

IN THE CIRCUIT COURT OF MOBILE COUNTY, ALABAMA

Charles Matthews

Plaintiff,

vs.

United Brands Co., et al

Defendants.

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CV-89-3977

PLAINTIFF'S EXHIBIT

UC-1986

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GENERAL OBJECTIONS**GENERAL OBJECTION NO. 1:**

Union Carbide states that trial preparation and factual investigation are ongoing. Union Carbide's answers to these Interrogatories, Requests for Production and Requests for Admissions 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, Requests for Production and Requests for Admissions, and specifically objects to each of these Interrogatories, Requests for Production and Requests for Admissions, 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, Requests for Production and Requests for Admissions, 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, Requests for Production and Requests for Admissions, as phrased.

GENERAL OBJECTION NO. 3:

Union Carbide also objects to all Interrogatories, Requests for Production and Requests for Admissions, insofar as they would require the disclosure of information protected by the attorney-client privilege or work product doctrine.

GENERAL OBJECTION NO. 4:

Union Carbide objects to providing information about any asbestos-containing products, which it has manufactured, sold or distributed, on the grounds that the asbestos fiber in those products was encapsulated by or embedded in other material and on the grounds that the plaintiff has made no allegation of exposure to those products, which, according to Union Carbide's best presently available information, consist of the following: a tree sprout inhibitor used primarily to inhibit growth on telephone poles; a phenolic molding compound used in electronic parts and products such as switches and radios; a thermoplastic molding material used primarily in camera cases; Prestone radiator products; acetylene cylinder liners; a scarfer machine used to remove blemishes and imperfections from steel; and, possibly, certain polyethylene and polystyrene and other products sold in limited quantities or on an experimental basis. Union Carbide no longer manufactures any of those products. From 1963 until June 30, 1985, Union Carbide mined and sold short fiber chrysotile asbestos initially as "Union Carbide Asbestos" and then under the trade name Calidria (some distributors marketed

Calidria under other trade names). All responses to these interrogatories refer to Calidria asbestos only.

GENERAL OBJECTION NO. 5:

Union Carbide objects to this entire set of Interrogatories, Requests for Production and Requests for Admissions, 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.

INTERROGATORIES

INTERROGATORY NO. 1:

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

ANSWER:

See General Objection #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:

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, LLP, 101 Park Avenue, 32nd Floor, New York, New York 10178.

INTERROGATORY NO. 2:

State whether or not you are a corporation. If so, state your correct corporate name, the state of your incorporation, the address of your principal place of business, the name and address of the person or entity authorized to accept service of process on your behalf, and whether or not you have ever held a Certificate of Authority to do business in the State of Alabama.

ANSWER:

See General Objection #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 Corporation was first incorporated in the State of New York on November 1, 1917 under the name of Union Carbide and Carbon Products. In 1957 Union Carbide and Carbon Products changed its name to Union Carbide Corporation. On July 3, 1989, Union Carbide Corporation changed its name to Union Carbide Chemicals & Plastics Company Inc. and established itself as a wholly owned subsidiary of a newly created Delaware corporation under the name of Union Carbide Corporation. In 1994, the Delaware corporation

(Union Carbide Corporation) merged into Union Carbide Chemicals and Plastics Company Inc., which subsequently changed its name to Union Carbide Corporation.

Union Carbide Corporation's principal place of business is as follows:

Union Carbide Corporation
39 Old Ridgebury Road
Danbury, CT 06817

CT Corporation System is authorized to accept service of process on behalf of Union Carbide Corporation. Union Carbide Corporation maintains a Certificate of Authority to do business in the State of Alabama.

INTERROGATORY NO. 3:

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

ANSWER:

See General Objection #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:

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 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.

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 the 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.

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 mined and milled its unique chrysotile asbestos from its mine located near King City, CA.

INTERROGATORY NO. 4::

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

ANSWER:

See General Objection #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 sold its Calidria asbestos initially as Union Carbide Asbestos and then under the name "Calidria". The Calidria product was sold in several brands, with brand letter and number notations on the Calidria label. The brands varied on the basis of content, chemical treatment, and physical (fibrous or pelletized) form.

Union Carbide, however, packaged Calidria asbestos for the Montello Corporation for sale under the tradenames 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 NO. 5:

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

ANSWER:

See Union Carbide's response to Interrogatory #4 including all objections set forth therein.

INTERROGATORY NO. 6:

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

- (a) As to each product, state whether such product was mined, manufactured, marketed, and/or sold.
- (b) The names of the companies mining, manufacturing, marketing, and/or selling each product mined, manufactured, marketed, and/or sold.
- (c) The trade or brand name of each of those products mined, manufactured, marketed and/or sold.
- (d) The date each of the named products was placed on the market.
- (e) A description of the physical (chemical) composition of each of the named products, including the type of asbestos contained in the product and the percentage of asbestos put in each product.
- (f) The date each of the products was removed from the market and no longer sold or distributed and the reason or reasons therefor.
- (g) The date asbestos was removed from such products, if ever, and the reasons therefor.
- (h) A description of the physical appearance of each of the named products.
- (i) A detailed description of the intended uses of the named products.
- (j) Identify the last year that you sold each asbestos-containing product.

ANSWER:

See General Objection #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:

- (a-d), (f-g) See Union Carbide's responses to Interrogatories #3 and #4.
- (e & h) 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
Super-Visbestos	657301	Super Standard Grade, Cracked Pellets
Visbestos	657601	Standard Grade, Open Fiber
Oilbestos	657001	Standard Grade, Open Fiber, 5 % Stearic, Hydrophobic

- (i) 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

RG-144 (cont.)	(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.

INTERROGATORY NO. 7:

Do any documents, including but not limited to written memoranda, specifications, recommendations, blueprints, or other written materials of any kind or character, relating to the design, preparation, or introduction into the market of the products listed in Interrogatory No. 6 still exist? If so, state:

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

ANSWER:

See General Objection #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 maintains a Repository of asbestos-related documents. The Repository includes a myriad of memoranda, letters, articles, brochures and other written and non-written material. The Repository was culled from Union Carbide's former other Calidria business, from other former businesses which formerly manufactured products which contained some asbestos, and from Union Carbide facilities which used and removed asbestos insulation and other asbestos products; and from corporate offices. The repository encompasses documents and material generated and received by Union Carbide employees or officials, as well as published articles collected by Carbide employees and officials. Subjects which the documents and material discuss or pertain to include, but are not limited to, the following: Union Carbide's former Calidria business; the unique physical and chemical properties of the Calidria fiber, which engender the fiber's innocuous nature; information about products manufactured by Union Carbide which encapsulated small quantities of asbestos fiber; information about Union Carbide's purchase and abatement of asbestos insulation and other products, in accordance with the most advanced state-of-the-art industrial hygiene and safety practices; or other producers; and information about other asbestos and asbestos products generally, including health affects of the other asbestos. This repository should include any of the material requested by this request to the extent that it remains in Union Carbide's possession and accessible to Union Carbide. Upon plaintiff's request, Union Carbide will make its Repository, except privileged material, available to plaintiff for review and replication at a suitable time and place.

INTERROGATORY NO. 8:

Before distributing, selling, or placing the products listed in your responses to Interrogatory Nos. 3-6 into the streams of commerce, were any tests conducted to determine potential health hazards involved in the use of, or exposure to, the materials such as asbestos, contained in those products? If the answer is affirmative, state:

- (a) The names of the products tested and the date of each test.
- (b) The name, address, and job title of each person conducting the tests or involved with conducting the tests.
- (c) The results of the tests.

ANSWER:

See General Objection #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:

Two studies of Calidria asbestos were made (after Calidria had been initially put on the market) by the Chemical Hygiene Fellowship of Mellon Institute on behalf of Union Carbide:

1. The first study was entitled "The Fibrogenic Potential of Asbestos Products - Via Intraperitoneal Injection In Guinea Pigs, Rats and Rabbits and by the Intratracheal Route in the Rat". Although Union Carbide cannot represent that it knows the names of the persons who conducted the study, the following individuals did sign the study: Edwin R. Kinkhead, B.S., Research Assistant, Urbano C. Pozzani, M.S., Senior Fellow and Charles P. Carpenter, Ph.D., Assistant Administrative Fellow. Also, the following persons received an acknowledgment in the study: Charles C. Hahn, B.S., Junior Fellow and John M. King, Ph.D., DVM, Fellow. The study was completed on July 8, 1966. The purpose of the study was to evaluate the degree of fibrogenicity of asbestos mined at Union Carbide's King City, California facility as compared with other forms of asbestos. A copy of the study's report will be supplied if requested.
2. The second study was entitled "Calidria Asbestos Resin Grade RG244, Tracheal Insufflation of Rat Lungs with Interpretation of Pathology After 20, 60, 90, and

180 Days". Although Union Carbide cannot represent that it knows the names of the persons who conducted the study, Charles P. Carpenter, Ph.D., Administrative Fellow, was the editor of the study's report. In addition, the following individuals were named as contributors to the study: D.L. Geary, Jr., E.R. Kinkhead, R.C. Myers and D.J. Nachreiner. The study was completed on September 3, 1971. The purpose of the study was to evaluate the degree of fibrogenicity of Union Carbide's RG244 as compared with other forms of asbestos. A copy of the study's report will be supplied if requested.

In addition to the above two tests, and in addition to chemical analyses of Calidria which Union Carbide may have undertaken, in the mid-1960's Union Carbide cooperated with the Pneumoconiosis Research Unit of the Llandough Hospital in the United Kingdom to conduct a "trace element analysis" of asbestos and provided samples of Calidria asbestos for such analysis. Union Carbide may also have conducted "patch tests" to determine the impact, if any, of Calidria on skin and other soft tissue. Union Carbide is currently endeavoring to locate reports of these tests.

INTERROGATORY NO. 9:

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

- (a) A description of each such document.
- (b) The name, address, and job title of each person who currently has possession of each document, and where it is presently located.

ANSWER:

See General Objection #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:

See Exhibit A for copies of the Mellon reports. Union Carbide maintains in a Repository of asbestos-related documents, which contain any documents responsive to this Interrogatory accessible to Union Carbide. The reports of the two lists referred to in Union Carbide's response to Interrogatory A8 are included in the Repository. Union Carbide's Custodian of Records for asbestos-related documents is Ms. Dawn Stewart, Kelley Drye & Warren, LLP, 101 Park Avenue, New York, New York 10178.

INTERROGATORY NO. 10:

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

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

ANSWER:

See General Objection #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:

Calidria always consisted of raw chrysotile asbestos with unique physical and chemical properties, sold to manufacturers and producers for use in their products or production processes. See Union Carbide's response to Interrogatory No. 6.

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. Harrison 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 NO. 11:

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

- (a) The names of the products tested and the dates of such tests.
- (b) The name, address, and job title of each person who conducted those tests.
- (c) The results of those tests.
- (d) Whether, as a result of the tests, any products were removed from the market.
- (e) The names of all products removed from the market as a result of these tests.

ANSWER:

See Union Carbide's response to Interrogatory #8, including all objections set forth therein.

INTERROGATORY NO. 12:

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

- (a) The name of each product.

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

ANSWER:

See General Objection #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'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.

Union Carbide recognizes that the excessive inhalation of asbestos fiber may be associated with the development of serious and potentially fatal disease. 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.

Calidria was mined from the Coalinga deposit which consisted of a unique form of chrysotile. As a result of its unique properties, Calidria could not pose the dangers which might be created by asbestos from other deposits. The unique Calidria properties include the

following: Calidria's short fiber length (shorter than any other known chrysotile); The Calidria deposit's lack of tremolite contamination; Calidria's quick dissolution due to the "weak" fibril structure; and Calidria's width and shape. Many of Union Carbide's expert witnesses can testify as to the unique properties of the Calidria fiber and resulting innocuous biological impact of Calidria. Additionally, Union Carbide possesses many documents in its repository pertaining to those issues. Upon Plaintiffs' request, Union Carbide will make its repository available for review and replication at a suitable time and place.

In spite of the unique, innocuous nature of the Calidria fiber, Union Carbide has long recognized the desirability of avoiding excessive exposure to dust from any source. Union Carbide took steps to enable customers to minimize or avoid the creation of and exposure to dust from Calidria.

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. 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. Harrison Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program.

Union Carbide maintains a its Repository of asbestos-related documents, documents which may be responsive to this Interrogatory. Several of the documents listed in Union Carbide's response to Interrogatory No. 19, to the extent they have been discovered and exist, are filed in this Repository. Union Carbide's Custodian of Records for asbestos-related documents is Ms. Dawn Stewart, Kelley Drye & Warren, LLP, 101 Park Avenue, New York, New York 10178.

Upon plaintiff's request, Union Carbide will make its Repository available to the plaintiff for review and replication at a suitable time and place.

INTERROGATORY NO. 13:

Did Defendant or any of its subsidiary companies make any design changes as a result of the tests discussed in your response to Interrogatories No. 10 or 13? If the answer is affirmative, state:

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

ANSWER:

See General Objection #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:

Calidria always consisted of raw chrysotile asbestos. See Union Carbide's response to Interrogatories No. 6 and 10.

INTERROGATORY NO. 14:

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

- (a) The names of each relevant product.
- (b) The exact wording of each warning statement on each printed material.
- (c) A description of the printed material other than the warning statement.
- (d) The method used to distribute the warning to persons likely to use the product.
- (e) The date each warning was first issued, distributed, or placed on packaging.

- (f) The name, address, and job title of each person responsible for having drafted or issued the warning.
- (g) The current location of any such printed material and the custodian thereof.
- (h) The form in which such literature or printed material can be accessed i.e., the manner in which such literature is indexed or stored.

ANSWER:

See General Objection #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 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 breath dus.. " The second cautionary statement was 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 reads as follows: "Caution. Contains asbestos fibers. Avoid creating dust. Breathing asbestos dust may cause serious bodily harm."*

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. Harrison 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 interrogatory no. 19 below. Additionally, Union Carbide maintains in its Repository of asbestos-related documents, documents which may be responsive to this Interrogatory. Upon plaintiffs request, Union Carbide will make its Repository available to the plaintiff for review and replication at a suitable time and place.

Union Carbide's Custodian of Records for asbestos-related documents if Ms. Dawn Stewart, Kelley Drye & Warren, LLP, 101 Park Avenue, New York, New York 10178.

INTERROGATORY NO. 15:

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

- (a) The name and address of each claimant.
- (b) The date of notice of each claim.
- (c) A description of the claim.
- (d) The type of injuries allegedly sustained.
- (e) The name and address of each attorney who represents each individual making a claim.
- (f) The style and court number of each claim.
- (g) The disposition of each claim that has been settled or taken to judgment.

ANSWER:

See General Objections #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:

Union Carbide was first named in a personal injury suit alleging asbestos exposure in 1972. Many, if not most cases which named Union Carbide turned out not to involve any Union Carbide products at all. Such claims are maintained alphabetically by plaintiffs' name, not by state. Upon plaintiff's request, Union Carbide will make its list available for plaintiffs for review and replication at a suitable time and place.

INTERROGATORY NO. 16:

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

ANSWER:

See General Objection #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 Calif.
- 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

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 tradenames 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 NO. 17:

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

- (a) The name and address of each such distributor or sales representatives.
- (b) The years in which such company or person distributed, marketed, or sold your products.
- (c) What products were distributed, marketed, or sold and in what years.

ANSWER:

See General Objection #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:

See Union Carbide's response to Interrogatory No. 16 for a list of distributors utilized by Union Carbide for their California asbestos business. The following distributors maintained territories which might have included the states listed in this interrogatory.

American Industrial Chemicals, Corp.

D&F Distributing, Inc.

Lenape Chemicals, Inc.

Montello, Inc.

INTERROGATORY NO. 18:

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

ANSWER:

See General Objections #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:

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 J. Welsh [1963-1978]	(6)	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's various divisions employ Industrial Hygienists for their respective facilities and premises. Ronald Van Mynen currently serves as Vice President in charge of Union Carbide's Community and Employee Health, Safety and Environmental Protection Department which is primarily responsible for establishing corporate HS&EP standards and for

assessing business group performance against those standards and applicable governmental requirements. During the period of the Calidria business, Dr. Harrison Rhodes, an industrial hygienist, supervised Union Carbide's dust count program.

Union Carbide has led the industry with its concern for industrial hygiene, and Union Carbide industrial hygienists have been pioneers in their field. In 1919, less than two years after Union Carbide was created, the National Carbon Company division hired Dr. Girard Cranch as its Medical Director. In that capacity, Dr. Cranch developed and launched health and hygiene programs which were paragons for the industry. In 1937, Dr. Cranch was appointed Manager of the new corporate-wide Industrial Toxicology Department. One year later, he also took on the responsibility of Corporate Medical Director. In those capacities, he was instrumental in establishing the Mellon Institute Chemical-Hygiene Fellowship, which is renowned for its toxicological analyses.

Upon Dr. Cranch's retirement in 1948, the medical and industrial hygiene functions were divided. Oliver Stam succeeded Dr. Cranch as a corporate level industrial hygienist. In 1953, Mr. Stam was succeeded by Paul McDaniel. Mr. McDaniel recently retired. Dr. Marvin Huffman presently serves as toxicologist.

In addition, in the early 1960's Drs. Carl Dernehl and K. S. Lane of Union Carbide's Medical Department, were given the corporate level positions of Director and Assistant Director of Toxicology, respectively. Starting in the early 1970's, Dr. Harrison Rhodes, an industrial hygienist, supervised Union Carbide's dust count program for Calidria customers until June 30, 1985, when Union Carbide sold the Calidria business.

For an extensive period of time, all major Union Carbide facilities have employed an industrial hygienist and industrial hygiene staff on the premises. Union Carbide's divisions also employ a division-wide industrial hygienist and staff to oversee all facilities. Industrial Hygienists report, ultimately, to the Vice President for Community and Employee Health, Safety, and Environmental Protection, who is also responsible for establishing corporate Health, Safety, and Environmental Practice (HS&EP) standards and for assessing business group performance against those standards and applicable governmental requirements. Presently, Ronald Van Mynen serves as Vice President in that capacity.

INTERROGATORY NO. 19:

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

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

ANSWER:

See General Objection #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:

See Union Carbide's response to interrogatory no. 12. 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 Hi-Build Flexible Coating, 3JG-124B.
- T. Suggested Exterior White Insulating Roof Coating, 3JG-121B.

- U. Suggested Weather-Barrier Roof Coating and Lagging Compound, E-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 Plasticsols.
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.

- F. 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, Plasticsols, 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, Opacifier" 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. Harrison 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 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).

The following is a responsive listing of books, studies, and limited issue reports which are on file in Union Carbide's corporate library in Danbury; additional material may be also kept at more or other libraries;

1. Acrylamide - Exposure to $N_{10}SH$ - STD.
2. Agricultural Products - Emergency Response Plan - Union Carbide.
3. Agricultural Products - 1983 Chemical Guide.
4. Alkanes (C_5-C_8) Exposure to $N_{10}SH$.
5. Allyl Chloride - Exposure to $N_{10}SH$ STD.
6. American Hospital Association. Guide to Health Care Field - 1985.
7. The Apocalypics - Edith Effron
8. Asbestos Standard
9. Benzyl Chloride - Exposure to $NI^{10}SH$ STD.
10. Benzoyl Peroxide - Exposure to $N_{10}SH$ STD.

11. British Journals of Industrial Medicine 2/86.
12. Carlon Black - Exposure to N₁₀SH STD.
13. Carbaryl - Exposure to N₁₀SH STD.
14. Carlon Disulfide: EHC₁₀.
15. Carlon Disulfide: Exposure to N₁₀SH STD.
16. Carciongins, First Annual Report on (July, 1980, Vol. I, Vol. II, Dept. of Health and Human Services.
17. Chemical Hazards of the Workplace, Hughes Proctor.
18. Chloraprene, Exposure to N₁₀SH STD.
19. Clinical Diagnosis - by lab methods - Henry & Davidsohn
20. Clinical Handbook of Economic Poisons (Emergency Information and Treatment).
21. Clinical Toxicology of Commercial Products. Gasoline, Smitt & Hodge.
22. Clinical Symposia - CIBA.
23. Cobalt - Criteria for Controlling Occupational Exposure to N₁₀SH STD.
24. Cobalt - Exposure to N₁₀SH STD.
25. Contact Directory (UCC Chemicals & Plastics).
26. Corporate Medical Department - Background Information -UCC.
27. Dinitro-Ortho-Cresol - Exposure to N₁₀SH STD.
28. Directory - U.S. Based Agencies involved in International Health Assistance - National Counsel for Int'l Health.
29. Directory of Medical Specialists - 22d Edition - (1985-86) (Marquis, Who's Who).
30. Disability Prevention: The Global Challenge - Wilson.
31. Diseases of the Heart (I, II) Freidburg - 3d Edition.
32. Doctors of Medicine - Directory of Sept. 1985 - Div. of Health Related Boards.
33. Drug Abuse Program, Developing an Occupation.
34. Electronics Division - Occupational Health Manual.
35. Emergency Cardiac Care - Huszar.
36. Emergency Care (Course Planning Guide) Murray, Grant
37. Emergency Medicine, Attos of Rosen & Steinbach.
38. Employees Handbook - UCC.
39. Employee Health (Linde Shea) Linde Dive., UCC.
40. Environmental Affairs Manual - UCC.
41. Ether Oxide, Health Assessment Document for -.
42. Ethyl Oxide Worker Safety Issues (Rep. #83-2).
43. Ethylene Dibromide - Exposure to N₁₀SH STD.
44. Ethylene Dichloride (1,2 Dichlordtrhane) Exposure to N₁₀SH STD.
45. Ethylene Oxide Sterilization - Exposure to N₁₀SH STD.
46. Ethylene Oxide Std.
47. Ethylene Oxide Sterilization - In Hospital.
48. Ethylene Oxide Worker Safety Issues.
49. Eveready Battery - Engineering Data.
50. Exposure to Mutagenic & Reproductive Hazards - Arthur Bloom, M.D.
51. Exposure Standard - UCC.

52. Follow-up of Cancer (Physicians Handbook) (2d Edition - 1983).
53. Foodborne Disease & Food Safety - American Medical Association - 1981.
54. Fractures & Dislocations, Management of, Vols. I & II, 3d Edition - Connolly.
55. Grain, Dust, Fire, Explosion - Exposure to N₁₀SH STD.
56. Guide to evaluation of Permanent Impairment - 2d Edition - American Medical Association.
57. Howard Medical School Health Letter (1985-86).
58. Health Effects Review Board (Toxicology).
59. Health Fitness Center - Emergency Procedure (UCC Manual).
60. Health & Safety Manual - UCC.
61. Hearing Loss (2d Edition) - Drs. J. Sataloff and R.T. Sataloff and L.A Vassalo, M.S.
62. The Heart, J. Willis Hurst.
63. Help Manuals - UCC.
64. Hearing - Conservation & Noise Central Manual - UCC.
65. Home & Auto Products Division - Occupational Health Manual - UCC.
66. How to Choose a Medical Specialty. Anita Taylor.
67. Industrial Toxicology - Fairhall.
68. Industrial Toxicology - Hamilton & Hardy.
69. Industrial Toxicology - Plunhett.
70. Injured Patient, Management of - Norman & Males.
71. Internal Medical Alert - 1986.
72. International Travel Policies - UCC.
73. Kidney or Electrolytes - Norman Deane, M.D.
74. Loss of Hearing Claims - Background of - UCC.
75. Lung Disorders, Occupational - Parker -2d Edition.
76. Material Safety Data Sheets (Linde, Catalysts, Carbon Products, Battery, Home & Auto, Chemicals & Plastics, UMETCO, etc.).
77. Medical Benefits.
78. Medical Letter.
79. Medical Letter (1981 - Vol. 23)
80. Mobile Coronary Care (Fundamentals of) Rose & Rose.
81. Medical Dictionary
82. Medical Policies, Procedures & Guidelines - UCC.
83. Metals Division - Occupational Health Manual
84. Mions Annual - 1985
85. Mutagenicity Test Procedures - Author/Editor B.J. Kilbey
86. New England Journal of Medicine - 7/85, 5/85, 12/85, 11/85, 7/85, 10/85, 6/85.
87. Neurologic Exam De Jong.
88. N₁₀SH - Current Intelligence Bulletin (Reprints 1/18, 1975-1977).
89. N₁₀SH - Occupational Health Guidelines for Chemical Hazards.
90. Nitrogen Oxides - Exposure to N₁₀SH STD.
91. Nitroglycerin & Ethylene Glycol Dinitrate - Exposure to N₁₀SH STD.
92. Nursing - Standing Orders & Procedure - UCC.

93. Occupational Health - 2 (Approaches To)
94. Occupational Health/Medicine Manuals - UCC.
95. Occupational Lung Diseases - Margon & Seaton.
96. Occupational Medicine - State of the art reviews R.N. Adams, M.D. - Editor.
97. OSHA Hazard Communication.
98. OSHA - Occupational Health Guidelines for Chemical Hazard.
99. Patty's Industrial & Hygiene Toxicology (3d Edition) Clayton, Vol's 1, 2A, 2B, 2C.
100. Permanent Impairment - Guide to Evaluation - 2d Edition American Medical Association.
101. Phenol - Exposure To - N₁₀SH STD.
102. Physicians Desk Reference - 1986.
103. Phosphorus & Phosphine in Air - Exposure to N₁₀SH Std.
104. Physicians Directory of Consultative Service (Yale).
105. Polychlorinated Bisphenyls (PCB's) Exposure To N₁₀SH -STD.
106. Preventive Medicine (5/86).
107. Proctology, A method of - Macleod.
108. Product Safety/Liability Manual - UCC.
109. Public Health Code - 1980 - State of Connecticut.
110. Public Health & Preventive Medicine - 11th Edition - Lost, J.M.
111. Radionuclide Contamination, Management of -.
112. Red Book (1982) Representative of Committee on Infectious Disease - American Academy of Ped.
113. Refined Petroleum Solvents - Exposure to N₁₀SH STD.
114. Reproductive System, Effects of Toxic Chemicals on - American Medical Association - 1985.
115. Respiratory Disease, American Revolution of - (Volume 131, April 1985).
116. Respiratory Disease - Emergency Treatment of Acute Stinger.
117. Safety, Health & Accident Prevention Procedures (Basic Guide) UCC.
118. Safety, Health & Loss Control Manual - UCC.
119. Safety, Health & Related Affairs Technical Manual - UCC.
120. Safety Manual - UCC.
121. Site Visit Reports (Books 1-4 - By Division - UCC).
122. Sudden Coronary Death - NY Academy of Science - Volume 382.
123. Sulfur Oxides & Related Particulates - 1978 - Environmental Effects of -.
124. The 36 Hour Day - Mac/Robbins.
125. Tetrachlorethan - Exposure to - N₁₀SH STD.
126. Tolioine - Exposure to N₁₀SH STD.
127. Toxic Substance Control (Source Book) Center for Compliance Information.
128. Toxicology Assessment & Advisory Committee (Vols. 1-4).
129. Toxicology & Biochemistry of Aromatic Hydrocarbome, H.W. Gerarde.
130. Trauma Patient, Initial Management of - Frey.
131. Tropical Medicine - 5th Edition - Hunter/Swartzwelder/Clyde.
132. Tropical Medicine, New Developments is National Council for Health.

133. Vanadium - Exposure to N₁₀SH STD.
134. Word Processing Manual - UCC.
135. Waste Anesthetic Gases & Vapors - Exposure to - N₁₀SH STD.
136. The Journal of the Society of Occupational Medicine.
137. The Lancet
138. Mayo Clinic Proceedings.
139. The New England Journal of Medicine.
140. Occupational Hazards
141. Occupational Health & Safety
142. Preventive Medicine - American Health Foundation.
143. The Medical Letter - On Drugs & Therapeutics.
144. N₁₀SH - Technical Reports.
145. N₁₀SH - Research Reports.
146. N₁₀SH - Criteria Reports.
147. N₁₀SH - Survey Reports.
148. N₁₀SH - Health Safety Guides.
149. N₁₀SH - Self-Evaluation Reports.
150. Electric Power Research Institute Studies.
151. Jarc Monograph Series.
152. National Council on Radiation Protection and Measurement Series.

The following is a sample subscription list, containing some possibly pertinent periodicals which the library subscribed to in 1976. If information for other years or other particular information is specifically requested, Union Carbide will attempt to locate such information and provide it to the plaintiff.

Sample Subscription List

A. I. Ch. E. Journal
 A.I.M.E. Society of Mining Engineers Transactions
 Academy of Sciences of the U.S.S.R. - Earth Sciences Section
 Acta Metallurgica
 Air Pollution Control Association Journal
 Aluminum and Supplement in English
 American Association of Petroleum Geologists Bulletin
 American Ceramic Society Bulletin
 American Ceramic Society Journal
 American Chemical Society Journal
 American Journal of Science
 American Mineralogist

Analyst
Analytica Chimica Acta
Analytical Chemistry
Applied Spectroscopy
Archiv fur das Eisenhüttenwesen
Australasian Institute of Mining and Metallurgy Proceedings
Australian Institute of Metals Journal
Australian Mining
Automotive Engineer
British Ceramic Society Transactions
Canadian Chemical Processing
Canadian Journal of Chemical Engineering
Canadian Journal of Earth Sciences
Canadian Metallurgical Quarterly
Canadian Mineralogist
Canadian Mining and Metallurgical Bulletin
Canadian Mining Journal
Cast Metals Research Journal
Chemical Engineering
Chemical Engineering Progress
Chemical Engineering Science
Chemical Geology
Chemical Instrumentation
Chemical Reviews
Chem Tech
Chemistry and Industry
Clays and Clay Minerals
Contributions to Mineralogy and Petrology
Economic Geology
Electrochemical Society Journal
Energy Pipeline and Systems
Engineering
Engineering and Mining Journal
Environmental Science and Technology
Foundry
Foundry Trade Journal
Fuel
Geochemistry International
Geochimica et Cosmochimica Acta
Giessereiforschung
Harvard Business Review
High Temperature
Indian Institute of Metals Transactions

Industrial and Engineering Chemistry, Fundamentals	
Industrial and Engineering Chemistry, Process Design and	Development
Industrial and Engineering Chemistry, Product Research and	Development
Industrial Heating	
Industrial Laboratory	
Industrial Minerals	
Inorganic Chemistry	
Inorganic Materials	
Institute of Metals Journal	
Institution of Mining and Metallurgy A. Mining Industry	
Institution of Mining and Metallurgy B. Applied Earth Science	
Institution of Mining and Metallurgy C. Mineral Processing & Extractive Metallurgy	
Instrumentation Technology	
Internet Bulletin	
International Chemical Engineering	
International Journal of Mineral Processing	
International Journal of Powder Metallurgy	
International Metallurgical Reviews	
Iron and Steel International	
Iron and Steel Engineer	
Iron and Steel Institute Journal	
Iron and Steel Institute of Japan Transactions	
Ironmaking and Steelmaking (formerly ISI Journal)	
Journal du Four Electrique	
Journal of Analytical Chemistry, USSR	
Journal of Applied Chemistry and Biotechnology	
Journal of Applied Chemistry, USSR	
Journal of Chemical Thermodynamics	
Journal of Colloid and Interface Science	
Journal of Geochemical Exploration	
Journal of Geology	
Journal of High Temperature Science	
Journal of Inorganic and Nuclear Chemistry	
Journal of Materials Science	
Journal of Metals	
Journal of Petrology	
Journal of Physical Chemistry	
Journal of Scientific Instruments	
Journal of Scientific Instruments	
Journal of Steel Castings Res.	
Journal of the Less Common Metals	
Journal of Thermal Analysis International	
Light Metal Age	

Materials Engineering
Materials Research Bulletin
Metal Bulletin, London
Metal Progress
Metal Science Journal
Metallography, An International Journal
Metallurgia and Metal Forming
Metallurgical Transactions
Metallurgist
Metallurgist and Materials Technology
Metals and Materials
Metals Technology (London)
Mineralium Deposita
Microscope
Mineralogical Magazine
Mineralogical Record
Minerals Processing
Minerals Science and Engineer
Mines Magazine
Mining Congress Journal
Mining Engineering
Mining Magazine
Modern Castings
NIM - National Institute for Metallurgy
Nature
New Scientist
Norsk Geologisk Tidsskrift
Oil and Gas Journal
Oxidation of Metals
Physics of Metals and Metallography
Platinum Metals Review
Powder Metallurgy
Powder Metallurgy, International
Processing
Refractories
Remote Sensing of Environment
Research Management
Review of Scientific Instruments
Rocks and Minerals
Russian Castings Production
Russian Chemical Reviews
Russian Journal of Inorganic Chemistry
Russian Journal of Physical Chemistry

Russian Metallurgy (Metally)
Scandinavian Journal of Metallurgy
Science
Scientific American
Separation Science
Simulation
Skillings' Mining Review
South African Institute of Mining and Metallurgy
Spectrochimica Acta
Stahl und Eisen
Steel in the USSR
Talanta
TAPPI
Thermochimica Acta
Thirty-three Magazine of Metals Producing
Tsvetnye metally (in English)
Vacuum
Water and Wastes Engineering
Welding Engineer
World Mining
X-Ray Spectrometry
Zeitschrift fur metallkunde

Union Carbide's Custodian of Records for asbestos-related documents if Ms. Dawn Stewart,
Kelley Drye & Warren, LLP, 101 Park Avenue, New York, New York 10178.

INTERROGATORY NO. 20:

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

- (a) The name and address of each such association or organization.
- (b) The dates during which Defendant or any of its subsidiaries or predecessors were members.

- (c) The names and dates of any publications, minutes, or reports published, written, or disseminated by any of the named associations or organizations.
- (d) Whether any of those publications are still in your possession, and if so:
 - (i) A description of the publications, including the date.
 - (ii) The current location of such publications.
 - (iii) The custodian of such publications.
 - (iv) The method or manner in which such publications are maintained.

ANSWER:

See General Objection #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 a member of the Industrial Health Foundation, the American Industrial Health Association and Asbestos Information Association/North America. Union Carbide may also have cooperated with work undertaken by the Pneumoconiosis Research Council of the United Kingdom, The Organization Resources Recovery Organization, and the Insulation Industry Hygiene Research Program. Union Carbide or Union Carbide personnel also participated in activities of the National Safety Council. Union Carbide has no presently available record of association with any other organization listed in the plaintiff's interrogatory.

Union Carbide responds that it presently can find no documents relating to the IHF in its files. Union Carbide also has in its possession a copy of at least one edition of the

newsletter published by the Insulation Industry Hygiene Research Program. In addition, Union Carbide possesses files which may contain miscellaneous correspondence to or from the AIA or other organizations. Upon the plaintiff's request, Union Carbide will make such relevant, non-privileged files available for review and duplication at a suitable time and place.

Union Carbide responds that it presently can find no documents relating to the IHF in its files. Union Carbide also has in its possession a copy of at least one edition of the newsletter published by the Insulation Industry Hygiene Research Program. In addition, Union Carbide possesses files which may contain miscellaneous correspondence to or from the AIA or other organizations. Upon the plaintiff's request, Union Carbide will make such relevant, non-privileged files available for review and duplication at a suitable time and place.

INTERROGATORY NO. 21:

Identify by name and location each plant or manufacturing facility in which the products listed in your answers to Interrogatory Nos. 3-6 were manufactured, assembled, or prepared for sale or marketing, specifying which plants produced each item, the dates each plant is or was in operation, and the time span during which each named item was produced or manufactured.

ANSWER:

See General Objection #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 mined and milled its unique short-fiber Chrysotile asbestos at its mine and mill in or around King City, CA.

Union Carbide operated its Calidria mine and mill from 1963-1985. During that time there were no worker compensation or other claims for asbestos-related disease from workers at the mine or mill. Upon information and belief, there have also been no such claims against the successor company which has continued to operate the mine and mill. Union Carbide has received no reports and has no information whatsoever of any asbestos-related disease (not attributable to non-Calidria asbestos), among workers or former workers, or their family members at the Calidria mine and mill. (Union Carbide received one record of an undocumented pulmonary disease and a death certificate for a former Calidria worker, and two reports of asbestos disease in persons working with Calidria at a pilot plant in New York, where other asbestos may also have been used or present.) Dr. Duane Hyde, an independent physician, now retired, who provided medical services to Union Carbide's employees at the Calidria mine and mill is aware of the total lack of incidence of asbestos-related disease among the Calidria employees. Other experts can verify the same total lack of disease among workers at other mines in the same Coalinga deposit as the Calidria mine and among people living in the surrounding area. This empirical evidence provides further indication of the uniqueness of the Coalinga/Calidria fiber and its resulting lack of the health or safety hazards posed by other types of asbestos.

INTERROGATORY NO. 22:

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

- (a) The name, address, and job title of each person or entity who prepared such materials.
- (b) The name, address, and job title of each person who currently has possession of such materials and their present location.
- (c) The date the materials were prepared.
- (d) The media used to disseminate the sales materials.

ANSWER:

See General Objection #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:

See Union Carbide's response to interrogatory no. 19. Union Carbide no longer mines or sells Calidria and no longer maintains records of advertisements for Calidria which it may have placed prior to 1966. The following is the most complete list and record of Calidria advertisements that Union Carbide is presently able to assemble:

<u>Journal</u>	<u>Page(s)</u>	<u>Date(s)</u>	<u>Diagrams or Photographs</u>
"Chemical 26"	Unknown	7/66	Yes
"Chemical 26"	17	9/66	Yes

(Technical Association of the Pulp and Paper Industry)

"TAPPI"	44A-45A	2/66	Yes
"TAPPI"	141A	3/66	Yes
"TAPPI"	39A	10/66	No
"TAPPI"	41A	10/66	Yes
"TAPPI"	139A	11/66	No
"TAPPI"	141A	11/66	Yes
"TAPPI"	155A	12/66	No
"TAPPI"	157A	12/66	Yes
"TAPPI"	149A	1/66	No
"TAPPI"	151A	1/67	Yes
"TAPPI"	153A	1/67	Yes
"TAPPI"	131A	2/67	Yes
"TAPPI"	133A	2/67	Yes
"Pulp & Paper"	Unknown	5/2/66	Yes
"Pulp & Paper"	Unknown	5/2/66	Yes
"Pulp & Paper"	15	6/20/66	Yes
"Pulp & Paper"	9	11/21/66	Yes
"Pulp & Paper"	11	11/21/66	Yes
"Pulp & Paper"	55	12/5/66	No
"Pulp & Paper"	57	12/5/66	Yes
"Pulp & Paper"	45	12/19/66	Yes
"Pulp & Paper"	79	1/30/67	No

"Pulp & Paper"	81	1/30/67	Yes
"Pulp & Paper"	83	1/30/67	Yes
"Pulp & Paper"	65	2/20/67	Yes
"Paper Trade Journal"	4-5	3/7/66	Yes
"Paper Trade Journal"	37	1/9/67	Yes
"Paper Trade Journal"	35	2/6/67	No
"Paper Trade Journal"	37	2/6/67	Yes
"Paper Trade Journal"	83	2/20/67	No
"Paper Trade Journal"	85	2/20/67	Yes
"Oil & Gas & Petro- Chemical Equipment"	Unknown	10/66	Yes/ <u>1</u> /
"Petroleum Equipment & Services"	Unknown	10/66	Yes/ <u>1</u> /
"Drilling DCW"	Unknown	11/66	Yes/ <u>1</u> /
"Petroleum Engineer"	Unknown	10/66	Yes/ <u>1</u> /
"Rubber Red Block"	Unknown	1974 & 1975	Yes/ <u>2</u> /

1/ This ad placed by Montello, Inc., a Union Carbide Distributor.

2/ This ad placed by Harwick Chemical, a Union Carbide Distributor.

INTERROGATORY NO. 23:

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

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

ANSWER:

See Union Carbide's responses to Interrogatories 14 and 19, including all objections set forth therein.

INTERROGATORY NO. 24:

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

ANSWER:

See General Objection #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 also objects to this interrogatory on the grounds that it calls for information that is irrelevant and immaterial to this case. Subject to its objections, Union Carbide responds as follows:

Union Carbide possesses sufficient insurance coverage to enable it to cover the plaintiff's claims.

INTERROGATORY NO. 25:

As to the disease asbestosis, state:

- (a) The date on which Defendant or its subsidiary or predecessor first learned that such disease was caused by inhalation of asbestos fibers by humans.
- (b) How Defendant became aware of the existence of the disease.
- (c) Who within the company first discovered, recognized or understood the adverse consequences or effects of the disease and/or of asbestos exposure.
- (d) What information was disseminated within Defendant's company or its subsidiary or predecessor regarding such adverse consequences or effects.
- (e) Whether any such information is still maintained by Defendant or its subsidiary or predecessor in any written form.
- (f) Who is the custodian of such information.
- (g) The date on which you first received knowledge or information that asbestosis was caused by inhalation of asbestos fibers.

ANSWER:

See General Objection #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'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.

Union Carbide recognizes that the excessive inhalation of asbestos fiber may be associated with the development of serious and potentially fatal disease. 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.

Calidria was mined from a deposit which consisted of a unique form of chrysotile. As a result of its unique properties, Calidria could not pose the dangers which might be created by asbestos from other deposits. Those properties include the following: Calidria's short fiber length (shorter than any other known chrysotile); The Calidria deposit's lack of tremolite contamination; Calidria's quick dissolution due to the "weak" fibril structure; and its width and shape. Many of Union Carbide's expert witnesses can testify as to the unique properties of the Calidria fiber and resulting innocuous biological impact of Calidria. Additionally, Union Carbide possesses many documents in its repository pertaining to those issues. Upon

Plaintiffs' request, Union Carbide will make its repository available for review and replication at a suitable time and place.

In spite of the unique, innocuous nature of the Calidria fiber, Union Carbide has long recognized the desirability of avoiding excessive exposure to dust from any source. Union Carbide took steps to enable customers to minimize or avoid the creation of and exposure to dust from Calidria.

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. 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. Harrison Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program.

See also Union Carbide's response to Interrogatory 14.

INTERROGATORY NO. 26:

As to the disease lung cancer, state:

- (a) The date on which Defendant or its subsidiary or predecessor first learned that such disease was caused by inhalation of asbestos fibers by humans.
- (b) How Defendant or its subsidiary or predecessor became aware of the disease and its relationship to asbestos exposure.
- (c) Who within the company or its subsidiary or predecessor first discovered or recognized the adverse consequences or effects of asbestos exposure.
- (d) What information was disseminated within Defendant's company or its subsidiary or predecessor regarding such adverse consequences or effects.
- (e) Whether any such information is still maintained by Defendants or its subsidiaries or predecessors in a written form.
- (f) Who is the custodian of such information.
- (g) The date on which you first received knowledge or information that lung cancer was caused by inhalation of asbestos dust and fibers.

ANSWER:

See Union Carbide's response to Interrogatory #25, including all objections set forth therein.

INTERROGATORY NO. 27:

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

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

ANSWER:

See Union Carbide's response to Interrogatory #25, including all objections set forth therein.

INTERROGATORY NO. 28:

As to the disease mesothelioma, state:

- (a) The date on which Defendant or its subsidiary or predecessor first learned such disease was caused by inhalation of asbestos fibers by humans.
- (b) The date on which Defendant first suspected that mesothelioma was caused by inhalation of asbestos dust and fibers.

- (c) How Defendant or its subsidiary or predecessor became aware of the disease and that it was caused by exposure to asbestos.
- (d) Who within the company or its subsidiary or predecessor first discovered or recognized the adverse consequences or effects of asbestos exposure.
- (e) What information was disseminated within Defendant's company or its subsidiary or predecessor regarding such adverse consequences or effects.
- (f) Whether any such information is still maintained by Defendants or its subsidiary or predecessor in a written form.
- (g) Who is the custodian of such information.
- (h) Whether Defendant agrees that there is no known medical cure for mesothelioma.

ANSWER:

See Union Carbide's response to Interrogatory #25, including all objections set forth therein.

INTERROGATORY NO. 29:

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

- (a) The type of cancer and the date on which Defendant or its subsidiary or predecessor first learned that such diseases were caused by inhalation of asbestos fibers by humans.
- (b) What cancers has the Defendant or its subsidiary or predecessor become aware can be caused by exposure to asbestos fibers?
- (c) The date on which Defendant first suspected other cancers were caused by asbestos inhalation.
- (d) Who within the company or its subsidiary or predecessor first discovered the adverse consequences or effects of asbestos exposure.

- (e) What information was disseminated with Defendant's company or its subsidiary or predecessor regarding such adverse consequences or effects.
- (f) Whether any such information is still maintained by Defendant or its subsidiary or predecessor in a written form.
- (g) Who is the custodian of such information.

ANSWER:

See Union Carbide's response to Interrogatory #25, including all objections set forth therein.

INTERROGATORY NO. 30

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

ANSWER:

See General Objection #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:

Calidria was not an asbestos containing product. It consisted of raw chrysotile sold to manufacturers and producers for use in their products or production processes. As such, Union Carbide was never directly involved in the manufacture or products containing Calidria. Calidria could at an event, be used by or for asbestos insulation due to its unique physical and

chemical properties, especially its short fiber length. See also Union Carbide's response to interrogatory no. 3.

Even though Calidria consisted of a unique short-fiber, which could not pose the danger created by other asbestos (see Union Carbide's response to Interrogatories No. 35), Union Carbide took steps to enable customers to minimize or avoid the creation of and exposure to dust from Calidria.

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. Harrison 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 Nos. 14, 19 and 31.

INTERROGATORY NO. 31:

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

ANSWER:

See General Objection #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:

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.

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 was 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 NO. 32:

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

- (a) The name of the company manufacturing the asbestos products.
- (b) The trade name affixed to those products.
- (c) The periods of time covered by each such agreement.
- (d) The volume, in dollar amount, of each transaction.
- (e) The initial purchaser of the products.

ANSWER:

See General Objection #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 entered into no such agreement.

INTERROGATORY NO. 33:

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

ANSWER:

See General Objection #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:

Calidria consisted of unique short-fiber chrysotile asbestos, which Union Carbide mined and milled itself.

INTERROGATORY NO. 34:

Does Defendant or any of its subsidiaries or predecessor currently have possession of any writings or contracts on those rebranding agreements set forth in the answer to Interrogatory No. 32? If the answer is affirmative, state:

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

ANSWER:

See General Objection #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:

Not applicable. See Union Carbide's response to Interrogatory #32.

INTERROGATORY NO. 35:

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

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

ANSWER:

See General Objections #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:

No employee or worker at Union Carbide's former Calidria mine or mill at King City, California has ever reported an incidence of asbestos-related disease (this includes a lack of worker compensation filings and reports on death certificates). Dr. Duane Hyde, now retired, an independent physician formerly engaged by Union Carbide to provide medical exams and care to employees and workers at the Calidria mine and mill, is familiar with the lack of incidence of asbestos-related disease or injury among that population. Dr. Hyde still resides in the King City area. See Union Carbide's response to interrogatory no. 21.

INTERROGATORY NO. 36:

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

- (a) The dates of each such meeting.
- (b) The general subject matter discussed at each meeting.
- (c) Who was in attendance at each meeting.
- (d) Where and by whom the written minutes are presently maintained.
- (e) By whom the minutes were taken and put into final format.
- (f) Whether the minutes were abstracted and reports disseminated to other individuals, and if so, the names and job titles of those individuals.

ANSWER:

See General Objection #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:

After a reasonable review the minutes of all Board of Directors Meetings through June 1985 when Union Carbide sold its Calidria asbestos business, there was no reference of asbestos health and safety issues in such minutes. Union Carbide was never in the asbestos insulation business. The Corporation's well established policies of dust control and state of the art industrial hygiene led to the implementation in the appropriate divisions and facilities of dust control measures, employee protection, and asbestos abatement.

INTERROGATORY NO. 37:

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

- (a) As to each product, whether such product is mined, manufactured, and/or marketed or sold.
- (b) The names and addresses of the companies mining, manufacturing, marketing, and/or selling each of those products.
- (c) The trade or brand name of each of those products mined, manufactured, marketed, and/or sold.
- (d) The date each of the named products was placed on the market.
- (e) A description of the physical (chemical) composition of each of the named products, including the type of asbestos contained in the product.
- (f) A description of the physical appearance of each product and its packaging.
- (g) A detailed description of the intended uses of each of the named products.

- (h) Whether there are any warning labels on said products or containers regarding potential asbestos-related health hazards.

ANSWER:

See Union Carbide's response to Interrogatory No. 3, including all objections set forth therein.

INTERROGATORY NO. 38:

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

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

ANSWER:

See General Objection #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:

These sales records are maintained alphabetically by customer name. In addition the sales or sales records, Union Carbides repository of asbestos-related documents contains

customer call reports (filed by sales persons) and dust count results (dust counts taken at Calidria customers premises by Union Carbide).

Union Carbide maintains in its Repository of asbestos-related documents and other documentary material. The Repository includes a myriad of documents and other material from Union Carbide's former Calidria business, from other former businesses which manufactured products which contained some asbestos, and from Union Carbide facilities which used and removed asbestos insulation and other asbestos products in accordance with the most advanced state-of-the-art industrial practices. The repository encompasses documents and material generated and received by Union Carbide employees or officials, as well as published articles collected by Carbide employees and officials. Subjects which the documents and material discuss or pertain to include, but are not limited to, the following: Union Carbide's former Calidria business; the unique physical and chemical properties of the Calidria fiber, which engender the fiber's innocuous nature; information about asbestos containing products manufactured by Union Carbide or other producers; and information about other asbestos generally, including health officials of the other asbestos. The repository should include any of the material requested by this request to the extent that it remains in Union Carbide's possession. Upon plaintiff's request, Union Carbide will make its Repository, except privileged material, available to plaintiff for review and replication at a suitable time and place.

INTERROGATORY NO. 39:

Will you call company representatives as witnesses at the trial of any of these cases?

If so, list:

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

ANSWER:

See General Objection #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 further objects to this Interrogatory on the grounds that it improperly and prematurely seeks discovery of trial witnesses in contravention of the attorney-client privilege and attorney work product doctrine and statutory procedures for the discovery of the identity of trial witnesses. Subject to its objections, Union Carbide responds as follows:

Union Carbide has not yet determined which witnesses, if any, it will call at a trial of this case. Union Carbide may call one or more of the following in addition to other possible witnesses.

Witnesses:

John L. Myers - Former Production Manager of Asbestos (Calidria)

Can testify about Calidria information and products, to whom and how Calidria was marketed and sold, including information concerning warning labels, cautions, and other health and safety information and assistance provided by Union Carbide Corporation to its Calidria Customers.

Hilton Cecil Lewinsohn, M.D. - Former Assistant Corporate Medical Director

Can testify on medical issues in relation to asbestos generally and Calidria asbestos in particular.

Dr. Thomas J. Hall - Former Product Manager (Calidria)

Is knowledgeable about the early years of the Calidria business including both the mining process and sales policies as well as general considerations about the product.

Dr. Harrison Rhodes - Industrial Hygienist

Supervised Union Carbide's Dust Count program, under which Union Carbide took dust measurement at facilities of Calidria customers and provided advice as to how to avoid or minimize dust exposure. He is familiar with industrial hygiene issues pertaining to the use of Calidria.

According to the best of Union Carbide's present information, the following testimony was provided by individuals formerly associated with Union Carbide in the capacities noted below, and not necessarily on Union Carbide's behalf; their testimony may or may not have pertained to Union Carbide or Union Carbide products:

1. James W. Rawlings, Former Vice President, Metals Division.
3/16/72, Washington, D.C., before U.S. Department of Labor-OSHA hearings on a "Proposed Standard for Occupational Exposure to Asbestos."
2. John L. Myers, Product and Production Manager, Asbestos.
 - (i) 9/17/75 and 1/21-22/76, Washington, D.C., before the OSHA Advisory Committee on "Proposed Standards for Occupational Exposure to Asbestos in the Construction Industry."
 - (ii) 4/27/79, Fresno, California, California Occupational Safety and Health (CAL-OSHA) Standards Board regarding proposed changes in asbestos standards.
 - (iii) 8/30/79, San Diego, California, before the California Occupational Safety and Health (CAL-OSHA) Standards Board, regarding proposed changes in asbestos standards.

- (iv) 5/29/80, Fresno, California, before the California Occupational Safety and Health (CAL-OSHA) Standards Board, regarding proposed changes in asbestos standards.
- 3. Harrison B. Rhodes, former Technology Manager - Asbestos.
 - (i) 8/15/77, before the Consumer Product Safety Commission on "A Proposed Ban on Wall Patching Compounds Containing Asbestos."
 - (ii) 3/14/77, New Brunswick, N.J., before the New Jersey Department of Environmental Protection on "A Proposed Regulation Regarding Control and Prohibition of Spray-On Asbestos Surface Coatings."
 - (iii) 7/19/78, Washington, D.C., U.S. Department of Labor-OSHA, hearing on proposed rulemaking: "Identification, Classification and Regulation of Toxic Substances Posing a Potential Occupational Carcinogenic Risk."
 - (iv) 11/8/78, Sacramento, California, before the California Occupational Safety and Health (CAL-OSHA) Standards Board, regarding proposed changes in asbestos standards.
 - (v) 8/30/79 and 9/25/80, San Diego, California Occupational Safety and Health (CAL-OSHA) Standards Board, regarding proposed changes in asbestos standards.
 - (vi) 2/19/81 and 8/14/81, Toronto, Ontario, Canada, Royal Commission on Matters of Health and Safety Arising from the Use of Asbestos in Ontario.

INTERROGATORY NO. 40:

Have Defendant or its subsidiaries or predecessors ever acquired through purchase, reorganization, or merger another corporation, company, or business which manufactured, sold, processed, distributed, or contracted or supplied products containing asbestos? If so, for each such entity, state:

- (a) Full and correct name;
- (b) Principal place of business;

- (c) State of incorporation;
- (d) Date of acquisition by Defendant;
- (e) Whether or not the business entity was ever authorized to transact business in the State of Alabama;

ANSWER:

See General Objection #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 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. 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.

INTERROGATORY NO. 41:

Was each of your asbestos products generally expected to reach, or packaged to reach, the consumer or user, without substantial change in the condition in which it was sold? If not,

with respect to any such product, explain in what way the Defendant claims its products were altered or substantially changed after sale or distribution and before reaching the user.

ANSWER:

See General Objection #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:

Calidria was not an asbestos product. It rather, consisted of raw chrysotile, with unique physical or chemical features, sold in fibrous or pelletized form to manufacturers and producers for use in their products or production processes. Calidria was not sold or marketed for end users. As such, Calidria should have reached the purchasers (manufacturers or producers) in essentially the form in which it was shipped.

INTERROGATORY NO. 42:

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

ANSWER:

See General Objection #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:

See Union Carbide's response to interrogatory no. 6. 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:

Calidria

<u>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.

INTERROGATORY NO. 43:

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

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

ANSWER:

See General Objection #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's Calidria asbestos was not an asbestos-containing product. Rather, it was an unique short-fiber chrysotile asbestos sold in fibrous or pelletized forms to manufacturers and producers for use in their products or production processes and therefore could not be "applied" in its original form.

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. Harrison 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 responses to Interrogatories No. 6 e-h and No. 30.

INTERROGATORY NO. 44:

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

ANSWER:

See General Objection #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's Calidria asbestos was not an asbestos-containing product. Rather, it was an unique short-fiber chrysotile asbestos sold in fibrous or pelletized forms to manufacturers and producers for use in their products or production processes. Therefore Calidria could not be "removed, stripped or replaced" in its original form.

See also Union Carbide's responses to Interrogatories No. 6 e-h and No. 30.

INTERROGATORY NO. 45:

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

ANSWER:

See General Objection #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:

See Union Carbide's response to interrogatory no. 44. 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. Harrison Rhodes, and Industrial Hygienist, supervised Union Carbide's dust monitoring program. Upon plaintiff's request, Union Carbide will make dust count results in Union Carbide's repository available to plaintiff for review and replication at a suitable time and place.

INTERROGATORY NO. 46:

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

ANSWER:

See General Objection #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:

See Union Carbide's response to interrogatories 43 and 44. Calidria always consisted of raw fiber with the same molecular formula.

Calidria's chemical composition is $\text{Mg}_6(\text{OH})_8\text{Si}_4\text{O}_{10}$. Union Carbide responded as appropriate to particular dust count results to assist Calidria customers minimize dust or maintain dust free environments. Upon plaintiffs request, Union Carbide will make its repository of asbestos-related documents and material, including dust count results, available to the plaintiff for review and replication at a suitable time and place.

INTERROGATORY NO. 47:

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

- (a) Name of the person or firm conducting such studies;
- (b) The date the studies began and the date they were completed;
- (c) Any publication or other written dissemination of the results of the studies;

- (d) The nature of any action to eliminate or minimize the inhalation of asbestos dust fibers:

ANSWER:

See Union Carbide's responses to Interrogatories #8, 43, 45 and 46, including all objections set forth therein.

INTERROGATORY NO. 48:

Does your company have, has it ever had, or have your predecessor(s) or subsidiaries ever had, a Research Department? If so, give the year such Research Department was established, and whether or not such Research Department has operated continuously since being established. State also:

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

ANSWER:

See General Objection #4. Union Carbide further objects to this Interrogatory on the grounds it is overly broad, unduly burdensome, harassing, and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

See Union Carbide's responses to Interrogatories No. 1 and 6(i).

Calidria consisted of raw chrysotile fiber mined by Union Carbide and was not an "asbestos-containing" product. Studies and evaluation on the unique properties of Calidria

have been conducted at Union Carbide's Tarrytown and Tuxedo, New York facilities as well as the King City mine site and elsewhere. Drs. Mumpton and Neuman, and Mr. Slim Thompson as well as Dr. Tom Hall and John Myers may have been involved or have information about these studies. If the Plaintiff desires additional information about physical or chemical evaluations of the Calidria fiber, Union Carbide will provide available information subject to any objections on relevancy. Union Carbide will also make its repository of asbestos-related documents and material available to the plaintiff for review and replication at a suitable time and place, upon plaintiff's request.

INTERROGATORY NO. 49:

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

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

ANSWER:

See General Objection #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'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 J. Welsh
[1963-1978] | (6) 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's various divisions employ Industrial Hygienists for their respective facilities and premises. Ronald Van Mynen currently serves as Vice President in charge of

Union Carbide's Community and Employee Health, Safety and Environmental Protection Department which is primarily responsible for establishing corporate HS&EP standards and for assessing business group performance against those standards and applicable governmental requirements. During the period of the Calidria business, Dr. Harrison Rhodes, an industrial hygienist, supervised Union Carbide's dust count program.

Union Carbide consulted various experts in the medical and industrial hygiene professions concerning precautions that should be followed by persons involved in the use or handling of Union Carbide's Calidria asbestos. During the early days of Union Carbide's Calidria business, industrial hygienists at Union Carbide issued asbestos toxicology reports which were distributed to sales and other appropriate personnel. The advice of the experts was incorporated, as appropriate, on Calidria warning labels and in the safety literature that Union Carbide made available and disseminated to its Calidria customers.

Union Carbide has led the industry with its concern for industrial hygiene, and Union Carbide industrial hygienists have been pioneers in their field. In 1919, less than two years after Union Carbide was created, the National Carbon Company division hired Dr. Girard Cranch as its Medical Director. In that capacity, Dr. Cranch developed and launched health and hygiene programs which were paragons for the industry. In 1937, Dr. Cranch was appointed Manager of the new corporate-wide Industrial Toxicology Department. One year later, he also took on the responsibility of Corporate Medical Director. In those capacities, he was instrumental in establishing the Mellon Institute Chemical-Hygiene Fellowship, which is renowned for its toxicological analyses.

Upon Dr. Cranch's retirement in 1948, the medical and industrial hygiene functions were divided. Oliver Stam succeeded Dr. Cranch as a corporate level industrial hygienist. In 1953, Mr. Stam was succeeded by Paul McDaniel. Mr. McDaniel recently retired. Dr. Marvin Huffman presently serves as toxicologist.

In addition, in the early 1960's Drs. Carl Dernehl and K. S. Lane of Union Carbide's Medical Department, were given the corporate level positions of Director and Assistant Director of Toxicology, respectively. Starting in the early 1970's, Dr. Harrison Rhodes, an industrial hygienist, supervised Union Carbide's dust count program for Calidria customers until June 30, 1985, when Union Carbide sold the Calidria business.

For an extensive period of time, all major Union Carbide facilities employ an industrial hygienist and industrial hygiene staff on the premises. Union Carbide's divisions also employ a division-wide industrial hygienist and staff to oversee all facilities. Industrial Hygienists report, ultimately, to the Vice President for Community and Employee Health, Safety, and Environmental Protection, who is also responsible for establishing corporate HS&EP standards and for assessing business group performance against those standards and applicable governmental requirements. Presently, Ronald Van Mynen serves as Vice President in that capacity.

INTERROGATORY NO. 50:

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

ANSWER:

See Union Carbide's responses to Interrogatories 14 and 31, including all objections set forth therein.

INTERROGATORY NO. 51:

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

ANSWER:

See Union Carbide's responses to Interrogatories 14 and 31, including all objections set forth therein.

INTERROGATORY NO. 52:

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

ANSWER:

See General Objection #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:

Not applicable. Union Carbide's Calidria asbestos was not an asbestos-containing product. Rather, it was a unique short-fiber chrysotile asbestos sold in fibrous and pelletized forms to producers and manufacturers for use in their products or production processes. See Union Carbide's Response to Interrogatory No. 6(e) and (h).

INTERROGATORY NO. 53:

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

- (a) All details of such recall;
- (b) The name of the product recalled, including the reason for the recall and the names and current addresses of those individuals who determined that it should take place;
- (c) The dates of recall;
- (d) The purpose for the recall.

ANSWER:

See General Objection #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:

No. See Union Carbide's responses to interrogatory no. 46.

INTERROGATORY NO. 54:

Before 1970, did you ever manufacture or sell products which did not contain asbestos and which could be substituted for your asbestos-containing products? If so, state the date such asbestos-free products were first placed on the market.

ANSWER:

See General Objection #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:

Not applicable. Union Carbide's Calidria asbestos was not an asbestos-containing product. Rather it was a unique short-fiber chrysotile asbestos sold in fibrous and pelletized forms to producers and manufacturers for use in their products or production processes. Fiber from the Coalinga deposit, from which Calidria was mined, possessed unique physical and chemical properties, not replicated elsewhere.

INTERROGATORY NO. 55:

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

ANSWER:

See Union Carbide's responses to Interrogatories Nos. 52 and 54, including all objections set forth therein.

INTERROGATORY NO. 56:

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

ANSWER:

See General Objections 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:

See Union Carbide's responses to Interrogatories 45 and 46.

INTERROGATORY NO. 57:

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

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

ANSWER:

See General Objection #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 also objects to this interrogatory on the grounds that it is overly broad in terms of time and that the legal definition is in the public domain and equally accessible to plaintiff. 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. Harrison Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program for Calidria customers.

See also Union Carbide's response to Interrogatory #25.

INTERROGATORY NO. 58:

Were the threshold limit values or maximum allowable concentrations inquired about in Interrogatory No. 63 for total dust, and not asbestos dust alone?

ANSWER:

See Union Carbide's response to Interrogatories 57 and 63, including all objections set forth therein.

INTERROGATORY NO. 59:

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

ANSWER:

See Union Carbide's response to Interrogatories 45, 57 and 63, including all objections set forth therein.

INTERROGATORY NO. 60:

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

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

ANSWER:

See General Objection #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 also objects to this Interrogatory on the grounds that it improperly and prematurely seeks discovery of trial witnesses in contravention of the attorney-client privilege and the attorney work product doctrine and statutory procedures for the discovery of the identity of trial witnesses. Subject to its objections, Union Carbide responds as follows:

Union Carbide has not yet determined which expert witnesses, if any, it will call at a trial of this case. Union Carbide may call one or more of the following experts in addition to other possible experts:

The discovery process and Union Carbide's own investigation are still ongoing. Union Carbide, so far, has retained no expert for this case in particular. 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 experts would rely upon. In the past, Union Carbide has consulted with many experts about its Calidria product. The below experts will be able to testify about either the physical properties of Calidria, such as its short fiber length, lack of tremolite or other contamination and other unique properties, or the lack of health hazards from exposure to Calidria, or both. These experts include the following listed below, some of whom are kept on a general retainer.

Dr. Peter Barrett
10 Martins Lane
Hingham, MA 02043

(Physician)

(617) 749-5876

Dr. Eric Chatfield
Chatfield Technical Consultants
2071 Dickson Road
Missisangua, Ontario
Canada LSB 1YB

(Microscopist/Hygienist)

(905) 896-9290 (Phone)
(905) 896-1930 (Fax)

Dr. Allen Gibbs
Pathology Department
Landough Department
Landough Hospital
Penarth, Glamorgan
UK CFC 1 XX
011-44-1222711711
011-44-1633259189 (Home)
011-44-1222704342 (Fax)

(Pathologist)

Dr. Duane Hyde
319 Canal Street
King City, CA 93930
(408) 385-5170

(Physician)

Dr. Ed Ilgren (Pathologist)
830 Montgomery Avenue - Apt. 503
Bryn Mawr, PA 19010
(610) 525-5960

Dr. Hilton Lewinsohn
Center for Occupational
& Environmental Health
108 High Street/P.O. Box 1050
Exeter, NH 03833
(603) 778-6510
Home Address:
20 Chestnut Street, N-27
Exeter, NH 03833
(603) 778-2797 (home)

(Physician)

Professor Fred A. Mumpton (Geologist)
31 Sherwood Drive
Lewiston, New York 14902
(716) 754-3248

Professor Fred Pooley (Mineralogist)
School of Engineering
Department of Mining & Metals
University of Wales
P.O. Box 917
Cardiff, Wales CF21XH
011-44-1222 874-0000

Dr. Harrison Rhodes (Industrial Hygienist)
1037 Lakeside Court
Grand Junction, CO 81506
(970) 242-4932

Dr. Robert Sawyer (Physician)
Entek Environmental &
Technical Services, Inc.
Rensselaer Technology Park
125 Defreest Drive
Troy, NY 12180
(518) 283-9200
(800) 278-6433
Dr. Robert Sawyer
Home Address:
P.O. Box 1407
Guilford, CT 06437
(203) 453-3060

Dr. Mark Van Baalen (Mineralogist)
Harvard University
Cambridge, MA
(617) 495-0705

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.

INTERROGATORY NO. 61:

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

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

ANSWER:

See General Objection #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:

See Union Carbide's response to interrogatories 39 and 60. The discovery process as well as Union Carbide's own investigation are still ongoing. To date, Union Carbide lacks additional knowledge regarding such persons.

INTERROGATORY NO. 62:

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

ANSWER:

See General Objection #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 also objects to this Interrogatory on the grounds that it improperly and prematurely seeks discovery of trial witnesses in contravention of the attorney-client privilege and the attorney work product doctrine and statutory procedures for the discovery of the identity of trial witnesses. Subject to its objections, Union Carbide responds as follows:

Union Carbide has not yet determined which documents, if any, it will use at a trial of this case. Union Carbide may use one or more of the following, in addition to other possible documents:

- (1) Invoices for sales made to facilities.
- (2) Sample Warning Labels used on Calidria packages.
- (3) Various brochures and other literature relating to health and safety disseminated to Union Carbide Calidria customers.

Union Carbide has not completed its determination of exhibits it will introduce at a trial in this case and reserves the right to amend or supplement the above list of exhibits, or not use items referenced on the said list.

INTERROGATORY NO. 63:

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

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

ANSWER:

See General Objection #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 naval shipyards. After a reasonable review of its files, Union Carbide can presently only confirm that from and after July 1982, it possessed the article entitled "A Health Survey of Pipe Covering Operations and Constructing Naval Vessels" by Flieischer, Viles, Gode and Drinker.

Union Carbide maintains a Repository of asbestos-related documents. The Repository includes a myriad of memoranda, letters, articles, brochures and other written and non-written material. The Repository was culled from Union Carbide's former other Calidria business, from other former businesses which formerly manufactured products which contained some asbestos, and from Union Carbide facilities which used and removed asbestos insulation and other asbestos products; and from corporate offices. The repository encompasses documents and material generated and received by Union Carbide employees or officials, as well as published articles collected by Carbide employees and officials. Subjects which the documents and material discuss or pertain to include, but are not limited to, the following: Union Carbide's former Calidria business; the unique physical and chemical properties of the Calidria fiber, which engender the fiber's innocuous nature; information about products manufactured by Union Carbide which encapsulated small quantities of asbestos fiber; information about Union Carbide's purchase and abatement of asbestos insulation and other products, in accordance with the most advanced state-of-the-art industrial hygiene and safety practices; or other producers; and information about other asbestos and asbestos products generally, including health affects of the other asbestos. This repository should include any of the material requested by this request to the extent that it remains in Union Carbide's possession

and accessible to Union Carbide. Upon plaintiff's request, Union Carbide will make its Repository, except privileged material, available to plaintiff for review and replication at a suitable time and place.

INTERROGATORY NO. 64:

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

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

ANSWER:

See General Objection #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:

See Union Carbide's response to interrogatory no. 63.

REQUEST FOR PRODUCTION

REQUEST FOR PRODUCTION NO. 1:

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

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce on the grounds that 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's Calidria asbestos was not an asbestos-containing product. Rather, it was a unique short-fiber chrysotile asbestos sold in fibrous and pelletized forms to producers and manufacturers for use in their products or production processes.

See Exhibit A for a sample of product brochures with such photographs. Union Carbide's Calidria asbestos was mostly transported in plastic or Kraft type paper bags. Union Carbide also maintains in its Repository of asbestos-related documents one unused sample bag and copies of other brochures. Upon Plaintiff's request, Union Carbide will make its repository available to the Plaintiff for review and replication at a suitable time and place.

REQUEST FOR PRODUCTION NO. 2:

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

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce 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:

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.

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. 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. Discovery is ongoing and to date, Union Carbide has not located such diagrams or schematics.

REQUEST FOR PRODUCTION NO. 3:

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

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce 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:

Discovery is ongoing and, to date, Union Carbide has not determined which expert, if any, it may call to trial for this case. See Union Carbide's response to interrogatory no. 60.

REQUEST FOR PRODUCTION NO. 4:

Produce any and all documents, memoranda and/or other writings, including but not limited to books, pamphlets, or other written materials of any kind or character in your possession that would indicate that asbestos fibers, when inhaled, can be hazardous to the health of human beings.

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce 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 maintains in its Repository of asbestos-related documents, various documents which may be responsive to this Request. For example, many of the documents listed in Union Carbide's response to Interrogatory No. 19 are maintained in the Repository. Upon Plaintiff's request, Union Carbide will make its Repository available to the Plaintiff for review and replication at a suitable time and place.

A copy of warning labels as described in Union Carbide's response to Interrogatory No. 14, is attached as Exhibit B.

REQUEST FOR PRODUCTION NO. 5:

Produce any and all publications in your possession that were disseminated or published by any trade association or organization and that contain information relating to the hazards of asbestos and all documents which refer to such publications.

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce 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 maintains in its Repository of asbestos-related documents, various documents which may be responsive to this Request. For example, to the extent they have been discovered and are available, copies of documents described in Union Carbide's response to Interrogatory No. 19, may be maintained in the Repository. Upon Plaintiff's request, Union Carbide will make its Repository available to the Plaintiff for review and replication at a suitable time and place.

REQUEST FOR PRODUCTION NO. 6:

Please produce any and all documents related to the medical condition of Plaintiff. This request specifically includes, but is not limited to, any and all x-rays, x-ray reports, medical notes and/or medical records of any kind, including annual physical forms, etc.

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce 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:

The discovery process as well as Union Carbide's own investigation are ongoing and, to date, Union Carbide lacks information of such materials except for what may have been provided with suit papers in this case.

REQUEST FOR PRODUCTION NO. 7:

Produce any brochures, pamphlets, catalogs, packaging, or other written material of any kind or character containing any warnings concerning the possibility of injury resulting

from the use of asbestos-containing products or exposure to asbestos that have been published, distributed, or disseminated by Defendant.

RESPONSE:

See Union Carbide's responses to Requests to Produce Nos. 4 and 5, including all objections set forth therein.

REQUEST FOR PRODUCTION NO. 8:

Produce any memoranda, writings, or other documents, including but not limited to, corporate minutes, which in any way contain a discussion of the hazards or potential hazards of asbestos.

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce 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:

Not applicable. See Union Carbide's response to Interrogatory No. 36.

REQUEST FOR PRODUCTION NO. 9:

Produce any insurance policies that might cover the claims made by Plaintiff in this case.

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce 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 possesses sufficient insurance coverage to enable it to cover the plaintiff's claims.

REQUEST FOR PRODUCTION NO. 10:

Produce any minutes or other notes or records from any meetings at which the hazards and/or potential hazards of asbestos were discussed by officers, agents, and/or employees of Defendant.

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce 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:

Not applicable. See Union Carbide's response to Interrogatory No. 36.

REQUEST FOR PRODUCTION NO. 11:

Please produce any and all reports, writings (whether published or unpublished) and/or other documentation written, created and/or edited by any of your experts that in any way pertain to asbestos and the hazards and/or diseases that may result therefrom.

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Union Carbide further objects to this Interrogatory on the

grounds that it improperly and prematurely seeks discovery of trial witnesses in contravention of the attorney-client privilege and attorney work product doctrine and statutory procedures for the discovery of the identity of trial witnesses. Subject to its objections, Union Carbide responds as follows:

Union Carbide has not yet determined which experts or other witnesses, if any, it will call at a trial of this case.

See Union Carbide's response to interrogatories 39 and 60. Several experts cited therein have written material they created or acquired or both, to the effect that Calidria could not cause disease or pose the hazards posed by other types of asbestos. Union Carbide has as yet, however, determined which witnesses or experts, if any, it would use for this case.

REQUEST FOR PRODUCTION NO. 12:

Produce any and all documents provided to any expert or fact witnesses as a result of the filing of this case or any other case alleging asbestos-related injuries.

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce 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:

See Union Carbide's response to request no. 11, including all objections set forth therein.

REQUEST FOR PRODUCTION NO. 13:

Produce any and all curriculum vitae and/or resumes of any of the experts and/or persons with knowledge of relevant fact that you have listed in your Answers to Interrogatories.

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce on the grounds it is overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Union Carbide further objects to this Interrogatory on the grounds that it improperly and prematurely seeks discovery of trial witnesses in contravention of the attorney-client privilege and attorney work product doctrine and statutory procedures for the discovery of the identity of trial witnesses. Subject to its objections, Union Carbide responds as follows:

See Union Carbide's responses to interrogatories 39 and 60. Union Carbide does possess resumes or curriculum vitae's for each of the possible witnesses. See however exhibit C for resumes of possible witnesses which Union Carbide possesses.

REQUEST FOR PRODUCTION NO. 14:

Produce any and all documents which will be used at the time of trial, including all potential exhibits and those documents which may be used to cross-examine other witnesses or in rebuttal, and which you contend are relevant to any of Defendant's enumerated defenses in Defendant's most recently filed Answer.

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce 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 has not determined which documents, if any, will produce at a trial of this kind. See Union Carbide's response to interrogatory no. 62 and see Exhibit B .

Union Carbide maintains a Repository of asbestos-related documents. The Repository includes a myriad of memoranda, letters, articles, brochures and other written and non-written material. The Repository was culled from Union Carbide's former other Calidria business, from other former businesses which formerly manufactured products which contained some asbestos, and from Union Carbide facilities which used and removed asbestos insulation and other asbestos products; and from corporate offices. The repository encompasses documents and material generated and received by Union Carbide employees or officials, as well as published articles collected by Carbide employees and officials. Subjects which the documents and material discuss or pertain to include, but are not limited to, the following: Union Carbide's former Calidria business; the unique physical and chemical properties of the Calidria fiber, which engender the fiber's innocuous nature; information about products manufactured by Union Carbide which encapsulated small quantities of asbestos fiber; information about Union Carbide's purchase and abatement of asbestos insulation and other products, in accordance with the most advanced state-of-the-art industrial hygiene and safety practices; or other producers; and information about other asbestos and asbestos products generally, including health affects of the other asbestos. This repository should include any of the material requested by this request to the extent that it remains in Union Carbide's possession and accessible to Union Carbide. Upon plaintiff's request, Union Carbide will make its

Repository, except privileged material, available to plaintiff for review and replication at a suitable time and place.

REQUEST FOR PRODUCTION NO. 15:

Produce any and all documents which evidence Defendant's net worth, including but not limited to all "10-K" forms filed for the last five (5) years.

RESPONSE:

See General Objection #4. Union Carbide further objects to this Request to Produce on the grounds it is overly broad, unduly burdensome, harassing and not reasonably calculated to lead to the discovery of admissible evidence. Subject to its objections, Union Carbide responds as follows:

Attached as Exhibit D are copies of the past five years of Union Carbide's 10K report.

REQUEST FOR ADMISSIONS

Please admit the truth of the following facts:

REQUEST FOR ADMISSIONS NO. 1:

Exposure to asbestos causes mesothelioma.

RESPONSE:

See General Objection No. 4. Union Carbide also objects to my request on the grounds that it is overly broad, and not reasonably calculated to lead to the discovery of admissible evidence. Union Carbide further objects to this request to the extent that it calls for Union Carbide to enter an expert medical opinion. Union Carbide further objects to this request on the grounds that it is vague, ambiguous and unclear inasmuch as the terms "exposure" and "causes" are not determined or delimited.

Subject to its objection, Union Carbide responds as follows: Denied.

Union Carbide recognizes that the excessive inhalation of asbestos fiber may be associated with the development of serious and potentially fatal disease. 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.

Calidria was mined from a deposit which consisted of a unique form of chrysotile. As a result of its unique properties, Calidria could not pose the dangers which might be created by asbestos from other deposits. Those properties include the following: Calidria's short fiber length (shorter than any other known chrysotile); The Calidria deposit's lack of tremolite

contamination; Calidria's quick dissolution due to the "weak" fibril structure; and its width and shape. Many of Union Carbide's expert witnesses can testify as to the unique properties of the Calidria fiber and resulting innocuous biological impact of Calidria. Additionally, Union Carbide possesses many documents in its repository pertaining to those issues. Upon Plaintiffs' request, Union Carbide will make its repository available for review and replication at a suitable time and place.

In spite of the unique, innocuous nature of the Calidria fiber, Union Carbide has long recognized the desirability of avoiding excessive exposure to dust from any source. Union Carbide took steps to enable customers to minimize or avoid the creation of and exposure to dust from Calidria.

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. 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. Harrison Rhodes, an industrial hygienist, supervised Union Carbide's dust monitoring program.

REQUEST FOR ADMISSIONS NO. 2:

Exposure to asbestos can cause lung cancer.

RESPONSE:

See General Objection No. 4. Union Carbide also objects to my request on the grounds that it is overly broad, and not reasonably calculated to lead to the discovery of admissible evidence. Union Carbide further objects to this request to the extent that it calls for Union Carbide to enter an expert medical opinion. Union Carbide further objects to this request on the grounds that it is vague, ambiguous and unclear inasmuch as the terms "exposure" and "causes" are not determined or delimited.

Subject to its objection, Union Carbide responds as follows: Denied.

See Union Carbide's response to Request for Admissions No. 1.

REQUEST FOR ADMISSIONS NO. 3:

Exposure to asbestos is the only cause of asbestosis.

RESPONSE:

See General Objection No. 4 Union Carbide also objects to my request on the grounds that it is overly broad, and not reasonably calculated to lead to the discovery of admissible evidence. Union Carbide further objects to this request to the extent that it calls for Union Carbide to enter an expert medical opinion. Union Carbide further objects to this request on the grounds that it is vague, ambiguous and unclear inasmuch as the terms "exposure" and "causes" are not determined or delimited.

Subject to its objection, Union Carbide responds as follows: Denied.

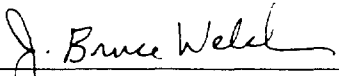
See Union Carbide's response to Request for Admissions No. 1.

I HEREBY CERTIFY that a copy of the foregoing has been furnished to William
K. Tapscott, Esq., by U.S. Mail this 11 day of June, 1998.

Respectfully submitted,

4000 SunTrust Plaza
303 Peachtree Street, N.E.
Atlanta, Georgia 30308
404.614.7400

HAWKINS & PARNELL, LLP


J. BRUCE WELCH

401 Church Street
Mobile, AL 36602

CHERRY, GIVENS, PETERS &
LOCKETT


MARK L. REDDITT

IN THE CIRCUIT COURT OF MOBILE COUNTY
STATE OF ALABAMA

CHARLES MATTHEWS

Plaintiff,

vs.

UNITED BRANDS CO., et al.

Defendants.

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CV-89-3977

CERTIFICATE OF SERVICE

COMES NOW UNION CARBIDE and by and through counsel and certifies, that it has this day served Plaintiff's counsel with a true and accurate copy of **DEFENDANT'S RESPONSE TO PLAINTIFF'S INTERROGATORIES, REQUESTS FOR PRODUCTION OF DOCUMENTS AND REQUEST FOR ADMISSIONS TO DEFENDANTS** by depositing same in the U S Mail with adequate postage thereon.

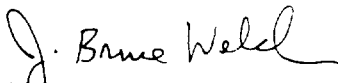
Further, notice is hereby given that a true and accurate copy of this Certificate of Service has been provided to all Defense counsel of record and the originals of these pleadings are being retained in our offices, and a true and correct copy of same will be provided to counsel on the attached service list upon request.

William K. Tapscott
Baron & Budd, P.C.
3102 Oak Lawn Ave., Suite 1100
Dallas, TX 75219-4281

This 11 day of June, 1998.

4000 SunTrust Plaza
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HAWKINS & PARNELL, LLP


J. BRUCE WELCH