

**IN THE COURT OF
COMMON PLEAS OF BUTLER COUNTY, OHIO**

ROGER DALE BLAKE, et al.,

Plaintiffs,

VS.

A-BEST PRODUCTS COMPANY, et al.,
including NORTH AMERICAN
REFRATORIES COMPANY

CASE NO. CV96 01 0191

(Hon. George Elliott)

**DEFENDANT NORTH AMERICAN REFRATORIES COMPANY'S
SUPPLEMENTAL RESPONSE TO PLAINTIFFS'
MASTER SET OF INTERROGATORIES**

AND NOW COMES Defendant North American Refractories Company and further responds to Plaintiffs' Master Set of Interrogatories as follows.

CORPORATE NAME

1. For each Interrogatory below, please state the name and last known address of each person answering it, including whether he/she is employed by Defendant and if employed by Defendant include 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.

ANSWER:

Defendant, North American Refractories Company (hereinafter "NARCO") objects to this question in that it is overly broad, unduly burdensome, and oppressive and seeks information which is not relevant. Without waiving the foregoing objection, NARCO states that information utilized in responding to these interrogatories has been provided by present and past employees of NARCO including the following individuals:

Anthony Rosa
Vice President of Human Resources
North American Refractories Company
500 Halle Building
1228 Euclid Avenue
Cleveland, OH 44115

Richard Landy, (retired)
Former V. P. Technology
North American Refractories Company
500 Halle Building
1228 Euclid Avenue
Cleveland, OH 44115

Curtis Horton, (retired)
Former Industrial Hygienist
North American Refractories Company
P.O. Box 56
Curwensville, PA 16833

Don Abrino
Coordinator of Product Safety and Human Relations
North American Refractories Company
3127 Research Drive
State College, PA 16801

George Spahlinger
North American Refractories Company
500 Halle Building
1228 Euclid Avenue
Cleveland, OH 44115

Kim Nelson
Corporate Manager, Safety, Health and
Environmental Affairs
North American Refractories Company
P.O. Box 56
Curwensville, PA 16833

2. Please state whether or not Defendant is a corporation. If so, please state:
- (a) Mergers;
 - (b) Consolidations;
 - (c) Asset purchases;
 - (d) Acquisitions; or

- (e) Spinoffs.

ANSWER:

NARCO objects to this question in that it is overly broad, unduly burdensome, and oppressive and seeks information which is not relevant or reasonably calculated to lead to the discovery of admissible evidence. Without waiving the foregoing objection, NARCO states that it is a corporation incorporated under the laws of the State of Ohio and has its principal place of business in Cleveland, Ohio. Its corporate offices are located at 500 Halle Building, 1228 Euclid Avenue, Cleveland, Ohio, 44115-1809. See also response to Interrogatory No. 3.

3. Please describe Defendant's corporate history including any:

- (a) Mergers;
- (b) Consolidations;
- (c) Asset purchases;
- (d) Acquisitions; or
- (e) Spinoffs.

ANSWER:

NARCO objects to this question in that it is overly broad, unduly burdensome, and oppressive and seeks information which is not relevant or reasonably calculated to lead to the discovery of admissible evidence. Without waiving the foregoing objection, NARCO states that it was originally incorporated in 1929 and has been in the business of manufacturing, distributing and selling refractory products since that time. It was re-incorporated in its present form on August 17, 1978. NARCO has never sold any asbestos product line or stock in a company dealing in asbestos-containing products. See attached corporate history.

NARCO CORPORATE HISTORY

Effective Date	Event
9/12/28	Date of Incorporation of North American Refractories Company
9/30/68	North American Refractories Company (Del. Corp) merged into Eltra Corporation (NY Corp.) and became a division of Eltra.
5/13/80	Eltra Corporation (NY Corp.) merged into Atrel Corporation (Del. Corp.). Name change from Atrel Corporation to Eltra Corporation.
5/27/82	Eltra Corporation (Del. Corp.) merged with and into Bunker Ramo Corporation (Del. Corp.). Name change from Bunker Ramo Corporation to Bunker Ramo - Eltra Corporation (Del. Corp.).
1/16/86	Bunker Ramo - Eltra Corporation (Del. Corp.) and three other companies: Allied International Finance Corporation (Del. Corp.), Wheelabrator International, Inc. (Del. Corp.), and Signal Applied Technologies, Inc. (Del. Corp.) merged with and into Allied Corporation (NY Corp.).
9/27/85	NARCO Investors, Inc. organized in the State of Ohio.
1/86	NARCO Investors, Inc. purchased the North American Refractories Division of Allied Corporation.
7/1/86	Name change from Narco Investors, Inc. (OH Corp.) to North American Refractories Company.
1/2/91	North American Refractories Company (OH Corp.) merged into Didier Taylor Refractories Corporation (OH Corp.). Name change from Didier Taylor to North American Refractories Company.
6/1/93	Cast-Tec, Inc. merged into North American Refractories Company (OH Corp.).
1/1/94	Stock transfer from Didier-Werke AG (Capital Stock of Zircoa Inc.) to North American Refractories Company. Zircoa Inc. is a subsidiary of North American Refractories Company.
11/1/97	Vietsch-Radex North America Corp. (DE Corp.) merged into American Refractories Company (OH Corp.)

4. Please state whether or not the Defendant has purchased, assumed, or in any other manner acquired any of the assets and/or liabilities of any corporation or entity (such corporations or entities being limited to those engaged in the mining, selling, manufacturing, marketing or distribution of asbestos-containing products). If so, please state the following:

- (a) The name of each such corporation or entity;
- (b) The date of acquisition;
- (c) The nature of the company as it relates to asbestos.

ANSWER:

No.

EVER SELL ASBESTOS

5. Has Defendant ever engaged in the mining, manufacturing, selling, marketing, installation or distribution of asbestos-containing products? If so, please state the following:

- (a) The name of the company engaged in the activity (whether it is Defendant, Defendant's predecessor, or Defendant's subsidiary);
- (b) As to each product mined, manufactured, sold, marketed, installed or distributed, please state the following:
 - (1) The trade or brand name;
 - (2) Its identification number (model, serial number, etc.);
 - (3) The time period it was manufactured, mined, marketed, distributed or sold;
 - (4) Its physical description including color, general composition, and form;
 - (5) A detailed description of its intended use and purpose;
 - (6) A detailed description of the type package in which it was sold, listing the dates of each type of package used, a physical description of the package, and a description of any printed material or trademarks that appeared thereon;

- (7) The percent of asbestos which it contained;
- (8) The percent of asbestos by asbestos type (amosite, crocidolite, tremolite, anthophyllite);
- (c) The time period during which each of these products were on the market;
- (d) A description of the physical composition of each product;
- (e) How each of these asbestos-containing products can be distinguished from those of competitors;
- (f) A description of the physical appearance of such product;
- (g) A detailed description of the intended uses.

ANSWER:

NARCO objects to this question as burdensome, overly broad, vague and not reasonably calculated to lead to the discovery of admissible evidence in that it does not relate to relevant time periods, it does not relate to relevant products, and is not limited to relevant work locations. Without waiving the foregoing objections, NARCO states that its sales records indicate the sale of STAZ-ON insulating cement to ARMCO, Middletown, Ohio. STAZ-ON was manufactured by Eagle Picher and sold by NARCO under a relabeling agreement. NARCO has no records from which it can determine the details of manufacture or composition of this product. NARCO's sales records also indicate one sale of NARCOCAST E.S. Fine Trowel to ARMCO, Hamilton, Ohio in 1971. This product contained 1% chrysotile asbestos and was manufactured in NARCO's Curwensville, Pennsylvania facility. By way of further response, see attached Exhibit A, Exhibit B and Exhibit D.

6. Does defendant or any of its subsidiary companies claim that any patent would cover any product listed in answer to interrogatory no. 5? If so, please state the following:
- (a) The date of each patent;
 - (b) The date same was issued;
 - (c) The number of each patent application that is pending.

ANSWER:

No

7. Have any of the products listed above in answer to Interrogatory No. 5 been altered in chemical composition since first being marketed? If so, please state the following:

- (a) The trade name of each such product;
- (b) The date each such product was altered;
- (c) The nature of the alteration;
- (d) The reason for the alteration.

ANSWER:

NARCO objects to this question as burdensome, overly broad, vague and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving the foregoing objection, NARCO states that asbestos was only a small percentage component in a small number of this defendant's refractory products and was used to improve initial adherence to allow for a certain amount of refractory expansion and to reduce rebound in certain instances. It was not used for insulation. Asbestos was phased out of this small number of products as environmental concerns made asbestos a less desirable component. NARCO began removing the small amounts of asbestos in its products in the early 1970s. No studies were conducted prior to the decision to remove the small amounts of asbestos from its products. This defendant had no reason to believe that there were health hazards associated with its small number of asbestos-containing products because of their small percentage asbestos content, their use primarily in wet or encapsulated form, their high heat applications, and defendant's assumption of safe work practices by its industrial customers. By way of further response, see attached Exhibit A which shows the dates when asbestos appeared as an ingredient in its products and Exhibit B which identifies ingredients for NARCO's asbestos-containing products.

8. Have any of the asbestos-containing products listed in response to Interrogatory No. 5 ever been marketed, distributed, packaged, labeled, and/or sold by any other company or business? If so, please state the following:

- (a) The name and address of each such company;
- (b) The names and addresses of Defendant's distributors in Ohio and Illinois since 1940;
- (c) The date of each sale;
- (d) The name of the person at each location with whom you primarily dealt;
- (e) A list of all asbestos-containing products that you sold to each location from 1945 to 1980;

- (f) The amount of each asbestos product sold to each location during this period;
- (g) Please identify all documents relating to this distributor for the particular location.

ANSWER:

See Response to Interrogatory No. 8.3. To the extent that this interrogatory seeks information concerning jobsites where plaintiffs did not work, it is burdensome, overly broad, vague and not reasonably calculated to lead to the discovery of admissible information.

- 8.1 Does Defendant have reason to believe that the asbestos-containing products listed in response to Interrogatory No. 5 were used at the ARMCO/A.K. Steel Middletown Plant and/or the ARMCO/A.K. Steel Hamilton Plant? If your answer is "yes", please state the basis of your answer.

ANSWER:

See Response to Interrogatory No. 5. By way of further answer, see attached Exhibit E which are the sales invoices for the two ARMCO facilities.

- 8.2 For each company or business that Defendant knows may have marketed, distributed, installed, and/or sold, those products listed in response to Interrogatory No. 5 to ARMCO/A.K. Steel Middletown Plant and/or ARMCO/A.K. Steel Hamilton Plant, please state the following:

- (a) The name and address of each such company;
- (b) The date of each sale from Defendant to such other company;
- (c) The name of the person at each other company with whom Defendant primarily dealt;
- (d) Names and quantities of the asbestos-containing products that you marketed, distributed, installed, and/or sold to each such company from 1950 to 1974;
- (e) Please identify all documents relating to the sales to each such company.

ANSWER:

See Response to Interrogatories No. 5 and No. 8.3. By way of further answer, NARCO is unaware of other companies or businesses which marketed, distributed, installed or sold NARCO's asbestos-containing products to the above referenced jobsites.

8.3 If you do not know any business that may have marketed, distributed, installed, and/or sold the products listed in response to Interrogatory No. 5 to ARMCO/A.K. Steel Middletown Plant and/or ARMCO/A.K. Steel Hamilton Plant, please state the names and last known addresses of those companies who Defendant knows marketed, distributed, and/or sold their asbestos-containing products in Ohio from 1950 to 1974. For each of those companies, please state the following:

- (a) Name and address of each such company;
- (b) The dates of each sale from Defendant to such other company;
- (c) The name of the person at each other company with whom Defendant primarily dealt;
- (d) The names of the asbestos-containing products that Defendant marketed, distributed, and/or sold to each such company from 1950 to 1974.

ANSWER:

NARCO objects to this Interrogatory as burdensome, overly broad, vague and not reasonably calculated to lead to the discovery of admissible evidence in that it does not relate to relevant time periods, it does not relate to relevant products, and is not limited to relevant work locations. Without waiving the foregoing objections, NARCO states that it sold directly to those two ARMCO facilities. No distributors were involved in sales of NARCO products to these facilities. By way of further answer, the distributors who sold NARCO refractory products in the state of Ohio are: Allen Refractories Company, American Refractories Inc., Buckey Products, Nock Firebrick Co., F.W. Schaefer, Inc., Fidelity Coal & Supply, Co., The W. H. Flower Co., George Matthes Coal and Supply, Osborne, Inc., Will-Burt Company, and Adrian L. Wallick.

8.4. Does Defendant have records and/or any knowledge that reflects sales of their asbestos-containing products to ARMCO/A.K. Steel Middletown Plant and/or ARMCO/A.K. Steel Hamilton Plant? If so, please state:

- (a) The names and last known addresses of those people with such knowledge.

- (b) The location of such records.

ANSWER:

NARCO objects to this question in that it is overly broad, unduly burdensome, vague and seeks information which is not relevant or reasonably calculated to lead to admissible evidence, because it is not limited to a relevant period of time and because it is not limited to relevant products. Without waiving the foregoing objections, NARCO states that it maintains sales records in its corporate offices located at 500 Halle Building, 1228 Euclid Avenue, Cleveland, Ohio, 44115-1809. Sue Speck is the custodian of these records. See also Response to Interrogatory No. 5.

9. Did Defendant or any of Defendant's distributors, as listed in response to Interrogatory Nos. 8.1, 8.2, and/or 8.3 have sales representatives who specifically called on ARMCO/A.K. Steel Middletown Plant and/or ARMCO/A.K. Steel Hamilton Plant from 1945 to 1975? If your response is yes, as to each facility, please state the following:
- (a) The name and last known address of each such representative and whether they are still employed by Defendant;
 - (b) The period of time they acted as your representative;
 - (c) Their general responsibility as to each facility; and
 - (d) Whether that person is still alive.

ANSWER:

See Response to Interrogatory No. 8.3. By way of further answer, the following NARCO employees called on the two ARMCO facilities: Vern Girard, deceased, and John Beatty, deceased, prior to 1960 to 1972 (the exact year these individuals began to call on the ARMCO facilities is unknown) and Daniel Boring from 1972 to 1975.

10. Did Defendant ever have any division or subsidiary engaged in the contract business of applying asbestos-containing products? If so, please state:
- (a) The name of each subdivision;
 - (b) The full address of the home office and the date such subdivision or subsidiary was engaged in this contracting business; and

(c) Whether said division or subsidiary conducted such business at ARMCO/A.K. Steel Middletown Plant and/or ARMCO/A.K. Steel Hamilton Plant from 1954 to 1975? If so, please state:

(1) The dates of such contracts;

(2) The specific asbestos-containing products that were used in each contract.

ANSWER:

No.

11. Did Defendant ever have any division or subsidiary engaged in the contract business of applying asbestos-containing refractory? If so, please give the name of each subdivision, the full address of the home office and the date such subdivision or subsidiary was engaged in this contract business.

ANSWER:

No.

12. Please identify by location and product produced, each plant in which products listed in your answer to Interrogatory No. 5 have been manufactured and/or assembled and the dates said plants have been in operation.

ANSWER:

NARCO objects to this question as burdensome, overly broad, vague and not reasonably calculated to lead to admissible evidence in that it does not relate to relevant time periods, it does not relate to relevant products, and is not limited to relevant work locations. Without waiving the foregoing objections, NARCO refers Plaintiffs to response to Interrogatory No. 5 and attached Exhibit A which shows the plant locations for its asbestos-containing products.

13. Has Defendant, at any time, entered into a "rebranding" agreement with any other company, either as a buyer or a seller, concerning any asbestos-containing products and/or materials? If so, please state:

- (a) The name of the company manufacturing the asbestos products under such agreement;
- (b) The trade name affixed to such products;
- (c) The periods of time covered by each such agreement;
- (d) The volume (in dollar amounts) of each such transaction;
- (e) The purchaser of such products;
- (f) Does Defendant currently have in its possession any of the writings or contracts concerning such rebranding agreement?

ANSWER:

NARCO objects to this question as burdensome, overly broad, vague and not reasonably calculated to lead to admissible evidence in that it does not relate to relevant time periods, it does not relate to relevant products, and is not limited to relevant work locations.

Without waiving the foregoing objection, NARCO states that, for a period of time ending in 1971, it sold Eagle-Picher products SUPER 66 and ONE-COTE Cement under a relabeling agreement as STAZ-ON and UNICOTE. NARCO is unaware of any other relabeling agreement involving asbestos-containing products.

INFORMATION ABOUT DESIGN/TESTING

14. What is the name, address and job title of each individual who participated in the design and preparation of manufacturing specifications for each such product listed above in answer to Interrogatory No. 5?

ANSWER:

NARCO objects to this question as burdensome, overly broad, vague and not reasonably calculated to lead to admissible evidence in that it does not relate to relevant time periods, it does not relate to relevant products, and is not limited to relevant work locations. Without waiving the foregoing objections, NARCO refers Plaintiffs to response to Interrogatory No. 13. By way of further answer, NARCO states that the gunning mixes and castables it manufactured were designed by Fred Murtans and Robert Hess. Larry Dilley participated in the preparation of manufacturing specifications for

certain metal-encased bricks which for a time contained an encapsulated asbestos mat between the brick and the metal jacket.

15. As to each product listed in response to Interrogatory No. 5, please describe how each product was to be cut, shaped, scribed, mixed and applied on the job. (In answering this question, give particular reference as to whether or not the materials were to be sawed or cut on the job, blown into confined areas, mixed with water in a cement or paste.)

ANSWER:

NARCO objects to this question as burdensome, overly broad, vague and not reasonably calculated to lead to admissible evidence in that it does not relate to relevant time periods, it does not relate to relevant products, and is not limited to relevant work locations. Without waiving the foregoing objection, NARCO states that STAZ-ON and NARCOCAST E.S. Fine Trowel were to be mixed with water and applied wet. See also Exhibit A to Defendant's Responses to Plaintiffs' Request for Production of Documents. By way of further answer, all asbestos-containing gunning mixes and castables were to be mixed with water and applied wet. The metal-encased brick was to be purchased in the appropriate sizes to avoid the need for cutting or sawing.

16. Based upon the material contents of the asbestos-containing products, the method of manufacturing, and the method of application, please state which products listed in Interrogatory No. 5 could be applied by a worker without creating dust.

ANSWER:

NARCO believes that all of its asbestos-containing products could be applied without creating harmful dust levels if a worker followed ordinary safe work practices.

17. Do any documents, including but not limited to, written memoranda, specifications, recommendations, blueprints or other written materials of any kind or character now exist relating to the design and preparation of the products listed in answer to Interrogatory No. 5? If so, please:

- (a) List each such written material or document;
- (b) Identify the person or persons presently in possession of each such document;
- (c) State where each such document is located.

ANSWER:

NARCO objects to this question as burdensome, overly broad, vague and not reasonably calculated to lead to admissible evidence in that it does not relate to relevant time periods, it does not relate to relevant products, and is not limited to relevant work locations. Without waiving the foregoing objections see the mix sheet for Narcocast E.S. Fine Trowel attached to this Defendants' Responses to Requests for Production as Exhibit C. By way of further answer, see attached Exhibit B which includes the mix sheets for other NARCO asbestos-containing products.

18. Prior to releasing the products listed in Interrogatory No. 5 for sale and usage, were any tests (either animal or human) conducted on said products to determine potential health hazards involved in the use of, or exposure to, the materials and/or products? If so, please state:

- (a) The name of the products tested and the date of each test.
- (b) The name, address, and job classification of each individual who conducted such tests;
- (c) The results of such tests.

ANSWER:

NARCO objects to this question in that it is overly broad, oppressive, unduly burdensome, vague, and seeks information which is not relevant or reasonably calculated to lead to admissible evidence because it is not limited to a relevant period of time, because it is not limited to relevant work locations, and because it is not limited to relevant products. Without waiving the foregoing objections, NARCO states that it had no reason to believe that there were potential health hazards associated with its products containing asbestos, because of their small percentage asbestos component, their use primarily in wet or encapsulated form, this defendant's assumption of safe work practices by its industrial customers and their employees' unions, and because of the change in form of asbestos under heat. Therefore, NARCO had no reason to believe such tests were required and none were done.

19. Does Defendant have or control 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 listed in Interrogatory No. 5 hereinabove?

- (a) Identify each such written material or document;
- (b) Identify each person who presently has possession of each such document;
- (c) State where each such document is located.

ANSWER:

See Response to Interrogatory No. 18.

20. Were any design changes or modifications made as a result of such tests listed in answer to Interrogatory No. 18 hereinabove? If so, please state:

- (a) The trade name of the product changed or modified;
- (b) The nature of the change made and the date of such changes or modifications;
- (c) The name, address, and job classification of each person in charge of making a change.

ANSWER:

See Response to Interrogatory No. 18.

21. After releasing for sale, distribution or marketing the products listed in answer to Interrogatory No. 5, did Defendant conduct any tests (either on animals or humans) to determine potential health hazards involved in the use of said materials and/or products?

- (a) The names of the products tested and the dates of said tests;
- (b) The name, address, and job classification of each person and/or agency conducting said tests;
- (c) The results of said tests;
- (d) Whether, as a result of any tests conducted, any products were removed from the market;
- (e) The names of all products removed from the market as a result of said tests.

ANSWER:

See Response to Interrogatory No. 18.

22. Has Defendant ever conducted any studies concerning the effects of the inhalation of asbestos dust and/or fibers on workers or other persons applying, using and/or working around any of the asbestos products manufactured, sold, distributed and/or relabelled for distribution by you or your predecessor? If so, please state:
- (a) The dates and nature of such studies;
 - (b) The names and addresses of persons conducting such studies;
 - (c) The purpose of such studies;
 - (d) Identify and list those persons to whom such reports were given and the date of such dissemination;
 - (e) State any publication or other written dissemination of the results of such studies.
 - (f) State the nature of any action to eliminate or minimize the inhalation of asbestos dust fibers; and
 - (g) Attach a copy of reports based upon such studies.

ANSWER:

NARCO objects to this question in that it is overly broad, oppressive, unduly burdensome, vague, and seeks information which is not relevant or reasonably calculated to lead to admissible evidence because it is not limited to a relevant period of time, because it is not limited to relevant work locations, and because it is not limited to relevant products. Without waiving the foregoing objections, NARCO states that it had no reason to believe that there were potential health hazards associated with its products containing asbestos, because of their small percentage asbestos component, their use primarily in wet or encapsulated form, this defendant's assumption of safe work practices by its industrial customers and their employees' unions, and because of the change in form of asbestos under heat. Therefore, NARCO had no reason to believe such studies were necessary and none were done.

INFORMATION ABOUT SAFETY

23. Before placing in the market the asbestos-containing products that Defendant mined, manufactured, sold, marketed, installed or distributed on the market, did Defendant make or cause to be made, any studies to determine whether their asbestos-containing products would be hazardous to people? If so, please state:

- (a) The date of said studies;
- (b) What studies were done; and
- (c) The titles of each study.

ANSWER:

See Response to Interrogatory No. 22.

24. Please state whether or not Defendant ever conducted or caused to be conducted any tests in the field (where asbestos-containing products were applied, removed or utilized) to determine the nature and extent of asbestos dust and/or fiber exposure to insulators, applicators, fellow employees, or other workers removing and/or tearing out asbestos-containing products, and/or other workers in the vicinity thereof? If so, please identify:

- (a) The date, place and nature of each and every test;
- (b) The particular asbestos-containing products to which each test applied;
- (c) The results of each test with particular reference to the number of asbestos fibers per cubic centimeter of air found at each site; and
- (d) The persons to whom the results said tests were given and the date of such dissemination.

ANSWER:

See Response to Interrogatory No. 18.

25. Please state whether or not Defendant ever obtained any knowledge concerning the likelihood of asbestos being hazardous to human health. If so, please state:

- (a) When Defendant first became aware of the hazardous potential of asbestos dust and asbestos fibers;
- (b) The manner in which the Defendant, Defendant's predecessor, or Defendant's subsidiary companies first obtained this knowledge and became aware of said hazards and from what source this information was obtained;
- (c) What information was disseminated within Defendant's company, or its subsidiary or predecessor regarding such adverse consequences or effects;
- (d) Whether any such information is still maintained by Defendant or its subsidiary or predecessor in any written form;
- (e) The name, address and job classification of the custodian of such information.

ANSWER:

NARCO objects to this question in that it is overly broad, oppressive, unduly burdensome, vague, and seeks information which is not relevant or reasonably calculated to lead to admissible evidence because it is not limited to a relevant period of time, because it is not limited to relevant work locations, and because it is not limited to relevant products. Without waiving the forgoing objections, North American Refractories Company states that it has no information evidencing precisely when the potential health hazards from certain types of exposures to asbestos, depending upon the dose, duration, manner and length of exposure as well as the presence of other risk factors such as smoking tobacco were first learned; however, this knowledge has been gained gradually over the past several years. This defendant learned of the 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. Furthermore, North American Refractories Company has no information evidencing precisely who within the company first discovered, recognized or understood the potential adverse affects of asbestos-exposure and cannot presently speculate as to whether or not its employees had certain information or understanding on this issue. By way of further answer, NARCO states that Dr. Richard Landy, the former Vice President of Technology for NARCO, has testified that he came to the belief in approximately 1973, that, under certain circumstances, asbestos could cause asbestosis. He further testified that he did not become aware that, under certain circumstances, asbestos could cause cancer until many years later, in approximately 1986.

- 26. Please state when Defendant first became aware of the possible association between inhalation of asbestos dust and/or fibers and the contraction of asbestosis and cancers including, but not limited to gastrointestinal cancer, laryngeal cancer, renal cancer,

lymphoma, lung cancer and mesothelioma. As to each disease or condition, please state the source of that information, including a description of all tests conducted relative to the possibility of such a relationship.

ANSWER:

See Response to Interrogatory No. 25.

27. Please identify all physicians, industrial hygienists, and other employees (including their names and addresses) who were employed, retained or otherwise engaged by Defendant for research, investigation or study concerning asbestos or asbestos-related diseases.

ANSWER:

North American Refractories Company objects to this question in that it is overly broad and seeks information which is not relevant or reasonably calculated to lead to admissible evidence because it is not limited to a relevant period of time and because it is not limited to relevant products. Without waiving the foregoing objections, North American Refractories Company states that it did not have a medical department. NARCO further states that it did not engage any individual to research, investigate or study asbestos-related diseases.

28. As to each person who acted in a medical advisory capacity (as it relates in any way to asbestos) to Defendant, please list their name, the date individual acted in this capacity, and that person's current address and job title.

ANSWER:

See Response to Interrogatory No. 27.

29. Please state if any medical officer or industrial hygienist or medical consultant ever made at any time any recommendations and/or suggestions to Defendant pertaining to the risks or hazards to persons involved in the manufacture or use of asbestos products and, if so, please state when, by whom or to whom such recommendations and/or suggestions were made and the substance of each recommendation.

ANSWER:

North American Refractories Company objects to this question in that it is overly broad and seeks information which is not relevant or reasonably calculated to lead to admissible evidence because it is not limited to a relevant period of time and because it is not limited

to relevant products. Without waiving the foregoing objections, NARCO refers Plaintiffs to Response to Interrogatory No. 27.

30. Please state the scientific and/or medical periodicals to which Defendant, its medical department, research department, industrial hygiene divisions, engineering department or consulting physicians subscribed between 1945 and 1975.

ANSWER:

NARCO objects to this interrogatory as overly broad, unreasonably burdensome and not reasonably calculated to lead to relevant information. To list all publications to which this defendant and its employees ever subscribed would require an expensive and unreasonable search of its records and inquiry of its employees to determine the correct response.

Without waiving the foregoing objections, North American Refractories Company states that the Industrial Hygiene Department subscribes to:

- | | |
|---|--|
| (a) <i>Federal Register</i> ; | (e) <i>Scientific American</i> ; |
| (b) <i>Pennsylvania Bulletin</i> ; | (f) <i>National Safety News</i> ; |
| (c) <i>Pollution Control Journal</i> ; | (g) <i>Pollution Engineering</i> ; and |
| (d) <i>Ceramic Society Journal and Bulletin</i> ; | (h) <i>Industrial Safety and Hygiene</i> . |

This Defendant also receives various refractory and industrial trade journals.

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

ANSWER:

NARCO objects to this question in that it is overly broad, oppressive, unduly burdensome, vague, and seeks information which is not relevant or reasonably calculated to lead to admissible evidence because it is not limited to a relevant period of time, because it is not limited to relevant work locations, and because it is not limited to relevant products. NARCO also objects to this question to the extent that it may call for confidential, privileged or trial preparation materials. Without waiving the foregoing objections, NARCO states that it had no reason to believe that there were potential health hazards associated with its products containing asbestos, because of their small percentage asbestos component, their use primarily in wet or encapsulated form, this

defendant's assumption of safe work practices by its industrial customers and their employees' unions, and because of the change in form of asbestos under heat. Therefore, NARCO had no reason to believe such tests were required and none were done.

32. For each test described in Interrogatory No. 31, please give the name of the person conducting the test, the date of the test, and attach true copies of any documents, including but not limited to, reports, findings or memoranda concerning such tests or studies.

ANSWER:

See Response to Interrogatory No. 31.

33. Please state the year that Defendant was first advised of either threshold limit values or maximum allowable concentrations of both asbestos dust and total dust by the American Conference of Governmental Industrial Hygienists and state the name of the employee/official of the company receiving such advice.

ANSWER:

NARCO objects to this question in that it is overly broad, unduly burdensome, and seeks information which is not relevant or reasonably calculated to lead to admissible evidence because it is not limited to a relevant period of time. Without waiving the foregoing objections, NARCO states that Curtis Horton, former industrial hygienist for North American Refractories Company, became aware of the threshold limit values published by the ACGIH in the 1970s.

34. Does Defendant maintain a library dealing with industrial hygiene, medicine, safety and engineering and/or research? If so, state:
- (a) The date each such library was established;
 - (b) The location of each library;
 - (c) The name(s) of the librarian(s) since 1930;
 - (d) List all journals subscribed to by you concerning asbestos, industrial hygiene, medicine, safety, and/or engineering;

- (e) List all books and articles dealing with asbestos and asbestos-related diseases and the date acquired.

ANSWER:

NARCO objects to this Interrogatory as it is overly broad, unduly burdensome, oppressive and not reasonably calculated to lead to the discovery of admissible evidence in that it does not relate to relevant time periods and relevant publications. Without waiving the foregoing objections, NARCO states that it has maintained some form of library or collection of materials which pertain to its refractory business as a whole. This Defendant has had scientific product research facilities beginning at Lock Haven, Pennsylvania beginning in 1929, then at Curwensville, Pennsylvania in 1958, and then finally a technical center was established at State College, Pennsylvania in 1982. There is no medical research department at North American Refractories Company.

35. Did Defendant, in the 1920s or 1930s, commission or participate in the arrangements with metropolitan Life Insurance Company for studies at the Trudeau Foundation at Saranac Lake, New York, concerning the effect of inhalation or ingestion of asbestos fibers upon human and/or animal bodies?

ANSWER:

NARCO objects to this question in that it is overly broad and seeks information which is not relevant or reasonably calculated to lead to admissible evidence because it is not limited to a relevant period of time and because it is not limited to relevant asbestos-containing products. Without waiving the foregoing objections, NARCO states that it did not participate in these studies but has learned that the records of the Trudeau Foundation/Saranac Lake reveal that North American Refractories Company made a \$25 contribution in 1934. Defendant can neither admit or deny the accuracy of those records and has no information about the circumstances of any such contribution.

36. When was Defendant first aware of reports of studies of the Trudeau Foundation at Saranac Lake, New York entitled "Effects of the Inhalation of Asbestos Dust in the Lungs of Asbestos Workers" by A.J. Lanza, Assistant Medical Director published in the J. Public Health Report, Vol. 50, No. 1, dated January 4, 1935 ("Lanza Report")?

ANSWER:

To the best of this Defendant's knowledge, information and belief, it has never acquired any knowledge of the specific contents of this article.

37. Please state whether the Defendant at any time has been a member of any "trade organization" or "trade association" composed by other manufacturers, miners, distributors, and/or sellers of asbestos-containing products and, if so, please identify the name and address of each such association or organization, the dates of membership, and the names of any publications issued or written by such association or organization.

ANSWER:

NARCO objects to this Interrogatory as overly broad, irrelevant, unduly burdensome and oppressive. Without waiving the foregoing objection, NARCO states that it has been a member of the following organizations:

- (a) Iron and Steel Institute, 1970 to present;
- (b) The Refractories Institute, 1951 to present; and
- (c) Industrial Health Foundation, 1980 to present.

By way of further answer, NARCO has become aware that alleged records of the I.H.F. show that North American Refractories Company was a member of the I.H.F. in 1943, 1944, 1945 and 1946; however, this Defendant has no personal knowledge of this membership and can neither admit or deny the authenticity, truthfulness or genuineness of the I.H.F. records.

38. With respect to each trade organization or association listed in answer to Interrogatory No. 37, please state whether the minutes of the group's meetings and any correspondence between the members of such groups concerning the hazards of asbestos exposure are available.

ANSWER:

NARCO objects to this Interrogatory as overly broad, unduly burdensome and oppressive. To respond to this question would require an unreasonable search of this defendant's records. Without waiving such objections, NARCO states that it has conducted a search of its records and has identified those documents presented in Exhibit E of this Defendant's Responses to Request for Production as responsive to Plaintiff's question.

39. Please identify by name the technical and trade association periodicals to which the Defendant subscribed, and state whether Defendant had knowledge of any articles being

printed, or withheld from printing, in said periodicals pertaining to the potential hazards of asbestos. If so, please state the following:

- (a) The title of each such article;
- (b) The periodical in which each such article was published;
- (c) The date each such article was published;
- (d) A detailed explanation of the reason for withholding any such article for printing;
- (e) Produce documentation which refers, alludes or mentions articles which were withheld for publication.

ANSWER:

NARCO objects to this interrogatory as overly broad, vague, unduly burdensome, irrelevant, and oppressive. To respond to this question would require an unreasonable search of this defendant's records. Without waiving the foregoing objection, NARCO refers Plaintiff to Response to Interrogatory No. 30.

40. Please state whether, prior to 1975, the Defendant sponsored or attended any meeting, seminar, conference, convention, or legislative hearing where the subject of occupational health and exposure to asbestos was discussed and, if so, please state the date and place of such meeting and the name and address of any speakers or participants.

ANSWER:

Upon reasonable investigation, NARCO is unaware of either sponsoring or attending any meetings, seminars, conferences, conventions or legislative hearings where the subject of occupational health and exposure to asbestos were discussed prior to 1975.

WARNINGS/SALES PROMOTION

41. As to each product listed in response to Interrogatory No. 5, please state whether Defendant, at any time, published and/or distributed any printed materials, including but not limited to brochures, pamphlets, catalogs, packaging or other written materials of any kind or character that contain any warnings, cautions, caveats or directions concerning the possible health effects of the products on a person. If so, please state as to each product:

- (a) The name of each relevant product;
- (b) The wording of each such warning;
- (c) A description of each such printed material;
- (d) The method used to distribute the warning to persons who are likely to use the products;
- (e) The date each such warning was issued;
- (f) Whether any warning accompanied any of your asbestos-containing products' sales literature, handout or pamphlets;
- (g) Please attach a copy of the warning and date said warning was issued;
- (h) The name, address, and job classification of each person who presently has possession of the above-described documents;
- (i) The name or names and addresses of the company who provided, produced, or manufactured the boxes or containers on which the warning appeared and dates these boxes with the warnings appeared.

ANSWER:

NARCO objects to this interrogatory on the grounds that it is vague, ambiguous and seeks information not reasonably calculated to lead to the discovery of admissible evidence. Defendants further object to this interrogatory on the grounds that it assumes that a warning was required for its asbestos-containing products. Without waiving the foregoing objections, NARCO states that it provided general instructions to all of its customers, setting forth instructions on the uses and applications of its refractory products. NARCO also states that it had no reason to believe that there were any potential health hazards associated with the small number of asbestos-containing products it manufactured due to their small percentage asbestos content, their use primarily in wet or encapsulated forms, this defendant's assumption of safe work practices by its sophisticated industrial customers and its employees' unions, and the change in form of asbestos under heat. Since defendant believed that warnings were not necessary, none were placed on its products or the packaging. Warning labels were provided to this defendant by Eagle Picher for its One Cote and Super 66 cement sold under a relabeling agreement by this defendant as UNICOTE and STAZ-ON. These warnings were placed on the packaging for those products. This defendant has no records regarding the Eagle Picher product warning; however, this defendant believes that Eagle Picher began placing warnings on the relabeled products in approximately 1964. Counsel for this

defendant has received records pertaining to Eagle Picher product warnings in other litigation which are attached as Exhibit D to its Response to Request for Production of Documents.

42. Has sales material been prepared by Defendant or its agents for purposes of marketing or advertising the asbestos products listed in answer to Interrogatory No. 5? If so, please state:
- (a) The name and address of each person or entity who prepared same;
 - (b) The name, address and job title of each person who presently has possession of same;
 - (c) The date same was prepared;
 - (d) The media used to disseminate the sales material.

ANSWER:

NARCO objects to this Interrogatory as overly broad, unduly burdensome, oppressive and not reasonably calculated to lead to the discovery of admissible evidence in that it does not relate to relevant time periods or relevant products. Without waiving the foregoing objections, NARCO refers Plaintiff to Exhibit A in Defendant's Response to Request for Production of Documents. By way of further answer, see attached Exhibit D.

43. Has any written material of any kind or character been prepared by Defendant, Defendant's predecessor or any of Defendant's subsidiary companies or their agents indicating how the products listed in answer to Interrogatory No. 5 should be used or maintained by the ultimate user? If so, please state the following:
- (a) The name, address and job classification of each person who prepared same;
 - (b) The name, address and job classification of each person who presently has possession of same;
 - (c) The dates and manner in which said material was distributed to purchasers of the products in answer to Interrogatory No. 5.

ANSWER:

See Response to Interrogatory No. 42.

44. Was any written material of any kind prepared by Defendant and distributed to those individuals listed in response to Interrogatory No. 9? If so, please state the following:

- (a) Identify the written material by content and date;
- (b) To whom was it delivered?

ANSWER:

Not applicable. See Response to Interrogatories No. 9 and No. 8.3. By way of further answer, NARCO states that some of the promotional materials attached hereto as Exhibit D may have been given to the ARMCO facilities. It cannot determine what, if anything, was given to ARMCO.

45. Does Defendant contend that asbestos-containing products can be manufactured so as to eliminate all potential health hazards to persons working with or around, installing or applying same? If so, please state the following:

- (a) The date that Defendant first determined that another product could be used in place of asbestos;
- (b) The chemical of the substitute;
- (c) Whether the substitute is suitable for the purpose for which they are to be used;
- (d) Whether Defendant used the substitute for asbestos to 1971;
- (e) Whether Defendant ever used the substitute for asbestos for high or low heat insulation.

ANSWER:

NARCO objects to this Interrogatory as overly broad, unduly burdensome, oppressive and not reasonably calculated to lead to the discovery of admissible evidence in that it does not relate to relevant time periods and it does not relate to relevant products.

Without waiving the foregoing objections, NARCO refers Plaintiffs to its Response to Interrogatory No. 7.

46. Did Defendant give any warnings to ARMCO/A.K. Steel Middletown Plant and/or ARMCO A.K. Steel Hamilton Plant regarding the potential health hazards of any product listed in response to Interrogatory No. 5. If yes, please state:
- (a) Name of person most knowledgeable about this communication;
 - (b) Name of person at ARMCO/A.K. Steel Middletown Plant and/or ARMCO/A.K. Steel Hamilton Plant most knowledgeable about this communication;
 - (c) Dates of each communication;
 - (d) Contents of each communication.

ANSWER:

NARCO objects to this interrogatory on the grounds that it is vague, ambiguous and seeks information not reasonably calculated to lead to the discovery of admissible evidence. Defendants further object to this interrogatory on the grounds that it assumes that a warning was required for its asbestos-containing products. Without waiving the foregoing objections, NARCO states that it provided general instructions to all of its customers, setting forth instructions on the uses and applications of its refractory products. NARCO also states that it had no reason to believe that there were any potential health hazards associated with the small number of asbestos-containing products it manufactured due to their small percentage asbestos content, their use primarily in wet or encapsulated forms, this defendant's assumption of safe work practices by its sophisticated industrial customers and its employees' unions, and the change in form of asbestos under heat. Since defendant believed that warnings were not necessary, none were placed on its products or the packaging. Warning labels were provided to this defendant by Eagle Picher for its One Cote and Super 66 cement sold under a relabeling agreement by this defendant as UNICOTE and STAZ-ON. These warnings were placed on the packaging for those products. This defendant has no records regarding the Eagle Picher product warning; however, this defendant believes that Eagle Picher began placing warnings on the relabeled products in approximately 1964. Counsel for this defendant has received records pertaining to Eagle Picher product warnings in other litigation which are attached as Exhibit D to its Response to Request for Production of Documents.

KNOWLEDGE OF PREVIOUS INJURIES

47. Did any person, prior to 1970, file a claim against any Workers' Compensation carrier covering Defendant alleging that he or she contracted a disease as a result of exposure to asbestos? If so, please state the following:
- (a) A list of each such claim by claimant's name, date filed, the caption and jurisdiction involved;
 - (b) The disease alleged in each such claim;
 - (c) A brief summary of the disposition of each such claim; and
 - (d) The name, address and job classification of the person or persons having custody of the records pertaining to each such claim.

ANSWER:

NARCO objects to this Interrogatory as overly broad, unduly burdensome, oppressive, and not reasonably calculated to lead to the discovery of admissible evidence in that it does not relate to relevant periods of time, relevant product exposure, relevant work sites, and relates to Defendant's employees rather than end-users of its products. Without waiving the foregoing objections, no.

48. Did Defendant receive notice prior to 1968 that any person was claiming injury as a result of using asbestos products manufactured, sold, installed, and/or distributed by Defendant? If so, please 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 representing the individuals making such claims;
 - (f) The style and court number of each such claim;
 - (g) The resolution of each claim.

ANSWER:

NARCO objects to this Interrogatory as overly broad, unduly burdensome, oppressive, and not reasonably calculated to lead to the discovery of admissible evidence in that it does not relate to relevant periods of time, relevant product exposure, relevant work sites. Without waiving the foregoing objection, no.

PLAINTIFF/DECEDENT

49. Has Defendant obtained statement from any witnesses including the Plaintiffs? If so, please:

- (a) list each witness who has given a statement and the name, address, and job title of each person having custody of any such statement.

ANSWER:

NARCO objects to this Interrogatory as overly broad, burdensome, oppressive, and vague with respect to the terms "statement" and "any witness," and therefore incapable of a complete and accurate response. Without waiving the foregoing objection, NARCO states that discovery is continuing and all plaintiffs and witnesses have not been identified and/or deposed.

50. Do you contend that the Plaintiff/Decedent improperly used those products listed in response to Interrogatory No 5? If so, please set out in detail in what respect the product was improperly used.

ANSWER:

NARCO objects to this Interrogatory as overly broad, burdensome, vague and not reasonably calculated to lead to the discovery of admissible evidence in that it does not relate to relevant time periods and products. NARCO states that it is incapable, at this time, to provide a fair and accurate response. Discovery is continuing and all plaintiffs and witnesses have not yet been deposed.

51. As to the ARMCO/A.K. Steel Middletown Plant and/or ARMCO/A.K. Steel Hamilton Plant, and as to each Plaintiff/Decedent, please state whether Defendant contends that there was any substance other than asbestos which contributed or caused Plaintiff/Decedent's injuries. If your answer is yes, please state the following:

- (a) The facts upon which you rely;
- (b) The identity of the sources upon which you rely which substantiate these facts.

ANSWER:

NARCO objects to this Interrogatory as overly broad, burdensome, vague and not reasonably calculated to lead to the discovery of admissible evidence in that it does not relate to relevant time periods and products. NARCO states that it is incapable, at this time, to provide a fair and accurate response. Discovery is continuing and all plaintiffs and witnesses have not yet been deposed.

RESPIRATORS

52. Would any respirator, mask or other breathing devices prevent inhalation of the asbestos dust and fibers contained in products listed in answer to Interrogatory No. 5? If so, state:
- (a) When the respirator was sold;
 - (b) A detailed description of such respirator or other breathing devices, including name of manufacturer and model number;
 - (c) The basis of your claim that such respirators or other breathing devices will prevent the inhalation of such dust and fibers;
 - (d) Identify any tests performed regarding the efficaciousness of such respirators and other breathing devices in preventing the inhalation of asbestos dust and fibers including date, title, author and number;
 - (e) List all documents which mention, allude or refer to tests performed on breathing devices which prevented the inhalation of asbestos dust and/or fibers.

ANSWER:

NARCO objects to this Interrogatory as overly broad, burdensome, vague and not reasonably calculated to lead to the discovery of admissible evidence in that it does not relate to relevant time periods and products. Without waiving the foregoing objection, NARCO states that it had no reason to believe that there were health hazards associated with its small number of asbestos-containing products, their small percentage asbestos content, their use primarily in wet or encapsulated form, and the breakdown of asbestos

under heat. Therefore, no tests of respirators were considered necessary and none were performed.

53. Does Defendant expect to call expert witnesses at the trial of this case? If so, please state the following:

- (a) Their identity, last known address;
- (b) The subject matter on which the expert is expected to testify;
- (c) The expert's specific conclusion and specific opinions and the specific basis therefore;
- (d) The expert's qualifications to render the opinions set forth above;
- (e) Whether any person identified in subparagraph (a) above has provided a report or other documentation to you, and if so, identify such document or report;
- (f) Identify all documents that you have provided to each person identified in response to subparagraph (a) above; and
- (g) Describe in detail the education and work history of, and identify any books, treaties, article, 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 answer.

ANSWER:

As of this date, this Defendant has not determined who it intends to call as expert witnesses at the time of trial. When so determined, all witnesses will be identified in accordance with the applicable procedural rules.

54. Please state the name and last known address of each expert witness who is not retained or employed for that purpose who is an employee of Defendant and will render an opinion within his expertise at the time of trial.

ANSWER:

As of this date, this Defendant has not determined who it intends to call as expert witnesses at the time of trial. When so determined, all witnesses will be identified in accordance with the applicable procedural rules.

55. Does Defendant admit that service of process was properly had on it in these cases? If not, please state why.

ANSWER:

Yes.

56. Does Defendant have policies of insurance that might cover the claims that have been made by the Plaintiffs herein?
- (a) If so, please list the name of each insurance carrier who may have coverage, the amount of such coverage, and the dates of each such policy.

ANSWER:

NARCO objects to this question as overly broad, burdensome, beyond the scope of proper discovery, and irrelevant. Without waiving the foregoing objections, NARCO states that it is adequately insured with respect to Plaintiffs' claims.

57. Please state the name and address of each person who has knowledge of relevant facts regarding claims and defenses of this lawsuit.

ANSWER:

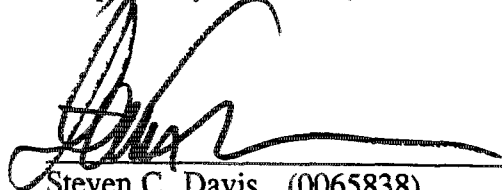
NARCO objects to this Interrogatory as overly broad, unduly burdensome, oppressive and vague. Without waiving the foregoing objections, NARCO refers Plaintiffs to attached Exhibit C and further states that discovery is continuing and that this response and list will be supplemented.

58. State the last date that this Defendant sold, distributed, manufactured, installed, and/or otherwise placed asbestos-containing products into the stream of commerce.

ANSWER:

NARCO objects to this Interrogatory as overly broad, unduly burdensome, oppressive, and not reasonably calculated to lead to the discovery of admissible evidence in that it does not relate to relevant products or work sites. Without waiving the foregoing objection, NARCO refers Plaintiffs to attached Exhibit A which identifies the dates which certain NARCO products contained asbestos.

Respectfully submitted,



Steven C. Davis (0065838)
Barron, Peck & Bennie
1400 Fourth & Vine Tower
One West Fourth Street
Cincinnati, Ohio 45202-3618
(513) 721-1350

VERIFICATION

David M. Wehrle, Treasurer of North American Refractories Company, being before me first duly sworn, upon his oath, says that he has read the foregoing North American Refractories Company's Supplemental Responses to Plaintiffs' Master Set of Interrogatories Directed to Defendants, and that the facts and allegations therein contained are true except insofar as they are therein stated to be upon information, and where stated to be upon information, he believes them to be true.



David M. Wehrle

Taken, subscribed, and sworn to
before the undersigned this

28th day of

July, 1997



Notary Public

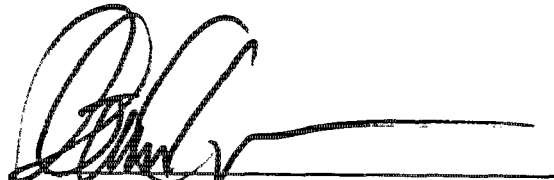
My Commission Expires: June 12, 2000

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing
Supplemental Response to Plaintiffs' Master Set of Interrogatories has been
sent, via first class mail, postage prepaid, on this 15th day of
August, 1997 to the following Plaintiffs' counsel:

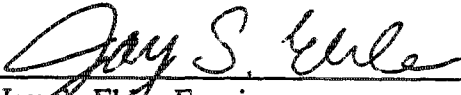
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Dallas, TX 75219

Andrew S. Lipton, Esquire
MANLEY, BURKE, LIPTON & COOK
225 West Court Street
Cincinnati, OH 45202


Steven C. Davis, Esquire

VERIFICATION

JAY S. EHLE, General Counsel and Secretary of North American Refractories Company, being before me first duly sworn, upon his oath, says that he has read the foregoing **North American Refractories Company's Responses to Plaintiffs' Master Set of Interrogatories**, and that the facts and allegations therein contained are true except insofar as they are therein stated to be upon information, and where stated to be upon information, he believes them to be true.


Jay S. Ehle, Esquire

Taken, subscribed, and sworn to
before the undersigned this

30th day of

April, 1997


Notary Public

My Commission Expires: June 12, 2000