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ASBESTOS CASES

§ IN THE DISTRICT COURT OF
 §
 § HARRIS COUNTY, TEXAS
 §
 § MASTER ASBESTOS FILE

**DEFENDANT UNION CARBIDE CHEMICALS &
 PLASTICS COMPANY, INC.'S OBJECTIONS AND RESPONSES TO
 PLAINTIFF'S MASTER INTERROGATORIES AND REQUESTS FOR PRODUCTION**

COMES NOW, Defendant Union Carbide Chemicals & Plastics Company, Inc., and
 and files its Objections and Responses to Plaintiffs' Master Interrogatories and Requests
 for Production.

Respectfully submitted,

DEHAY & ELLISTON, L.L.P.
 3500 Bank of America Plaza
 901 Main Street
 Dallas, Texas 75202
 (214) 210-2400/210-2500 (fax)

By: _____

Todd J. Suddleson
 GARY D. ELLISTON
 State Bar No. 06584700
 TODD J. SUDDLESON
 State Bar No. 00795824

GENERAL OBJECTIONS

GENERAL OBJECTION NO. 1:

Union Carbide states that the trial preparation and factual investigation are ongoing. Union Carbide's answers to these interrogatories are based on information known to Union Carbide at this time. Union Carbide reserves the right, however to make reference at the trial or at any hearing in this action to facts and documents not identified in these responses, the existence or relevance of which is later discovered by it or its counsel. By this reservation, Union Carbide does not in any way assume a continuing responsibility to update its responses to these interrogatories, and specifically objects to each of these interrogatories to the extent that they seek to impose any such continuing obligation upon Union Carbide.

GENERAL OBJECTION NO. 2:

Union Carbide objects to plaintiff's interrogatories in its entirety on the grounds that it is not reasonably framed in terms of the facts and subject matter of the present action, with the result that Union Carbide is called upon to speculate as to what information relevant to the present case, if any, may be deemed to fall within the scope of the interrogatories as phrased.

GENERAL OBJECTION NO. 3:

Union Carbide also objects to all interrogatories insofar as they would require the disclosure of information protected by the attorney-client privilege or work product doctrines.

GENERAL OBJECTION NO. 4:

Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably limited by either time or subject matter to information that is relevant to the products, if any, at issue in this case, and on the grounds that it is not reasonably calculated to lead to the discovery of admissible evidence. Therefore, Union Carbide will confine its answers to relevant products.

GENERAL OBJECTION NO. 5:

Union Carbide objects to this entire set of interrogatories to the extent that it calls for information about Union Carbide employees or premises, or policies pertaining to Union Carbide employees or premises. Inasmuch as the plaintiffs do not allege that they or their decedents were ever employed by Union Carbide or worked at any job site controlled by Union Carbide, such information is irrelevant and immaterial to matters at issue in this case.

INTERROGATORY 1: Identify the registered name of answering defendant, as well as all prior names or predecessor entities by which defendant has existed.

ANSWER:

See General Objection No. 4. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds that its principal place of business is:

Union Carbide Corporation
39 Old Ridgebury Road
Danbury, Connecticut 06817

Union Carbide Corporation was first incorporated in the State of New York on November 11, 1917 under the name of Union Carbide and Carbon Products. Union Carbide changed its name to Union Carbide Corporation in 1957, changed on July 3, 1989, to Union Carbide Chemicals & Plastics Co., Inc., and returned to Union Carbide Corporation in 1994.

The CT System Company at the following addresses are authorized to accept service on behalf of Union Carbide Corporation in the State of Texas:

CT System
Republic National Bank Building
Dallas, Texas 75201

and

CT System
811 Dallas Avenue
Houston, Texas 77002

INTERROGATORY 2: Identify all past and present divisions, subsidiaries or affiliated companies of the answering defendant, having any function which now or in the past engaged in any phase of mining, manufacturing, sale, supply, purchase, application, installation, relabeling, processing or distribution of asbestos or asbestos-containing products. With respect to each of such divisions, subsidiaries or companies, set forth with particularity the precise relationship with the answering defendant the dates thereof, and identify the nature and extent of such functions during the relevant periods of time in which activities have or had occurred.

ANSWER:

See General Objection No. 4. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

**DEFENDANT UNION CARBIDE CHEMICALS & PLASTICS
COMPANY, INC.'S OBJECTIONS AND RESPONSES TO PLAINTIFF'S
MASTER INTERROGATORIES AND REQUESTS FOR PRODUCTION - Page 5**

In 1976 Union Carbide acquired another company which prior to its acquisition by Union Carbide had manufactured a line of mastic sealants, coatings and adhesives, some of which contained small quantities of asbestos. The asbestos fiber in those products was encapsulated by binder ingredients in the production process. The company sold the division which produced these products and ceased producing all asbestos containing products (except for TRE-HOLD, a tree sprout inhibitor) prior to Union Carbide's acquisition of the company. Union Carbide also acquired the Bakelite Corporation which had manufactured the Bakelite phenolic. See Union Carbide's response to Interrogatory No. 3. Other companies, in particular the Magnolia Welding Supply Company, Inc. and Gas Technics Gases & Equipment Centers of Eastern Pennsylvania, Inc., acquired by Union Carbide may also have sold asbestos products.

From 1963 through June 30, 1985 Union Carbide mined and milled at or near King City, California, a unique short-fiber chrysotile asbestos initially as "Union Carbide Asbestos" and then under the trade name Calidria (some distributors marketed Calidria under other trade names). Calidria was sold, both directly by Union Carbide and through distributors as raw asbestos, in pelletized and fibrous form in varying grades of purity of content. Calidria was not sold to the general public or to "end users". It was sold to manufacturers for use in their products or production processes as a filler, reinforcer, opacifier, thixotrope (thickener) and the like. Calidria asbestos was not suitable for use as standard heat or frost insulation or, for instance, piping, due to its quality and composition, in particular, due to the short length of its fiber. Upon plaintiff's request, any sales records in Union Carbide's possession will be made available for inspection.

INTERROGATORY 3: List by brand name all of your asbestos-containing products. Your asbestos-containing products includes all products which contain any amount of asbestos manufactured, sold, designed, supplied, distributed, mined, milled, relabeled, resold, processed, applied or installed by you or for you by others. By you and yours, Plaintiffs refer to Defendant, to all your predecessors in interests, (whether by purchase, merger, consolidation or otherwise), to all of your subsidiaries, divisions, joint ventures or affiliates. As to each product, state the following:

- a. type of product (e.g., acoustical plaster, fireproofing, etc.);
- b. the date the product first went into production;
- c. the last date the product was produced;
- d. the last date the product was sold;
- e. all manufacturing locations;
- f. dates of manufacture at each location.
- g. the percentage of asbestos (state if percentage is by volume or weight), and the dates and all reasons for any modification thereof;
- h. the type of asbestos;
- i. the specific source of asbestos with dates;
- j. the color, physical characteristic, and appearance of the product;
- h. the type of asbestos;
- i. the specific source of asbestos with dates;
- j. the color, physical characteristic, and appearance of the product;
- k. a full and precise description of the package in which the product was sold, including, but not limited to, type of package, size, color(s), and writings thereon;
- l. all other names under which the product was sold;
- m. the number and dates of each patent or patent application as to the product;

- n. if the product continued to be produced after the deletion of asbestos, all reasons why the asbestos was deleted, the identity of the person who made the decision to delete the asbestos, and the date the product was first produced without asbestos;
- o. if the product is no longer produced, all reasons it was discontinued, the identity of the person who made the decision to discontinue the product, the brand names of the replacement product, and the date the replacement product first went into production.
- p. a precise description of your identifying logo or initials and the dates of inclusion on the product;
- q. state during what period of time such product has been associated with defendant;
- r. identify all sales literature, including brochures, advertisements, pamphlets or other materials describing such product, its uses and methods of application or installation.
- s. identify any warning labels, inserts or other writings provided with such product and with every such printed warning, state what period of time it has or had accompanied the product, the exact wording of the warning, any amendments made to the wording, where the warning was located on each product or packaging, and on what asbestos products the warning appear(ed)_;
- t. geographic distribution range of each such product.

ANSWER:

See General Objection No. 4. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

From 1963 through June 30, 1985, Union Carbide mined and sold a unique short-fiber chrysotile asbestos initially as "Union Carbide Asbestos" and then under the trade name Calidria (some distributors marketed Calidria under other trade names). Calidria was sold, both directly by Union Carbide and through distributors as raw asbestos, in pelletized and fibrous form in

varying grades of purity of content. Calidria was not sold to the general public or to "end users". It was sold to manufacturers for use in their products or production processes as a filler, reinforcer, opacifier, thixotrope (thickener) and the like. Calidria asbestos was not suitable for use as standard heat or frost insulation or, for instance, piping, due to its quality and composition, in particular, due to the short length of its fiber.

Union Carbide sold its asbestos initially as Union Carbide Asbestos and then under the name "Calidria". Union Carbide, however, packaged Calidria asbestos for the Montello Corporation for sale under the trade names of Visbestos, Super Visbestos, Telvis, Imcobest and Univis. Union Carbide also packaged Calidria for the ARCO company for sale under the name Arcovis, and for the International Mines and Chemical Company for sale under the name Surelift. Calidria was also sold domestically in limited quantities under the names Visquick and Oilbestos by distributors which Union Carbide is presently unable to identify. Union Carbide objects to responding to this interrogatory with respect to overseas sales on the grounds that such information is irrelevant and immaterial to matters at issue in this case.

Prior to 1976, Union Carbide manufactured Bakelite phenolics, which were molding compound resins. Bakelite phenolics were marketed by Union Carbide for use by manufacturers primarily to mold electronic parts and products such as switches, switch boxes, radios, and plug in receptacles. Most Bakelite phenolics did not contain asbestos. Bakelite was used in part, because it provides electrical insulation. The asbestos fiber in those Bakelite brands which contained it was fully encapsulated or mixed within or with other material. Except for research experimentation, Calidria was never contained in Bakelite resins.

Prior to late 1979, Union Carbide or one of its subsidiaries produced a tree sprout inhibitor called TRE-HOLD, which was used primarily to inhibit growth on telephone poles. TRE-HOLD contained a small quantity of asbestos bound in an asphalt carrier; the asbestos in TRE-HOLD was fully encapsulated.

Prior to August 1977, Union Carbide manufactured UDEL Polysulfone P6050, which was an asbestos-containing, high temperature, high rigidity thermoplastic molding material, used primarily in camera cases. The asbestos in UDEL Polysulfone P6050 was fully encapsulated.

Union Carbide formerly manufactured automotive radiator products under then names Prestone Antifreeze, Prestone Sealer Stop Leak and Prestone Heavy Duty Sealer. Asbestos ceased to be used as an additive in the antifreeze in 1971 and in the sealers in 1972. The fiber in these products was embedded within a liquid substance.

Until 1985, Union Carbide sold or leased acetylene cylinders which contained asbestos liners. The asbestos in the acetylene cylinder liners was encapsulated within liner materials and the liner materials were contained within a metal cylinder.

Union Carbide also manufactured a steel "scarfer" machine (used to remove blemishes and imperfections from steel), with parts which contained some asbestos. In the late 1950's or early 1960's, Union Carbide may also have experimented with certain asbestos-containing polyethylene and polystyrene products which would have only been sold in limited quantities on an experimental basis.

Union Carbide no longer manufactures or sells any of the above products. Union Carbide has never manufactured or distributed an asbestos-containing cement, pipe covering, cloth or the like.

Union Carbide states that a small portion of the Bakelite products contained asbestos and were named BMZ-5250, BMM-5303, BMMC-2035, BMRS-2035, BMRS-5305, BMMA-5353, BMMA-5440 and BMMA -5441.

The following divisions or subsidiaries of Union Carbide operated the Calidria business during the course of its existence.

Corporate Divisions of Calidria (1963-1985)

(1963-1965)

Nuclear Division

(1965-1967)

Mining and Metals Division

(1967-1970)

Chemicals and Plastic Division

(1970-1984)

Mining and Metals Division

(1984-1985)

UMETCO, a wholly owned subsidiary of Union Carbide, through Calidria Corporation, a wholly owned subsidiary of UMETCO.

Calidria consisted of raw chrysotile asbestos in a unique short-fiber formulation which Union Carbide mined at or near King City, California, Calidria's chemical formula is $Mg_6(OH)_8Si_4O_{10}$. Union Carbide produced four grades of Calidria asbestos; standard, super standard, high purity, and resin grade; the different grades reflect varying degrees of purity of content. Each grade was sold in both pelletized and fibrous form. In appearance, Calidria is grey (pelletized) or white (fibrous) in color and powdery in substance. The following is a representative listing and description of the various brands of Calidria mined and marketed by

Union Carbide:

<u>PRODUCT SYMBOL</u>	<u>PRODUCT CODE</u>	<u>DESCRIPTION</u>
HPO	651001	High Purity, Open Fiber
HPO-C	651101	High Purity, Open Fiber
HPP	651601	High Purity, Pellets
HPP-JAP	651701	High Purity, Pellets, 4-Ply bags
R-G 110	652101	Resin-Grade, Open Fiber 15% +325
R-G 110-D	652201	Resin-Grade, Open Fiber, 15% +325
R-G 144	652501	Resin-Grade, Open Fiber
A-14	652801	Resin-Grade, Open Fiber
R-G 244	653001	Resin-Grade, Open Fiber
R-G 444-0	653301	Resin-Grade, Open Fiber, 10% Stearic
A-28	653601	Resin-Grade, Open Fiber, Silica Treated
SG-100	654001	Standard Grade, Pellets
SG-102	654201	Standard Grade, Pellets, 100-lb. bags
SG-130	654501	Standard Grade, Open Fiber, 30% +325
SG-144	654801	Standard Grade, Open Fiber, 45% +325
SG-200	655001	Super Standard Grade, Pellets
SG-210	655301	Super Standard Grade, Open Fiber, 15% +325
SG-444-0	655501	Standard Grade, Open Fiber, 5% Stearic, Hydrophobic
T-135-0	656001	High Purity, Open Fiber, Titanated, 35%, Anatase
T-135-P	656301	High Purity, Pellets, Titanated, 35%, Anatase
CG-100	656601	Coatings Grade, Pellets

CG-135-0	656801	Coatings Grade, Open Fiber, Titanated 35%, Rutile
CG-135-P	656901	Coatings Grade, Pellets, Titanated, 35%, Rutile
	657301	Super-Visbestos Super Standard Grade, Cracked Pellets Visbestos
	657601	Standard Grade, Open Fiber Oilbestos
	657001	Standard Grade, Open Fiber, 5% Stearic, Hydrophobic

Calidria, due to its unique physical properties, short fiber length in particular, was not suited for use in thermal or frost insulation.

Calidria consisted of raw asbestos which was marketed and sold by Calidria distributors to manufacturers or producers who incorporated and used Calidria in their products or production processes. Calidria was not sold by Union Carbide or, according to the best information available to Union Carbide, by Calidria distributors to consumers or other "end-users". The following is a representative list of different brands of Calidria asbestos and the applications for which they were marketed:

<u>Calidria Product</u>	<u>Applications</u>
SG-100	Vinyl-Asbestos Floor Tile
SG-130	Masonry Coatings
SG-200	Rubber Floor Tile
Super Visbestos	Drilling Muds

SG-210	Mastics Asphaltic Coatings
HPP	Rubber Sheet Goods Mineral Board (Japan) Paper (Japan)
HPO	Asphaltic Coatings, Adhesives
RG-110	Asphaltic Spray Coatings Aluminized Coatings Mastics, Caulks and Sealants
RG-144	Adhesives (Epoxy, Casim, Phenolics) Coatings Vinyl Plastics (High Build, Dip Coatings) Mastics, Caulks and Sealants (Vinyl, Butyl, Polysulfide, Bituminous)
RG-244	Polyester Resins (Laminating, Gel Coats, Putties) Caulks and Sealants (Vinyl, Butyl, Acrylic, Polyurethane) Coatings (Epoxy, Urethane, Asphaltic)

In addition to the different markets in which the Calidria products listed above were respectively sold, other brands of Calidria may have been sold within the same markets. Such brands of Calidria were distinguished on the basis of grade (purity of content), form (fibrous or pelletized) or chemical treatment, or a combination of the above.

Bakelite was the trade name for a phenolic resin manufactured by Union Carbide up until 1975. Most Bakelite did not contain asbestos. As to Bakelite which contained asbestos, the product was in granular resin form and in all but one type contained encapsulated short fiber

asbestos which was not respirable due to encapsulation. One longer fiber product was manufactured for a short period of time and marketed without encapsulation. Manufacture and sale of any asbestos containing Bakelite ceased in 1975.

Bakelite was sold to various industrial companies as an ingredient in the manufacture of other finished products used mainly for thermoelectric purposes such as electrical switches, appliance handles, etc.

See also Union Carbide's responses to Interrogatories 4 and 5.

INTERROGATORY 4: Did you claim your asbestos product(s) to be safe, effective and/or easy to handle? If so, identify all documents, which have made such assertions, including, but not limited to, brochures or advertisements (radio, television or printed), and revisions thereof by publication(s) and date. Your asbestos products includes all products which contain any amount of asbestos manufactured, sold, designed, supplied, distributed, mined, milled, relabeled, resold, processed, applied or installed by you or for you by others.

Answer: See General Objection No. 4. Union Carbide objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence.

See Union Carbide's response to Interrogatory Nos. 2, 3, 6 and 10, including all objections set forth therein.

Union Carbide had used two cautionary statements on its Calidria packaging: The first cautionary statement was used from June 22, 1968 through May 1972, and read as follows:

"Warning: Breathing dust may be harmful. Do not breathe dust." The second cautionary statement prescribed by OSHA in 1972 and was first printed on Calidria packaging in June of

that year and was used by Union Carbide until the sale of the Calidria mine and mill in 1985; this second cautionary statement read as follows: "Caution. Contains asbestos fibers. Avoid creating dust. Breathing asbestos dust may cause serious bodily harm."

Calidria asbestos was mostly transported in plastic or Kraft type paper bags, although some Calidria had been shipped in bulk in railroad hopper cars. Each bag contained the following information: Union Carbide's corporate name and address, the net weight of material supplied, the applicable grade of asbestos, the lot number identification, and, starting in 1968 a cautionary statement. At the request of some customers, a limited amount of Calidria asbestos was sold in plain Kraft bags, which contained only the cautionary statement. Unless the customer requested otherwise, between approximately the mid-1970's and June 1985 all Kraft bags containing Calidria asbestos were individually shrink wrapped (encased by a tight fitting plastic film); an entire pallet containing a number of such bags was also completely covered with the tight fitting plastic film.

See also Union Carbide's response to Interrogatory No. 50.

INTERROGATORY 5: Did you specifically inform the purchaser or user of your products at the time your product was sold, installed, used, supplied or subsequently, that your product could cause lung cancer, asbestosis, or mesothelioma? If so, identify the document containing such information by date and location.

Answer:

See Union Carbide's responses to Interrogatories 4, 6 and 10, including all objections set forth therein.

INTERROGATORY 6: Identify any and all labeling or relabeling agreements between answering defendant and other entities, including other Defendants concerning asbestos containing products and materials.

Answer: See General Objection No. 4. See Union Carbide's response to Interrogatories No. 4 and 5. Union Carbide also objects to this Interrogatory on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

Union Carbide sold its asbestos initially as Union Carbide Asbestos and then under the name "Calidria". Union Carbide, however, packaged Calidria asbestos for the Montello Corporation for sale under the trade names of Visbestos, Super Visbestos, Telvis, Imcobest and Univis. Union Carbide also packaged Calidria for the ARCO Company for sale under the name Arcovis, and for the International Mines and Chemical Company for sale under the name Surelift. Calidria was also sold domestically in limited quantities under the names Visquick and Oilbestos by distributors which Union Carbide is presently unable to identify. Union Carbide objects to responding to this Interrogatory with respect to overseas sales on the grounds that such information is irrelevant and immaterial to matters at issue in this case.

INTERROGATORY 7: Have you ever mined asbestos? If so, as to each mine and type of asbestos produced there, state the following:

- a. the location;
- b. the dates of operation by you;
- c. the type (e.g., chrysotile, amosite, etc.) produced;

- d. the grade of each type of asbestos fiber produced, the percentage of each grade to the total fiber produced by year or other period, and the recommended use of grade of fiber;
- e. the gross annual sales in dollars and in volume for each type and grade of asbestos fiber;
- f. a full and precise description of the package in which the asbestos fiber was sold, including, but not limited to, type of package, size, color(s), and writing thereon;
- g. all names under which the asbestos fiber was sold;
- h. the identity of all records reflecting the sale or transfer of said asbestos fiber;
- i. the identity of the present custodian of photographs of the burlap bags in which the asbestos fibers was stored and/or shipped/
- j. the address of each sales office and sales region for the sale of the asbestos fiber;
- k. the name of each authorized distributor of the asbestos fiber produced;
- l. the identity of each owner and operator of the mine prior to the date you first began operation of the mine, and the dates thereof, and
- m. the identity of each owner and operator of the mine subsequent to your ceasing operation of the mine.

ANSWER:

See General Objection No. 4. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

From 1963 through June 30, 1985 Union Carbide mined and milled at or near King City, California, a unique short-fiber chrysotile asbestos initially as "Union Carbide Asbestos" and then under the trade name Calidria (some distributors marketed Calidria under other trade

names). Calidria was sold, both directly by Union Carbide and through distributors as raw asbestos, in pelletized and fibrous form in varying grades of purity of content. Calidria was not sold to the general public or to "end users". It was sold to manufacturers for use in their products or production processes as a filler, reinforcer, opacifier, thixotrope (thickener) and the like. Calidria asbestos was not suitable for use as standard heat or frost insulation or, for instance, piping, due to its quality and composition, in particular, due to the short length of its fiber. Upon plaintiff's request, any sales records in Union Carbide's possession will be made available for inspection. See also Answer to Interrogatory No. 3.

INTERROGATORY 8: Is answering defendant aware of the possible connection between exposure to asbestos or asbestos products and:

- a. Asbestosis?
- b. Lung cancer, all cell types?
- c. Mesothelioma?
- d. Colon cancer?
- e. Stomach cancer?
- f. Laryngeal cancer?
- g. Cancer of the Kidney?
- h. Cancer of the Esophagus?
- i. Other gastrointestinal cancers?
- j. Pneumoconiosis?

ANSWER:

See General Objections No. 4 and 5. Union Carbide also objects on the grounds that it is overly broad, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence. Union Carbide also objects to this Interrogatory to the extent that it calls on Union Carbide to render an expert medical response. Subject to its objections, Union Carbide responds as follows:

Union Carbide recognizes that the excessive inhalation of asbestos fiber may be associated with the development of serious and potentially fatal disease. Union Carbide states that any asbestos fiber which is encapsulated would not pose such danger because the fiber would not be respirable. Union Carbide also understands that the onset and development of such disease in a person may be related to and affected by, among other factors, the particular type of fiber that is inhaled, cigarette smoking, and environmental conditions, in addition to the person's medical history and condition.

Union Carbide's knowledge concerning potential health hazards possibly associated with excessive asbestos fiber inhalation developed gradually. Sources of information as to possible health concerns of which Union Carbide is presently aware included general and scientific literature on the topic and reports or memoranda by Union Carbide employees. Upon the plaintiff's request, copies of such reports and memoranda, which Union Carbide has located, will be made available at a suitable time and place for review and duplication by the plaintiff.

See also Union Carbide's response to Interrogatories 7, 14 and 50.

INTERROGATORY 9: If your answer to the above interrogatory, as to any or all of its sub-parts is affirmative, identify:

- a. When and how defendant first learned of such connections;
- b. If knowledge was obtained by attendance at any conference, lecture, convention, symposium or meeting, identify such meeting and provide the identity of person attending or documents obtained;
- c. If knowledge was obtained from medical or scientific studies, or any other published work, identify same;
- d. If otherwise obtained, identify manner or receipt of document or communication.

Answer:

See General Objections No. 4 and 5. Union Carbide also objects on the grounds that it is overly broad, vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence. Union Carbide also objects to this Interrogatory to the extent that it calls on Union Carbide to render an expert medical response. Subject to its objections, Union Carbide responds as follows:

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Union Carbide's knowledge concerning potential health hazards possibly associated with excessive asbestos fiber inhalation developed gradually. Sources of information as to possible health concerns of which Union Carbide is presently aware included general and scientific literature on the topic and reports or memoranda by Union Carbide employees. Upon the plaintiff's request, copies of such reports and memoranda, which Union Carbide has located, will be made available at a suitable time and place by review and duplication by the plaintiff.

See also Union Carbide's response to Interrogatories 7, 14 and 50.

INTERROGATORY 10: With regard to any knowledge obtained subsequent to that identified in the above interrogatory, and up until the time that you ceased to sell and/or manufacture asbestos products, identify:

- a. All documents or other communication, oral or written, concerning the casual connection between exposure to asbestos or asbestos products and disease, and identify of persons so communicating;
- b. Did answering defendant obtain from or transmit any such information to other defendants in this case? If so, identify:
 1. Manner of receipt of communication for each contact;
 2. all documents and persons involved.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 11: As to any knowledge possessed by answering defendant at any time referred to in answers to the preceding three interrogatories did you educate your employees, distributors, or purchasers about the hazards known to you and any safety precautions necessary to guard against cancer and other diseases arising from the use and handling of your asbestos containing products? if so, identify:

- a. When and in what manner customers, insulators, non-employee factory workers and the general public were so informed;
- b. Documents communicating or otherwise disseminating such information;
- c. Programs initiated or sponsored to establish or promote safety procedures, methods or usage of asbestos containing products;
- d. Published articles or reports by employees (present or prior), including those of medical directors, scientists, engineers or other professionals;
- e. Symposia or lectures sponsored for the benefit of asbestos workers and/or the general public.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 12: When, before 1972, and by what manner were you first aware of the health hazards relating to exposure to asbestos or asbestos products for insulators, plasterers, pipefitters, boilermakers, operators, sheet metal workers, helpers, drywall finishers, mechanics, carpenters, shipfitters, machinist and bystanders exposed to inhalers.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 13: Did you perform, direct to be performed, finance, sponsor or receive the results of any studies or tests concerning potential health hazards involved with the use of asbestos containing materials? If so, identify such studies or tests and state:

- a. When, where and at what intervals such studies were performed;

- b. Were such studies in writing or reported at a later date in writing;
- c. Were the results of such studies published or otherwise disseminated? If so, state to whom and when;
- d. Who performed such studies;
- e. What were the results of such studies?

Answer: See General Objections No. 4 and 5. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

Starting in 1972, Union Carbide offered to take dust counts of the premises of Calidria customers in order to help them maintain a safe working environment, a service which many Calidria customers utilized. Union Carbide would then advise customers of results and state the rules to minimize or maintain a dust free environment. Dr. Harry Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program.

Upon plaintiffs request, Union Carbide will make copies of such dust counts available to the plaintiff for review and duplication at a suitable time and place.

Calidria was not an asbestos-containing product, but rather consisted of raw chrysotile fiber sold in pelletized and fibrous form. Among the several unique physical properties of Calidria which each tend to render, Calidria is not hazardous are the extreme shortness of the fiber and the lack of tremolite contamination.

Nevertheless, Union Carbide's Calidria business (which began in 1963), medical and industrial health officials at Union Carbide issued asbestos toxicology reports which were distributed to sales and other appropriate personnel. Warning labels were added to Calidria packages in 1968 and toxicological information first appeared in sales literature in that year. Material Safety Data Sheets were mailed to Calidria customers beginning in 1972. AIA/NA information pamphlets were made available to customers starting in 1972 and were mailed to customers beginning in 1977 at the latest.

The health and safety literature made available and disseminated by Union Carbide to its Calidria customers warned of possible serious adverse health effects associated with the excessive inhalation of asbestos fiber, advised customers on ways to control or avoid such hazards, including the use of respirators as a way to avoid the hazards. In addition to the dissemination of health and safety information, Union Carbide took active steps to help insure that Calidria was handled and used in a clean and safe manner and environment: Union Carbide employed shrink-wrap, tight-fitting packaging to prevent leakage, spillage, or dust emission during the shipment of Calidria. Union Carbide also developed pelletized forms of Calidria which would reduce dust emission; and starting in 1972, Union Carbide offered to take dust counts of the premises of Calidria customers in order to help maintain a safe working environment, a service which many Calidria customers utilized (Calidria was not sold to the general public or other "end-users", but rather was marketed only to manufacturers or producers who used Calidria in their products or production processes). Dr. Harry Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program.

Upon plaintiff's request, Union Carbide will make copies of results of such dust counts available to the plaintiff for review and duplication at a suitable time and place.

INTERROGATORY 14: During the time period that you manufactured , sold, supplied, applied, distributed or installed asbestos containing products, what tests have been performed by any governmental agency, body, commission or health organization including, but not limited to, the U.S. Public Health Service, OSHA, or NIOSH, in your plants or on job sites owned or controlled by you concerning : specific hazards associated with the use and handling of asbestos and asbestos products; any restrictions in use of same; requirements for medical surveillance and examinations for your workers, dust monitoring or availability of safety equipment? If such findings were made, identify:

- a. The date or dates of such findings and by which organization or entity such findings were made;
- b. The form in which such findings were made and, if written, the exact wording of same or location in regulation, order, bulletin, report or other writing;
- c. What steps were taken to comply with such findings and the dates when such acts of compliance occurred;
- d. How users of or bystanders exposed to asbestos or asbestos containing products were informed of such findings and if such information was written identifying same.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 15: During the time that you manufactured, sold, designed, supplied, distributed, mined, milled, relabeled, resold, processed, applied or installed asbestos containing products, did you perform, direct to be performed, finance, sponsor or receive the results of any dust monitoring tests at job sites where asbestos-containing products were being applied and/or removed? If so, state:

- a. The date and location of the first such test;
- b. When, where and at what intervals subsequent tests were performed;
- c. Who performed such tests;
- d. Where the results of such tests are maintained;
- e. what steps were taken by you to improve results of such tests, and dates when such improvements were made.

Answer: See General Objections No. 4 and 5. Union Carbide further objects to this

Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

Starting in 1972, Union Carbide offered to take dust counts of the premises of Calidria customers in order to help them maintain a safe working environment, a service which many Calidria customers utilized. Union Carbide would then advise customers of results and state the rules to minimize or maintain a dust free environment. Dr. Harry Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program.

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Nevertheless, Union Carbide's Calidria business (which began in 1963), medical and industrial health officials at Union Carbide issued asbestos toxicology reports which were distributed to sales and other appropriate personnel. Warning labels were added to Calidria packages in 1968 and toxicological information first appeared in sales literature in that year. Material Safety Data Sheets were mailed to Calidria customers beginning in 1972. AIA/NA information pamphlets were made available to customers starting in 1972 and were mailed to customers beginning in 1977 at the latest.

The health and safety literature made available and disseminated by Union Carbide to its Calidria customers warned of possible serious adverse health effects associated with the excessive inhalation of asbestos fiber, advised customers on ways to control or avoid such hazards, including the use of respirators as a way to avoid the hazards. In addition to the dissemination of health and safety information, Union Carbide took active steps to help insure that Calidria was handled and used in a clean and safe manner and environment:

Union Carbide employed shrink-wrap, tight-fitting packaging to prevent leakage, spillage, or dust emission during the shipment of Calidria. Union Carbide also developed pelletized forms of Calidria which would reduce dust emission; and starting in 1972, Union Carbide offered to take dust counts of the premises of Calidria customers in order to help maintain a safe working environment, a service which many Calidria customers utilized (Calidria was not sold to the general public or other "end-users", but rather was marketed only to manufacturers or producers who used Calidria in their products or production processes). Dr. Harry Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program.

Upon plaintiff's request, Union Carbide will make copies of results of such dust counts available to the plaintiff for review and duplication at a suitable time and place.

INTERROGATORY 16: If your answer to the above interrogatory is in the negative, state the reasons for not performing dust monitoring tests.

Answer: See General Objections No. 4 and 5. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

Starting in 1972, Union Carbide offered to take dust counts of the premises of Calidria customers in order to help them maintain a safe working environment, a service which many Calidria customers utilized. Union Carbide would then advise customers of results and state the rules to minimize or maintain a dust free environment. Dr. Harry Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program.

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Upon plaintiff's request, Union Carbide will make copies of results of such dust counts available to the plaintiff for review and duplication at a suitable time and place.

INTERROGATORY 17: During the time that Defendant sold, manufactured, designed, supplied, distributed, mined, milled, relabeled, resold, processed, applied or installed asbestos containing products, did the Defendant ever have any inspectors or anyone from your company or hired by your company whose job it was to go to areas where your asbestos containing products were being used, removed or installed to make a dust level count? If so, state when this procedure started, the purpose of such procedure and the findings and what action, if any was taken in response to the findings, and attach results.

Answer: See General Objections No. 4 and 5. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

Starting in 1972, Union Carbide offered to take dust counts of the premises of Calidria customers in order to help them maintain a safe working environment, a service which many Calidria customers utilized. Union Carbide would then advise customers of results and state the rules to minimize or maintain a dust free environment. Dr. Harry Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program.

Upon plaintiffs request, Union Carbide will make copies of such dust counts available to the plaintiff for review and duplication at a suitable time and place.

INTERROGATORY 18: During the time the Defendant manufactured, sold, designed, supplied, distributed, mined, milled, relabeled, resold, processed, applied, or installed asbestos containing products, identify any medical examination programs offered or sponsored by

answering defendant or its insurance carrier(s) for employees of its insured handling or otherwise exposed to asbestos and asbestos products. With respect to each program; state:

- a. Manner of communication with employees about such program;
- b. Whether examination was mandatory or optional;
- c. What percentage of workers were found to have asbestosis or mesothelioma;
- d. What percentage of workers were found to have asbestosis or mesothelioma;
- e. With respect to (d), what percentage of such workers were paid disability or workmen's compensation benefits or for whose benefit medical expenses were paid to undergo treatment for such conditions.

Answer: See General Objection No. 4. Union Carbide further objects to this Interrogatory on the grounds that it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Union Carbide objects to this interrogatory as vague and ambiguous. Subject to its objections, Union Carbide responds as follows:

Union Carbide's Medical Department was formally organized in 1939. Prior to that Union Carbide and Union Carbide facilities consulted physicians as appropriate upon need. The medical directors at Union Carbide have included the following individuals for the years respectively indicated below:

- | | |
|----------------------------------|--------------------------------------|
| (1) Girard Cranch
[1938-1945] | (4) Thomas A. Lincoln
[1978-1985] |
| (2) Thomas Nale
[1945-1963] | (5) T. Guy Fortney
[1985-1989] |
| (3) John H. Welsh
[1963-1978] | Jean B. Case
[1989-Present] |

The present duties of Union Carbide's medical director include coordination of all of

Union Carbide's medical programs, including employee physical examination programs; recommendations with respect to medical policies, standards and procedures; and administration of medical services at Union Carbide's corporate headquarters, a corporate epidemiology program, a medical program for employees traveling overseas and an alcoholism prevention and treatment program. The medical director reports to the corporate Vice President in charge of Union Carbide's Community and Employee Health, Safety and Environmental Protection Department.

In addition, Dr. Hilton Lewinsohn served as Medical Director, Chemicals & Plastics Group. Dr. Lewinsohn is a recognized expert in asbestos-related medical matters and pathologies. Union Carbide also maintained a medical office at Bound Brook.

INTERROGATORY 19: Does the Defendant have or has it ever had , a Medical department, and/or a research department and/or an Industrial Hygiene department. If so, give the date upon which such medical department and/or [david, note that this skipped the research department is the question right or missing . . . Industrial Hygiene department was established, and whether or not such department has operated continuously since being established.

- a. Name each director, chief or head of your Medical department and/or Industrial Hygiene department year by year with the first year you had a director of such department. Give the last known address of each.
- b. State in detail the duties, responsibilities and purpose of such department(s);

Answer: See General Objection No. 4 and 5. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Union Carbide objects to the interrogatory as vague and ambiguous. Subject to its objections, Union Carbide responds as follows:

Calidria consisted of raw chrysotile fiber mined by Union Carbide and was not an "asbestos-containing" product. Studies and evaluations on the unique properties of Calidria may have been conducted at Union Carbide's Tarrytown and Tuxedo, New York facilities, as well as King City mine site and elsewhere. Dr. Mumpton and Dr. Neumann, and Mr. Slim Thompson as well as Dr. Tom Hall and John Myers may have been involved or have information about these studies or information.

In addition, Bound Brook maintained an R&D department, last headed by Carlo Martino. If the plaintiff desires additional information about physical or chemical evaluations of the Calidria fiber, Union Carbide will make its document repository available to the plaintiff, subject to any objections on relevancy.

Union Carbide's Medical Department was formally organized in 1939. Prior to that Union Carbide and Union Carbide facilities consulted physicians as appropriate upon need. The medical directors at Union Carbide have included the following individuals for the years respectively indicated below:

- | | |
|----------------------------------|--------------------------------------|
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The present duties of Union Carbide's medical director include coordination of all of Union Carbide's medical programs, including employee physical examination programs; recommendations with respect to medical policies, standards and procedures; and administration of medical services at Union Carbide's corporate headquarters, a corporate epidemiology program, a medical program for employees traveling overseas and an alcoholism prevention and treatment program. The medical director reports to the corporate Vice President in charge of Union Carbide's Community and Employee Health, Safety and Environmental Protection Department.

In addition, Dr. Hilton Lewinsohn served as Medical Director, Chemicals & Plastics Group. Dr. Lewinsohn is a recognized expert in asbestos-related medical matters and pathologies. Union Carbide also maintained a medical office at Bound Brook.

INTERROGATORY 20: Identify all asbestos related trade organizations, association, or other entities including, but not limited to the Gypsum, Association, Vermiculite Institute, Asbestos Textile Institute, Industrial Hygiene Foundation, Magnesite Insulation Manufacturers Association, National Insulation Manufacturers Association, Asbestos Information Association, National Insulation Contractors Association, Thermal Insulation Manufacturers Association, Quebec Asbestos Manufacturers Association, Quebec Asbestos Producers Association to which you have belonged or in which you have participated and as to each respective organization, identify the dates of membership or participation.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

**DEFENDANT UNION CARBIDE CHEMICALS & PLASTICS
COMPANY, INC.'S OBJECTIONS AND RESPONSES TO PLAINTIFF'S
MASTER INTERROGATORIES AND REQUESTS FOR PRODUCTION - Page 35**

INTERROGATORY 21: Identify any documents, not currently on file in the Master Asbestos File of Harris County, either received by you from those trade organizations, associations or other entities identified in the preceding interrogatory or else submitted by you to those trade associations, organizations or other entities that relate to any relationship between asbestos exposure and disease.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 22: Identify all agreements, oral and written, between you, any of the other defendants in this lawsuit, and/or any other organizations, associations or other entities identified in your answer to Interrogatory No. 20 and/or any medical or scientific foundations, not currently on file in the master Asbestos File of Harris County, relating to the standardization of:

- a. Specifications for paper or burlap bags, or other packaging to be used for the transport and/or storage of asbestos-containing products during the time that you manufactured, sold, distributed, or applied asbestos-containing products.
- b. Warning or caution labels to be applied to asbestos products and/or their packaging, cartons, containers, or boxes during the time that you manufactured, sold, distributed, or applied asbestos-containing products.
- c. Methods of dissemination of public relation information to defendant's purchasers, advertisers, distributors, factory workers, contractors, insulators, users, consumers of asbestos products and/or the general public pertaining to asbestos health hazards.
- d. Safety equipment and/or protective clothing to be utilized while handling defendant's asbestos products.
- e. Medical programs related to asbestos health hazards to be offered or sponsored by defendant.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible

evidence.

INTERROGATORY 23: Did you direct to be performed, sponsor, finance or receive the results of any studies or tests performed by the Saranac Lake Laboratory to the Trudeau Foundation relating to asbestos exposure and its effects upon human life? If so, identify:

- a. All documents summarizing findings or results of those studies or tests which you have in your possession or control;
- b. All communications, oral or written, between answering defendant and Saranac personnel including, but not limited to, Gerrit W.H. Schepers, M.D. and George Wilbur Wright, M.D.
- c. All documents relating to Saranac studies received or submitted by you whether directly, through associated or predecessor companies, through other companies, or through trade associations, organizations or other entities.
- d. All recommendations or findings of such studies relating to:
 1. adequacy or inadequacy of threshold limit values;
 2. substitution of materials other than asbestos.
- e. Where documents and/or communications identified in answers to (a) - (d) of this Interrogatory are maintained.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 24: Prior to December 31, 1989, has any employee of answering Defendant ever made a claim for any asbestos related disease under the Occupational Disease or Workmen's Compensation Statute of any state? If so, state:

- a. The date that Defendant first received notice of such claim;
- b. The total number of such claims per year received to date;

- c. The number of such claims for which disability benefits and/or medical expenses were paid by Defendant;
- d. Identify all persons to whom disability benefits and/or medical expenses were paid by Defendant and the exact medical diagnosis, disease and/or condition for which such benefits/expenses were paid.

e.

Answer: See General Objection No. 5. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to the discovery of admissible evidence.

INTERROGATORY 25: Identify each and every magazine or trade publication in which answering Defendant advertised its asbestos products from 1950 until the time you ceased mining, milling, selling, distributing, and/or applying asbestos containing products.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 26: As to the person(s) answering these interrogatories, state:

- a. name;
- b. title or position with defendant;
- c. length of time employed by defendants.

Answer: The responses to these interrogatories were prepared by counsel for Union Carbide Corporation based on information either contained in business records or provided by present and former Union Carbide employees. In particular, John L. Myers, former Product and Production Manager for asbestos (Calidria) has provided much information. Sales and other business records used to respond to these interrogatories are under the control of Ms. Dawn

Stewart, Custodian of Records, Kelley, Drye & Warren, 101 Park Avenue, New York, NY 10178.

See also answer to Interrogatory No. 51.

INTERROGATORY 27: Have you ever sold raw asbestos fiber? If so, state the dates you were involved in the sale of raw asbestos fiber.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

See Answer to Interrogatories 3, 4, 5, 6, and 7.

INTERROGATORY 28: State whether or not you have any information as to your relative market share regarding each of your asbestos containing products. If so, as to each year between 1940 or the time that you began mining, milling, selling, distributing and/or applying asbestos containing products until cessation of same, and with respect to each type of product, provide such information or opinion as to your market share and identify each document which provides any information to assist you in this determination. Give the same answers as to asbestos containing products in the Texas Gulf Coast area.

Answer: See General Objection No. 4. Union Carbide objects to this interrogatory as vague and ambiguous, overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 29: Have you designated distributors of your asbestos containing products in the State of Texas? If so, then state the name of all companies, their addresses, give the years that each was designated distributor and the products each distributed.

Answer: See General Objection No. 4. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

Approximately three-quarters of Calidria sales were made directly by Union Carbide. Distributors accounted for the remaining approximate 25% of all Calidria sales. Union Carbide, however, no longer mines or sells Calidria and thus no longer maintains Calidria distributors. The following is a list of former Calidria distributors which Union Carbide has been able to identify:

Presently Known Former Calidria Distributors (1963-1985)

- 1) Allied Resin Corporation
- 2) American Industrial Chemical Corporation
- 3) Bouffard Associates
- 4) A.T. Callas Company
- 5) D. & F. Distributing, Inc.
- 6) Harrisons & Crosfield (Canada)
- 7) Harrisons & Crosfield (Pacific)
- 8) Lenape Chemicals, Inc.
- 9) Technical Petroleum Company
- 10) Technical Products, Inc.
- 11) Montello, Inc.
- 12) Harwick Chemical Corp.

- 13) Plastex, Inc.
- 14) Union Carbide International
- 15) Western Chemical & Manufacturing Company
- 16) McKesson Chemicals, Inc.
- 17) Apperson Chemicals, Inc.
- 18) Amsco Division - Union Oil Company of California
- 19) Hamblet & Hayes Co.
- 20) Marco Chemical Division - W. R. Grace & Company
- 21) Wonder State Industries
- 22) The Permutit Co., Inc.
- 23) Van Waters and Rogers
- 24) Ambrosia Industrial, Inc.
- 25) Southern Fiberglas Supply

The following may have been distributors in the states of Alabama, Florida, Mississippi, Oregon, Washington, Georgia, Arkansas, Texas and Virginia:

D & F Distributing, Inc.

Harrisons & Crosfield (Pacific)

Lenape Chemicals, Inc.

Montello, Inc.

INTERROGATORY 30: If you did not have designated distributors in the State of Texas,

then state by what method sales of asbestos containing materials were made. Give the name and addresses of all Defendant's sales offices, relating to asbestos containing products, located in the State of Texas.

Answer: See General Objection No. 4. See answer to Interrogatory No. 29.

INTERROGATORY 31: Did you ever have a division or subsidiary company engaged in the contracting business of applying insulation products? If so, give the name of such division or subsidiary company, the full address or the home office of such division or subsidiary company, and the dates such division or subsidiary company was engaged in the contracting business.

Answer: See General Objection to No. 4. At the present time, Union Carbide does not have sufficient information to answer this Interrogatory. Counsel for Union Carbide will supplement immediately upon receipt of the information.

INTERROGATORY 32: Based upon the contents of your products, the method of manufacturing the method of application, could or can your products be generally applied or removed without liberating asbestos fibers? Your answer may be limited to those asbestos-containing products that have been identified in any Harris County asbestos case.

- a. If there is a different answer concerning different products manufactured, sold, distributed, or used by your company then specify the different products by 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 the year involved.
- c. If there is a difference in your answer depending on the trade or type worker, then specify which type workers you are referring to.

Answer: See General Objection No. 4. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the

discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

In general Bakelite was a phenolic resin sold to manufacturers. Some contained asbestos in the form of fibers fully encapsulated and not respirable.

Calidria was not an asbestos product but rather consisted of raw chrysotile asbestos with a unique short fiber configuration, sold in pelletized and fibrous forms. Calidria was sold by Union Carbide and by Union Carbide distributors to manufacturers and producers for use in their products or production processes as a fiber, reinforcer, opacifier thixothrope (thickener) and the like. See also Union Carbide's response to Interrogatories Nos. 16 and 31.

INTERROGATORY 33: Was it anticipated that your asbestos containing products may have to be removed, stripped, distributed, or replaced at any time after installation?

Answer: See General Objection No. 4. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds in the negative and state:

Calidria was not an asbestos product but rather consisted of raw chrysotile asbestos with a unique short fiber configuration, sold in pelletized and fibrous forms. Calidria was sold by Union Carbide and by Union Carbide distributors to manufacturers and producers for use in their products or production processes as a fiber, reinforcer, opacifier thixothrope (thickener) and the like. The Bakelite phenolic resin was not a finished product but sold to manufacturers for use in making their finished products.

See also Union Carbide's response to Interrogatories Nos. 16 and 31.

INTERROGATORY 34: Did the defendant, during the time it mined, manufactured, milled, sold or applied asbestos-containing products, give users or other persons exposed to asbestos containing products or their employers who would be applying, using, removing your asbestos containing products instructions concerning safety precautions to use in applying, using or removing such products? If so, describe such instruction, to whom they were given, the dates they were given, and the manner of giving such instructions.

Answer:

See Union Carbide's responses to Interrogatories 6, 7, 14, 22 and 50, including all of the objections set forth therein.

INTERROGATORY 35: If you have pled that the Plaintiff misused Defendant's asbestos containing products, then state in what manner the defendant contends that Plaintiff misused its products? if "Yes";, then state in what manner and under what circumstances each product was misused. Also state what Plaintiff could have done to avoid such misuse.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 36: List all the job sites, contractors and/or facilities in the Gulf Coast area of Texas, including, but not limited to, oil refineries, chemical plants, power plants, shipyards, commercial buildings, and manufacturing plants, where or to whom defendant's asbestos containing products were supplied, distributed, sold and/or used. Also, list which products were involved, the date or time period of such sale, distribution, use or installation and if known, the physical location within the facility listed. Alternatively, you may produce the documents requested in Request for Production No. 1.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 37: For the attached list of San Antonio job sites, state whether or not Defendant's asbestos products were supplied, distributed, sold and/or used. Also, list which products were involved, the date or time period of such sale, distribution, use of installation and, if known, the physical location within the facility listed.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 38: Up until the time that you ceased to sell and/or manufacture asbestos containing products, had the defendant ever conducted or cause to be conducted any studies designed to minimize or eliminate the inhalation of asbestos dust or fibers by those exposed to the use of the defendant's asbestos containing 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 completed;
- c. Any publication or dissemination of the results of the studies;
- d. The nature of any action to eliminate or minimize inhalation of asbestos dust or fibers;
- e. Attach copies.

Answer: See General Objection No. 4. Union Carbide also objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to

the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

Calidria was not an asbestos-containing product, but rather consisted of raw chrysotile fiber sold in pelletized and fibrous form. Among the several unique physical properties of Calidria which each tend to render, Calidria is not hazardous are the extreme shortness of the fiber and the lack of tremolite contamination.

Nevertheless, Union Carbide's Calidria business (which began in 1963), medical and industrial health officials at Union Carbide issued asbestos toxicology reports which were distributed to sales and other appropriate personnel. Warning labels were added to Calidria packages in 1968 and toxicological information first appeared in sales literature in that year. Material Safety Data Sheets were mailed to Calidria customers beginning in 1972. AIA/NA information pamphlets were made available to customers starting in 1972 and were mailed to customers beginning in 1977 at the latest.

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Union Carbide employed shrink-wrap, tight-fitting packaging to prevent leakage, spillage, or dust emission during the shipment of Calidria. Union Carbide also developed pelletized forms of

Calidria which would reduce dust emission; and starting in 1972, Union Carbide offered to take dust counts of the premises of Calidria customers in order to help maintain a safe working environment, a service which many Calidria customers utilized (Calidria was not sold to the general public or other "end-users", but rather was marketed only to manufacturers or producers who used Calidria in their products or production processes). Dr. Harry Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program.

Upon plaintiff's request, Union Carbide will make copies of results of such dust counts available to the plaintiff for review and duplication at a suitable time and place.

INTERROGATORY 39: Has the defendant ever directly advised any person or party to whom you sell your asbestos containing products of threshold limit values for exposure to asbestos dust recommended by the American Conference of Governmental Industrial Hygienists, or mandated by any governmental entity? If so, state the date that you so advised such person or party, the manner in which you advised such person or party, and the name of each.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, see Answer to Interrogatory No. 40.

INTERROGATORY 40: State the year that this defendant first advised of threshold limit values and maximum allowable concentrations of both asbestos dust and total dust by the American Conference of Governmental Industrial Hygienists, and state the name of the employee of the company receiving such information, the information received, the method of receipt of such information and attach copies of the instrument communicating such advice.

Answer: See General Objections No. 4 and 5. Union Carbide also objects to this Interrogatory on the grounds that it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Moreover, to the extent the

Interrogatory seeks a scientific definition, it improperly seeks without foundation to require an expert opinion. Inasmuch as the plaintiffs do not allege that they or anyone for whom they state a claim were ever employed by Union Carbide or at any job site controlled by Union Carbide, such information is irrelevant and immaterial to matters at issue in this case. Subject to its objections, Union Carbide responds as follows:

During the time that Union Carbide operated its Calidria business (1963-1985), Union Carbide was aware of and recognized the early (pre-1972 OSHA Standard) Threshold Limit Value set forth by the American Conference of Governmental Industrial Hygienists (ACGIH) and the later Threshold Limit Value established by OSHA in 1972. Union Carbide included the early ACGIH Threshold Limit Value in toxicological reports distributed to Calidria sales personnel and disseminated the later OSHA standard to Calidria customers in material safety data sheets, and AIA and other health and safety literature made available or sent to Calidria customers. Union Carbide also offered to take air samples of the premises of Calidria customers. In evaluating whether a sample met the Threshold Limit Value, Union Carbide has maintained that when uncertainty existed as to distinguishing non-asbestos from asbestos particles, all particles should be counted.

Dr. Harry Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program for Calidria customers.

See also Union Carbide's response to Interrogatory No. 14.

INTERROGATORY 41: Was such threshold limit values of maximum allowable concentrations inquired about in the preceding interrogatory total dust or just asbestos dust?

Answer: See General Objections No. 4 and 5. Union Carbide also objects to this Interrogatory on the grounds that it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Moreover, to the extent the Interrogatory seeks a scientific definition, it improperly seeks without foundation to require an expert opinion. Inasmuch as the plaintiffs do not allege that they or anyone for whom they state a claim were ever employed by Union Carbide or at any job site controlled by Union Carbide, such information is irrelevant and immaterial to matters at issue in this case. Subject to its objections, Union Carbide responds as follows:

During the time that Union Carbide operated its Calidria business (1963-1985), Union Carbide was aware of and recognized the early (pre-1972 OSHA Standard) Threshold Limit Value set forth by the American Conference of Governmental Industrial Hygienists (ACGIH) and the later Threshold Limit Value established by OSHA in 1972. Union Carbide included the early ACGIH Threshold Limit Value in toxicological reports distributed to Calidria sales personnel and disseminated the later OSHA standard to Calidria customers in material safety data sheets, and AIA and other health and safety literature made available or sent to Calidria customers. Union Carbide also offered to take air samples of the premises of Calidria customers. In evaluating whether a sample met the Threshold Limit Value, Union Carbide has maintained that when uncertainty existed as to distinguishing non-asbestos from asbestos particles, all particles should be counted.

Dr. Harry Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program for Calidria customers.

See also Union Carbide's response to Interrogatory No. 14.

INTERROGATORY 42: Up until the time that Defendant ceased to sell and/or manufacture asbestos containing products, state in detail what test, if any, your company or its predecessor(s) ever made with regard to the quantity, quality, or threshold limit values of asbestos dust or particles to which users or bystanders were exposed while using your asbestos containing products.

- a. If there were any such tests of studies, give the name or names of the person(s) conducting the tests, the date of the tests and attach true copies of any reports, findings or memoranda concerning such tests or studies.

Answer:

See Union Carbide's response to Interrogatories No. 8, 14, and 25, including all of the objections set forth therein.

INTERROGATORY 43: Does the Defendant possess or have in its control any written documents and/or written materials prior to 1980 which indicate that the manufacturers of asbestos containing products had any knowledge, information, or understanding that asbestos would, could, or might be harmful? If so, list each document and/or written material, and attach a copy.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 44: Did your company or its predecessor(s) ever place any warning directly on any of its asbestos containing products? (i.e. on insulation pipe covering itself). If so, state the wording of such warning, the size, how it was marked and the dates of placement.

Answer: See General Objection No. 4. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Union Carbide objects to this interrogatory as vague and ambiguous. Subject to its objections, Union Carbide responds as follows:

Union Carbide had used two cautionary statements on its Calidria packaging: The first cautionary statement was used from June 22, 1968 through May 1972, and read as follows: "Warning: Breathing dust may be harmful. Do not breathe dust." The second cautionary statement prescribed by OSHA in 1972 and was first printed on Calidria packaging in June of that year and was used by Union Carbide until the sale of the Calidria mine and mill in 1985; this second cautionary statement read as follows: "Caution. Contains asbestos fibers. Avoid creating dust. Breathing asbestos dust may cause serious bodily harm."

INTERROGATORY 45: Did the Defendant ever provide a warning within its sales literature pertaining to asbestos containing products? If so, list the wording, the dates and what literature it was placed in.

Answer: See General Objection No. 4. Union Carbide further objects to this interrogatory on the grounds it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

According to Union Carbide's best available information, Union Carbide had for its Metal Division (including Calidria), a Public Relations employee who may have engaged an outside advertising agent for some of its business dealings. During the period of time in which Union Carbide mined and sold its short fiber Calidria asbestos, John Crane was the Public Relations person in the Metals Division. Mr. Crane has since left Union Carbide.

In addition, Union Carbide also employed many sales people.

During the early days of Union Carbide's Calidria business (which began in 1963), medical and industrial health officials at Union Carbide issued asbestos toxicology reports which were distributed to sales and other appropriate personnel. Warning labels were added to Calidria packages in 1968 and toxicological information first appeared in sales literature in that year. Material Safety Data Sheets were mailed to Calidria customers beginning in 1972. AIA/NA information pamphlets were made available to customers starting in 1972 and were mailed to customers beginning 1977 at the latest.

The health and safety literature made available and disseminated by Union Carbide to its customers warned of possible serious adverse health effects associated with the excessive inhalation of asbestos fiber, advised customers on ways to control or avoid such hazards, including the use of respirators as a way to avoid the hazards. In addition to the dissemination of health and safety information, Union Carbide took active steps to help insure that Calidria was handled and used in a clean and safe manner and environment: Union Carbide employed shrink-wrap, tight-fitting packaging to prevent leakage, spillage, or dust emission during the shipment of Calidria; Union Carbide also developed pelletized forms of Calidria which would reduce dust

emission; and starting in 1972, Union Carbide offered to take dust counts of the premises of Calidria customers in order to help them maintain a safe working environment, a service which many Calidria customers utilized (Calidria was not sold to the general public or other "end-users", but rather was marketed only to manufacturers or producers who used Calidria in their products or production processes). Dr. Harry Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program.

Upon plaintiff's request, Union Carbide will make copies of results of such dust counts available to the plaintiff for review and duplication at a suitable time and place.

See also Union Carbide's response to Interrogatories 7 and 14.

INTERROGATORY 46: Were any Material Safety Data sheets ever prepared by the Defendant for your asbestos products? If so, attach copies.

Answer: See general objection no. 4. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Union Carbide objects to this interrogatory as vague and ambiguous. Subject to its objections, Union Carbide responds as follows:

Starting September 1, 1972 Union Carbide distributed Material Safety Data Sheets setting forth precautions and instructions for the proper and safe use of Calidria. In addition, listed below are brochures and documents which have been made available by Union Carbide to Union Carbide's Calidria customers, many of which contained information on potential hazards associated with excessive asbestos exposure and information as to how to control or avoid such

hazards. Since Union Carbide sold the Calidria business in 1985, the material listed below has not been in use by Union Carbide. Except where the dates are stated herein, the time of publication and the author of each item is presently unknown.

I. GENERAL

- A. "Calidria" Booklet, John Crane
- B. Asbestos Fibers, R. Byrne
- C. Business Reply Card, John Crane
- D. Rubber Booklet, John Crane
- E. Grinding Asbestos Pellets, R. Byrne
- F. FDA Status - Asbestos in Paper
- G. New Additives Induce Thixotropy - Reprint of John Myers Speech
- H. New Idria Chrysotile an Unusual Ore Yields. New Products. R. Woolery
- I. Cationic Asbestos for Waste Water Treatment, John Myers
- J. Asbestos Products for Oil Pollution Control, John Myers
- K. Zeta Potentials of Some Minerals
- L. US Patent Office - Waste and Water Treatments, R. Woolery
- M. Mineralogy of the Coalinga Asbestos Deposit, Mumpton and Thompson
- N. Bulk Handling Demonstration
- O. Electron Micrograph Illustrations
- P. Asbestos Magazine Reprinting - John Myers - Pellets

- Q. Rubber World Reprint
- R. Suggested Primer Sealer for Masonry and Weathered Roofing, 3JG-123B
- S. Suggested Exterior White H-Build Flexible Coating, 3JG-124B
- T. Suggested Exterior White Insulating Roof Coating, 3JG-121B
- U. Suggested Weather-Barrier Roof Coating and Lagging Compound, D-1297

II. RESIN GRADE PRODUCTS

A. General

1. "Calidria" RG-144 & RG-244, John Myers
2. Use of Cowles Dissolver, R. E. Byrne.
3. "Calidria" RG Products for Vinyl Plastisol Sealant Applications.
4. "Calidria" Asbestos for a High Build Dip Coating Plastisol NF-12.
5. "Calidria" RG-144 & RG-244 Asbestos in PVC Plastisols.
6. Rubber Research Elastomerics.
7. Plasticizer Viscosity Control with "Calidria" Asbestos RG-244 & RG-144.

B. RG-110 (Price Schedule).

1. Viscosity Control Agent for Asphaltic Compounds.
2. Polyester Premixes Comparative Cost & Performance Data.

C. RG144 (Price Schedule).

1. RG-144 Brochure, John Crane

2. RG-144 Performance Data, John Crane
 3. RG-144 Product Characteristics.
 4. RG Asbestos Improves Thixotropic Properties of Highway Markers.
 5. PVP Reprint.
 6. Asbestos Beefs Up Plastics & Adhesives to Extend Their Use.
- D. RG-244 (Price Schedule).
1. RG-244 Brochure, John Crane
 2. RG-244 Comparative Performance Characteristics, John Crane
 3. RG-244 Product Characteristics & Specifications.
 4. Ultrasonic Dispersion of RG-244, B. L. Ingalls
 5. RG-244 as a Thixotrope for Polyester Resins, B. L. Ingalls
 6. Polyester Putty & Patching Compounds.
 7. "Epoxy Coal Tar Coatings."
 8. "Chlorinated Rubber Roofing Compound", B. L. Ingalls
 9. High Build Vinyl Maintenance Paints.
 10. Zinc-Rich Primers.
 11. Vinyl Coal Tar Formulation Suggestions.
 12. Formulating Plastisol Sealants with Silane Adhesion Promoters.
 13. RG-244 Health Brochure.

E. RG-600 Brochures.

1. Cost Effectiveness Optimization of Reinforced Polyolefins; 10/4/76 (Ancker & Leung).
2. RG-600 Inquiry Form, John Crane
3. Coupled Chrysotile Asbestos Reinforced Thermoplastics (Ancker).
4. RG-600 Request Form, John Crane
5. RG-600 Patent Literature - 3,939,278; December 23, 1975.
6. RG-600 Health Brochure.
7. Reinforced Polyolefins for Large Structural Foam Parts; 2/8-11/77, Michno
8. Structural Foam is Launched into an Era of Great Diversification; August 1976.

III. STANDARD GRADE PRODUCTS

A. General.

1. "Calidria" Asbestos Standard Grade Products, Typical Properties, John Myers

B. SG-100 (Price Schedule).

1. SG-100 "Calidria" Asbestos for Use in Vinyl and Asphalt Floor Coverings.
2. SG-100 Saves Up to One-Half (12) the Amount of Asbestos.
3. Flintkote Report.

C. SG-130 (Price Schedule).

D. SG-200SG200X (Price Schedule).

- E.
 - 1. SG-200SG-200X Product Characteristics.
 - 2. TJC Brochure.
 - 3. UCAR Latex 153 for Water-Based Caulks and Sealants.
 - 4. Typical Product Characteristics and Specifications SG-210.
 - 5. Suggested Interior Texturing or Exterior Spackling Formulation (17-CHR-41).

IV. HIGH PURITY

A. General.

- 1. Effects of Chrysotile Asbestos Additions to Cellulosic Paper - RGW.
- 2. "Calidria" High Purity Asbestos for Porosity Control, Pinhole Reduction, and Improvement in Two-Sidedness.
- 3. Properties of Asbestos Suitable for Use in Cellulosic Paper, Naumann.
- 4. How High Purity Asbestos is Used for Pitch Control in Papermaking, Woolery.
- 5. Paper Trade Journal - Asbestos Product Aids Retention, Boosts Opacity and Disperses Pitch, Ingalls.
- 6. "Calidria" Asbestos for Paper Coatings.

B. High Purity Open (Price Schedule for HOP & HPP).

- 1. Typical Product Characteristics for HPO, John Myers.
- 2. The Trial of Calidria HOP in New Rochelle Water Pollution Control Plant.
- 3. Addition Rates for HOP in Primary Waste Treatment, John Myers.

4. Suggested Dark Green Acrylic Tennis Court Topcoat E-1400.

C. High Purity Pellets.

1. Typical Product Characteristics for HPP, John Myers.

V. TITANATED PRODUCTS

A. T-135 (Price Schedule).

1. T-135 Opacifying Agent.
2. "Calidria" Asbestos T-135 for Viscosity Control & Pigmentation.
3. T-135-0 for Spray Acoustic & Texture Compounds.
4. Chemical 26 Reprint - Checking Opacity.

VI. COATING GRADES

A. CG-135 (Price Schedule).

VII. DRILLING

A. Oil and Gas Journal Reprint.

In addition, the following material, some of which is listed above in the form of brochures, articles or addresses, has been prepared:

1. "Calidria Asbestos RG-244 - An Economical Effective Thickener and Thixotrope for Polyester Resins, Plastics, Epoxies, Phenolic Adhesives Organosols" 9/70.
2. "CALIDRIA Asbestos, Resin-Grade 144, An Effective Low Cost Thickening Agent and Thixotrope for Epoxy Resin Systems" - 7/71, John Crane.
3. "CALIDRIA Asbestos Resin-Grade - 144 and Resin-Grade 224", John Myers.

4. "CALIDRIA Asbestos, Low Cost Highly Effective Reinforcer and Filler for Rubber, Two Grades: High-Purity and T-135" - 10/70, John Crane.
5. "CALIDRIA Asbestos, a Unique and Versatile Fiber With Proven Applications as an Extender, Thickener, Reinforcer, Pacifier" 574.
6. "New Additives Induce Thixotropy, Provide Sag and Viscosity Control," presented by John L. Myers to Western Coatings Technology Society Meetings in Denver, Los Angeles, San Francisco, Portland, Seattle, and Vancouver, in May 1969.
7. "Asbestos," by Robert E. Byrne, Jr., Area Manager, CALIDRIA Asbestos Marketing and Technology, Mining and Metals Division, Union Carbide Corporation, published March, 1972 in Modern Plastics Encyclopedia, McGraw-Hill, Inc.
8. "Calidria Asbestos Pellets" by John L. Myers, Former Product and Production Manager for Union Carbide's Calidria Operation, published October 1971 in Asbestos, reprinted by Union Carbide.

VIII. HEALTH AND SAFETY

A. General.

1. "Material Safety Data" for CALIDRIA Asbestos published September 1, 1972 and revised September 1, 1976 by Union Carbide Corporation.
2. "Chrysotile Asbestos in Plastics," presented May 14, 1974 at the 32nd annual technical conference of the Society of Plastics Engineers at San Francisco, by John L. Myers, Marketing Manager, Asbestos, Union Carbide.
3. "Handling Asbestos - Chrysotile Asbestos in Plastics," June 16, 1975, by John L. Myers, Marketing Manager Asbestos Union Carbide.
4. "Grinding CALIDRIA Asbestos Pellets," by Robert E. Byrne, Jr., Area Manager, CALIDRIA Asbestos, Marketing and Technology, Mining and Metals Division, Union Carbide Corporation.

5. Brochure "'Calidria' Asbestos Pellets Health and OSHA Information" Published November 1, 1977 by Metals Division, Union Carbide Corporation, Niagara Falls, New York.
6. "Consumer Safety in Plastics System Containing Bound Asbestos Fibers presented on November 9, 1977 at the NATEC Meeting of the Society of Plastics Engineers at Denver by Dr. H.B. Rhodes, Manager Marketing Services-Asbestos, Union Carbide.
7. "What You Should Know About Asbestos and Health," published by the Asbestos Information Association, disseminated by Union Carbide.

B. RG-244.

1. Brochure "'CALIDRIA' Asbestos RG-244 - Health and OSHA Information," published February 1, 1975 and revised October 1, 1977 by Marketing and Technology Department, Mining and Metals Division, Union Carbide Corporation, Niagara Falls, New York.
2. "'CALIDRIA' Asbestos RG-244 - Typical Chemical Analysis," date of publication unknown.

IX. AIA [Asbestos Information Association] MATERIAL

A) In addition to the above, Union Carbide made the following documents and brochures, which were prepared and published by the Asbestos Information Association, available to Calidria customers:

1. Testimony by George W. Wright, M.D. before U.S. Dept. of Labor, Occupational Safety & Health Hearing on Proposed Occupational Asbestos Standard, March 14-17, 1972.
2. Testimony by J. Corbett McDonald, M.C. - same as above.
3. OSHA Regulations - 6/7/72.
4. EPA Regulations - 4/6/73.
5. NY Times Article and Rebuttals (Article - 1/21/73, Rebuttals - 2/25/73).
6. AIA Response to the Wall Street Journal - 6/15/72.

7. "Airborne Asbestos" National Research Council, 1971.
8. "Airborne Asbestos" - Summary.
9. "Airborne Asbestos" - References.
10. Asbestos Bulletin (Asbestos Information Committee, London - 9/72).
11. CIBA GEIGY - UK 2/72.
12. QAMA Folder
13. WHO Report - 10/72
14. Target Health Hazard Fact Sheet (SILICA)
15. "Asbestos Has Its Defenders" - The Journal of Commerce, 4/20/73
16. "The Familiar Aroma of Panic" - Editorial, Plastics Technology 3/73
17. Dust Counting - S. G. Bayer, R. D. Zummalde, T. A. Brown - Feb. 1969
U.S. Dept. of Health, Education and Welfare
18. Dust Monitoring Equipment & Costs - 2/19/73
19. AIA - "Protecting The Asbestos Worker"
20. AIA - "Asbestos and Health"
21. AIA - "The Asbestos Information Association/North America"
22. AIA - "Asbestos and Health Questions and Answers"
23. AIA - "What Asbestos Is: How and Where It Is Used"
24. The Northern Miner - "Asbestos Completely Exonerated etc." - 4/19/73
25. Partnership for Prevention - "The Insulation Industry Hygiene Research Program" - 4/70
26. Asbestos - Reprint from National Safety News - 10/73

27. AIA Answer to TIME magazine - 2/1/74
28. AIA/"What Every Employee Should Know About Asbestos" -2/74
29. AIA Response to "Consumers Research" - 1/28/74
30. "Asbestos Health Question Perplexes Experts," C&EN - 12/10/73
31. Disputes on the Safety of Asbestos - New Scientist 3/7/74
32. JLM Speech (SPE Paper)
33. RG-244 Health Booklet
34. Asbestos in the Atmosphere - AIA/NA
35. Asbestos in Water - AIA/NA
36. Asbestos & Silica Dust in the Drywall Industry. Part 1 - Nov/Dec. 1975, Dr. Rhodes.
37. Asbestos & Silica Dust in the Drywall Industry. Part 2 - Jan./Feb. 1976, Dr. Rhodes.
38. Detection of Chrysotile Asbestos in Airborne Dust from Thermosetting Resin Grinding. 1975, Faulring.
39. AIA/NA Molding & Fabrication of Asbestos-Containing Plastic Products, Work Practices
40. Instructions for Sampling of Airborne Asbestos Fibers
41. Procedure for Pump Calibration used for Monitoring of Asbestos Dust Emissions
- B) The following information pamphlets were mailed to Calidria customers beginning in 1977:
 1. "Calidria Asbestos SG-130 and SG-210" sales brochure (1968).
 2. "Safe Use of Calidria RG244" (February 1973).

3. "Calidria Asbestos RG-600 Health and OSHA Information" (February 1, 1975).
4. "Calidria Asbestos RG 244 Health and OSHA Information" (October 1, 1977).
5. "Calidria Asbestos Pellets Health and OSHA Information" (November 1, 1977).
6. Letter to Calidria Customers with health and safety enclosures (October 24, 1977).
7. Letter to Calidria distributors with health and safety enclosures (September 10, 1979).
8. Letter to Calidria customers with health and safety enclosures (August 20, 1979).
9. Letter to Calidria Customers with health and safety enclosures (October 1, 1980).
10. Letter to Calidria Customers with health and safety enclosures (November 23, 1981).
11. Letter to Calidria Customers with health and safety enclosures (December 9, 1981).

During the early days of Union Carbide's Calidria business (which began in 1963), medical and industrial health officials at Union Carbide issued asbestos toxicology reports which were distributed to sales and other appropriate personnel. Warning labels were added to Calidria packages in 1968 and toxicological information first appeared in sales literature in that year. Material Safety Data Sheets were mailed to Calidria customers beginning in 1972. AIA/NA information pamphlets were made available to customers starting in 1972 and were mailed to customers beginning in 1977 at the latest.

The health and safety literature made available and disseminated by Union Carbide to its Calidria customers warned of possible serious adverse health effects associated with the excessive inhalation of asbestos fiber, advised customers on ways to control or avoid such hazards, including the use of respirators as a way to avoid the hazards. In addition to the dissemination of health and safety information, Union Carbide took active steps to help insure that Calidria was handled and used in a clean and safe manner and environment: Union Carbide employed shrink-wrap, tight-fitting packaging to prevent leakage, spillage, or dust emission during the shipment of Calidria. Union Carbide also developed pelletized forms of Calidria which would reduce dust emission; and starting in 1972, Union Carbide offered to take dust counts of the premises of Calidria customers in order to help them maintain a safe working environment, a service which many Calidria customers utilized (Calidria was not sold to the general public or other "end-users", but rather was marketed only to manufacturers or producers who used Calidria in their products or production processes). Dr. Harry Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program.

Upon plaintiff's request, Union Carbide will make copies of results of such dust counts available to the plaintiff for review and duplication at a suitable time and place.

INTERROGATORY 47: Does Defendant have insurance policies that might cover the claims made by Plaintiff in this case?

Answer:

See General Objection No. 4. Union Carbide objects to this Interrogatory as vague and ambiguous. Subject to these objections, and without making any admission with respect to the plaintiff's claims, Union Carbide also responds as follows: Union Carbide possesses sufficient insurance coverage to enable it to cover the plaintiff's claims.

INTERROGATORY 48: If the answer to the above interrogatory is affirmative, please state:

- a. the amounts of insurance coverage that is currently available as of the date you answer these interrogatories, and
- b. how much is in dispute.

Answer:

See General Objection No. 4. Union Carbide objects to this Interrogatory as vague and ambiguous. Subject to these objections, and without making any admission with respect to the plaintiff's claims, Union Carbide also responds as follows: Union Carbide possesses sufficient insurance coverage to enable it to cover the plaintiff's claims.

INTERROGATORY 49: If you have not previously supplied the requested information in the Master Asbestos File, then for each and every expert witness, medical or otherwise, whom you may call to testify during the trial of this cause, please state the following:

- a. Full name;
- b. Address;
- c. Phone number;
- d. Each subject matter on which the expert witness is expected to testify;

- e. The mental impressions and opinions held by the expert which relate to this cause in any way, and
- f. The facts known to the expert (regardless of when the factual information was acquired) which relate to or form the basis of the mental impression and opinions held by the expert.
- g. Who will be paying each such expert and how much.

Answer: See General Objection No. 4. Union Carbide objects to this Interrogatory on the grounds that it purports to call for disclosure of information protected by the attorney-client privilege and work product doctrine. Union Carbide further objects on the grounds that this Interrogatory improperly and prematurely seeks the disclosure of experts in contravention to the statutory procedures of discovery. Subject to its objections, Union Carbide responds as follows: Discovery is ongoing and, to date, Union Carbide has not yet determined which expert witnesses, if any, it will call at a trial of this case. Union Carbide may call, use or rely on the following:

The discovery process and Union Carbide's own investigation are still ongoing. Union Carbide, so far, has retained no expert for this case. Union Carbide has not yet determined which experts, if any, it will call or consult with at or for a trial of this case, or what material any such experts would rely upon. In the past Union Carbide has consulted with many experts about its Calidria product. They include the following, some of whom are kept on a general retainer:

Dr. Hilton Lewinsohn, (MD)
Hartford, CT

Dr. Ed Ilgren (Mineralogist)
Bryn Mawyr, PA

Dr. Mark Van Baalen (Mineralogist)
Harvard University
Cambridge, MA

Dr. Allen Gibbs (Pathologist)
Pathology Department
Landough Hospital
Penarth, Glamorgan
UK CFC 1 XX

Professor Fred Pooley (Mineralogist)
School of Engineering
Dept. of Mining & Minerals
University of Wales
P.O. Box 917
Cardiff, Wales CF21XH

Fred A. Mumpton (Geologist)
Rockport, New York

Eric Chatfield
Carlo Martino
Wm. Douglas Neal

The above experts will be able to testify about either the unique physical properties of the Calidria asbestos, such as its short fiber length and lack of tremolite or other contamination, or the lack of health hazards from exposure to Calidria or both.

See also response to Interrogatory No. 60 in Union Carbide's responses to Plaintiffs' Master Interrogatories previously filed with this Court.

INTERROGATORY 50: If you have previously supplied the requested information in the Master Asbestos File, then for each expert who will not be called as a witness, but whose work

product forms the basis in whole or in part of the opinions of an expert who will be called as a witness, state:

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 51: Identify the name, address and telephone number every person whom you intend to call as a witness at trial, who has not previously been listed as a witness in Defendant's Master Witness List on file in the Master Asbestos File.

Answer: See General Objection No. 4. Union Carbide objects to this Interrogatory as over broad, vague and ambiguous.

INTERROGATORY 52: What is Defendant's present net worth?

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 53: Has this defendant, or its present directors or officers acting on its behalf, made monetary contributions in excess of \$5,000.00 within the past ten years to the following scientists or researchers who have written on the subject of asbestos-related diseases or to their employing universities on behalf of or at the request of the scientist or researcher: Raymond Murphy - Harvard Medical School and Harvard School of Public Health.

Margaret Becklake - McGill University, Montreal, Canada.

Stuart Brooks - University of Florida at Tampa.

Edward A. Gaensler - Boston University of Medicine, Harvard Medical School, Tufts Medical School.

Bernard Gee - Yale University School of Medicine.

Allan Goldman - South Florida College of Medicine, Division of Pulmonary, Critical care and Occupational Medicine.

Jerome Kleinerman - Case Western Reserve University School of Medicine.

Hilton Lewinsohn - University of Connecticut, Yale University.

Hans Weill - Tulane University

Morton Corn - John Hopkins

Brooke Mossman - University of Vermont.

John Craighead - University of Vermont.

J. Christopher Wagner

J. Corbett McDonald - McGill University

Peter Eles

Paul E. Wheeler - John Hopkins

Lee Reichman - University of Medical and Dentistry of New Jersey, Newark, New Jersey.

J.M. G. Davis - Institute of Occupational Medicine, Edinburgh, U.K. (England).

J.N.P. Davies - Albany Medical College, New York.

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.

INTERROGATORY 53: In what year did this defendant first become aware of the 1938 Public Health Bulletin No. 241 entitled "A study of Asbestosis in the Textile Industry"?

Answer: See General Objection No. 4. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

Union Carbide was never in the business of selling asbestos containing products to textile industries, and can find no record of having obtained this article.

INTERROGATORY 54: In what year did this defendant first become aware of the 1946 article entitled "A Health Survey of Pipe Covering Operations in Constructing Naval Vessels" by Fleischer, Drinker, et al.

Answer: See General Objection No. 4. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its obligations, Union Carbide responds as follows:

Union Carbide was never in the business of selling asbestos containing products to naval ship yards. After a reasonable review of its files, Union Carbide can presently only confirm that from and after July 1982, when Dr. Hilton Lewinsohn joined Union Carbide's staff, it possessed the article entitled "A Health Survey of Pipe Covering Operations and Constructing Naval Vessels" by Fleischer, Vilis, Galle and Drinker.

INTERROGATORY 55: How many claims or lawsuits (other than workers' compensation claims) were filed against this Defendant in the 1930s alleging, in whole or in part injury, damage or disease from exposure to or inhalation of various dusts? This interrogatory includes cases of asbestosis, pneumoconiosis and silicosis due to the fact individuals were or may have been exposed to mixed types of dusts.

Answer: See General Objections. Union Carbide further objects to this interrogatory as vague, overbroad, and unduly burdensome, and as seeking information neither relevant nor reasonably calculated to lead to the discovery of relevant and admissible evidence.

INTERROGATORY 56: Has this Defendant in other litigation ever alleged or admitted that the health hazards of asbestos containing insulation products were known prior to 1945?

Answer: Union Carbide objects to plaintiff's interrogatories on the grounds that it is overly broad, unduly burdensome and is not reasonably calculated to lead to the discovery of admissible evidence.