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CAUSE NUMBER _____

IN RE: ASBESTOS LITIGATION

IN THE DISTRICT COURT OF

BEXAR COUNTY, TEXAS

_____ JUDICIAL DISTRICT

**DEFENDANT NORTH AMERICAN REFRACTORIES COMPANY'S
RESPONSES TO INTERROGATORIES AND
REQUESTS FOR PRODUCTION**

Pursuant to the Texas Rules of Civil Procedure, Defendant North American Refractories Company files the attached responses to Interrogatories and Requests for Production.

Respectfully submitted,

POWERS & FROST, L.L.P.



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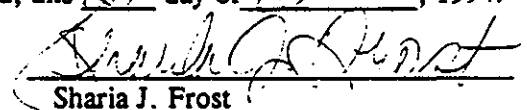
Telephone: (713) 961-2800

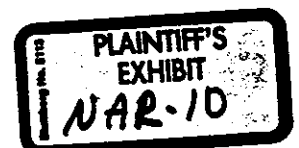
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ATTORNEYS FOR DEFENDANT NORTH
AMERICAN REFRACTORIES COMPANY

CERTIFICATE OF SERVICE

This is to certify that a true and correct copy of Defendant North American Refractories Company's Responses to Interrogatories and Request for Production has been forwarded to all counsel of record, certified mail, return receipt requested, this 25 day of Oct, 1994.


Sharla J. Frost



CAUSE NO. _____

BARON & BUDD

IN THE DISTRICT COURT OF

IN RE: ASBESTOS LITIGATION

BEXAR COUNTY, TEXAS

_____ JUDICIAL DISTRICT

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:

1. Anthony Rosa
Vice President of Human Resources
1228 Euclid Avenue, 5th Floor
The Halle Building
Cleveland, Ohio 44115
2. Don Abrino
Human Relations and Safety Coordinator
North American Refractories Company
3127 Research Drive
State College, Pennsylvania 16801
3. Richard Landy
(Former) Vice President of Technology
North American Refractories Company
3127 Research Drive
State College, Pennsylvania 16801
4. Curtis Horton
(Former) Industrial Hygienist
North American Refractories Company
3127 Research Drive
State College, Pennsylvania 16801

5. George Spahlinger
(Former) Manager of Account Representatives
Sales Marketing Department
North American Refractories Company
1228 Euclid Avenue, 5th Floor
The Halle Building
Cleveland, Ohio 44115
6. Jay Ehle
General Counsel and Secretary
North American Refractories Company
1228 Euclid Avenue, 5th Floor
The Halle Building
Cleveland, Ohio 44115

Further information regarding the length of employment and other titles, positions or jobs held by the aforementioned people is being compiled and will be made available for inspection upon reasonable notice.

INTERROGATORY NO. 2:

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

ANSWER: Yes, North American Refractories Company is incorporated in the State of Ohio. It has a principal place of business in Ohio at 1228 Euclid Avenue, 5th Floor, The Halle Building, Cleveland, Ohio 44115, and has conducted business in the state of Texas. CT Corp. is authorized to accept service on our behalf.

INTERROGATORY NO. 3:

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

ANSWER: No.

INTERROGATORY NO. 4:

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

ANSWER: See Exhibit "A" and North American Refractories Company's Product Catalog which is available for inspection and copying upon reasonable notice.

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 Exhibit "A" and North American Refractories Company's Product Catalog which is available for inspection and copying upon reasonable notice.

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 Exhibit "A" and North American Refractories Company's Product Catalog which is available for inspection and copying upon reasonable notice.

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: Some documents, such as Material Safety Data Sheets (MSDS) and what are referred to as "mix sheets", may contain information related to the design, preparation and specifications of the products listed in response to Interrogatory No. 6. Any such documents which still exist are in the custody of Donald Abrino, Human Relations and Safety Coordinator, North America an Refractories Company, 3127 Research Drive, State College, Pennsylvania 16801.

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: This defendant had no reason to believe that there were potential health hazards associated with its few asbestos containing products due to their small asbestos component, their use primarily in wet or encapsulated forms, and their use by industrial customers who were aware of safety precautions; therefore, it had no reason to believe such tests were required and none were done.

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: This defendant had no reason to believe that there were potential health hazards associated with its few asbestos containing products due to their small asbestos component, their use primarily in wet or encapsulated forms, and their use by industrial customers who were aware of safety precautions; therefore, it had no reason to believe such tests were required and none were done.

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: This defendant had no reason to believe that there were potential health hazards associated with its few asbestos containing products due to their small asbestos component, their use primarily in wet or encapsulated forms, and their use by industrial customers who were aware of safety precautions; therefore, it had no reason to believe such tests were required and none were done.

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: This defendant had no reason to believe that there were potential health hazards associated with its few asbestos containing products due to their small asbestos component, their use primarily in wet or encapsulated forms, and their use by industrial customers who were aware of safety precautions; therefore, it had no reason to believe such tests were required and none were done.

INTERROGATORY NO. 12:

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

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

ANSWER: North American Refractories Company does not have any documents which relate to any health hazards associated with the specific products it manufactured. The few asbestos containing products which North American Refractories Company manufactured had a small asbestos content, were used primarily in wet or encapsulated forms, and were used by industrial customers who were aware of safety precautions; therefore, this defendant had no reason to believe any potential health hazards existed.

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: This defendant had no reason to believe that there were potential health hazards associated with its few asbestos containing products due to their small asbestos component, their use primarily in wet or encapsulated forms, and their use by industrial customers who were aware of safety precautions; therefore, it had no reason to believe such tests were required and none were done.

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: North American Refractories Company disseminated printed material concerning the general use and application of its refractory products to its customers. No brochures or other printed material were distributed concerning the alleged "possibility of injury" from the use of any North American Refractories Company products because there was no reason to believe that health hazards were associated with products that had such a small percentage asbestos component and were designed for use in a wet or encapsulated form. Further, the characteristics of all of the products were known by our customers, who were usually large industrial concerns with sophisticated purchasing abilities and an opportunity to provide a safe work place for their employees.

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 Texas 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: No.

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: North American Refractories Company had distributors responsible for the sale of its products throughout the United States. The distributors have naturally changed from time to time over a substantial number of years. Because of the enormous task required to answer this interrogatory (i.e. a complete search of records for all distributors throughout the country and each product sold by them), this list is still being compiled and will be made available for inspection upon reasonable notice.

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, Texas and Virginia? If so, state:

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

ANSWER: North American Refractories Company had distributors and/or sales representatives responsible for the sale of its products in the states referenced. The distributors and/or sales representatives have naturally changed from time to time over a substantial number of years. Because of the enormous task required to answer this interrogatory (i.e. a complete search of records for all distributors and sales representatives in the above-named states and a yearly account of each product sold or distributed by each distributor and sales representative), this list is still being compiled and will be made available for inspection upon reasonable notice.

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: North American Refractories Company never had a medical department. During the time period relevant to the instant actions, Curtis Horton, Curwensville, Pennsylvania was responsible for developing and implementing industrial hygiene and safety programs. Kim Nelson, Curwensville, Pennsylvania is the current Manager of Health and Safety.

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: Information regarding the potential health hazards of asbestos exposure has been learned from the news media and other sources available to the general public including OSHA and NIOSH. North American Refractories Company is unable to specify precisely when or from where it learned of potential hazards; however, this knowledge has been gained gradually over the past several years.

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: No, North American Refractories Company is not aware of any trade organization or association specifically comprised of "manufacturers, miners, marketers, and/or sellers" of asbestos containing products.

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 Exhibit A

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: Yes, North American Refractories Company, like most companies, has from time to time advertised the products it manufactured. Complete records have not been kept of such advertisements; however, defendant generally advertised its refractory products in the following magazines and/or trade publications:

- 1. Foundry
- 2. Rock Products
- 3. Industrial Heating
- 4. Iron Age
- 5. Iron and Steel Engineers
- 6. Iron and Steelmaking
- 7. Pit and Quarry
- 8. "33"
- 9. Electric-Light and Power
- 10. Journal of Metals
- 11. Modern Castings
- 12. Blast Furnace and Steel Plant
- 13. Ceramic Industry
- 14. Brick and Clay Records

Records reflecting the name, address and job title of each person who played a role in the preparation of each advertisement and specific dates of preparation have not been kept. However, Randy Lund, Market Manager, International, of Iron and Steel, played a role in the preparation of such materials. If any such materials still exist, they would be in the custody of Jay Ehle, Secretary of North American Refractories Company, 1228 Euclid Avenue, 5th Floor, The Halle Building, Cleveland, Ohio 44115.

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: As a general business practice, North American Refractories Company would provide instructions to large industrial customers on the uses and applications of refractory products. However, no records were kept with regard to specific instructions given, persons giving instructions, job titles of instructors and specific dates instructions were given.

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: Yes, North American Refractories Company has such policies, but objects to this interrogatory because it calls for information regarding confidential agreements among its insurance carriers. Without waiving this objection, defendants states that it is adequately insured with respect to plaintiffs' 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: North American Refractories Company has no information evidencing precisely when the potential health hazards from certain types of exposures to asbestos were first learned; however, this knowledge has been gained gradually over the past several years. This defendant learned of various potential health hazards associated with exposure to asbestos from the news media and other sources available to the general public, including OSHA and NIOSH publications.

Further, North American Refractories Company has no information evidencing precisely who within the company first "discovered, recognized or understood" the potential adverse effects of asbestos exposure and cannot presently speculate as to whether or not its employees once had certain information or understanding on this issue.

Any information associated with this defendant's gradual accumulation of knowledge on this topic which still exists would be possessed by Kim Nelson, Manager of Health and Safety, 3127 Research Drive, State College, Pennsylvania 16801.

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: North American Refractories Company has no information evidencing precisely when the potential health hazards from certain types of exposures to asbestos were first learned; however, this knowledge has been gained gradually over the past several years. This defendant learned of various potential health hazards associated with exposure to asbestos from the news media and other sources available to the general public, including OSHA and NIOSH publications.

Further, North American Refractories Company has no information evidencing precisely who within the company first "discovered, recognized or understood" the potential adverse effects of asbestos exposure and cannot presently speculate as to whether or not its employees once had certain information or understanding on this issue.

Any information associated with this defendant's gradual accumulation of knowledge on this topic which still exists would be possessed by Kim Nelson, Manager of Health and Safety, 3127 Research Drive, State College, Pennsylvania 16801.

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: North American Refractories Company has no information evidencing precisely when the potential health hazards from certain types of exposures to asbestos were first learned; however, this knowledge has been gained gradually over the past several years. This defendant learned of various potential health hazards associated with exposure to asbestos from the news media and other sources available to the general public, including OSHA and NIOSH publications.

Further, North American Refractories Company has no information evidencing precisely who within the company first "discovered, recognized or understood" the potential adverse effects of asbestos exposure and cannot presently speculate as to whether or not its employees once had certain information or understanding on this issue.

Any information associated with this defendant's gradual accumulation of knowledge on this topic which still exists would be possessed by Kim Nelson, Manager of Health and Safety, 3127 Research Drive, State College, Pennsylvania 16801.

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: North American Refractories Company has no information evidencing precisely when the potential health hazards from certain types of exposures to asbestos were first learned; however, this knowledge has been gained gradually over the past several years. This defendant learned of various potential health hazards associated with exposure to asbestos from the news media and other sources available to the general public, including OSHA and NIOSH publications.

Further, North American Refractories Company has no information evidencing precisely who within the company first "discovered, recognized or understood" the potential adverse effects of asbestos exposure and cannot presently speculate as to whether or not its employees once had certain information or understanding on this issue.

Any information associated with this defendant's gradual accumulation of knowledge on this topic which still exists would be possessed by Kim Nelson, Manager of Health and Safety, 3127 Research Drive, State College, Pennsylvania 16801.

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: North American Refractories Company has no information evidencing precisely when the potential health hazards from certain types of exposures to asbestos were first learned; however, this knowledge has been gained gradually over the past several years. This defendant learned of various potential health hazards associated with exposure to asbestos from the news media and other sources available to the general public, including OSHA and NIOSH publications.

Further, North American Refractories Company has no information evidencing precisely who within the company first "discovered, recognized or understood" the potential adverse effects of asbestos exposure and cannot presently speculate as to whether or not its employees once had certain information or understanding on this issue.

Any information associated with this defendant's gradual accumulation of knowledge on this topic which still exists would be possessed by Kim Nelson, Manager of Health and Safety, 3127 Research Drive, State College, Pennsylvania 16801.

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: Yes, Defendant contends that its asbestos containing products were designed and manufactured in such a manner because its products had a small asbestos component, were used primarily in wet or encapsulated forms, and were used in and around high heat areas which changed their asbestos content into non-asbestos forsterite.

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 North American Refractories Company's product catalog which is available for inspection or copying upon reasonable notice.

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 Exhibit "A".

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: North American Refractories Company purchased chrysotile asbestos from Nicolet and Johns-Manville. Records of specific purchase dates were not kept; however, purchases of chrysotile would correspond with the years in which a few of defendant's products contained asbestos.

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: No.

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: No.

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: No.

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: No.

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: North American Refractories Company retains copies of its sales orders at its Cleveland, Ohio offices. Jay Ehle, General Counsel and Secretary is the custodian of the documents. The documents are hard copy. The documents can only be accessed by location sold, not by product (and not according to asbestos content).

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: North American Refractories Company has not determined the identity of the witnesses it will call at the time of trial of these cases. However, North American Refractories Company may call the following company representatives as witnesses at the trial of these cases:

- a. R. C. Crosson (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- b. James Rowles (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- c. Charles Thompson (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- d. J. L. Caldwell (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- e. J. B. Polson (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- f. S. J. Metzger, Jr. (former employee)
200 Hightower Office Building
Suite 401
Pittsburg, PA 15205
- g. T. M. Doty (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809

- h. Carl E. Stahl, Jr. (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- i. D. E. Varanese (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- j. J. M. Campanelli (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- k. H. P. Sullivan (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- l. John Scanlon
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- m. E. S. Chrzan (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- n. Richard Wilson
200 Hightower Office Building
Suite 401
Pittsburgh, PA 15205
- o. George Spahlinger (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- p. V. R. Bruncak (former employee)
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- q. Jay Ehle
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- r. Donald Abrino
Technical Center
3127 Research Drive
State College, Pennsylvania

- s. James Uchno
Technical Center
3127 Research Drive
State College, Pennsylvania
- t. Richard Landy (former employee)
Princeton Drive
State College, Pennsylvania
- u. Curt Horton (former employee)
Technical Center
3127 Research Drive
State College, Pennsylvania
- v. Larry Dilley
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115-1809
- w. Ronald Coleman (former employee)
P. O. Box 38
Wolmesdorf, Pennsylvania
- x. James Stevens
P. O. Box 38
Wolmesdorf, Pennsylvania
- y. Robert Whitford (former employee)
North American Refractories Company
Curwensville, Pennsylvania
- z. Kim Nelson
Manager of Health and Safety
North American Refractories Company
3127 Research Drive
State College, Pennsylvania 16801

The named witnesses will testify as to design, manufacture, sales, uses, contents, and safety of North American Refractories Company refractory products.

Prior testimony by company representatives:

Narco Witness Deposed	Jurisdiction	Case No.	Date	Plaintiffs' Attorney
Edmund S. Wright	Madison Co., IL	86-L-1827	9/7/89	Randall E. Bono
Richard Wilson (District Sales manager)	Allegheny Co., PA	83-18704	1/22/85	William Caroselli
George Spahlinger (Manager Account Representative)	Cuyahoga Co., OH	1987-1	1/27/88	Robert Jennings
George Spahlinger (Manager Account Representative)	Madison Co., IL	86-L-1827	8/30/89	Randall E. Bono
Thomas Robbins (District Manager)	Madison Co., IL	86-L-1230	5/24/89	Randall E. Bono
Kim Nelson (Manager Health & Safety)	Madison Co., IL	86-L-1827	8/30/89	Randall E. Bono
Curtis Horton (Former Industrial Hygienist)	Madison Co., IL	86-L-1827	8/30/89	Randall E. Bono
Donald E. Abrino (Human Relations and Safety Coordinator)	Madison Co., IL	86-L-1872	8/30/89	Randall E. Bono
Richard A. Landy (Director of Research)	Madison Co., IL	All Asbestos Litigation	7/26/88	Fred Baron
Richard A. Landy (Director of Research)	Madison Co., IL	86-L-1827	9/7/88	Fred Baron
Richard A. Landy (Director of Research)	Cambria Co., PA	1987-71	4/20/88	Robert Jennings

Defendant may supplement this answer by supplementation of its discovery responses in individual lawsuits and reserves the right to call such additional representatives who may have knowledge pertinent to a particular case.

INTERROGATORY NO. 40:

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

- (a) Full and correct name;
- (b) Principal place of business;
- (c) State of incorporation;
- (d) Date of acquisition by Defendant;
- (e) Whether or not the business entity was ever authorized to transact business in the State of Texas;

ANSWER: No.

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: North American Refractories Company expected its products to reach its industrial customers without substantial change in the condition in which they were sold. With regard to the users of the products, since this defendant's refractory products had different installations and applications, North American Refractories Company needs further specification of the product and application to answer this question.

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: Bricklayers, bricklayers helpers and masonry laborers are foreseeable users of North American Refractories Company products.

INTERROGATORY NO. 43:

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

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

ANSWER: Yes.

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: Since this defendant's refractory products were used for different installations, North American Refractories Company needs specification of the type(s) and purpose(s) of installation to which this interrogatory refers in order to answer this question.

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: North American Refractories Company had no reason to believe that there were potential health hazards associated with its few asbestos containing products due to their small percentage asbestos content, their use primarily in wet or encapsulated forms, and their use by industrial customers who were aware of safety precautions; therefore, it had no reason to believe such tests were required and none were done.

INTERROGATORY NO. 46:

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

ANSWER: North American Refractories Company had no reason to believe that there were potential health hazards associated with its few asbestos containing products due to their small percentage asbestos content, their use primarily in wet or encapsulated forms, and their use by industrial customers who were aware of safety precautions; therefore, it had no reason to believe such tests were required and none were done.

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: North American Refractories Company had no reason to believe that there were potential health hazards associated with its few asbestos containing products due to their small percentage asbestos content, their use primarily in wet or encapsulated forms, and their use by industrial customers who were aware of safety precautions; therefore, it had no reason to believe such tests were required and none were done.

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: Over the years, North American Refractories Company has maintained a research department; however, because this defendant had no reason to believe that there were potential health hazards associated with its few asbestos containing products, it did not conduct or fund any research concerning the potential health effects of asbestos.

INTERROGATORY NO. 53:

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

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

ANSWER: No.

INTERROGATORY NO. 54:

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

ANSWER: North American Refractories Company manufactured asbestos-free products from its inception. Some of those products could be used for the same general purposes.

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: To the best of North American Refractories Company's knowledge, information and belief, its products have generally performed as intended.

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: North American Refractories Company had no reason to believe that there were potential health hazards associated with its few asbestos containing products because of their small percentage asbestos content, their use primarily in wet or encapsulated forms, their use by industrial customers who were aware of safety precautions, and because of the change in the form of asbestos under heat. Therefore, it had no reason to believe such surveys were required and none were done.

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: North American Refractories Company has no documents evidencing when or if it received notice of threshold limit values pertaining to maximum allowable concentrations of asbestos dust.

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: North American Refractories Company has no documents evidencing when or if it received notice of threshold limit values pertaining to maximum allowable concentrations of asbestos dust.

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: North American Refractories Company had no reason to believe that there were potential health hazards associated with its few asbestos containing products because of their small asbestos content, their use primarily in wet or encapsulated forms, their use by industrial customers who were aware of safety precautions, and because of the change in the form of asbestos under heat. Therefore, it had no reason to believe such tests were required and none were done.

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 Exhibit "B" attached hereto.

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: Because plaintiffs have not yet provided complete information regarding work histories, product exposures and other issues at stake in this litigation, North American Refractories Company cannot fully respond to this interrogatory at this time. However, see the answer to Interrogatory No. 39 for information about company representative who may have knowledge of relevant facts. Also, see the answer to Interrogatory No. 60 for information about potential experts who may have knowledge of relevant facts. Further, see Exhibit "C".

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 answers to Interrogatory Nos. 39, 60 and 61. In addition, see all documents made available in response to these interrogatories. Also, see Exhibit List attached as Exhibit "D".

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: North American Refractories Company has no knowledge of the article referred to.

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: North American Refractories Company has no knowledge of the article referred to.

REQUESTS 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.

ANSWER: See answers to Interrogatory Nos. 39, 60 and 61. In addition, see all documents made available in response to these interrogatories. Also, see Exhibit List attached as Exhibit "D".

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.

ANSWER: See answers to Interrogatory Nos. 39, 60 and 61. In addition, see all documents made available in response to these interrogatories. Also, see Exhibit List attached as Exhibit "D".

REQUEST FOR PRODUCTION NO. 3:

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

ANSWER: See answers to Interrogatory Nos. 39, 60 and 61. In addition, see all documents made available in response to these interrogatories. Also, see Exhibit List attached as Exhibit "D".

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EXHIBIT "A"

Plant	Plant Managers	Product Name	Dates Asbestos Used in Product		Asbestos Percentage
			From	To	
Curwensville	Robert Davidson	AEROGUN	Jan. 18, 1971	Oct. 2, 1977	10%
		ANTI-ERODE TROWEL	Mar. 21, 1963	May 17, 1977*	1%
		MARCOCAST ES FINE TROWEL	Aug. 9, 1963	Aug. 8, 1977	1%
		MARCOCRETE TROWEL	Dec. 23, 1963	May 17, 1977*	2%
		MARCOGUN CO.	Nov. 11, 1964	May 17, 1977*	1.33%
		MARCOLITE	Mar. 23, 1961	Apr. 22, 1977	2%
Farber	Charles Walters --	SUPER 505 HOT GUN C	June 2, 1964	May 17, 1977*	1%
		AEROGUN	Jan. 18, 1971	Sep. 3, 1976	10%
		MARCOCAST ES FINE TROWEL	Aug. 9, 1963	July 11, 1978	1%
		MARCOLITE	Nov. 7, 1961	July 11, 1978	2%
Mt. Union	Donald Booth	MARCOGUN SD-336	Nov. 11, 1964	Jan. 12, 1977	1%
Womelsdorf	Ronald Coleman	BOF-COTE	June 3, 1966	1975**	2%
		BOF-PATCH	Nov. 30, 1965	1975**	4%
		CM GUN MIX	July 3, 1963	May 8, 1973	2%
		CM-18 GUN MIX	July 3, 1963	Jan. 31, 1977	1 1/3%
		MC-GUN MIX	July 3, 1963	1975**	2%
		MARCOGUN CM-343	Nov. 11, 1964	Jan. 24, 1977	1%
		MARCOGUN CM-346	Sep. 24, 1964	1975**	1%
		MARCOGUN CM-346 NE	Sep. 1, 1965	Nov. 1, 1976	1%
		MARCOGUN CRD-347	Nov. 11, 1964	1975**	1.33%
		MARCOGUN MC-339	Nov. 11, 1964	1975**	1%
		MARCOGUN MCD-344	Nov. 11, 1964	1975**	1%
		MARCOGUN F-340	Nov. 11, 1964	March, 1976	1%
		MARCOGUN PD-345	Nov. 11, 1964	Jan. 31, 1977	1%
		MARMAG CM GUN MIX	Apr. 15, 1974	Nov., 1976	1%
		MO-339 MC GUN	Aug. 17, 1964	1975**	1%
		MARMAG 60 DBRC	March, 1970	Feb., 1980	Unknown, however, the encapsulated asbestos mat was 1/32" to 1/8" thick and was a very small % of the total refractory.
Caledonia	Tom Pyke	AEROGUN	Jan. 18, 1971	Sep. 29, 1977	10%

*These were discontinued on or before May 17, 1977.

**These were discontinued prior to 1975.

All of the above listed products were manufactured with chrysotile asbestos. All of the products, except for MARMAG 60 DBRC, were gunning mixes or castables. North American did provide to customers upon their specifications a line of metalclad brick with an encapsulated asbestos expansion mat, which North American designated as Marmag 60 DBRC; however, not all metalclad brick contained asbestos. Occasionally, certain customers would specifically request asbestos in a metalclad brick other than Marmag 60 DBRC, but this occurred in less than 1% of metalclad brick sales.

For a period of time ending in 1971, this defendant sold Eagle-Picher products Super 66 and One-Cote cement under a relabeling agreement as Stazon and Unicote. This defendant has no records from which it can determine the details of manufacture, design or composition of these products. In June, 1964, Eagle-Picher informed this defendant it planned to place asbestos warning labels on Super 66 and One-Cote and proposed to do the same for Stazon and Unicote which this defendant agreed. These products were sold very infrequently and in small quantities.

In March, 1984, this defendant was first informed by manufacturer Kurosaki Refractories Company of Japan that a Kurosaki slide gate refractory distributed in the United States from May, 1982 until April, 1983 by this defendant contained an encapsulated ceramic mat with a 4.5-5% asbestos component. This product was distributed on a trial basis in small quantities to only a few of defendant's customers. This defendant does not know the precise details of the design or manufacture of this product at the time it was sold with asbestos.

ANSWER TO INTERROGATORY NO. 60

- (1) Dr. James Robert Shepherd, III
University of Texas Health Center at Tyler
Department of Radiology
P. O. Box 2003
Tyler, Texas 75710

May testify regarding the radiographs of the plaintiff and/or plaintiff's decedent.

- (2) Dr. Michael Henderson
330 Rittiman Road
San Antonio, Texas 78209

May testify concerning the relationship of asbestos and smoking to the development of cancer.

- (3) Dr. James E. Lockey
Institute of Environmental Health
University of Cincinnati Medical Center
Clinical Studies Division
- 5251 Medical Science Building ML182
231 Bethesda Avenue
Cincinnati, Ohio 45267-0182

May testify about the state of the scientific and medical knowledge concerning asbestos. Included in the testimony may be discussion of the respiratory system, asbestos related diseases and the effect of other substances on the respiratory system.

- (4) Dr. A. Mitchell Polinsky
Stanford University
Professor of Law and Economics
Crown Quadrangle
Stanford, California 94306-8610

May testify about the inappropriateness of punitive damages in this and similar cases based upon research he and others have conducted.

- (5) Dr. Oscar Auerbach
158 Long Hill Drive
Short Hills, New Jersey 07078

May testify about the plaintiff's medical condition and about asbestos-related diseases.

- (6) Dr. Stephen M. Ayers
St. Louis University School of Medicine
1325 S. Grand Avenue
St. Louis, Missouri 63104

Pulmonary specialist. May testify to matters pertaining to the history of scientific knowledge, research and study concerning exposure to asbestos and its effects on the human body.

- (7) Dr. Brian Bradley, M.D.
The Lung Center
4003 Woodlawn
Pasadena, Texas 77504

May testify about the medical condition of the plaintiff and about asbestos-related diseases.

- (8) Dr. Phillip Cagle
6565 Fannin MS 205
Houston, Texas 77030

May testify regarding the pathology of the plaintiff and/or plaintiff's decedent.

- (9) Dr. Gregory Foster, M.D.
North Texas Pulmonary Associates
375 Municipal Drive, Suite 140
Richardson, Texas 75080

May testify about the medical condition of the plaintiff and about asbestos-related diseases.

- (10) Dr. Sam H. Cade, Jr.
Radiology Department
Baylor University Medical Center
3500 Gaston Avenue
Dallas, Texas 75242

May testify regarding the radiographs of the plaintiff and/or plaintiff's decedent.

- (11) Dr. Peter Heidbrink
Southwest Pulmonary Associates
St. Paul Professional Building No. 2
5959 Harry Hines Blvd., Suite 711
Dallas, Texas 75235

Specialist in the area of respiratory diseases. May testify as to matters pertaining to his examination of the plaintiff and plaintiff's medical records.

- (12) Dr. Robert O'Neal
Rt. 1, Box 168
Perkingston, Mississippi 39573

May testify regarding general pathology and the pathology of the plaintiff and/or plaintiff's decedent.

- (13) Dr. Joseph Cimino
New York Medical College
50 Willard Avenue
N. Carrington, New York 10591

Professor and Chairman of the Department of Community and Preventative Medicine. May testify generally about research in the area of pulmonary pathology and about the process by which medical knowledge evolved. May also testify regarding the state of medical knowledge from the early part of the century to the middle 1960s as it regards pathological changes due to exposure to asbestos and about his conclusions regarding the studies conducted for Owens-Illinois by the Saranac Laboratories as they relate to the state of medical knowledge at that time.

- (14) Dr. John E. Craighead
Department of Pathology
University of Vermont
College of Medicine
Burlington, Vermont 05405

May testify about the plaintiff's medical condition and about asbestos-related diseases.

- (15) Dr. George L. Delclos
6550 Fannin, No. 2403.
Smith Tower
Houston, Texas 77030

Medical doctor. May testify about the medical condition of the plaintiff and about asbestos-related diseases.

- (16) Dr. Milton Grey
521 Crestbend
Houston, Texas

Medical doctor and board certified as a specialist in internal medicine. May testify as to the structure and function of the respiratory system, the effects of cigarette smoking and the diseases of the lungs, including asbestos-related diseases.

- (17) Dr. Donald Greenburg
One Baylor Plaza
Baylor College of Medicine
Houston, Texas 77030

May testify about asbestos-related diseases and the effect of other substances such as cigarette smoke upon the respiratory system.

- (18) Dr. William K. C. Morgan
University Hospital
University of Western Ontario
P. O. Box 5339, Postal Station A
London Ontario N6A 5 A5

Professor of Medicine and Director of Chest Diseases Services at the University of Western Ontario. He has knowledge of the pathology, diagnosis, testing and causation of pulmonary and related disease, including mesothelioma, lung cancer and asbestos. May testify about the state of the medical art as it relates to the knowledge of health hazards associated with exposure to asbestos dust.

- (19) Dr. Paul Stevens
Professor of Medicine
Baylor College of Medicine
6516 Bertner
Houston, Texas 77030

Specialist in the area of respiratory diseases. May testify as to matters pertaining to his examination of the plaintiff and plaintiff's medical records.

- (20) Dr. Harry Demopolous
550 First Avenue
New York, New York 10016

May testify about the state of the scientific and medical knowledge concerning asbestosis.

- (21) Dr. H. Corwin Hinshaw
450 Sutter Street
San Francisco, California

May testify about the state of the scientific and medical knowledge concerning asbestosis.

- (22) Dr. Hans Weill
Tulane University
School of Medicine
1700 Perdido Street, 2nd Floor
New Orleans, Louisiana 70112

Pulmonary disease specialist. May testify about scientific knowledge, research and study regarding

exposure to asbestos and its effects on the human body.

- (23) Dr. R. Keith Wilson
Chief of Pulmonary Section
Methodist Hospital
6535 Fannin, Suite F-966
Fondren Brown Building
Houston, Texas 77030

Specialist in the area of respiratory diseases. May testify as to matters pertaining to his examination of the plaintiff and plaintiff's medical records.

- (24) Dr. Thomas Wheeler
2919 Eagle Creek
Kingwood, Texas 77345

Pathologist. May testify about asbestos-related diseases and the effect of other substances such as cigarette smoke on the plaintiff.

- (25) Dr. Joe G. N. Garcia
Department of Medicine
Wilshire Memorial Hospital
Indianapolis, Indiana 46202

Medical doctor. May testify about the medical condition of the plaintiff and about asbestos-related diseases.

- (26) Dr. David Jarvis
First Scoville Medical Group
345 24th Avenue, North
Suite 201
Nashville, Tennessee 37203

Pulmonologist. May testify about the medical condition of the plaintiff based on his examination of the plaintiff and/or review of the plaintiff's medical records, and about asbestos-related diseases.

- (27) Dr. Allen Goldstein
Pulmonary Medicine Associates, P.C.
860 Montclair Road, Suite 862
Birmingham, Alabama 35213

Pulmonologist. May testify about the medical condition of the plaintiff based on his examination of the plaintiff and/or review of the plaintiff's medical records, and about asbestos-related diseases.

- (28) Dr. Kenneth J. Boudreaux, PhD
Consulting Economist
A. B. Freeman School of Business
Tulane University
1424 Boudreaux
New Orleans, Louisiana 70115

Economic consultant. May testify regarding economic loss incurred by the plaintiff.

- (29) Dr. John Sartain
Consulting Economist
Sartain & Company
3811 Turtle Creek Center, Suite 760
Dallas, Texas 75291

Economic consultant. May testify regarding economic loss incurred by the plaintiff.

- (30) Dr. Richard Bradt
Dean of Mackey School of Minds
University of Nevada, Reno
Reno, Nevada 89557-0047

May testify to the nature, characteristics, and intended uses of NARCO's products and any changes which occur with the use of its products.

- (31) Dr. Richard Landy
Vice President of Technology
North American Refractories Company
500 Halle Building
1228 Euclid Avenue
Cleveland, Ohio 44115

May testify to the nature, characteristics, and intended uses of NARCO's products and any changes which occur with the use of its products.

- (32) Nurtan Esmen
2531 Wickline Road
Gibsonia, Pennsylvania 15044
(412) 443-3785

May testify to the nature, characteristics, and intended uses of NARCO's products and any changes which occur with the use of its products, as well as the aerodynamics and characteristics of fibers.

- (33) R. Keith Wilson, M.D.
Pueblo Pulmonary Asso.
1925 E. Orman Ave., Suite 254
Pueblo, Colorado 81004
(719) 561-1542

Medical doctor specializing in pulmonology. May testify about the medical condition of the plaintiffs and about asbestos-related diseases.

- (34) Dr. Edward Gaensler
Boston University Medical Center
80 East Concord Street
Boston, Massachusetts 02118

May testify about the state of the scientific and medical knowledge concerning asbestosis.

- (35) Dr. Elliot Hinkes
Board Certified Oncologist & Hematologist
301 N. Prairie Avenue, Suite 311
Englewood, California 90301

May testify about the relationship of asbestos and smoking to the development of cancer and the incidence of lung cancer among individuals with asbestosis or exposure to asbestos.

- (36) Dr. Robert Jones
Tulane Medical Center
3900 Cambridge
Kansas City, Kansas 66103
(913) 588-6044

Medical doctor. May testify about the medical condition of the plaintiffs and about asbestos-related diseases.

- (37) Dr. Joseph Bates
5 Glenridge Road
Little Rock, Arkansas 72202
(501) 660-2029

Medical doctor. May testify about the medical condition of the plaintiffs and about asbestos-related diseases.

- (38) Dr. Bill Tranum
9501 Lyle Drive
Little Rock, Arkansas
(501) 223-8003

Medical doctor. May testify about the medical condition of the plaintiffs and about asbestos-related diseases.

- (39) Dr. Brent Harrison
Department of Radiology
University of Mississippi Medical Center
Jackson, Mississippi
(601) 984-2515

Medical doctor. May testify about the medical condition of the plaintiffs and about asbestos-related diseases.

- (40) Dr. Alton Ochsner
Jefferson Hospital
1507 Metairie Road
New Orleans, Louisiana (by deposition)
(504) 833-3783

Medical doctor. May testify about the medical condition of the plaintiffs and about asbestos-related diseases.

- (41) Dr. Victor Roggli
VA Medical School
- Lab Service
5089 Fulton Street
Durham, North Carolina
(919) 286-0411

Dr. Roggli may testify regarding general pathology and the pathology of the plaintiffs and/or plaintiffs' decedents.

- (42) Dr. Brooks Emory
Ochsner's Clinic
New Orleans, Louisiana
(504) 838-4078

Medical doctor. May testify about the medical condition of the plaintiffs and about asbestos-related diseases.

- (43) Dr. Russell P. Sherwin
Department of Pathology
USC School of Medicine
Los Angeles, California
(213) 342-1165

Dr. Sherwin may testify regarding general pathology and the pathology of the plaintiffs and/or plaintiffs' decedents.

- (44) Roy Steinfurth
Room 505, Machinist Building
1300 Connecticut Avenue, N.W.
Washington, D.C.

As the Administrator of the Asbestos Worker's International Health Hazards Program, Roy J. Steinfurth may provide testimony that the insulators' union was, or should have been, aware of hazards associated with inhalation of asbestos fibers, and that this information was distributed to the union members through various means, including the "green sheets."

- (45) Dr. Lee B. Reichman
Professor of Medicine
New Jersey Medical School
2 Brook Road
Tenafly, New Jersey 07670

Dr. Reichman may provide testimony concerning the anatomy and function of the respiratory and circulatory systems; the symptomatology, disease process and diagnosis of asbestosis and cancer of the respiratory system, peritoneum and peritoneal cavity; the nature and extent of medical and scientific knowledge regarding any association of pulmonary disease with asbestos fiber and the effect of exposure to substances other than asbestos in the development and manifestation of diseases of the respiratory system; the methods of diagnosis and means of establishing the differential diagnosis of asbestos-related diseases with non-asbestos related diseases; the incidence of lung cancer in the general population and those individuals exposed to asbestos; cigarette smoking and its effect on the lungs; the difference between impairment and disability; the effect of asbestosis on disability and life expectancy; the lack of relationship between pleural plaques and development of any cancer; the history of evolution and knowledge of asbestos-related diseases; and the evolution of the medical communities awareness of the increased risks for an asbestos-related disease in the cases of prolonged exposure.

- (46) Gerald Kerby, M.D.
University of Kansas Medical Center
3900 Cambridge
Kansas City, Kansas 66103

Dr. Kerby may provide testimony concerning the anatomy and function of the respiratory and circulatory systems; the symptomatology, disease process

and diagnosis of asbestosis and cancer of the respiratory system, peritoneum and peritoneal cavity; the nature and extent of medical and scientific knowledge regarding any association of pulmonary disease with asbestos fiber and the effect of exposure to substances other than asbestos in the development and manifestation of diseases of the respiratory system; the methods of diagnosis and means of establishing the differential diagnosis of asbestos-related diseases with non-asbestos related diseases; the incidence of lung cancer in the general population and those individuals exposed to asbestos; cigarette smoking and its effect on the lungs; the difference between impairment and disability; the effect of asbestosis on disability and life expectancy; the lack of relationship between pleural plaques and development of any cancer; the history of evolution and knowledge of asbestos-related diseases; and the evolution of the medical communities awareness of the increased risks for an asbestos-related disease in the cases of prolonged exposure.

(47) Dorsett Smith, M.D.
4301 Colby, Suite 201
Everett, Washington 92203

Dr. Smith may provide testimony concerning the anatomy and function of the respiratory and circulatory systems; the symptomatology, disease process and diagnosis of asbestosis and cancer of the respiratory system, peritoneum and peritoneal cavity; the nature and extent of medical and scientific knowledge regarding any association of pulmonary disease with asbestos fiber and the effect of exposure to substances other than asbestos in the development and manifestation of diseases of the respiratory system; the methods of diagnosis and means of establishing the differential diagnosis of asbestos-related diseases with non-asbestos related diseases; the incidence of lung cancer in the general population and those individuals exposed to asbestos; cigarette smoking and its effect on the lungs; the difference between impairment and disability; the effect of asbestosis on disability and life expectancy; the lack of relationship between pleural plaques and development of any cancer; the history of evolution and knowledge of asbestos-related diseases; and the evolution of the medical communities awareness of the increased risks for an asbestos-related disease in the cases of prolonged exposure.

- (48) Dr. Stephen Jenkinson
UT Health Science Center at San Antonio
7703 Floyd Avenue Drive
San Antonio, Texas 78284-7885

Dr. Jenkinson may testify concerning his examination and diagnosis of the physical condition of the particular Plaintiff and the relationship, if any, to the Plaintiff's exposure to asbestos. Each doctor will also testify concerning those areas described for witnesses Demopoulos, Hinshaw, Weill, Craighead, and Gaensler

- (49) Dr. Bob Baird
3600 Gaston #806
Wadley Tower
Dallas, Texas 75246

Dr. Baird may testify concerning his examination and diagnosis of the physical condition of the particular Plaintiff and the relationship, if any, to the Plaintiff's exposure to asbestos. Each doctor will also testify concerning those areas described for witnesses Demopoulos, Hinshaw, Weill, Craighead, and Gaensler

- (50) Dr. Russell M. Harley
Medical University of South Carolina
171 Ashley Avenue
Charleston, South Carolina 29401

Dr. Harley is a physician who is an expert in the fields of pathology and etiology and diagnosis of asbestos-related disease based upon review of tissue and tissue slides obtained as a result of biopsy or autopsy. He may testify concerning matters pertaining to the diagnosis of asbestos-related disease generally and the diagnosis of the condition of plaintiffs in these cases specifically. Further, he may testify concerning the diagnosis or lack thereof of an asbestos-related disease based upon the medical records of plaintiffs, including, but not limited to, tissue and/or slides that he will review.

- (51) Dr. Thomas Peter Howard
Osler Clinic of Medicine
Pulmonary Director
930 South Harbor City Boulevard
Melbourne, Florida 32901

Dr. Howard is an expert in the field of pulmonary medicine. He is board certified in internal medicine and pulmonary medicine and has been

certified by NIOSH as a "B Reader." Dr. Howard may testify on matters pertaining to the diagnosis of asbestos-related disease generally and the diagnosis of the condition of plaintiffs in these cases specifically. Further, he may testify concerning the effect or lack thereof of asbestos on the lungs of persons occupationally exposed to asbestos and the pulmonary condition of plaintiffs based upon medical records to be reviewed, including, but not limited to, pulmonary function tests and chest x-rays.

- (52) Dr. Andrew Marc Churg
Department of Pathology
University of British Columbia
2212 Westbrook Mall
Vancouver B.C. Canada

Dr. Churg is a physician who is an expert in the fields of pathology and etiology and diagnosis of asbestos-related disease based upon review of tissue and tissue slides obtained as a result of biopsy or autopsy. Dr. Churg may testify concerning the diagnosis or lack thereof of an asbestos-related disease based upon the medical records of plaintiffs, including, but not limited to, tissue and/or slides that he will review. Further, he may testify on matters pertaining to the diagnosis of asbestos-related disease generally and the diagnosis of the condition of plaintiffs in these cases specifically.

- (53) Dr. Scott R. Donaldson
North Texas Pulmonary Associates
375 Municipal Drive, Suite 140
Richardson, Texas 75080

May testify regarding the medical condition of the plaintiffs and about asbestos-related diseases.

- (54) Dr. Lewis Solmon
Associate Dean
Graduate School of Education
U.C.L.A.
308 Moore Hall
Los Angeles, California 90024

May testify about the historical sales and market shares of asbestos insulation manufacturers.

- (55) Dr. William Eschenbacher
Baylor College of Medicine
Department of Internal Medicine/Pulmonary Section
6550 Fannin
Smith Tower #1220
Houston, Texas 77030

May testify regarding the medical condition of the plaintiffs and about asbestos-related diseases.

- (56) Dr. R. Brent Harrison
The University of Mississippi Medical Center
Department of Radiology
2500 North State Street
Jackson, Mississippi 39216

May testify regarding the radiographs of the plaintiffs and/or plaintiffs' decedent.

- (57) Dr. Robert N. Jones, M.D.
Tuland University School of Medicine
Pulmonary Diseases Section
1700 Perdido Street
New Orleans, Louisiana 70112

May testify regarding the medical condition of the plaintiffs and about asbestos-related diseases.

- (58) Dr. William Emory
Ochsner Clinic
1514 Jefferson Highway
New Orleans, Louisiana 70121

May testify regarding the medical condition of the plaintiffs and about asbestos-related diseases.

- (59) Dr. Dietrick A. Weyel
660 Edward
Carnegie, PA 15106

May testify to the nature, characteristics, and intended uses of NARCO's products and any changes which occur with the use of its products.

- (60) James J. Uchno
Director of Technology
North American Refractories Company
3127 Research Drive
State College, Pennsylvania 16801

May testify to the nature, characteristics, and intended uses of NARCO's products and any changes which occur with the use of its products.

(61) Dr. Otto Wong
Applied Health Services
181 Second Avenue, Suite 628
P. O. Box 2078
San Mateo, California 94401

May testify regarding epidemiological studies or surveys in connection with asbestos-related issues which may be involved in specific cases.

(62) All physicians who examine plaintiffs to testify regarding matters contained in their medical records and reports.

This defendant reserves the right to name additional expert witnesses.

Reports have been provided by some of the potential experts. These reports are available for inspection or copying upon reasonable notice.

NARCO has not provided any documents to these potential experts specifically in connection with this litigation. Those potential experts who have been employed by NARCO have reviewed various documents in connection with that employment, but have not kept records of all documents reviewed.

NARCO does not have detailed information about the education, work history, and writings of all the potential experts named; however, NARCO will provide resumes or CV's for those experts who are directly associated with NARCO for inspection or copying upon reasonable notice.

ANSWER TO INTERROGATORY NO. 61

- (1) George Spahlinger
Manager - Sales Administrator
North American Refractories Company
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115
(216) 621-5200
- (2) Vonda Bruncak
Manager - Sales Administrator
North American Refractories Company
The Halle Building
1228 Euclid Avenue, 5th Floor
Cleveland, Ohio 44115
(216) 621-5200
- (3) Don Abrino
Coordinator of Product Safety and Human Relations
North American Refractories Company
3127 Research Dr.
State College, Pennsylvania 16801
(814) 234-7981
- (4) Richard Landy
Vice President of Technology
500 Halle Building
1228 Euclid Avenue
Cleveland, Ohio 44115
(216) 621-5200
- (5) Daniel Boring
General Sales Manager - Iron & Steel
500 Halle Building
1228 Euclid Avenue
Cleveland, Ohio 44115
(216) 621-5200
- (6) Mark Rafferty
General Sales Manager - Western Division
7831 Paramount Boulevard
Pico Rivera, California 90660
(213) 723-3316
- (7) Larry Dilley
Plant Manager
North American Refractories Company
Wolmesdorf, Pennsylvania
(215) 589-2535

- (8) Wally Evans
District Sales Manager
North American Refractories company
200 Vestavia Parkway #1000
Birmingham, AL 35216
(205) 822-6514
- (9) Mark Jacobs
North American Refractories Company
200 Vestavia Parkway #1000
Birmingham, AL 35216
(205) 822-6514
- (10) James Uchno
Director of Technical Center
North American Refractories Company
3127 Research Drive
State College, Pennsylvania 16801
(814) 234-7981
- (11) R. C. Crosson
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (12) James Rowles
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (13) Charles Thompson
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (14) Edward London
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (15) Craig Cline
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (16) J. L. Caldwell
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (17) J. B. Polson
North American Refractories Company
The Halle Building
Cleveland, Ohio

- (18) S. J. Metzger, Jr.
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (19) T. M. Doty
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (20) Carl E. Stahl, Jr.
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (21) D. E. Varanese
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (22) J. M. Campanelli
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (23) H. P. Sullivan
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (24) John Scanlon
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (25) J. H. Ammerman
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (26) E. S. Chrzan
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (27) Richard Wilson
North American Refractories Company
The Halle Building
Cleveland, Ohio
- (28) Jay Ehle
North American Refractories Company
The Halle Building
Cleveland, Ohio

- (29) Curt E. Horton
North American Refractories Company
Technical Center
3127 Research Drive
State College, Pennsylvania
- (30) Ronald Coleman
North American Refractories Company
P.O. Box 38
Wolmesdorf, Pennsylvania
- (31) James Stevens
North American Refractories Company
P.O. Box 38
Wolmesdorf, Pennsylvania
- (32) Robert F. Whitford
North American Refractories Company
Curwensville, Pennsylvania
- (33) Robert Davidson
North American Refractories Company
Curwensville, Pennsylvania
- (35) Kim Nelson
North American Refractories Company
3127 Research Drive
State College, Pennsylvania 16801

In addition, defendant may supplement this answer by supplementing its discovery responses in individual lawsuits and reserves the right to call such additional witnesses who may have knowledge pertinent to a particular case.

EXHIBIT "D"

NORTH AMERICAN EXHIBITS

<u>Exhibit No.</u>	<u>Description</u>
1	Epidemiology/Epidemiologists Chart
2	Critical Factors in Disease Causation Chart
3	The Asbestos Minerals Chart
4	Photocopy of Electron Micrographs of Asbestos Minerals
5	Particle Sizes Chart
6	Definition of a Fiber Chart
7	Fiber Concentrations Chart
8	Diseases Reported to be Associated with "Asbestos" Exposure Chart
9	Mesothelioma Chart
10	Diagnostic Difficulty Chart
11	McDonald AD, Magner D & Eyssen G (1973) Primary Malignant Mesothelial Tumors in Canada 1960-1968 Cancer 31: 869-876
12	McDonald JC, Armstrong B; Case B, Doell D, McCaughey WTE, McDonald AD, and Sebastian P (1989) Mesothelioma and Asbestos Fiber Type Cancer 63: 1544-1547, 1989
13	Daya Dean and McCaughey W.T. Elliott (1989) Well-Differentiated Papillary Mesothelioma of the Peritoneum Cancer 65: 292-296, 1990
14	Latency Chart
15	Lung Cancer Etiology Chart
16	Hughes Janet (Publication Date: 1989) The Derivation and Use of Asbestos Risk Estimates Symposium on Health Aspects of Exposure to Asbestos in Buildings - Harvard University, Dec. 14-16, 1988
17	Lung Cancer Etiology Chart

Exhibit No.Description

- 18 Hammond EC, Selikoff IJ & Seidman H (1979)
Asbestos Exposure, Cigarette Smoking and Death Rates
Ann NY Acad Sci 330 473-490
- 19 Relative Risks (RR) Associated with Smoking Chart
- 20 McDonald JC, Liddell FDK, Gibbs GW, Eyssen GE and
MacDonald AD (1980)
Dust Exposure and Mortality in Chrysotile Mining,
1910-75
Brit. J. Industr. Med. 37 11-24
- 21 Lung Cancer Etiology (Chemicals) Chart
- 22 ACGIH (1946-90)
Threshold Limit Values for Chemical Substances
ACGIH Cincinnati, Ohio 45211
- 23 Asbestosis - Clinical Diagnostic Factors and Tissues
Chart
- 24 Observer Variation Chart
- 25 Parker D, Bender A, Hankinson S & Aeppli D (1989)
Public Health Implications of the Variability in the
Interpretation of "B"
Readings for Pleural Changes
J.O.M. 31 775-780
- 26 Non-Specificity of Chest Radiograph Chart
- 27 Weiss, William (1991)
Cigarette Smoking and Small Irregular Opacities
Brit. J. Industr. Med. 48 841-844
- 28 Pleural Calcification Chart
- 29 Gibbs, Graham W. (1979)
Etiology of Pleural Calcification: A Study of Quebec
Chrysotile
Asbestos Miners and Millers Archives of Environmental
Health
- 30 Mesothelioma in Various Cohorts (McDonald, Acheson)
Chart
- 31 McDonald AD and McDonald JC (1978)
Mesothelioma After Crocidolite Exposure during Gas
Mask Manufacture
Environ. Research 17 340-346

Exhibit No.

Description

- 32 Acheson ED, Gardner MJ, Pippard EC & Grime LP (1982) Mortality of Two Groups of Women Who Manufactured Gas Masks from Chrysotile and Crocidolite Asbestos: A 40 Year Follow-Up Brit J Industr Med 39 344-348
- 33 Mesothelioma in Various Cohorts (Hobbs) Chart
- 34 Hobbs M.S.T., Woodward S.D., Murphy, B., Musk, A W., and Elder, J.E. (1980) The Incidence of Pneumoconiosis, Mesothelioma and Other Respiratory Cancer in Men Engaged in Mining and Milling Crocidolite in Western Australia
- 35 Mesothelioma in Various Cohorts (Seidman, Acheson) Chart
- 36 Seidman H, Selikoff IJ & Hammond EC (1979) Short-Term Asbestos Work Exposure and Long Term Observation Ann N Y Acad Sci 330 61-89
- 37 Acheson ED, Gardner MJ, Winter PD and Bennett C (1984) Cancer in a Factory Using Amosite Asbestos International Journal of Epidemiology, Vol. 13, No. 1
- 38 Mesothelioma in Various Cohorts-Insulation Industry-Mixed Exposures Chart
- 39 Selikoff IJ, Hammond CE and Seidman H. (1979) Mortality Experience of Insulation Workers in the United States and Canada, 1943-1976 Ann N.Y. Acad Sci 330 91-116
- 40 Mesothelioma in Various Cohorts-Dockyard Workers-Mixed Exposures Chart
- 41 Rossiter, C.E., Coles, R.M. (1980) HM Dockyard, Devonport: 1947 Mortality Study
- 42 Mesothelioma in Various Cohorts-Amphibole & Chrysotile Mixed Exposures Chart
- 43 Newhouse, M.L and Bery, G. (1979) Patterns of Mortality in Asbestos Factory Workers in London Ann NY Acad Sci 330 53-60

Exhibit No.Description

- 44 Mesothelioma in Various Cohorts - Chrysotile (Acheson) Chart
- 45 Mesothelioma in Various Cohorts - Chrysotile (McDonald, Rubino) Chart
- 46 Rubino, G.F., Piolatto, G., Newhouse, M.L., Scansette, G., Aresine, G.A., and Murrey, R. (1979) Mortality of Mesothelioma Asbestos Workers at the Balangero Mine, Northern Italy Brit. J. Industr. Med. 36:187-194
- 47 Mesothelioma in Various Cohorts - Chrysotile (Nicholson) Chart
- 48 Nicholson, WJ, Selikoff IJ, Seidman H, Lilis R, and Formby, P (1979) Long-Term Mortality Experience of Chrysotile Miners and Millers in Thetford, Mines, Quebec Ann NY Acad Sci 33011-21
- 49 Mesothelioma in Various Cohorts - Chrysotile (Weiss, Thomas) Chart
- 50 Weiss, W. (1977)
Mortality of a Cohort Exposed to Chrysotile Asbestos JOM 19 737-740
- 52 Thomas HF, Bennamin IT, Elwood P and Sweetnam PM (1982)
53. McDonald AD, Fry JS, Woolley AJ and McDonald JC (1983)
Dust Exposure and Mortality in an American Chrysotile Textile Plant
Brit 3 Industr Med 40 361-367

Further Follow-Up Study of Workers from an Asbestos Cement Factory.

Brit. J. Industr. Med. 39: 273-276

Mesothelioma in Various Cohorts - Chrysotile (McDonald) Chart

- 54 Mesothelioma in Various Cohorts - Chrysotile (McDonald, Newhouse & Sullivan) Chart

Exhibit No.Description

- | | |
|----|--|
| 55 | McDonald AD, Fry JS, Woolley AJ & McDonald JC (1984)
Dust Exposure and Mortality in an American Chrysotile
Asbestos
Friction Products Plant
Brit. J. Industr. Med. 41 151- 157 |
| 56 | Newhouse ML & Sullivan KR (1989)
A Mortality Study of Workers Manufacturing Friction
Materials; 1941-86
Brit J Industr Med 46:176-179 |
| 57 | Mesothelioma & Brake-Lining Work (Meso Case Reports)
Chart |
| 58 | Mesothelioma & Brake-Lining Work (Registry Linkage
Studies) Chart |
| 59 | Hansen ES (1989)
Mortality of Auto Mechanics - A Ten Year Follow-Up
Scand J Work Environ Health 15 43-46 1989 |
| 60 | Mesothelioma & Brake-Lining Work (Registry Linkage
Studies)
(Jarvholm & Brisman) Chart |
| 61 | Jarvholm B & Brisman J (1988)
Asbestos Associated Tumors in Car Mechanics
Brit J Industr Med 45 645-646 |
| 62 | Mesothelioma & Brake-Lining Work (Registry Linkage
Studies)
(Malke) Chart |
| 63 | Malke HS, McLaughlin JK, Malke BK, Stone BJ, Weiner
JA, Erickson
JL & Blot WJ (1985)
Occupational Risks for Pleural Mesothelioma in Sweden
J Natl Cancer Inst 74 61-66 1985 |
| 64 | Factors Important in Mesothelioma Production Chart |
| 65 | Lung Cancer Risk and Asbestos Exposure by Industry
Sector Chart and
References |
| 66 | Fibre Concentrations in Friction Manufacturing - UK
Chart |

Exhibit No.Description

- 67 Berry G & Newhouse ML (1983)
Mortality of Workers Manufacturing Friction Materials
Using Asbestos
Brit J Industr Med 401-71983
- 68 Studies of Car Mechanics (Marcus, Jarvholm & Larson)
Chart
- 69 Marcus K, Jarvholm BG & Larsson S (1987)
Asbestos - Associated Lung Effects in Car Mechanics
Scand J Work Environ Health 13 252-254 1987
- 70 Studies of Car Mechanics (Boillat & Lob) Chart
- 71 Boillat MA & Lob M (1973)
Risque d'asbestose chez les travailleurs occupe a
remplacer les garnitures de frein
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- 82 Photograph of Bendix Brake Linings
- 83 Photocopy and photograph of electron micrographs of
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- 83c Photocopy of Selected Area Electron Diffraction
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- 95c Photocopy of Selected Area Electron Diffraction
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- 95d Photocopy of Electron Micrograph - Fibre from Brake
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| 112 | Occupational Exposure Limits and Exposure of Brake
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