbestos containing products for any particular

purpose. Customers specified the need for asbestos-containing material for certain applications requiring a heat resistant sealing product. This company has constantly been involved in supplementing and developing products to satisfy customer needs and meet specific application requirements of the customer. The non-asbestos products which most closely conformed to the properties of the asbestos-containing products, were developed after 1970.

INTERROGATORY NO. 53:

Did your company or its predecessor(s) or subsidiaries ever recall any products containing asbestos from the market or stream of commerce? If so, state:

- A. All details of such recall;
- B. The name of the product recalled, including the reason for the recall and the names and current addresses of those individuals who determined that it should take place;
- C. The dates of recall;
- D. The purpose for the recall.

ANSWER:

No.

INTERROGATORY NO. 54:

Before 1970, did you ever manufacture or sell products which did not contain asbestos and which could be substituted for your

asbestos-containing products? If so, state the date such asbestos-free products were first placed on the market.

ANSWER:

This Defendant has always made available non-asbestos containing sealing products as well as asbestos-containing sealing products to its customers. This Defendant has not recommended asbestos containing products for any particular purpose. Customers specified the need for asbestos-containing material for certain applications requiring a heat resistant sealing product. This company has constantly been involved in supplementing and developing products to satisfy customer needs and meet specific application requirements of the customer. The non-asbestos products which most closely conformed to the properties of the asbestos-containing products, were developed after 1970. Garlock made both asbestos and non-asbestos containing products available to its customers. The customers made the decision regarding which type of products they would use.

INTERROGATORY NO. 55:

Have any products you identified in your response to Interrogatory Nos. 52 and 54 not performed as intended? Please list all such products that have not performed as intended.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, irrelevant to any issue in this case, not reasonably calculated to lead to

discovery of admissible evidence and for the further reason that the only products at issue in this case are those to which the plaintiffs allege to have been exposed.

INTERROGATORY NO. 56:

Did your company or its predecessor(s) or subsidiaries ever make, order, or arrange for any industrial hygiene surveys regarding asbestos or asbestos-containing dust? If so, give the date of such surveys and state who, or what entity, was responsible for completion of such surveys.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, irrelevant to any issue in this case, not reasonably calculated to lead to discovery of admissible evidence and for the further reason that the only Garlock products at issue in this case are those to which plaintiffs allege to have been exposed. Notwithstanding and without waiving the foregoing objections, Garlock states that during the course of continuous investigation, observation, experience and study of its products and their use, there has never been any competent scientific or medical evidence or reason to believe that Garlock products pose any health hazard, potential or otherwise, to persons using said products. Garlock products pose no health hazard, potential or otherwise, to persons using such products. Garlock has had the following studies conducted for it by industrial hygienists: "The Actual Occupational Exposure to Airborne

Asbestos Released by Garlock Spiral Wound, Braided and Encapsulated Gaskets" by Carl A. Mangold, CIH (December 1982); "The Actual Contribution of Garlock Asbestos Gasket Materials to the Occupational Exposure to Asbestos Workers" by Carl A. Mangold, CIH (October 1982); "Asbestos Fibers in the Ambient Air in the Greater San Francisco Area": by Carl A. Mangold, CIH (March 1983); "Ambient Asbestos Fiber Levels in the Metropolitan Areas of Norfolk-Portsmouth-Newport News, Virginia" by Joseph D. Wendlick, CIH (December 1983); "The Actual Contribution of Asbestos Fiber Exposure During Gasket Removal from Pipe Flanges Aboard Ship" by Carl A. Mangold, CIH (November 1983); "The Actual Release of Asbestos Fibers from New, Used and Flanged Garlock Inc Asbestos Gasket Materials" by Carl A. Mangold, CIH (September 1985); "Occupational Exposures During Processing, Handling, Installation and Removal of Garlock Asbestos-Containing Gaskets" by Martin R. Bennett and Richard L. Hatfield (June 1985); "Garlock Inc Gasket Materials -A Comparison of the Tyndall Phenomena to the Actual Concentration of Asbestos Fibers in the Breathing Zone of Workers" by Carl A. Mangold, CIH (July 1986); "The Actual Contribution of Airborne Asbestos Fibers to the Occupational Exposure of By-Standers During Selected Processing of Encapsulated Asbestos Gaskets" by Carl A. Mangold, CIH (January 1989) - Eight separate sub-divisions titled as follows: Cutting Gaskets with a Circular Cutter; Gasket Cutting with Hand Shears; Gasket Cutting with Ball Pien (sic) Hammer; Scribing of Gasket Materials; Opening of Old Flanges

and Removal of Asbestos Gaskets; Flange Face Scraping with Putty Knife; Hand Wire Brushing of Asbestos Gasket Residual from Flanges; Power Wire Brushing of Flange Faces; "The Actual Contribution of Asbestos Fibers from Removal and Installation of Asbestos Packing from Valves" by Carl A. Mangold, CIH and Robert L. Gay, Ph.D. (May 1991).

INTERROGATORY NO. 57:

As to either the threshold limit values or maximum allowable concentrations of both asbestos dust and total dust provided by the American Conference of Governmental Industrial Hygienists, state:

- A. The year in which Defendant or any predecessor(s) or subsidiaries were first advised of such limits or concentrations;
- B. The name of the employee or official of the company receiving such advice;
- C. How Defendant received notice of such limits or concentrations.

ANSWER:

Garlock objects to this interrogatory on the grounds that it is overly broad and vague, in that it makes no reference to the circumstances, conditions and locations relevant to this litigation. Notwithstanding and without waiving the foregoing objections, this Defendant states, upon information and belief, that in the early or mid-1950's Garlock became aware of the prevailing TLV or safe limit for exposure to asbestos fibers.

INTERROGATORY NO. 58:

Were the threshold limit values or maximum allowable concentrations inquired about in Interrogatory No. 57 for total dust, and not asbestos dust alone?

ANSWER:

Yes.

INTERROGATORY NO. 59:

State in detail what tests, if any, Defendant ever made with regard to the quantity, quality, or threshold limit values of asbestos dust or particles to which workers were exposed while using, working with or around, or installing your asbestos-containing products.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, not properly limited in time and for the further reason that the only products at issue in this case are those to which the plaintiffs allege to have been exposed. Subject to and without waiving the foregoing objections, see Answer to Interrogatory No. 56.

INTERROGATORY NO. 60:

Please state the following with respect to each expert witness you that you may call during trial of these case. Please designate with specificity the expert witnesses that you will call, including:

- (a) The name, address, and job classification of each such expert witness;
- (b) The subject matter on which the expert is expected to testify;
- (c) The substance of the facts and opinions to which the expert is expected to testify and a summary of the grounds for each opinion;
- (d) Whether any person identified in subparagraph (a) above has provided a report or other documentation to you, and if so, identify each such document or report;
- (e) Identify all documents that you have provided to each person identified in response to subparagraph (a) above;
- (f) Describe in detail the education and work history of, and identify any books, treatises, articles, published and unpublished reports, studies or other scholarly works authored by any individual identified in response to subparagraph (a) above. Alternatively, in lieu of said response, attach a copy of a resume or curriculum vitae and a list of publications to your answers.

ANSWER:

Defendant objects to this interrogatory as beyond the scope of discovery. Defendant has not yet determined exactly which witnesses it will call. Defendant will provide this information to Plaintiffs pursuant to the Texas Rules of Civil Procedure or court order. Subject to and without waiving the foregoing objections, Garlock discloses the following expert witnesses who may be called to testify at trial:

CARL MANGOLD, C.I.H.

Mr. Mangold is an industrial hygienist. He may give testimony regarding the level of fiber release, if any, from gasket and packing products in the occupational setting. He may testify regarding threshold limit values and permissible exposure levels as promulgated by private organizations and government agencies. He may testify as to issues involving reentrainment and fiber drift. He may testify as to work practices regarding various types of occupations using products that contained asbestos. He may testify as to the applicability of the Environmental Protection Agency's guidelines as they relate to various types of products including gaskets and packings. He may testify as to exposure that may result from the use of other types of asbestos products.

ROBERT SAWYER, M.D.

Dr. Robert Sawyer may testify, in general, concerning asbestos related diseases and the effects of exposure to asbestos upon persons in occupational settings, including the epidemiology of asbestos related diseases and the criteria for diagnosis of any asbestos related disease.

He may also testify regarding the existence or non-existence of any asbestos related disease in the plaintiffs, including, but not limited to pleural changes, asbestosis, lung cancer, mesothelioma, laryngeal cancer, esophageal cancer and stomach cancer.

He may also testify on whether any asbestos related disease allegedly suffered by plaintiffs was medically or proximately

caused by exposure to asbestos containing gasket and packing products. He may also testify on the existence of a dose response relationship between exposure to asbestos and asbestos related disease.

He may also testify on increased risk of cancer issues and whether a particular plaintiff has a reasonable fear of cancer due to exposure to asbestos. He may also testify on the health consequences of smoking.

With respect to particular plaintiffs, he may testify as to review and interpretation of x-ray films, review and interpretation of pulmonary function testing, the nature and extent of any impairment or disability, whether the condition is progressive and whether other disease or conditions are present in plaintiffs.

Dr. Sawyer's testimony will be based on his training, experience, education and review of the medical literature concerning asbestos related disease.

STANLEY FIEL, M.D.

Dr. Stanley Fiel may testify, in general, concerning asbestos related diseases and the effects of exposure to asbestos upon persons in occupational settings, including the epidemiology of asbestos related diseases and the criteria for the diagnosis of an asbestos related disease.

He may also testify regarding the existence or non-existence of any asbestos related disease in the plaintiffs, including, but not limited to pleural changes, asbestosis, lung cancer,

mesothelioma, laryngeal cancer, esophageal cancer and stomach cancer.

He may also testify on whether any asbestos related disease allegedly suffered by plaintiffs was medically or proximately caused by exposure to asbestos containing gasket and packing products. He may also testify on the existence of a dose response relationship between exposure to asbestos and asbestos related disease,

He may also testify on increased risk of cancer issues and whether a particular plaintiff has a reasonable fear of cancer due to exposure to asbestos. He may also testify on the health consequences of smoking.

With respect to particular plaintiffs, he may testify as to review and interpretation of x-ray films, review and interpretation of pulmonary function testing, the nature and extent of any impairment or disability, whether the condition is progressive and whether other disease or conditions are present in plaintiffs.

Dr. Fiel's testimony will be based on his training, experience, education and review of the medical literature concerning asbestos related disease.

J. LEROY BALZER, Ph.D., CIH

Mr. Balzer is a Certified Industrial Hygienist. He may give testimony regarding the level of fiber release, if any, from gasket and packing products in the occupational setting. He may testify regarding threshold limit values and permissible exposure levels as promulgated by private organizations and

government agencies. He may testify as to issues involving reentrainment and fiber drift. He may testify as to work practices regarding various types of occupations using products that contained asbestos. He may testify as to the applicability of the OSHA and Environmental Protection Agency's guidelines as they relate to various types of products including gaskets and packings. He may testify as to exposure that may result from the use of other types of asbestos products.

DONNA M. RINGO, CIH

Donna M. Ringo is a Certified Industrial Hygienist. She may give testimony regarding the level of fiber release, if any, from gasket and packing products in the occupational setting. She may testify regarding threshold limit values and permissible exposure levels as promulgated by private organizations and government agencies. She may testify as to issues involving reentrainment and fiber drift. She may testify as to work practices regarding various types of occupations using products that contained asbestos. She may testify as to the applicability of the OSHA and Environmental Protection Agency's guidelines as they relate to various types of products including gaskets and packings. She may testify as to exposure that may result from the use of other types of asbestos products.

(F) Available curriculum vitae are attached hereto as Exhibit "D" (Mangold, Fiel, Sawyer, Balzer and Ringo).

INTERROGATORY NO. 61:

Please state the name, present address and present telephone number, along with the experience and qualifications, if applicable, of each and every person, known to Defendant or to Defendant's agents, having knowledge of facts relevant to these cases involving, but not limited to:

- (a) identification of asbestos-containing products to which each and every individual Plaintiff, separate and distinct from all other Plaintiffs within the group, allegedly was exposed or facts disputing the identification of asbestos-containing products in this case.
- (b) Each and every individual Plaintiff's, separate and distinct from all other Plaintiffs within the group, alleged damages, injuries and/or facts disputing each and every Plaintiff's alleged damages and/or injuries;
- (c) the negligence of any person or entity other than Defendant which Defendant contends was a cause of each and every individual Plaintiff's, separate and distinct from all other Plaintiffs within the group, alleged injuries and/or damages;
- (d) each of Defendant's defenses enumerated in Defendant's last filed Answer in each of these case.

ANSWER:

This Defendant has no record or knowledge of any such persons at this time, other than the Plaintiffs' themselves. Discovery is continuing and Defendant will supplement in

accordance with the Texas Rules of Civil Procedure and court order.

INTERROGATORY NO. 62:

Please identify documents which will be used at time of trial, (Exhibit List, Deposition List), which are relevant to each of Defendant's enumerated defenses in Defendant's last filed Answer.

ANSWER:

Defendant Garlock objects to this request as beyond the scope of discovery. Garlock has not yet determined which exhibits it will use. Garlock will provide this information pursuant to the Texas Rules of Civil Procedure or Court Order.

Finally Garlock reserves the right to introduce exhibits not designated herein for the purpose of impeachment or rebuttal or which are later determined to be beneficial.

INTERROGATORY NO. 63:

When if ever, did Defendant or any of its predecessors-in-interest first receive a copy of the article entitle "A Health Survey of Pipe Covering Operations in Constructing Navel Vessels", published in January, 1946 in the Journal of Industrial Hygiene & Toxicology, and authored by W. Fleischer and P. Drinker, et al ("the Fleischer-Drinker Report")?

- (a) Identify the name and position of the employee or officer who received same;

- (b) Please produce all documents generated by Defendant which discuss or in any way reference the "Fleischer-Drinker" study prior to 1968;
- (c) Please produce all documents upon which your responses above are based;
- (d) Please identify the name(s) and address(es) of any person(s) who can verify your above response;
- (e) Did Defendant ever rely on the Fleischer-Drinker Report in whole or in part as a basis that Defendant's asbestos products could be used in the workplace without risk of asbestos-related health impacts to the consumer and/or bystander;
- (f) If so, please produce every document which evidences in any way that Defendant relied on the Fleischer-Drinker Report in whole or in part for the proposition stated in Interrogatory No. 63(a) above;
- (g) If your answer to 63(e) is yes, when was the first date Defendant relied on the on the Fleischer-Drinker report in whole or in part for the proposition stated in 63(e) above?

ANSWER:

Garlock has no record, knowledge or recollection of receiving a copy of the Fleischer-Drinker Report during the normal course of business at any time prior to the commencement of the asbestos litigation. Garlock did receive a copy of the Fleischer-Drinker report for the first time from its attorneys

through the discovery process at the beginning of the asbestos litigation.

INTERROGATORY NO. 64:

When if ever, did Defendant or any of its predecessors-in-interest first receive a copy of the article entitle "A Study of Asbestos in the Asbestos Textile Industry", published in 1938 in Publice health Bill, No. 241, U.S. Publice Health Service and authored by W. C. Dreessen ("the Dreessen Report")?

- (a) Identify the name and position of the employee or officer who received same;
- (b) Please produce all documents generated by Defendant which discuss or in any way reference the "Dreessen" study prior to 1968;
- (c) Please produce all documents upon which your responses above are based;
- (d) Please identify the name(s) and address(es) of any person(s) who can verify your above response;
- (e) Did Defendant ever rely on the Dreessen Report in whole or in part as a basis that Defendant's asbestos products could be used in the workplace without risk of asbestos-related health impacts to the consumer and/or bystander;
- (f) If so, please produce every document which evidences in any way that Defendant relied on the Dreessen Report in whole or in part for the proposition stated in Interrogatory No. 64(a) above;

(g) If your answer to 64(e) is yes, when was the first date Defendant relied on the on the Dreessen report in whole or in part for the proposition stated in 64(e) above?

ANSWER:

Garlock has no record, knowledge or recollection of receiving a copy of the Dreessen report during the normal course of business at any time prior to the commencement of the asbestos litigation. Garlock did receive a copy of the Dreessen report for the first time from its attorneys through the discovery process at the beginning of the asbestos litigation.

REQUEST FOR PRODUCTION

REQUEST FOR PRODUCTION NO. 1:

Please produce a true and correct copy of each photograph of each asbestos-containing product identified in answer to Interrogatory No. 4.

RESPONSE:

Garlock objects to this Request on the grounds that it is overly broad, unduly burdensome, not reasonably calculated to lead to the discovery of admissible evidence and for the further reason that the only Garlock products at issue in this case are those to which plaintiffs allege to have been exposed. Notwithstanding and without waiving the foregoing objections, Garlock states that over the years it has prepared hundreds of writings, instruction sheets, brochures and the like regarding its products. The majority of said writings

have long since been discarded. All existing photographs (several file cabinets full) are available for inspection and copying at plaintiff's expense at Garlock Inc, 1666 Division Street, Palmyra, New York 14522.

REQUEST FOR PRODUCTION NO. 2:

Please produce any diagrams or schematics indicating, stating or detailing the existence of any of your subsidiaries, predecessors, or divisions as defined on Page 1 of these Interrogatories and Request for Production.

RESPONSE:

Defendant has not been able to locate any documents responsive to this request. To the extent such documents exist, they are available for inspection and copying at Plaintiff's expense at Garlock Inc, 1666 Division Street, Palmyra, New York 14522.

REQUEST FOR PRODUCTION NO. 3:

Please produce copies of all reports of Defendants' experts and any and all documents relied upon by such experts.

RESPONSE:

Garlock objects to this Request on the grounds that it is overly broad and unduly burdensome. The reports of Dr. Charles Mangold listed on the Exhibit List of Garlock Inc filed in this numbered cause of action are available for inspection and copying at Plaintiff's expense at Brown, McCarroll & Oaks Hartline, 2727 Allen Parkway, Suite 1300, Houston, Texas 77019.

CAUTION:
Contains Asbestos fibers.
Avoid creating dust. Breathing
Asbestos dust may cause
serious bodily harm.

EXHIBIT

A

900
Garlock

900
Garlock

CAUTION
Contains Asbestos fibers.
Avoid creating dust. Breathing
Asbestos dust may cause
serious bodily harm.

900
Garlock

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Garlock



3Q91

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GARLOCK DISTRIBUTORS IN TEXAS

Bayou Gasket & Hose, Inc.
1550 E. Cardinal Drive
Beaumont, TX 77705

Bearings, Inc.
Cottingham Div. Branch 040
9421 Neils Thompson Drive
Austin, TX 78759

320 South Wilcox
Rockdale, TX 76567

Cottingham Div. Branch 042
2613 Bearing Lane
Temple, TX 76501

Bryan Hose & Gasket Co.
Hwy. 21 W. & Quality Lane
Bryan, TX 77803

C.F. Adams Industries
Div. of Empire Mfg. Co., Inc.
1665 Hickory
Hamilton City, TX 76117

Champion Hi-Tech Mfg., Inc.
4387 Canyon Drive
Amarillo, TX 79110

Corpus Christi Gskt. & Fastener
341 Westchester Dr.
Corpus Christi, TX 78469

Corpus Christi Rubber & Spec.
2728 S. Port Ave.
Corpus Christi, TX 78465

Crown Products, Inc.
1206 FM 1845
Longview, TX 75602

Marine & Petroleum Mfg. Inc.
1404 N. Ave. J
Freeport, TX 77541

9426 Old Katy Rd.
Houston, TX 77055

Farm Road 1006
Orange, TX 77630

Crown Products, Inc.
of Dallas
2616 Irving Blvd.
Dallas, TX 75207

Gasket Service, Inc.
2120 Kermit Hwy.
P.O. Box 2373
Odessa, TX 79760

George S. Thomson Co., Inc.
3738 Durazno
P.O. Box 17
El Paso, TX 79999

Houston Gasket &
Packing Co., Inc.
1809 Franklin St.
P.O. Box 551
Houston, TX 77001

Intex Rubber & Specialty
907 Old Temple Rd.
P.O. Box 67
Hewitt, TX 75643

Leak Repair
2105 North Highway 35
Alvin, TX 77511

Longhorn Gasket & Sply Co.
2425 W. Longhorn Dr.
Lancaster, TX 75134

Lufkin Rubber &
Gasket Co., Inc.
501 Ellen Trout Drive
Lufkin, TX 75901-0483

Triplex, Inc.
203 S. Logan
P.O. Box 1270
Texas City, TX 77590

Victoria Bearing
1708 N. Wheeler
Victoria, TX 77901

North Texas Packing &
Seal Co.
13606 Floyd Circle
Dallas, TX 75243

EXHIBIT

B

Current Garlock Distributor's in Texas

p.2

Panhandle Packing & Gasket, Inc.
Lubbock Gasket & Supply
402 19th St.
P.O. Box 2154
Lubbock, TX 79408

1416 N. Grant St.
Odessa, TX 79761

Seal-Pac Professional Svcs., Inc.
2425 Broad Street
Houston, TX 77087

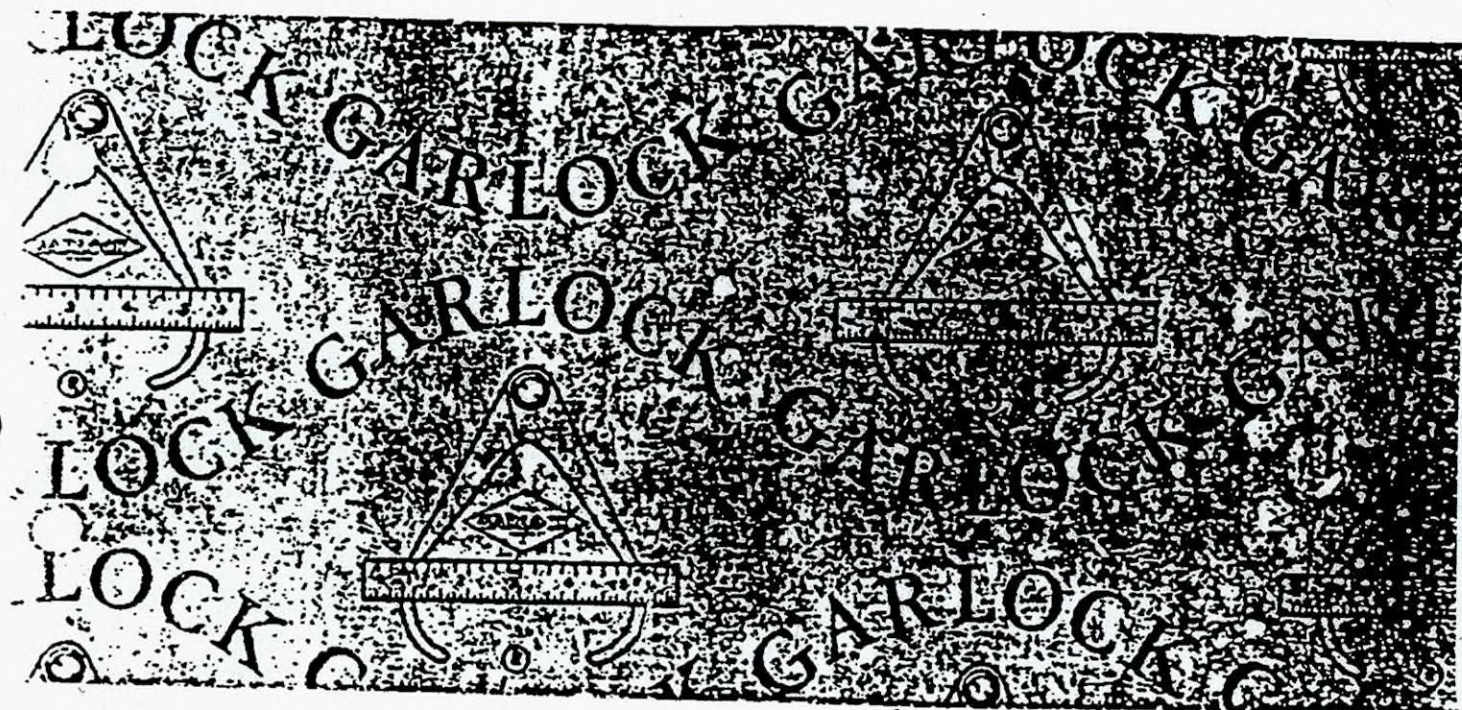
Swing Machinery & Equipment Co.
106 W. Rhapsody
San Antonio, TX 78216-3104

Triangle Packing & Specialty
2315 Lilac
P.O. Box 1755
Nederland, TX 77627

Triplex, Inc.
1142 Kress Street
Houston, TX 77020

4401 Highway 347 South
Nederland, TX 77627

11/07/90



Used approximately 1930 to 1968

EXHIBIT

C



GARLOCK INC. PALMYRA, N.Y.

IN CANADA: GARLOCK OF CANADA LTD. TORONTO, ONT. MADE IN U.S.A.

Garlock

Garlock

Garlock

Garlock

Garlock

Garlock

Garlock

Garlock

Garlock

Used approximately 1968-1978

Garlock

Garlock

HHP-46
CLASS 1
900/7735

Garlock

Used approx. by 1978 - 1984

Used since about 1984

OCK	Garlock	Garlock	Garlock
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900 lock	900 Garlock	900 Garlock	900 Garlock
900 lock	900 Garlock	900 Garlock	900 Garlock
900 lock	900 Garlock	900 Garlock	900 Garlock

REVISED: June 1993

QUALIFICATIONS OF

CARL A. MANGOLD, CIH **

Date of Birth: February 16, 1931 Ref: Resume'

Residence: 3033 170th Place S.E.
Bellevue, Washington, 98008
(206) 747-9620

Educational Background:

Bachelor of Science in Chemistry
University of Washington, Seattle,
Washington in 1957.

Master of Public Administration,
City University of Seattle, Seattle,
Washington in 1981.

Industrial Toxicology, Post Graduate Study,
School of Medicine, Columbia University,
New York, New York, in 1965.

- • National Board Certification, Certificate
NO. 633, May 1969, granted by the American
Board of Industrial Hygiene.

Industrial Hygiene Engineering Course,
NO. 501, U.S. Public Health Service,
Cincinnati, Ohio, 1963.

Radiological Health Course, U.S. Public
Health Service, Las Vegas, Nevada in 1966.

Occupational Radiation Protection, U.S.
Public Health Service, Las Vegas, Nevada
in 1971.

Western Ventilation Conference Training
Course, University of Washington, Seattle,
Washington, in 1979.

Electromagnetic Spectrum Course (non-
ionizing radiation of all types),
Environmental Protection Agency, Richland,
Washington, in 1968.

Radiological Control Procedures Course,
U.S. Department of the Navy, Puget Sound
Naval Shipyard, Bremerton, Washington, 1965.

Basic Health Physics (ionizing radiation)
course, U.S. Department of the Navy, Puget
Sound Naval Shipyard, Bremerton, Washington,
in 1965.

Instruction Training Course, U.S. Department
of the Navy, Puget Sound Naval Shipyard,
Bremerton, Washington, 1967.

Chemical Carcinogenesis Course, Sponsored
by the National Institute for Occupational
Safety and Health at the University of
Washington, Seattle, Washington in 1981.

Laser Safety Course, Sponsored by the
National Institute for Occupational Safety
and Health at the University of Washington,
Seattle, Washington, in 1981.

Compliance Officer Course (100-4),
Occupational Safety and Health
Administration, U.S. Dept. of Labor,
Chicago, Illinois, 1972.

Area Industrial Hygienist Course,
Occupational Safety and Health
Administration, U.S. Dept. of Labor,
Washington D.C., 1973.

Foundry Industry Education Studies,
School of Engineering, University of
Alabama, in 1976.

Noise Engineering Control Course,
Occupational Safety and Health
Administration, U.S. Dept. of Labor,
Washington D.C. in 1977.

Industrial Noise Abatement Technology,
University of Texas, San Antonio, Texas,
April 1977.

Executive Seminar on Science, Technology
and Public Policy, U.S. Civil Service
Commission, in 1977.

Industrial Ventilation and Air Cleaning
Conference, University of Washington,
September 1979.

Advanced Executive Management Seminar Series, U.S. Civil Service Commission Curricula, University of California, Berkley, California, completed in 1980.

Toxic and Hazardous Waste Dump Site Course, Environmental Protection Agency, Raritan Arsenal, New Jersey in April 1983.

Hazardous and Toxic Material Management Course, Harvard School of Public Health, Boston, Massachusetts in 1984.

Respiratory Protection Course, N.W. Center for Occupational Safety and Health, University of Washington in January 1985.

Advanced Seminar on Asbestos Disease, Ogden, Ogden & Murphy Law Offices, Seattle, Washington in April 1985.

Asbestos Worker Certification Course, No. 0007 to qualify as an asbestos worker under Washington State Rules in July 1985 - developer and instructor.

Hazardous Materials Management Symposia, American Institute of Plant Engineers, Seattle, Washington in March 1985.

Current Issues in Asbestos Control, sponsored by the N.W. Center for Occupational Safety and Health, University of Washington in March 1985.

U.S. Army Command and General Staff College (5 year resident/non-resident course) Ft. Leavenworth, Kansas, graduate 1976.

U.S. Army War College, Carlisle Barracks, Pennsylvania, graduate of the 1986 class.

Certified Asbestos Supervisor - (a requirement of the State asbestos standards for asbestos removal) Certificate # 007477, effective until August 4, 1993. (State Certification Examination -July 1989). (Previously Competent Person Certification) Recertified to August 4, 1993)

NIOSH Course # 582 -Sampling and Evaluating Asbestos Dust --- April 1987. This is a mandatory requirement currently specified in the Federal OSHA and State of Washington asbestos standards for those who count asbestos by phase contrast microscopy according to the standards.

University of California, Berkeley,
"Building Inspection and Management Planning for Asbestos", April 1988.

(EPA qualification for inspection and management planning for schools under the Asbestos Hazard Emergency Response Act, (AHERA 1987). Re-certification through Environmental Health Sciences, Inc. Refresher certifications 930601-08 and 930602-04 to June 1, 1994.

University of Washington, "Health Effects of Synthetic Fibers" (A review of the toxicology of fibers other than asbestos) May 1988.

American Industrial Hygiene Association, Professional Development Course # 41, "Asbestos Sampling Analysis and Regulatory Update" May 15, 1988.

"Disease Potential of Different Asbestos Fiber Varieties", *Collegium Ramazzini*, Ottawa, Ontario, Canada, March 20-22, 1989. (Sponsored by I.J. Selikoff, Mt. Sinai Hospital as an International Symposium of scientists recognized for asbestos knowledge and research)

"Risk Assessment and Risk Communication", Short Course sponsored by the Pacific Northwest Section, American Industrial Hygiene Association, October 10, 1990, Portland, Oregon.

"Quality Assurance and Quality Control - for Field and Laboratory data" Short Course sponsored by the American Industrial Hygiene Association, May 18, 1991, Salt Lake City, Utah.

"Engineering Noise Control" Short Course sponsored by the American Industrial Hygiene Association, May 19, 1991, Salt Lake City Utah.

"Lung Toxicology & Disease"
Short Course sponsored by the American
Industrial Hygiene Association, May 31,
1992, Boston, Massachusetts.

"Lead Paint Inspections & Abatement"
Short Course sponsored by the American
Industrial Hygiene Association, May 31,
1992, Boston, Massachusetts.

"Aerosols in Occupational Environments",
Short Course sponsored by the American
Industrial Hygiene Association, May 16,
1993, New Orleans, Louisiana.

**"Occupational Epidemiology for the
Industrial Hygienist", Short Course**
Sponsored by the American Industrial
Hygiene Association, May 16, 1993, New
Orleans, Louisiana.

POSITIONS HELD

Analytical Chemist, Aluminum Company of America,
Wenatchee, Washington, 1957 - 1962

Industrial Hygienist, U.S.- Department of the Navy,
Puget Sound Naval Shipyard, Bremerton, Washington,
1962 - 1967

Head, Industrial Hygiene Branch, Medical Department,
Puget Sound Naval Shipyard, Bremerton, Washington,
from 1967 to 1972

Washington Area Industrial Hygienist, Occupational
Safety and Health Administration, U.S. Dept. of Labor,
Bellevue, Washington, 1972 - 1976

Regional Industrial Hygienist, Region X (4 western
states), Occupational Safety and Health Administration,
U.S. Department of Labor, Seattle, Washington from
1976 to 1985

Senior Health Scientist, Environmental Services
Division, American Building Maintenance Co., Tacoma,
Washington, July 1985 through March 1986 as a
consultant.

Industrial Hygiene Consultant and Analytical Chemist,
July 1985 to Present. President, Environmental Control
Sciences, Inc., Bellevue, Washington.

Initial developer and instructor in the State of
Washington certified "Certified Asbestos Worker
Certification Course, # 0007 from 1985 through 1986.

Instructor for "Sampling and Analysis of Asbestos
Materials" in the State of Washington certified
Competent Persons Course for Asbestos, presented
by Heavey Engineering, Inc. (February 1987 to May 1988)

Instructor for the University of California, Berkeley,
CA, "Building Inspection and management Planning for
Asbestos" Course (providing EPA approved training to
students who will become building inspectors and
management planners for schools under the Asbestos
Hazard Emergency Response Act, 1987) - May 1988,
Portland, Oregon.

APPOINTMENTS

Member of the U.S. Navy Industrial Hygiene Association Non-Ionizing Radiation Committee. A special report was prepared on Microwave Radiation Safety and RF Power Density Instrumentation in 1965. The U.S. Navy had unique RF radiation exposures from a large variety of communications and missile director systems. Some of the radiation patterns were high energy collimated pencil beams capable of physical damage even on intermittent exposure up to a distance of 1,000 feet. This committee drafted a proposed instruction for implementation at U.S. Naval Shipyards. 1965 - 1968.

U.S. Navy Industrial Hygiene Association Committee for Laboratory Procedures. (The committee reviewed needs for standardization, reporting procedures and information exchange for Navy industrial hygienists) 1966 - 1967.

Head, Nuclear Accident Team # AA at Puget Sound Naval Shipyard, exclusive of submarine operations. This team conducted surveys in case of national emergency, or a local incident that might cause contamination of government or nearby civilian property. 1968 - 1972.

Environmental Consultant on the Deep Submergence Rescue Vehicle Development for submarine rescue for the U.S. Department of the Navy, from 1968 to 1972.

Aerosol Hazards Evaluation Committee Member for ASBESTOS, American Industrial Hygiene Association, in 1972.

Advisor to the Workers Compensation Board of British Columbia, Canada on Industrial Noise Programs, October 1979.

Advisor to the Weyerhaeuser Company on a volcanic ash health plan during logging operations following the Mt. St. Helens volcanic eruption. May to September 1980.

Advisor to the Hanford Environmental Health Laboratory, Richland, Washington, 1980 - 1982.

Advisor and lecturer to the Seattle Fire Department for technical advice on toxic and hazardous materials from 1980 to 1986.

Expert witness for Asbestos Litigation, Occupational Safety and Health Administration, U.S. Department of Labor, Seattle, Washington, 1980 - 1985.

Team Member, Hazardous Waste Pollution Contingency Plan, Region X an interagency work group between four Federal agencies - EPA, OSHA, FDA, CPSC in four western states, 1980 to 1985.

Member, Toxic and Hazardous Waste Site Inspection Team,
Region X, Occupational Safety and Health Administration,
U.S. Department of Labor, Seattle, Washington, 1983 - 1985.

Member, Bronchial Provocation Challenge Chamber Task
Force, Virginia Mason Clinic, Seattle, Washington, from
July 1985 to January 1987.

Peer Reviewer by Invitation of the Proposed State of
Washington Asbestos Standard, WAC 296-62-077 adopted as a
Permanent Rule in March 1987.

AWARDS AND COMMENDATIONS

1. October 1963 - Quality Salary increase for Industrial Hygiene Program excellence.
2. July 1964 - Letter of Appreciation from the Commanding Officer, U.S. Naval Air Station, Whidby Island for measurement of unusual electromagnetic hazards.
3. July 1967 - Department of the Navy Certificate of Merit from the Commander, Naval Ships Systems Command, Washington, D.C.
4. August 1967 - U.S. Department of the Navy Award of Merit for Group Achievement for the Industrial Hygiene Division, Puget Sound Naval Shipyard, Bremerton, Washington.
5. May 1968 - Letter of Appreciation from the Naval Investigative Services, Seattle, Washington for unusual analyses of drugs.
6. January 1969 - Letter of Appreciation from the Commanding Officer, Naval Supply Center, Puget Sound, for special reporting of occupational health hazards.
7. May 1969 - Admitted as a Dipolmate of the American Board of Industrial Hygiene for Comprehensive Practice. Nationally Board Certified --- Certificate # 633.
8. June 1969 - Commendation from the Deputy Commissioner, Bureau of Employees Compensation, U.S. Dept. of Labor for excellence in the review of several hundred hearing loss claims from the Puget Sound Naval Shipyard.
9. September 1970 - Certificate of Commendation for the development of an " Air-fed double-bibbed plastic hood for protection against toxic materials". This device is used by five major Naval Shipyard and some private shipyards. U.S. Navy Patent Applied For.
10. November 1970 - Certificate of Commendation from the Acting Commander, Bureau of Medicine and Surgery, U.S. Department of the Navy for efforts in presenting the U.S. Navy Asbestos Control Program at a Symposium in New York, sponsored by I.K. Selikoff for nationally known scientists dealing with asbestos.
11. December 1970 - Commendation from the Commander, Puget Sound Naval Shipyard for efforts toward solving the asbestos related health hazards and the presentations to industrial scientists.

12. March 1971 - Letter of Appreciation from the Commander, Puget Sound Naval Shipyard for the presentation of the exemplary Shipyard Asbestos Control Program to visiting scientists.

13. May 1972 - Certificate of Commendation from Puget Sound Naval Shipyard, Bremerton, Washington for superior achievement in the development of the Asbestos Control Program, which was an example for other shipyard activities, both Federal and Private.

14. April 1976 - Commendation from B.J. White, Associate Assistant Secretary, Occupational Safety and Health Administration for Regional Programs, for assistance to the Lockheed Shipbuilding Co. in identifying and developing programs to control occupational exposures to epoxy resin ship coatings.

15. August 1977 - Quality Salary Increase from OSHA, U.S. Dept. of Labor for:

a. performance as Area Operations Manager, Bellevue, Washington conducting compliance and State evaluation programs

b. performance as the Senior Industrial Hygienist in the Regional Office of Technical Support, Region X, OSHA, conducting operations in 4 western states.

c. Leadership and drive to inspire and motivate others in his field of industrial hygiene.

16. October 1978 - Commendation from the Directorate, Technical Support, OSHA, U.S. Dept. of Labor, Washington D.C. for unusual performance and the development of a unique engineering control design for the noise control of large wire rope stranders. The innovation impacted 13 national companies and their 27 plants in the United States.

17. November 1979 - Commendation from the Workers Compensation Board of British Columbia, Canada, for advice, technical expertise and assistance toward development of an industrial noise control program.

18. December 1979 - Commendation from the Graduate School of Public Affairs, University of Washington for outstanding lectures on occupational safety and health issues.

19. March 1980 - Meritorious Achievement Award from the Occupational Safety and Health Administration awarded for unusual skill, innovation, and leadership in developing evaluation protocols and a plan of strategy for negotiations with the Bunker Hill Co, Kellogg, Idaho, a large copper smelter.

20. September 1981 - Commendation from Thorne Auchter, Assistant Secretary of Labor, Occupational Safety and Health Administration for professionalism in the involved, complex, legal, technical and other sensitive issues in the settlement with the Bunker Hill Co., Kellogg, Idaho.

21. October 1982 - Commendation from the United States Attorney, U.S. Department of Justice, Western District of Washington, for assistance and testimony in current asbestos litigation.

22. October 1982 - Commendation from Congressman Ron Wyden, U.S. House of Representatives, Congress of the United States, Washington D.C., for excellent information and research about potential asbestos exposures to constituents.

23. November 1982 - Commendation from Judge Alfred T. Goodwin, United States Court of Appeals, Ninth Circuit, for the excellent presentation of current research on the potential health effects of microwave emissions from Video Display Terminals.

24. 1982 - Group award from the National Office, OSHA, U.S. Dept. of Labor, Washington D.C. for the professional advice and chemical analyses following the Mt. St. Helens Volcanic Eruption in Washington State in May 1980.

25. July 1983 - The Distinguished Service Award, from OSHA, U.S. Dept. of Labor, for dedicated personal leadership in the implementation of occupational safety and health programs within the Federal Government.

26. January 1984 - Commendation from Thorne Auchter, Assistant Secretary of Labor, Occupational Safety and Health Administration, Washington D.C., for the articulate presentation of OSHA regulatory activities to the Seattle Post Intelligencer Newspaper.

27. January 1985 - Commendation from the Office of the King County Executive, King County, Washington, for providing outstanding expertise and professional advice to develop a comprehensive asbestos abatement control program for county buildings and schools.

28. March 1986 - Certificate of Appreciation from the American Institute of Plant Engineers, Chapter 130, for Outstanding Service (Lectures and Symposia).

PUBLICATIONS

1. C.A. Mangold, Application of Spectrophotometric Determination of Low Fluoride with Zirconium Eriochrome Cyanine R to Rapid Routine Operations, Aluminum Co. of America, Wenatchee, WA, June 1962 (A study of the gaseous diffusion methods and refinements for routine operations)
2. C.A. Mangold, D.J. Bessmer, R.R. Beckett, The Respirator As A Field Sampling Device for Lead Dust, August 1964. (Presented to the Pacific NW Section of the American Industrial Hygiene Association Conference in August 1964.) The paper described a technique for sampling highly mobile work groups with varying individual exposures to lead dust at Puget Sound Naval Shipyard.
3. C.A. Mangold, R.R. Beckett, Devran Epoxy Coatings -- Evaluation of the Occupational Exposure to Painters at Puget Sound Naval Shipyard, January 1967. (This paper identified the amine hardeners causing dermatitis and hyperallergenic sensitivity which lead to the development of ventilated suits as a control measure.)
4. C.A. Mangold, Barrier Cream Protection Against Low Level Radioactive Contamination and Toxic Materials, Puget Sound Naval Shipyard, in February 1967.
5. D.J. Bessmer, C.A. Mangold, Noise Reduction of a High Pressure Eductor of an Industrial Vacuum, Journal of American Society of Safety Engineers, September 1969. (also presented to the Pacific N.W. Section of the American Industrial Hygiene Association Conference in August 1965.) (This paper describes a resonance muffler to reduce the exhaust noise of a pneumatically operated vacuum used aboard ship. An unusual abatement of 25 decibels of reduction resulted.)
6. R.R. Beckett, C.A. Mangold, The Quantitative Determination of Butoxyacetic Acid Metabolite in Urine by Gas Chromatography, Puget Sound Naval Shipyard, December 1965. (This technique was used to evaluate the exposure of painters who used about 50,000 gallons of

butyl cellosolve each year at Puget Sound Naval Shipyard in the applications of Epoxy paints.

7. C.A. Mangold, The Occupational Noise Exposure During Construction of the USS SAMUEL GOMPERS, (AD-37) , Puget Sound Naval Shipyard in 1967. (This monograph related the occupational noise exposures to work groups constructing a large Naval vessel from keel laying to launching over a 28 month period. The data was collected to help evaluate 470 hearing loss claims between 1964 and 1967, which eventually cost the U.S. government \$1,500,000 in payments.
8. C.A. Mangold, Temporary Ventilation - A Supervisor's Guide, Puget Sound Naval Shipyard (An illustrated manual for the use of temporary ventilation aboard ships under repair or overhaul). Published December 1967
9. C.A. Mangold, R.R. Beckett, D.J. Bessner, ASBESTOS EXPOSURE AND PULMONARY X-RAY CHANGES TO PIPECOVERERS AND INSULATORS AT PUGET SOUND NAVAL SHIPYARD, Official U.S. Navy publication, August 1968. (This paper presented to the Pacific N.W. Section of the American Industrial Hygiene Association Conference) (The study showed a 2 1/2 year comparison that insulation workers had a 21% diagnosed pulmonary abnormalities as a group compared to 3.5 % for boiler makers, and less than 1% for clerical workers.
10. C.A. Mangold, R.R. Beckett, Environmental Conditions During Hatch Entry Penetration Tests for the Deep Submergence Rescue Vehicle (DSRV), Puget Sound Naval Shipyard, June 1970. (This paper outlined the potential exposure to toxic gases and particles that could be encountered during rescue of sunken submarines with the DSRV.)
11. C.A. Mangold, R.A. Keiffer, G. Mattson, A Plastic Disposable Double-Bibbed Air-Fed Hood for Protection Against Low Level Radioactive and Toxic Materials, U.S. Navy Publication, September 1970, U.S. Navy Patent Applied For.
12. C.A. Mangold, R.R. Beckett, D.J. Bessner, ASBESTOS EXPOSURE AND CONTROL AT PUGET SOUND NAVAL SHIPYARD, an Official U.S. Navy Publication,

March 1970.

13. C.A. Mangold, D.J. Bessmer, Cadmium Oxide, Nitrogen Dioxide, and Fluoride Exposure from Silver Brazing Ships Piping Systems, American Industrial Hygiene Journal, February 1971. (This protracted study beginning in 1965 was presented to the Pacific N.W. Section of the American Industrial Hygiene Association Conference in 1969.)
14. C.A. Mangold, Exposure of Welders to Fluorides at Puget Sound Naval Shipyard. Presented to the Pacific N.W. Section of the American Industrial Hygiene Association Conference, October 1971 at Idaho Falls, Idaho. (Fluorides in the urine of welders from the use of fluxes can be rapidly measured with a specific ion electrode as an index of exposure.)
15. C.A. Mangold, R.A. Kieffer, Development of Chapter 7B-3, U.S. Navy Nuclear Power Manual, Puget Sound Naval Shipyard, 1971. (This chapter made PSNS one of the first nuclear shipyards to standardize an integrated life support and protective system for respiratory protection systems and heat stress control for personnel employed in nuclear reactor work on submarines.)
16. C.A. Mangold, The Impact of the OSHA Standard for Asbestos on Industry and Asbestos Control Methods. (Presented to the Pacific N.W. Section of the American Industrial Hygiene Association Conference, in Seattle, Washington in October 1972.)
17. Duncan Holiday, C.A. Mangold, Asbestos Control Measures For The Shipbuilding Industry, A Manual of Practices, Mt. Sinai School of Medicine Publication, November 1973.
18. C.A. Mangold, Asbestos Hazard Control --- A Symposium For Employers. (Sponsored by OSHA in January 1973) (Received TV coverage in Seattle, Washington and Portland, Oregon.)
19. J.W. Roberts, H. Waters, C.A. Mangold, A.T. Rossano, Benefits of Road Dust Control in Seattle's Industrial Valley, Journal of Air Pollution Control, Vol 25, No. 9, September 1975. (This paper discusses free silica exposures)

20. C.A. Mangold, The Occupational Health Hazards of Polychlorinated Biphenyls. (Presented to the 28th Annual Governor's Safety Conference, Seattle, Washington in November 1977.) Paper is in printed form.
21. C.A. Mangold, An Engineering Control Approach to High Intensity Wire Rope Strander Noise, Official OSHA Publication, July 1978. (A unique control method for large stranders that impacted 13 companies and their 27 plants in the U.S.).
22. C.A. Mangold, Developing Industrial Hygiene Programs and Personnel for Emerging State Programs, Occupational Safety and Health Administration, U.S. DOL, August 30, 1974, Revised October 26, 1978.
23. C.A. Mangold, A Model Asbestos Control Program for the U.S. Public Health Service Hospital, Veterans Administration, Seattle, Washington, October 1979.
24. C.A. Mangold, W.E. Ruch, PhD, - Chemical Hazards in the Wood Products Industry, October 1979. (A reference manual for International Wood Workers Union, AFL-CIO)
25. C.A. Mangold, General Guidelines for Occupational Health Control to Volcanic Ash During Forest Operations in the State of Idaho, July 1980. (A program to minimize silica dust exposure (from Mt. St. Helens eruption ash).)
26. C.A. Mangold, A Typical Lead Control Program for Employers, OSHA Publication, September 1980.
27. C.A. Mangold, A Model Asbestos Control Program for the Ship-Breaking Industry, OSHA Publication, August 1980.
28. C.A. Mangold, Potential Occupational Health Hazards at the Wind River Forest Nursery, Carson, Washington and the Albuquerque Seed Extractory, Albuquerque, New Mexico, December, 1981. (A review of toxic and hazardous chemicals and the allergenic effects of seed dust.)
29. C.A. Mangold, An Asbestos Control Program - A Typical Employer's Format. OSHA Publication, March 1982.

30. C.A. Mangold, Personal Protective Equipment Manual for Entry into Toxic and Hazardous Waste Sites, February 1984 (A comprehensive volume that combines Federal regulations, recognized safe procedures, and elements of contamination control.)
31. C.A. Mangold, The Effects of Contaminated Clothing on the Sampling of Low Level Asbestos Fiber Concentrations in the Breathing Zone of Workers. (Presented to the Pacific N.W. Section of the American Industrial Hygiene Association Conference on October 11, 1984) (This papers shows that asbestos contaminated clothing can obscure results of low level sampling for asbestos fibers in air) October 1984.
32. C.A. Mangold, Mike Reid, Asbestos Worker Certification Course, No. 0007, for the State of Washington requirement for certified asbestos workers. (A State of Washington Approved 32 Hour Course) July 1985
33. C.A. Mangold, A Summary Review of Exposure to Low Concentrations of Asbestos Fibers in Air, May 1986. (Expresses the impact of low level concentrations of asbestos in perspective to known and potential risks)
34. C.A. Mangold, provided technical assistance and advice to an Ad Hoc Task Force that prepared the text: Managing the Risks of Exposure to Asbestos in Federal Reserve Bank Buildings, September, 1986 (National Task Force)

AFFILIATIONS

Diplomate of the American Board of Industrial Hygiene.
Certificate # 633, awarded May 12, 1969 to present.

Member, American Industrial Hygiene Association, 1963
to present.

Member, American Conference of Governmental Industrial
Hygienists - Feb 1, 1963 to present (Affiliate
Membership)

Member, Pacific Northwest Section of the American Industrial
Hygiene Association, 1963 to present.
(President in 1971)

Member, American Chemical Society
(Member # 13730268)

MILITARY STATUS

SERVICE: U.S. ARMY RESERVE

RANK: COLONEL (Retired July 1987)

HIGHEST ASSIGNMENTS: Deputy Chief of Staff of Personnel for
the 124th U.S. Army Reserve Command, Ft.
Lawton, Washington.

Deputy Chief of Staff, 124th U.S. Army
Reserve Command

SECURITY CLEARANCE: Special Top Secret

EDUCATIONAL: U.S. Army Command and General Staff
College, Ft. Leavenworth, Kansas, 1976
graduate

U.S. Army War College, Carlisle
Barracks, Pennsylvania, 1986 graduate

KOREAN SERVICE: 1954 - 1956

HIGHEST AWARDS: Legion of Merit (highest non-combat
decoration award by the U.S. Army)

Meritorious Service Medal

Army Commendation Medal

ROBERT N. SAWYER, M.D., FACPM

CURRICULUM VITAE

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Technical Services, Inc.
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Troy, NY 12180

518-283-9200

EDUCATION AND TRAINING:

UNDERGRADUATE:	Massachusetts Institute of Technology Cambridge, Massachusetts	BS	1956
MEDICAL:	Case Western Reserve University School of Medicine Cleveland, Ohio	MD	1963
INTERNSHIP:	Oakland Naval Hospital, Oakland, California. Rotating Internship		1964
RESIDENCY:	Preventive Medicine, Department of Epidemiology and Public Health, Yale University School of Medicine New Haven, Connecticut	1967 - 1970 MPH	1970
POST DOCTORAL RESEARCH:	Yale University School of Medicine, Department of Epidemiol- ogy and Public Health, New Haven, Connecticut	1968 - 1970	
BOARD CERTIFICATION:	American Board of Preventive Medicine Certificate No. 254, December, 1972		1972
FELLOWSHIP:	American College of Preventive Medicine Certificate No. 2023, April, 1973		1973
LICENSURE AND CERTIFICATION:	Diplomate of National Board of Medical Examiners. Certificate No. 79307		1964
	Medical Licenses:		
	Connecticut	12054	1965
	California	G-13270	1967
	Colorado	16661	1970

SOCIETY MEMBERSHIPS:	New York Academy of Science	
	American Association for the Advancement of Science	
	American College of Occupational Medicine	
	Occupational Medical Association of Connecticut	
	Air Pollution Control Association	
FACULTY APPOINTMENTS:	Lecturer in Medicine, Department of Medicine, Associated Faculty, School of Medicine, University of Pennsylvania.	1981 -
	Lecture faculty: Mt. Sinai School of Medicine New York, N.Y.	1978 - 1986
	Lecture faculty: The University of Kansas, Division of Continuing Education	1985 -
	Lecture faculty: Department of Epidemiology and Public Health, School of Medicine, Yale University, New Haven, CT	1972 - 1981
COMMITTEE APPOINTMENTS	U.S. Environmental Protection Agency, Water Engineering Laboratory (WERL), Cincinnati, Ohio. Peer Review Committee.	1987
	National Institute of Building Sciences, Asbestos Project Committee	1989
	National Institute of Building Sciences, EPA Radon Standards Project Committee.	1989
PRESENT PROFESSIONAL ACTIVITIES:	Consultant, Industrial and Preventive Medicine.	1979 -
	Vice President, Entek Environmental and Technical Services, Inc., Troy, NY. Consultants in toxic materials; architectural and engineering services for survey, assessment, and control.	1986 -
	Consultant, Radiation Management Consultants, Philadelphia, PA. Consultation to nuclear power industry on medical aspects of radiation, care of exposed or contaminated patients.	1979 -
PAST MAJOR PROFESSIONAL ACTIVITIES:	Vice President, Environmental Technology, Inc., West Hartford, CT. Consultants in toxic material survey, assessment, and control.	1979 - 1986
	Yale University Health Services, Yale University, New Haven, Connecticut.	1972 - 1981
	Head, Preventive and Occupational Medicine. Surveillance of special risk groups in areas of radiation, carcinogens, biohazards. Head, Department of Urgent Visit Service. Clinic and in-patient services in primary patient care. Staff included physician, physician associate, and nursing personnel.	

PAST MAJOR
PROFESSIONAL
ACTIVITIES:
(Continued)

Naval Submarine Medical Center, New London, Connecticut. 1969 - 1972
Staff Medical Officer, Military Operations.

Clinic, hospital, and general medicine duties. Consultation in radiation, chemical toxicology, and infectious disease. Medical Center Command Officer, Senior Medical Officer, Hyperbaric Medicine Officer, and Command Radiation Medical Officer.

Research: Headed section studying relationship of nuclear submarine environment and potential health effects. Directed research in hazardous material control and personnel protection.

Post Doctoral Research: Yale University School of Medicine, School of Epidemiology and Public Health 1967 - 1969

Principal Investigator in prospective study of Epstein-Barr virus and other respiratory system viral pathogens. Work published in Journal of Infectious Diseases.

Delegate to North Atlantic Treaty Organization (NATO): Committee on Nuclear, Chemical, and Biologic Effects. 1966 - 1967

Squadron Medical Officer: U.S. Navy Submarine Squadron Two, New London, Connecticut. 1966 - 1967

Clinical out-patient care. Medical system and preventive medicine program development.

Research: Special Projects Medical Officer. Systems development and personnel protection.

Medical Officer: USS Sam Houston. Polaris Submarine. The Holy Loch, Scotland. 1964 - 1966

General medicine, preventive medicine, and radiation control. Research in epidemiology of infectious diseases in submarine crews.

Military medicine: Submarine Medical Center, New London, Connecticut. 1964

Medical, surgical, and radiation control training for independent assignment.

PUBLICATIONS:

- Sawyer, R. Viral serology antibody survival versus storage temperatures available aboard nuclear submarines. Naval Submarine Medical Research Laboratory Report No. 474, 11 March 1966.
- Sawyer, R. Viral disease diagnosis aboard nuclear submarines. Naval Submarine Medical Research Laboratory Report No. 473, 10 March 1966.
- Sawyer, R. and Somerville, R. Outbreak of mycoplasma pneumoniae infection in a nuclear submarine, JAMA 195(11):958-59, 14 March 1966.
- Sawyer, R.N., Evans, A.S., Niederman, J.C. and McCollum, R.W. Prospective studies of a group of Yale University freshman. I. Occurrence of infectious mononucleosis. J of Inf Dis 123:3, March 1971.
- Evans, A.S., Niederman, J.C. and Sawyer, R.N. Prospective studies of a group of Yale University freshman. II. Occurrence of acute respiratory infections and rubella. J Inf Dis 123:3, March 1971.
- Sawyer, R. Yale Art and Architecture Building Asbestos Contamination: Past, Present and Future. Proceedings International Conference Environmental Sensing and Assessment, September 1975.
- Storrie, M.C., Sawyer, R.N., Sphar, R.L. and Evans, A.S. Seroepidemiological studies of polaris submarine crews II. Military Medicine, January 1976.
- Sawyer, R. Asbestos Exposure in a Yale Building: Analysis and Resolution. Envir. Res 13:1 146-168, 1977.
- Nicholson, W.J., Rohl, A.N., Sawyer, R.N., Swoszowski, E.J. and Todaro, J.D. Control of Sprayed Asbestos Surfaces in School Buildings: A Feasibility Study. Report to the National Institute of Environmental Health Sciences, June 15, 1978.
- Sawyer, R. Non-occupational indoor asbestos pollution. In: Dusts and Disease. Proceedings of conference on Occupational exposures to fibrous and particulate dust and their extension into the environment. R Lemen and J Dement, Ed. 1979.
- Sawyer, R. Indoor Asbestos Pollution: Application of Hazard Criteria. Ann. N.Y. Acad. Sci. Vol. 330, 579-586, 1979.
- Sawyer, R. and Swoszowski, E.J. Asbestos Abatement in Schools: Experience and Observations. Ann. N.Y. Acad. Sci. Vol. 330, 765-776, 1979.
- Sawyer, R. Environmental Chemical Contamination Control in Aspheric Element Production. Proc. Optical Fabrication and Testing Workshop. Proceedings Optical Society America. September 22, 1980.
- Lory, E.E., Coin, D.S., Cohen, K.S., Dyer, J.S., Hienzsch, M.J., and Sawyer, R.N. Asbestos Friable Insulation Material (FIM) Risk Evaluation Procedure for Navy Facilities. Technical Report R883, Civil Engineering Laboratory, Port Hueneme, CA. February, 1981.
- Sawyer, R.N. An Outline of Asbestos Material Management in Buildings. Proceedings of Conference: Asbestos, A National Problem. Greater London Council, Technica Ltd., Lynton House, London. UK. November, 1984.
- Sawyer, R.N., Rohl, A.N., Langer, A.M. Airborne Fiber Control in Buildings During Asbestos Material Removal by Amended Water Methodology. JER. Vol. 36:1, 46-55, Feb. 1985.
- Sawyer, R.N. Asbestos Material Control and Abatement Methods. Proceedings: Occupational Health Meeting. National Aeronautics and Space Administration. Colorado Springs, CO. November 4-6, 1985.

Sawyer, R.N. and Morse, R.G. An Inventory Process for Determining Asbestos Control Needs and Costs. Architecture. December, 1986.

Sawyer, R.N. Asbestos Material Inventory, Control Concepts, and Risk Communication. In Press. Harvard University. 1989.

Sawyer, R.N. Asbestos material inventory, control concepts, and risk communication. Presented at Symposium on Health Aspects of Exposure to Asbestos in Buildings, Energy and Environmental Policy Center, Harvard University. June 28, 1989. In Press.

PUBLICATION CONSULTATION AND CONTRIBUTIONS

U.S. Environmental Protection Agency. Hazard Abatement from Sprayed Asbestos-Containing Material in Buildings: A Guidance Document. EPA-68-02-2607, 1978.

U.S. Environmental Protection Agency. Asbestos Containing Materials in School Buildings: A Guidance Document, Part 1. Office Toxic Substances C00090. March 1979.

U.S. Environmental Protection Agency. Asbestos Containing Materials in School Buildings: A Guidance Document, Part 2. Office of Air and Waste Management. Office of Air Quality Planning and Standards. RTP, NC. EPA 450/2-78-014. 1978.

U.S. Environmental Protection Agency. Evaluation of Sealants for Sprayed-On Asbestos Containing Material in Buildings. Battelle Columbus Laboratories. 1981.

U.S. Environmental Protection Agency. Evaluation of New Technologies in Asbestos Removal. PEDCo International Research. Cincinnati, Ohio. 1981.

Indoor Pollutants. National Research Council, Assembly of Life Sciences; Committee on Indoor Pollutants. National Academy Press, 1981.

U.S. Environmental Protection Agency. Asbestos in Public and Commercial Buildings. Geophysical Corporation of America. Bedford, Mass. 1982.

U.S. Environmental Protection Agency. Guidance Document, Control of Asbestos in Buildings. EPA 560/5-85-024. Battelle Memorial Institute. June, 1985.

National Institute of Building Sciences. Model Guide Specification for Asbestos Abatement in Buildings. October 15, 1985.

U.S. Environmental Protection Agency. Guidance for Assessing Asbestos Exposure and Selecting Abatement Methods. 1986.

U.S. Environmental Protection Agency. Operations and Maintenance Program for Asbestos Control. 1986.

MAJOR CONSULTATION ACTIVITIES

A list of consultation activities will be provided on written request. The listed consultation activities will be appropriate to the requirements of the request and client confidentiality.

AWARDS.

U.S. Navy Surgeon General Award, 1964:
Submarine Service (Polaris).

Submarine Force Atlantic Commendation, 1966: Research in
toxic materials control and development of medical care
systems on nuclear submarines.

U.S. Navy Commendation Medal, 1968: Special projects
activities as submarine medical officer.

Bureau of Medicine and Surgery Commendation, 1971:
Performance as physician in human hyperbaric research
experiments, University of Pennsylvania Institute of Environ-
mental Medicine.

Nominee, Excalibur Award, 1979: Service to the U.S. Govern-
ment, Environmental Protection Agency.

Nominee, Rockefeller Public Service Award, 1979: Advancing
the Health of the American People, Environmental Protection
Agency.

CITIZENSHIP:
BIRTH DATE:
BIRTH PLACE:
SSAN:
US PASSPORT:

United States
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Buffalo, New York
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Preparation of this document: October 9, 1989

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Stanley B. Fiel, MD.

July 1, 1991

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Wynnewood, PA 19096

Office Address Pulmonary Disease and Critical Care Section
Medical College of Pennsylvania
3300 Henry Avenue
Philadelphia, PA 19129

Social Security NO 199-36-8729

Date of Birth August 9, 1948

Marital Status Married: Carol Rae Kurman
Children: Jami Marissa, 1976
Seth Jordan, 1983
Maria Anne, 1987

Education:

1969	B.S.-University of Connecticut, Storrs, CT.
1973	M.D.-Medical College of Pennsylvania, Philadelphia, PA.

Military Service: None.

Postgraduate Training and Fellowship Appointments:

1973-1974	Intern in Medicine, Temple University Hospital, Philadelphia, PA.
1974-1976	Medical Resident, Temple University Hospital, Philadelphia, PA.
1976-1978	Fellowship, Pulmonary Disease Section, Hospital of the University of Pennsylvania, Philadelphia, PA.

Hospital Appointments:

1978-1991	Temple University School of Medicine
1982-Pres.	American Oncologic Hospital
1988-1991	St. Christopher's Hospital for Children
1991-	Medical College of Pennsylvania

Faculty Appointments:

1978	Assistant Professor of Medicine, Temple Univ. School of Medicine.
1983	Associate Professor of Medicine, Temple Univ. School of Medicine.
1990	Professor of Medicine, Temple University School of Medicine.
1991	Professor of Medicine, Medical College of Pennsylvania.

Special Certification:

1976	American Board of Internal Medicine, A.B.I.M., Candidate #054-569.
1978	Pulmonary Board of Internal Medicine, A.B.I.M.
1985	Certified NIOSH "A" Reader of Pneumoconiosis
1985-1989	Certified NIOSH "B" Reader of Pneumoconiosis

Licensure:

1976-present Pennsylvania - MD015547E

Awards, Honors and Memberships in Honorary Societies:

1969	Graduate Cum Laude, University of Connecticut
1972	Alpha Omega Alpha
1973	Lange Book Award in Medicine
1973	Rittenhouse Book Award
1973	Mosby Book Award
1973	Graduate Cum Laude, Medical College of PA
1978-82	Pulmonary Academic Award, National Heart, Lung and Blood Institute (#1K07-HL446-01-05 MR)
1984-88	Special Projects of Regional & National Significance (SPRANS) - Awarded by Maternal and Child Health Care (MCHC). "Transition of Patients with Cystic Fibrosis to Adult Care."
1986-88	Smith Kline French Pharmaceuticals: Grant for studying Genetics of Cystic Fibrosis.
1987-88	Cystic Fibrosis Foundation - Heart-Lung Transplantation (#A0088-2)
1989-91	Preventive Pulmonary Academic Award - NIH (1K07-HL02103-01A2)

National:

1972-present Alpha Omega Alpha
1975-present American Thoracic Society
1975-present American College of Chest Physicians
1977-present Association of American Medical Colleges
1977-present American College of Physicians
1979-present Society of Clinical Decision-Making
1982-present American Federation of Clinical Research

Local:

1976-present Philadelphia County Medical Society
1976-present Pennsylvania Medical Society
1978-present LAENNEC Society
1978-present Pennsylvania Thoracic Society

Fellowship in Professional and Scientific Societies:

1983 FCCP - Fellow of the College of Chest Physicians
1983 FACP - Fellow of the American College of Physicians

Publications:

Watkins, D.T., Cooperstein, S.J. and Fiel, S.B.: Studies on the selectivity of alloxan for the B-cells of the islets of Langerhans: Effect of pH on the *in vitro* action of alloxan. J. Pharm. & Exp. Therapy 208:184-189, 1979.

Glanz, K., Fiel, S.B., Walker, L.R. and Levy, M.R.: Preventive health behavior of physicians. J. Medical Education, 57:637-639, 1982.

Fiel, S.B., Swartz, M., Glanz, K. and Horowitz, J.: The efficacy of short-term corticosteroid therapy in the out-patient treatment of acute bronchial asthma. Amer. J. Med. 75:259-262, 1983.

Glanz, K. and Fiel, S.B.: Attendance at lectures and medical school performance. J. Med. Ed. 59:516-518, 1984.

Fiel, S.B. and Swartz, M.: Letter to the Editor, Importance of route of administration of steroids in asthma. Am. J.-Med. 76:A101-102, 1984.

Glanz, K., Fiel, S.B., Swartz, M.A. and Francis, M.E.: Compliance with experimental drug regimen for treatment of acute asthma in adults: Its magnitude, importance and correlates. J. Chronic Dis. 37(11):815-824, 1984.

Publications (continued)

- Fiel, S.B. and Drezner, D.: Clinical problem-solving. Pennsylvania Medicine, 88(6):46-51, 1985.
- Fiel, S.B.: Cystic fibrosis in the adult. Philadelphia Medicine, 81:197-201, 1985.
- Fiel, S.B.: Corticosteroids should be routinely used for acute episodes of asthma requiring emergency care or hospitalization. Pharmacotherapy, 5(6):327-335, 1985.
- Fiel, S.B. and Friedman, A.E.: The use of MRI in cystic fibrosis. Chest, 91(2):181-182, 1987.
- Fiel S.B.: Experiences with a CF transition program. International Association of Cystic Fibrosis Adults, II:13-15, 1987.
- Huang, N., Schidlow, D.V. and Fiel, S.B., et al. Clinical features, survival rate, and prognostic factors in young adults with cystic fibrosis. Am. J. Med., 82(5):871-879, 1987.
- Hoffman, I. and Fiel, S.B.: Oral vs repository corticosteroid therapy in acute asthma. Chest, 93:11-13, 1988.
- Friedman, A.C. and Fiel, S.B.: High resolution: CT evaluation of occupational lung disease. Amer. J of Roentgenology, 150:269-275, 1988.
- Rindsberg, S., Friedman, A.C. and Fiel, S.B., et al.: MRI of tracheomegaly. J. Can. Assoc. Radiol., 38:126-128, 1988.
- Fiel, S.B.: Cystic Fibrosis in the Adult. Emergency Medicine, Jan. 1988.
- Fiel, S.B.: Heart-Lung Transplantation in Cystic Fibrosis - Overview. Ped. Pulmonology, Supplement 2:63-64, 1988.
- Fiel, S.B.: Manifestations of CF in Adult Patients - Are They Different? Ped. Pulmonology, Supplement 2:81-82, 1988.
- Friedman, A.C., Radecki, P. and Fiel, S.B.: Detection of asbestosis with HRCT. Radiology, 170:278-279, 1989.
- Dillman, N.J., Ceglowski, W.S., and Fiel, S.B.: False-positive tests for human immunodeficiency virus (HIV) in patients with cystic fibrosis. Annals of Int. Med., 110:94, 1989.
- Fiel, S.B., Friedman, A.C. and Radecki, P.D.: Evaluation of pulmonary disease: Clinical role of conventional and high-resolution CT. Radiology Report, 1(2):188-205, 1989.

Publications (continued)

Fiel, S.B. and Friedman, A.F.: High resolution CT and asbestos exposure. Radiology Report. 1(2):248-260, 1989.

Fiel, S.B.: Clinical Consultation - ER care of asthma: Which is better, oral or I.M. steroids? J. Resp. Dis., 10(3):12, 1989.

Friedman, A.C. and Fiel, S.B.: Roentgenograph under estimation of early asbestosis by ILO classification system. Chest 95:1166-1167, 1989.

Fiel, S.B., et al.: Heart-lung transplantation in cystic fibrosis - Overview. Clinical Transplantation, 3:162-163, 1989.

Cooney, G.F., Fiel, S.B., Shaw, L.M., and Cavarocchi, N.C.: Cyclosporine bioavailability in heart-lung transplant candidates with cystic fibrosis. Transplantation, 49(4):821, 1990.

Friedman, A., Fiel, S.B.: CT of Benign Pleural and Pulmonary Parenchymal Abnormalities Related to Asbestos Exposure. Seminars in CT, Ultrasound and MRI 11(5): 393-408, Oct. 1990.

Fiel, S.B., Wideman, E.: Transplantation of CF in the United States. 1990 International Association of Cystic Fibrosis Adults. Issue 23 pg. 8-10, 1990.

Fiel, S.B.: Mechanical ventilation in the severely ill adult with cystic fibrosis. Pediatric Pulmonology Suppl 5 147-150, 1990.

Fiel S.B.: Heart-lung transplantation - A test of clinical wisdom. Archives of Internal Medicine, 1991; 151:870-872.

First, W.H., Fox, P.W. Campbell, Fiel, S.B., Loyd, J.E. and Merrill, W.H. Cystic Fibrosis Treated with Heart-lung Transplantation: North American Results. Transplantation Proceedings 1991; 23(1): 1205-1206.

Hewitt, A., Glanz, K., Fiel, S.B.: Preventive Pulmonary Medical Education - review of its importance, status and challenge. - Chest 100:487-93, 1991.

Schidlow, D., Fiel, S.B. et al.: - Guidelines for cystic fibrosis patient care in Cystic Fibrosis Centers. Accepted - Archives of Diseases of Children - 1991.

Fiel, S.B. Providing comprehensive care to adults with cystic fibrosis. J. Resp. Dis. 12(7):669-682, 1991.

Fiel, S.B.: Therapeutic options in cystic fibrosis - Ann. Int. Med. Submitted 1991.

Lewiston N, Fiel, S.B., Rosenstein B., et al.: Clinical characteristics of CF patients accepted as candidates for heart lung transplantation in the U.S. - Submitted Chest 1991.

Published Abstracts

Fiel, S.B., Atkinson, B.F. and Ochs, R.H.: Reasons for failure and suggestions for rebiopsy in transbronchial lung biopsies. ARRD 117(4):113, 1978.

Fiel, S.B., Swartz, M., Glanz, K. and Frances, M.: The efficacy of short term corticosteroid therapy in the out-patient treatment of acute bronchial asthma. Clin. Res. 30(20):428a, 1982.

Yeung, W.H., Schidlow, D.V., Fiel, S.B. and Kueppers, F.: Antibody to pseudomonas cepacia in sera of patients with cystic fibrosis. Cystic Fibrosis Club Abstracts, 1986. Bethesda, MD.

Fiel, S.B., et al.: Transition of young adults with cystic fibrosis to adult care. Pediatric Pulmonary, 1986, Bethesda, MD.

Fiel, S.B. and Friedman, A.C.: High resolution CT evaluation of asbestos exposed individuals. ARRD 35(4):A133, 1987.

Fiel, S.B. et al. MRI in Adults with Cystic Fibrosis. Respiratory Diseases Digest, 8:4-5, 1987.

Cooney, G.F., Fiel, S.B., Hoffman, I.B. and Rocci, M.D.: Effect of disease severity on Tobramycin clearance in adult cystic fibrosis patients. ARRD 137(4):502, 1988.

Fiel, S.B., Christensen, G.C. and Cavarocchi, N.: Transbronchial biopsy (TBB) in the diagnosis of chronic rejection of heart-lung transplantation (HLT). ARRD 137(4):468, 1988.

Quittell, L.M., Fiel, S.B., Schidlow, D.V. and Cavarocchi N.: Transplanted lungs retain normal potential differences in cystic fibrosis. ARRD 137(4):302, 1988.

Fiel, S.B., Muza, S.R., Silverman, M.T. and Kelsen S.C.: Impaired perceptual acuity of inspiratory resistive loads by heart-lung transplant recipients. Presented at FASEB, Las Vegas, NV, May 1988. Fed. Proc. 2(4):A514, 1988.

Cooney, G.F., Rocci, M.L., Fiel, S.B., Boczar K.E. and Lazin, B.M. Does Tobramycin clearance differ in adults with cystic fibrosis? Clin Pharmacol Ther. 42(2) 1988.

Cooney, G.F., Rossi, M.L. and Fiel, S.B.: Does tobramycin clearance differ in adults with cystic fibrosis? Pharmacol Ther Vol 8 #2, 1988.

Muza, S., Silverman, M., Kelsen, S. and Fiel, S.B.: Cardiopulmonary responses during exercise in cystic fibrosis heart-lung transplant candidates. Pediatric Pulmonology, 1988, Supplement 2.

Fiel, S.B., Christensen, G.C. and Cavarocchi, N.C.: Transbronchial biopsy in the diagnosis of chronic rejection of heart-lung transplantation. Pediatric Pulmonology 1988, Supplement 2.

Published Abstracts (continued)

Fiel, M.D., and Friedman, A.C.: Literature Review: Journal of Abstracts. Radiology Report 1(2):279-280, 1989.

Lewiston, N., Fiel, S.B., Rosenstein, B., Muza, S., Ross, D., and Theodore J.: Clinical characteristics of cystic fibrosis patients accepted as candidates for heart-lung transplantation. ARRD 139(4): A566, 1989.

Fiel, S.B. and Hoffman, I.B.: Oral vs. respository corticosteroid therapy in acute asthma. Int. Synopses, In Press 1989.

Cooney, G.F., Fiel, S.B., Shaw, L.M. and Cavarocchi, N.C.: Bioavailability of oral cyclosporin A in heart-lung transplant candidates with cystic fibrosis. Pediatric Pulmonology, p. 144 (supplement 4), 1989.

Lewiston, N., Fiel, S.B., Rosenstein, B., Muza, S., Eddy, G., Starnes, V., and Baldwin, J.: Clinical characteristics of cystic fibrosis patients accepted as candidates for heart-lung transplantation. Pediatric Pulmonology, p. 143 (supplement 4), 1989.

Fiel, S.B., Friedman, A.C. et al.: Respiratory diseases and function in a group of firefighters. Chest 96(2) (supplement) August 1989.

Boczar, K., Widerman, E., and Fiel, S.B.: Symptoms, self perception and illness severity in the adult with cystic fibrosis. Pediatric Pulmonology Suppl. 5, pg 278, 1990.

Monographs and Chapters

Fiel, S.B.: Clinical simulations in the management of a pneumoconiosis. In: Temple University Bulletin. Continuing Medical Education, 1980.

Fiel, S.B.: Restrictive lung disease. Audio Digest. Family Practice. 29:9, 1981.

Fiel, S.B.: Smoking, occupational exposure and neoplasms: Their relationships. Audio Digest. Family Practice. 31:8, 1982.

Fiel, S.B.: "Infections in the immunosuppressed patient". In: The Respiratory System - A Core Curriculum. Gong, H. and Drage, C., eds. Norwalk, Conn.: Appleton-Century-Crofts, 1982, 217-223.

Fiel, S.B.: Clinical simulations in the management of a pneumoconiosis (update). In: Temple University Bulletin. Continuing Medical Education, 1983.

Monographs and Chapters (continued)

Computer program for computer assisted instruction on "COPD." 1983.

- Fiel, S.B.: Emergency management of severe bronchial asthma. Monograph for the Upjohn Company, March, 1984.

Fiel, S.B. and Fein, A.: "Asthma." In: Pulmonary Disease Reviews V. Bone, ed., 1984.

Fiel, S.B. and Fein, A.: "Asthma." In: Pulmonary Disease Reviews VI. Bone, ed., 1985.

Fiel, S.B.: "Pulmonary Diseases." In: Outline of Medicine. Myers, A., ed., 1986, Harwall Publications.

Fein, A.M., Fiel, S.B. et al. "When the pneumonia does not get better." Clinics in Chest Medicine. Niederman, ed. Vol 8(3) 9/87.

Fiel, S.B., Schidlow, D.V., Bronheim, S., MacGrab, P.: "Transitioning chronically ill adolescents - CF prototype" Georgetown University Press 1988.

Fiel, S.B.: Chronic obstructive pulmonary disease. Monograph for Temple University Continuing Medical Education, 1988.

Fiel, S.B.: Transitioning of patients from pediatric to adult care. Surgeon General's Conference, 1989.

Fiel, S.B. and Cooper J.: "Lung Transplantation". In: Chronic Obstructive Pulmonary Disease. Cherniak, N., ed. W.B. Saunders Co. Chapter 59, pg 546-553.

Schidlow, D.V., Fiel, S.B.: Life Beyond Pediatrics: Transisiton of chronically ill adolescents from pediatric to adult health care systems. Medical Clinics in North America. 74(5): 1113-1120, 1990.

Fiel, S.B.: "Pulmonary Diseases an Outline of Medicine" 2nd Edition, Myers et al, Harwell Publications (Submitted) 1991.

Fiel, S.B.: "Medical Aspects of Lung Transplantation" Seminars of Respiratory Medicine. In press, 1991.

Selected Invited Papers and Visiting Professorships:

- 05/06/78 Pennsylvania Association of Clinical Pathologists Meeting, Hershey, PA, "Transbronchial lung biopsies."
- 05/06/78 Pennsylvania Association of Clinical Pathologists Meeting, Hershey, PA. "The effect of monocrotaline and its pyloric metabolic DHMC on the lung and pulmonary circulation of the dog."
- 12/03/79 The University of California at San Francisco, "Experimental pulmonary hypertension."
- 03/10/80 Community College of Philadelphia, "Pulmonary Diseases."
- 03/80 Lancaster County Hospital, Lancaster, PA. "Restrictive lung disease." - Part of a Family Practice Symposium.
- 04/80 University of Michigan, Ann Arbor, "Short course steroids in the emergency room treatment of asthma."
- 05/80 American Thoracic Society Meeting, Washington, DC, Pulmonary Academic Awardee Conference.
- 05/81 American Thoracic Society Meeting, Detroit, MI, Pulmonary Academic Awardee Meeting.
- 08/26/81 Scranton Hospital, "Hypersensitivity pneumonitis"
- 11/16/81 New York University, "Newer trends in treatment of COPD."
- 12/06/81 Nazareth Hospital, Philadelphia, PA, "Bronchodilator treatment."
- 01/08/82 Riddle Hospital, Philadelphia, PA, "Bronchodilator treatment."
- 01/20/82 Presbyterian University of Pennsylvania Medical Center, "Pulmonary hypertension."
- 01/26/82 Millville Hospital, Millville, NJ, "The adult respiratory distress syndrome."
- 02/03/82 Jeanes Hospital, Philadelphia, PA, "Oxygen therapy."
- 03/04/82 Lancaster County Hospital, Lancaster, PA. "Cigarette smoking and how it affects the genesis of carcinoma among workers exposed to particular matters."

Selected Invited Papers and Visiting Professorships (continued)

- 03/28/82 Washington County Hospital, Hagerstown, MD, "Newer trends in the treatment of COPD."
- 04/16/82 "Workshop on clinical interpretation arterial blood gas measurements." Sponsored by General Diagnostics Corporation, Philadelphia, PA.
- 04/21/82 St. Agnes Hospital, Philadelphia, PA; "Interstitial Lung Disease."
- 05/15/82 The American Thoracic Society Meeting, Los Angeles, CA, "The pulmonary academic award and its future."
- 06/08/82 New York University, New York, "Regional report on the pulmonary hypertension registry."
- 07/20/82 Medical Center of Princeton, NJ, "Cystic fibrosis in the adult."
- 09/17/82 St. Francis Medical Center, Trenton, NJ "Newer trends in oxygen treatment."
- 11/82 Medical faculty utilization of student lecture evaluations. Am. Public Health Association Annual Meeting, Montreal, Canada.
- 11/10/82 New Jersey College of Medicine and Dentistry, "Steroid therapy in asthma."
- 11/11/82 Hershey Medical Center, Hershey, PA, "Newer trends in chronic airflow obstruction."
- 11/19/82 NIH - Pulmonary Hypertension Quarterly Meeting, New York, NY.
- 11/27/82 Critical Care Conference - Director, ACP Course, Atlantic City, NJ.
- 01/12/83 Philadelphia Pediatrics Symposium, "Arterial Blood Gases."
- 01/27/83 Computers in medicine, Scottsdale, AZ.
- 03/22-3/23 Visiting Professor, Charlotte Memorial Hospital.
- 03/25/83 -- Philadelphia Pediatrics Symposium "Primary pulmonary hypertension."
- 04/21/83 Guiffre Medical Center, Philadelphia, PA, "Update: Bronchodilators."
- 04/26/83 Millville Hospital, NJ, "Newer trends in COPD."

Selected Invited Papers and Visiting Professorships (continued)

- 04/27/83 Sacred Heart Hospital, Philadelphia, PA, "Interstitial lung disease."
- 05/08/83 Pulmonary Academic Awardees - "Overview." Annual ATS Meeting, Kansas City, MO.
- 06/16-17/83 NIH, Chicago, IL, "Primary pulmonary hypertension registry update."
- 09/23/83 Brandywine Hospital, "Respiratory failure."
- 10/04/83 Metropolitan Hospital, Philadelphia, PA, "Pulse steroid therapy of asthma."
- 10/19/83 Methodist Hospital, Philadelphia, PA, "Cystic fibrosis".
- 10/26/83 Mercer Medical Center, Trenton, NJ, "Office spirometry."
- 11/16/83 American Public Health Association, Annual Meeting, Dallas, TX, "Asthma and compliance."
- 11/83 Temple University Sugarloaf Conference Center, Philadelphia, PA, Cystic fibrosis retreat, "Adult cystic fibrosis."
- 12/15/83 - Temple University School of Pharmacy, Philadelphia Philadelphia, PA, "Asthma medication for the pharmacologists."
- 2/8/84 Berks County Medical Society Grand Rounds, "Update of chronic obstructive pulmonary disease."
- 3/8/84 Hospital of the University of Pennsylvania, Philadelphia, PA, "Pulmonary functions and asbestos related disease."
- 3/21/84 Pennsylvania Thoracic Society, Marriott Motor Lodge, Philadelphia, PA, "Current topics in pulmonary disease."
- 3/29/84 Memorial Hospital, Burlington County, Mt. Holly, NJ, "Update on chronic obstructive pulmonary disease."
- 3/21/84 Newcomb Hospital, Vineland, NJ, "Newer concepts in the treatment of asthma and COPD."
- 4/10/84 Thomas Jefferson University Hospital, Philadelphia, PA, "Steroids in asthma."

Selected Invited Papers and Visiting Professorships (continued)

- 4/27/84 Pulmonary Academic Awardee Conference, New York, NY.
- 5/84 American Thoracic Society Meeting, Miami, FL, "Update on pulmonary question bank."
- 7/84 WPEN Radio Talk Show, Philadelphia, PA, "COPD and Smoking."
- 7/18/84 Presbyterian-University of Pennsylvania Hospital, Philadelphia, PA, Grand Rounds, "Update: COPD."
- 7/25/84 Chestnut Hill Hospital, Philadelphia, PA., Medical Grand Rounds, "Corticosteroids in asthma."
- 9/5/84 Channel 10 - WCAU Television, Philadelphia, PA, "Asbestos in today's environment."
- 9/11/84 Abington Hospital, Abington, PA, Grand Rounds, Management of asthma."
- 9/23-24/84 Chicago, IL. Two-day Symposium on "Lysine Acetylsalicylate as an antipyretic." Sponsored by Lorex Pharmaceuticals.
- 10/3/84 WPEN Radio, Philadelphia, PA, "Cystic fibrosis in adult population."
- 10/5/84 Temple University Hospital, Philadelphia, PA, Grand Rounds, "Cystic fibrosis in the adult."
- 10/12-13/84 Regional Cystic Fibrosis Retreat, Sugarloaf Conference, Philadelphia, PA.
- 10/24/84 Pediatric Pulmonary Center, Philadelphia, PA, "Arterial blood gases."
- 11/7/84 Hahnemann University Hospital, Grand Rounds, Philadelphia, PA, "PgeI in ARDS."
- 11/12/84 Nassau Hospital, Nassau, NY, Grand Rounds, "Cystic fibrosis in the adult, pulmonary update series."
- 3/12/85 -- Current topics in pulmonary disease for the 7th Annual Pulmonary Disease Course for the Pennsylvania Thoracic Society.
- 4/3/85 Temple University Hospital, Pharmacologists, Philadelphia, PA, "Pharmakinetetics of drugs in cystic fibrosis."

Selected Invited Papers and Visiting Professorships (continued)

- 4/9/85 Princeton Hospital, Princeton, NJ "Adult cystic fibrosis."
- 4/23/85 West Jersey Hospital, Grand Rounds, "New therapies in pulmonary hypertension."
- 5/12/85 Lankenau Hospital, Bryn Mawr, PA, Grand Rounds, "Cystic fibrosis in the adult."
- 5/29/85 Presbyterian-St. Luke's Hospital, Chicago, IL, Grand Rounds, "PGE₁ in ARDS."
- 8/8-10/85 Cystic fibrosis journey on the Argo - Presentation of use of Ceftazidime in cystic fibrosis - Monterey, CA. Sponsored by Glaxo Pharmaceuticals.
- 9/20/85 V.A. Medical Center, Wilkes Barre, PA, "New approaches to chronic airway obstruction."
- 9/27/85 Jersey City Medical Center, Jersey City, NY, "The adult with cystic fibrosis."
- 9/30/85 Medical College of Virginia, "Asbestos in the workplace."
- 11/1/85 CF Retreat, Philadelphia Pediatric Group, Philadelphia, PA, "The use of MRI in cystic fibrosis."
- 12/26/85 Good Morning America, WPVI-TV, Channel 6, Philadelphia, PA, "Humidifiers and Pulmonary Disease."
- 1/7/86 Frankford Hospital, Philadelphia, PA, "The adult with cystic fibrosis."
- 1/12/86 Society of Gastroenterologic Radiology, Acapulco, Mexico "Abdominal ultrasound vs MRI in cystic fibrosis."
- 1/29-30/86 Scranton/Temple Residency Affiliated Hospital, Scranton, PA - Visiting Professor.
- 4/1/86 Albert Einstein Medical Center, Philadelphia, PA "Adult Presentations with Cystic Fibrosis."
- 4/2/86 Hahnemann University, Philadelphia, PA - "The adult with cystic fibrosis." - Visiting Professor.
- 4/14-18/86 Amer. Roentgen Ray Society, Washington, DC, "MRI in cystic fibrosis."

Selected Invited Papers and Visiting Professorships (continued)

- 5/2/86 CF Club, Bethesda, MD, "Transitioning patients in cystic fibrosis."
- 5/13/86 American Thoracic Society Meeting, Kansas City, "Use of MRI in cystic fibrosis."
- 5/16/86 Children's Rehabilitation Center, University of Virginia, Charlottesville, VA. "Transitioning of patients in cystic fibrosis." Issues of Transition Conference.
- 6/7/86 30th Anniversary Celebration of MCHC (Maternal Child Health Care), Washington, DC. "Transition issues for chronic illness." - Surgeon's General Conference.
- 6/16/86 Springfield Township School District - Panel Discussion: "Asbestos in Schools."
- 8/21/86 Eagle Lodge, Philadelphia, PA Seminar in Occupational Medicine through Temple University School of Pharmacy, "Asbestos-Related Disease."
- 10/23-11/9/86 People's Republic of China, Seminar through Temple Continuing Medical Education, "Pulmonary diseases."
- 12/2/86 Delaware Valley Hospital, "Update COPD."
- 4/3/87 Georgetown University, Pediatric Grand Rounds "Transition to adult care in cystic fibrosis."
- 4/7/87 Abington Hospital, Abington, PA, "Adult respiratory distress syndrome."
- 4/10/87 Cystic Fibrosis Foundation, "Heart-lung transplantation indications and protocol for patient follow-up."
- 4/27/87 American Roentgen Ray Society, Miami, FL, "Asbestos-related pulmonary disease - Evaluation with CT."
- 5/11/87 American Thoracic Society, New Orleans, LA. "Occupationally related diseases evaluated by high resolution computerized tomography, HRCT."
- 6/14/87 Surgeon Generals Conference, Houston, TX, "Improving care of young adults with cystic fibrosis."
- 2/4/88 York Hospital, "Corticosteroids in asthma."

Selected Invited Papers and Visiting Professorships (continued)

- 2/9/88 LANNEC Society, Heart-lung transplantation - Focus-CF.
- 3/25/88 Family Practice Review - "Asbestos related diseases."
- 4/29/88 Deborah Hospital, Brownsmill, NJ, "Management of the adult with cystic fibrosis."
- 5/8/88 American Thoracic Society Meeting, Las Vegas, NV - Meet the Professor Seminar "Management of the adult with cystic fibrosis."
- 5/19/88 Allied Health School, TUH Eagle Lodge, Phila. PA. "Occupational diseases."
- 5/25-26/88 Georgetown University - Keynote speaker for Transition Conference - "Disability of children with CF."
- 6/2/88 Visiting Professor - University of Wisconsin "Heart-lung transplantation."
- 7/12/88 Cystic Fibrosis Foundation - Ad Hoc Committee on adult care in cystic fibrosis - focus on 1990's .
- 7/24/88 KYW News Radio - Philadelphia, PA. Smoking and Pulmonary Disease.
- 9/28-10/1/88 North American Cystic Fibrosis Foundation Conference - Orlando, Florida. Symposium leader on the adult with cystic fibrosis and symposium presenter on heart-lung transplantation - The North American Experience.
- 10/12-26/88 Group leader for CME Course from Temple University Medical School - Kenya, East Africa - Lectures and medical visits.
- 11/11/88 Michigan State University - Visiting Professor - Heart-lung transplantation in the adult with cystic fibrosis.
- 11/13/88 American Heart Association - Washington, DC - Symposium presenter on International Experience of Heart-Lung Transplantation.
- 11/21-23/88 Guest Speaker for French Thoracic Society - Paris, France (Cyclosporin and Nutrition in Transplanted Patients with Cystic Fibrosis).
- 12/6/88 Grand Rounds - Abington Hospital - Philadelphia, PA. Adult with Cystic Fibrosis.

Selected Invited Papers and Visiting Professorships (continued)

- 1/9/89 Cornell University - Lung Transplantation and the Denervated Lung. - Visiting Professor.
- 3/13-15/89 Surgeon General's Conference - Youth with Special Health Care Needs - Presenter - Jekyll Island, GA.
- 5/17/89 American Thoracic Society - Cincinnati, Ohio. "Meet the Professor" - Respiratory Infection in CF.
- 6/2/89 University of Pennsylvania Hospital - Manifestation of CF in the Adult.
- 6/9-11/89 GAP Conference - Cystic Fibrosis Foundation - "Xenograft and Transplantation - Symposium participant and presenter.
- 9/11/89 Preventive Pulmonary Academic Award Meeting - Portland, Oregon - Smoking Cessation in the Workplace.
- 10/12-14/89 North American Cystic Fibrosis Conference - Tarpon Springs, Florida - Symposium leader and presenter on Heart-Lung Transplantation in CF.
- 10/25-27/89 Grant review for NIH Preventive Pulmonary Academic Award.
- 11/1/89 American College of Chest Physicians - Poster presenter - Asbestos Related Pulmonary Disease in Firefighters.
- 03/26/90 Philadelphia College of Osteopathic Medicine - Emergency Room Treatment of Asthma.
- 04/5/90 Continuing Education Center for Health Professionals - Triton College, Chicago, Illinois - Visiting Professor - Cystic Fibrosis and Lung Transplantation.
- 4/23-24/90 Pan American Conference of the College of Chest Physicians - San Juan, Puerto Rico - Symposium leader and presenter on asthma and cystic fibrosis.
- 5/17-18/90 7th Canadian Cystic Fibrosis Foundation "Broken Arrow" Conference - Transplantation in CF.
- 05/20/90 American Thoracic Society "CF Beyond the Gene" -Symposium leader - Boston, MA.

Selected Invited Papers and Visiting Professorships (continued)

- 05/23/90 American Thoracic Society - Meet the Professor Seminar on the Adult with Cystic Fibrosis - Boston, MA.
- 06/7/90 Visiting Professor - University of Oklahoma.
- 10/3/90 North American Cystic Fibrosis Conference - Crystal City, VA - (1) use of Mechanical Ventilation in CF and (2) heart-lung transplantation in CF.
- 11/2/90 Medical College of Pennsylvania - Visiting Professor - Emergency room treatment of asthma.
- 2/20/91 University of Texas, San Antonio - Visiting Professor.
- 4/9/91 University of Pittsburgh - Visiting Professor.
- 4/17/91 State University of New York at Stony Brook - Visiting Professor.
- 5/15/91 American Thoracic Society - Symposium Leader - Management of the Adult with Cystic Fibrosis.

Administrative Responsibilities:

7/91-present Chief, Pulmonary Disease & Critical Care Medicine Section, Medical College of Pennsylvania

Departmental (Temple University Hospital)

- 1989-1991 Program Director, Fellowship Program
- 1988- " Director, Lung Transplant Program
- 1987- " Deputy Chief, Pulmonary Disease Section and Director Clinical Services
- 1982- " Residency Advisory Committee, Department of Medicine
- 1985- " Practice Plan Committee
- 1985- " Director, Respiratory Care Department
- 1984- " Director, Adult Cystic Fibrosis Program
- 1983- " Senior Student Advisor - Dean Appointed
- 1982- " Residency Selection Committee, Department of Medicine
- 1983-1988- " Laser Committee
- 1985-1987 Acting Chief, Pulmonary Disease Section
- 1983-1984 Chairman of Long Range Planning Committee - (Sub-Committee of Curriculum Committee).
- 1982-1985 Planning New Hospital, RICU, Respiratory Therapy and Pulmonary Function Laboratory

Administrative Responsibilities: (continued)

Departmental (Temple University Hospital)

- 1982-1984 Short Procedure Unit Steering Committee
- 1982-1984 Curriculum Committee
- 1981-1985 Director, Fiberoptic Bronchoscopy Service, Pulmonary Disease Section
- 1980-1985 * Director, Systems Disease I & II (Introduction to Clinical Medicine), Department of Medicine Organizing and Standardizing the Systems Disease I and II Courses for the Department of Medicine. I am supervising all course directors in faculty evaluation, test production and course syllabi.
- 1978-1985 Director, Medical Student Education, Pulmonary Disease Section

National

- 1990-present ACCP - Steering Committee - Clinical Problems Assembly
- 1989- " Planning Committee - Surgeon's General Conference on "Transition in Health Care"
- 1988- " Exec. Committee, Pennsylvania Thoracic Society
- 1988- " Adult Care Subcommittee - CF Foundation
- 1982- " Representative of American College of Chest Physicians Forum on Infection and Immunology
- 1981-1988 Pulmonary Data Bank Committee of Pulmonary Academic Awardees; Creating a National Question Bank for Pulmonary Disease Course Directors in Medical Schools.
- 1983-1984 Publication Committee of NIH Registry for Pulmonary Hypertension
- 1982-1983 - Charter Member of Society for Clinical Decision Making and Member Education Committee
- 1980-1983 ***Chairman of the Steering Committee of Pulmonary Academic Awardees

Local

- 1987-present Pulmonary Thoracic Society, Executive Committee
- 1984- " Medical College of Pennsylvania, Awards Committee
- 1983-1991 St. Christopher's Hospital for Children/Temple University Hospital, Director of Cystic Fibrosis Program for Adults
- 1984 Pennsylvania Thoracic Society, Planning Committee for Annual Pulmonary Course
- 1991 St. Christopher's Hospital/Medical College of Pennsylvania, Director, Cystic Fibrosis Program

* Systems Disease Course is a lecture/small group discussion course involving all the medical subspecialties. The course plans the last six months of the sophomore year.

** Pulmonary Academic Awardee (PAA) - National Institute of Health Five year Award for Pulmonary Education. (PAA)

Outside Activities

- 1988-Present Reviewer, Abstracts for CFF National Meeting
- 1988 - " NIH Grant Review Study Section - Ad Hoc - Pulmonary Education & Asthma Management.
- 1987-1988 Ad Hoc Committee - Cystic Fibrosis Foundation -
Grant Reviewer - Adult Demonstration Education Outreach Grant.
- 1983-1987 Director of an NIH Registry Center for Primary Pulmonary Hypertension
- 1982-1985 Professional Standard Review Organization of Philadelphia Evaluation of
Physician Behavior in the Treatment of COPD and Pneumonia
- 1980-1987 National Committee of PAA's to Write Test Question Bank for Computerized
Testing Service for Pulmonary Disease Section

Editorial Positions:

- 1985-present American Journal of Medicine (Reviewer)
- 1985- " Research Grant Review Committee, Pennsylvania Thoracic Society
- 1985- " Archives of Internal Medicine (Reviewer)
- 1985- " Temple Medicine
- 1986- " Chest (Reviewer)
- 1987- " Journal of Laboratory & Clinical Medicine (Reviewer)
- 1988- " Annals of Internal Medicine (Reviewer)
- 1989 " - Journal of Allergy & Clinical Immunology (Reviewer)
- 1989- " American Review Respiratory Diseases (Reviewer)

Areas of Research:

Clinical studies involving asthma, cystic fibrosis, pneumoconiosis, and heart-lung transplantation. Preventive Pulmonary Disease - Applications for Teaching

Work in Progress:

Corticosteroids in cystic fibrosis
Protocol for early rejection and follow-up in patients with heart-lung transplantation
Aerosolized antibiotics in cystic fibrosis
Use of a neutrophil elastase inhibitor in cystic fibrosis
Use of Amiloride in cystic fibrosis

Courses and Conferences Organized:

- | | |
|-------------|---|
| 1981 | Pulmonary Function Tests and Arterial Blood Gases
Post Graduate Course for the American Medical Association |
| 10/16-18/82 | Critical Care Medicine for the American College of Chest Physicians |
| 10/83 | Critical Care Medicine for the American College of Chest Physician |
| 3/84 | Pennsylvania Thoracic Society - Pulmonary Diseases |
| 10/88 | Symposium Organizer - Adults with Cystic Fibrosis - North American Cystic Fibrosis Foundation |
| 1/89 | Planning Committee - Surgeon's General Conference on Transition |
| 10/89 | Symposium Organizer - Heart-Lung Transplantation in Cystic Fibrosis - North American Cystic Fibrosis Foundation |
| 5/90 | Symposium Leader - American Thoracic Society - CF Beyond the Gene |
| 10/90 | Symposium Organizer - National Cystic Fibrosis Conference |
| 5/91 | Symposium Organizer - American Thoracic Society - Adult Care of CF |
| 11/5/91 | Symposium Presenter - American College of Chest Physicians "Aerosol therapy in cystic fibrosis" |
| 11/91 | Symposium Leader and Presenter - North American Cystic Fibrosis Meeting - Dallas. |

Courses Attended:

- | | |
|--------------|--|
| 12/13-16/82 | Scientific Basis for Evaluation of Asbestos Associated Disease. Irving J. Selikoff, M.D., Course Director, Mt. Sinai Medical Center, NY. |
| 6/83 | Laser's in Medicine, Philadelphia College of Osteopathic Medicine. Hands on Course for Laser Certification. |
| 12/83 | American College of Radiology. "A" reader course in preparation for "B" reader in pneumoconiosis. |
| 2/85 | Update Pulmonary Disease. Puerto Vallarta, Mexico. |
| 3/85 | "B" Reader Preparatory Course. Kiawah Island, SC. |
| 5/7-9/87 | Primary Pulmonary Hypertension. Registry Summation, NIH, Philadelphia, PA. |
| 1/27-1/30/88 | Snowbird Conference - Pulmonary Disease Update, Snowbird, UT. |



DMR
& ASSOCIATES

Occupational and Environmental Health Consultants

Donna M. Ringo, Certified Industrial Hygienist #3190

Born: August 31, 1947

604 Pennyroyal Way
Louisville, KY 40223
(502) 245-5289

EDUCATION:

M.S.P.H., Industrial Hygiene. University of Alabama in
Birmingham, March 1982.

Thesis: "Development of Passive Dosimetry for Evaluation of
Employee Exposures to Nitroglycerin Vapor."

B.S. - Chemistry, Jacksonville State University, 1977. (Three
years of credits were earned at Florida State University).

WORK EXPERIENCE:

Sept. 1992-Present: DMR & Associates Inc, President.
Newly formed Industrial Hygiene Consulting
firm (following the sale of CRU, Inc to ORR
Safety Corporation).

Nov. 1984-Aug. 1992: CRU, Inc, President. Industrial Hygiene
Consultant. Occupational safety and health
consulting to a wide variety of service
industries, manufacturing and government.
Taught EPA approved asbestos courses.

June 1982-Nov. 1984: Regional Industrial Hygienist-Hercules.
Responsible for industrial hygiene programs
in 13 chemical plants, primarily in the
Southeastern U.S. Duties included plant
evaluations of Health Hazards, providing
assistance to plant managers on Industrial
Hygiene problems, and guidance on methods of
compliance with government regulations.
Protection and Hearing Conservation
Programs.

1978-1982: Control Chemist II, Hercules Inc. Fifty
percent of time spent on industrial hygiene
testing and evaluations for corporate
headquarters in Wilmington, Delaware.
Additional duties included OSHA and EPA
sampling and reporting, NPDES applications,
procedure manual writing, and consultations
to new products and engineering groups.

1977-1978:

Research Chemist, UAB Medical Center
Molecular Biophysics Laboratory,
Birmingham, Alabama

1968-1970:

Chemist, Department of Agriculture
Tallahassee, Florida.

MEMBERSHIPS:

American Industrial Hygiene Association
American Board of Industrial Hygiene
American Academy of Industrial Hygienist
American Society of Safety Engineers
Past Treasurer and Past President of
Kentuckiana Local AIHA Section

J. LeRoy Balzer, Ph.D.
408 Horse Trail Court
Walnut Creek, California 94593
(510) 274-0826
Fax: (510) 274-1413

EDUCATION

Ph.D. Environmental Health Sciences University of California, Berkeley, California	1971
M.S. Public Health / Preventive Medicine / Industrial Hygiene University of California, Los Angeles, California	1963
B.S. Microbiology / Public Health University of California, Los Angeles, California	1962
Stanford Executive Program Stanford University, Palo Alto, California	1979

EXPERIENCE

CONSULTING INDUSTRIAL HYGIENIST	1988-
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- Industrial hygiene, occupational and environmental health and safety
- Expert testimony / forensic science / state of the art

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	1993-
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- Retired Assistant Vice Chancellor, Environmental Health and Safety
- Lecturer in the School of Medicine and School of Nursing
- Member of U.C. President's Council on National Laboratories, Panel on Environment, Safety and Health

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO ASSISTANT VICE CHANCELLOR, ENVIRONMENTAL HEALTH AND SAFETY	1987- 1993
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- Managed environmental health and safety programs, including biological safety, chemical safety, environmental health, fire safety, hazardous waste, industrial hygiene, occupational health, radiation safety and safety science
- Managed a \$4 million departmental budget with a staff of sixty-five
- Supervised health, safety, and environmental policy for the San Francisco campus and its extensive satellite locations
- Represented the University on health, safety, and environmental issues before local and state groups and agencies
- Lectured and researched in the School of Medicine

BHP-UTAH INTERNATIONAL, INC., San Francisco, California

1971-1987

MANAGER MARKETING THERMAL COAL AND NON-FERROUS METALS

1983-1987

MANAGER CORPORATE MARKETING, INFORMATION AND RESEARCH

- Participated in developing strategy for mineral sales financing and contract agreements
- Managed a \$2 million international marketing research department with a staff of 17 people
- Coordinated international and domestic sales support programs including development of a corporate market strategy for five commodities
- Supervised and planned budgets and tracked overall marketing activities for 60 people with an annual budget of \$7 million
- Organized market coverage and analysis system for more than 200 customers in 50 countries with annual sales of \$1.5 billion

DIRECTOR ENVIRONMENTAL QUALITY

1971-1983

- Organized the corporate environmental and industrial hygiene programs
- Managed a corporate environmental program budget of \$23 million with a staff of 14 professionals
- Established, developed, implemented, negotiated and monitored an environmental and risk management program in five countries and the United States
- Effected responses to environmental legislative and regulatory issues
- Managed health, safety, toxic waste, water, air quality and hazardous risk analysis programs (OSHA, NEPA, RCRA and other state, federal and international laws and regulations)
- Represented the corporate position on application for operations before state, federal, international and special interest groups

UNIVERSITY OF CALIFORNIA, BERKELEY

1963-1971

INDUSTRIAL HYGIENIST AND ENGINEERING SPECIALIST

1966-1971

- Directed and participated in industrial hygiene and air quality research programs in the Schools of Public Health, Mechanical and Civil Engineering
- Actively managed \$0.75 million of government, private and foundation grants
- Organized a full health and safety program for the Western States Asbestos Union
- Coordinated and conducted industrial hygiene consulting for a number of domestic and international corporations

HEALTH AND SAFETY TECHNICIAN

1963-1966

- Participated in industrial hygiene, safety, health, biological and physical sciences safety, radiation, animal care and air monitoring programs
- Managed compliance programs for local, state and federal laws and regulations

PROFESSIONAL AFFILIATIONS

American Chemical Society
American Conference of Governmental Industrial Hygienists-Affiliate
American Industrial Hygiene Association
American Society of Safety Engineers
International Commission on Occupational Health
Sigma Xi Honorary Society

August 1994

J. LEROY BALZER, Ph.D.

SELECTED PUBLICATIONS

- Balzer, J.L.: "Industrial Hygiene for Insulation Workers." Journal of Occupational Medicine. Pg. 25-31, September 29, 1967.
- Balzer, J.L. and Cooper, W.C.: "The Work Environment of Insulating Workers." AIHAJ Volume 29, May-June 1968.
- Cooper, W.C. and Balzer, J.L.: "Evaluation and Control of Asbestos Exposures in the Insulating Trade." Proceedings of the Second International Conference on the Biological Effects of Asbestos, Dresden, Germany, April 1968.
- Balzer, J.L.: "Environmental Exposures in the Insulation Trade." NICA OUTLOOK, February 1970.
- Balzer, J.L.: "Guide for Respirable Mass Sampling." AIHAJ Vol. 31, March-April 1970.
- Lim, J., Balzer, J.L., Wolf, C.R., and Milby, T.H.: "Fiber Glass Reinforced Plastics." Associated Occupational Health Problems, Arch. Environ. Health, Vol. 20, April 1970.
- Tebbens, B.D., Balzer, J.L. and Fowler, D.P.: "Health Effects of Particulate Air Pollution: Characterization of Compact and Fibrous Components." Project Clean Air, University of California, Berkeley, Vol. 2 No. 8-17, September 1970.
- Tabershaw, I.R., Cooper, W.C., and Balzer, J.L.: "A Labor-Management Occupational Health Service in a Construction Industry." Archives of Environ. Health 21: December 1970.
- Fowler, D.P., Balzer, J.L. and Cooper, W.C.: "Exposure of Insulation Workers to Airborne Fibrous Glass." AIHAJ 32:86-91, Feb. 1971.
- Balzer, J.L.: "Aerodynamic Behavior of Fibrous Aerosols: Relationship to Selective Sampling." Ph.D. Dissertation, University of California, Berkeley, 1971.
- Balzer, J.L., Cooper, W.C. and Fowler, D.P.: "Fibrous Glass Lined Air Transmission Systems: An Assessment of their Environmental Effects." AIHAJ 32:2, 512-518, 1971.
- Balzer, J.L., Fowler, D.P. and Cooper, W.C.: "Dust-Producing Potential of Construction Materials." Safety and Health in Shipbuilding and Ship Repairing, 30 August -2 September 1971, Occupational Safety and Health Series, International Labour Office - Geneva, 1972.
- Balzer, J.L.: "Inertial and Gravitational Collectors". Air Sampling Instruments for Evaluation of Atmospheric Contaminants, 4th ed. 1972.
- Balzer, J.L.: "Environmental Data: Airborne Concentrations Found in Various Operations". Occupational Exposure to Fibrous Glass Symposium. U.S. Dept. of HEW, Public Health Service, Pg. 82-89, April 1976.
- Heinsohn, P., Jewett, D.L., Balzer, J.L., Bennett, C.H., Seipel, P. and Rosen, A.: "Aerosols Created by Some Surgical Power Tools: Particle Size Distribution and Qualitative Hemoglobin Content." Applied Occupational Environmental Hygiene, September 1991.

NOV - 9 1994

NO. 94-CI-10078

BARON & BUDD

IN RE: ASBESTOS LITIGATION

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IN THE DISTRICT COURTS OF
BEXAR COUNTY, TEXAS

VERIFICATION OF DEFENDANTS' OBJECTIONS, ANSWERS AND RESPONSES TO
MASTER INTERROGATORIES AND REQUESTS FOR PRODUCTION OF DOCUMENTS

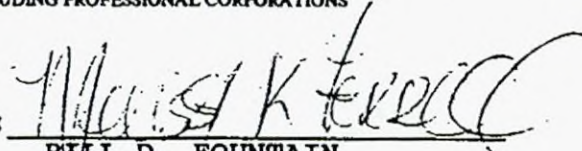
TO: Plaintiffs in Bexar County, Texas, by and through their
attorneys of record, Baron & Budd, A Professional Corporation,
The Centrum, 3102 Oak Lawn Avenue, Suite 1100, Dallas, Texas
75219.

COME NOW, Garlock Inc and The Anchor Packing Company,
Defendants herein and by and through their counsel of record, file
the attached Verifications of their Objections, Answers and
Responses to Master Set of Interrogatories and Request For
Production of Documents.

Respectfully submitted,

BROWN MCCARROLL & OAKS HARTLINE,
A REGISTERED LIMITED LIABILITY PARTNERSHIP
INCLUDING PROFESSIONAL CORPORATIONS

BY:



BILL D. FOUNTAIN
STATE BAR NO. 07300100
ATTORNEY IN CHARGE

T. JOHN WARD
STATE BAR NO. 20848000
WALTER CLAY COOKE
STATE BAR NO. 04759800
MELISSA K. FERRELL
STATE BAR NO. 06937020
1300 Wortham Tower
2727 Allen Parkway
Houston, Texas 77019-2100
Phone: (713) 529-3110
Fax: (713) 525-6295

ATTORNEYS FOR DEFENDANTS GARLOCK INC
AND THE ANCHOR PACKING COMPANY

Certificate of Service

I hereby certify that a true and correct copy of the above and foregoing instrument was sent by certified mail, return receipt requested, to counsel for Plaintiffs and by regular mail to all other counsel of record on the 8th day of November, 1994.

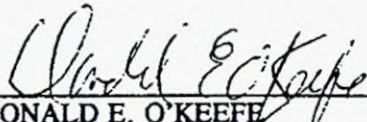
Theresa K. Kinn

Mr. Russell W. Budd
BARON & BUDD
3102 Oak Lawn Avenue
Suite 1100
Dallas, Texas 75219-4257

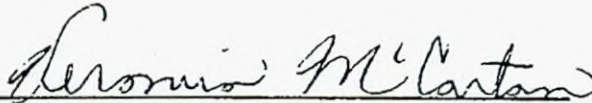
ATTORNEYS FOR PLAINTIFFS

STATE OF NEW YORK
COUNTY OF NEW YORK

I hereby certify that I am authorized to respond to these interrogatories and requests for production on behalf of Garlock Inc in my capacity as Assistant Secretary and that to the extent that I am personally familiar with the information set forth in the answers, I certify that the answers are correct, and to the extent that I am not personally familiar with the information provided in the said answers, I certify that the information is correct to the best of my information and belief based on my investigation of these matters.


DONALD E. O'KEEFE

Sworn to and subscribed before me this
28 day of October, 1994

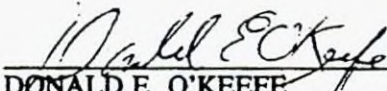

NOTARY PUBLIC
State of New York

My commission expires _____

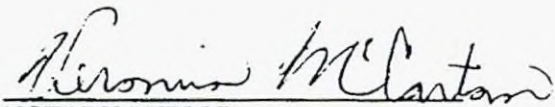
VERONICA McCARTAN
Notary Public, State of New York
No. 31-7794225
Qualified in New York County
Commission Expires Aug. 31, 1996

STATE OF NEW YORK
COUNTY OF NEW YORK

I hereby certify that I am authorized to respond to these interrogatories and requests for production of documents on behalf of The Anchor Packing Company in my capacity as Assistant Secretary and that to the extent that I am personally familiar with the information set forth in the answers, I certify that the answers are correct, and to the extent that I am not personally familiar with the information provided in the said answers, I certify that the information is correct to the best of my information and belief based on my investigation of these matters.


DONALD E. O'KEEFE

Sworn to and subscribed before me this 28 day of October, 1994


NOTARY PUBLIC
State of New York

My commission expires

VERONICA McCARTAN
Notary Public, State of New York
No. 31-7794225
Qualified in New York County
Commission Expires: Aug. 31, 1996