

STATE OF MICHIGAN

IN THE CIRCUIT COURT FOR THE COUNTY OF MACOMB

KENNETH GRIMM, Personal Representative of the ESTATE OF HELEN GRIMM, Deceased,

Plaintiff,

Case No. 83-2872-NO

vs.

Hon. Raymond R. Cashen

FORD MOTOR COMPANY, a Foreign Corporation, UNION CARBIDE CORPORATION, a Foreign Corporation, DIAMOND SHAMROCK CORPORATION, a Foreign Corporation, STAUFFER CHEMICAL COMPANY, a Foreign Corporation, TENNECO CHEMICALS, INC., a Foreign Corporation, UNIROYAL, INC., a Foreign Corporation, ALLIED CHEMICAL CORPORATION, a Foreign Corporation, HOOKER CHEMICALS & PLASTICS CORP., a Foreign Corporation, FIRESTONE TIRE & RUBBER COMPANY, a Foreign Corporation, BFGOODRICH COMPANY, a Foreign Corporation, GOODYEAR TIRE & RUBBER COMPANY, a Foreign Corporation, Jointly and Severally,

Defendants.

ANSWERS TO INTERROGATORIES

NOW COMES Defendant, BFGoodrich Company, by and through its attorneys, BARBIER, GOULET, PETERSMARCK, TOLLESON & MEAD, P.C., and in answer to Plaintiff's Interrogatories, states as follows:

QUESTION 1. When did the Defendant first manufacture any "PVC product"?

ANSWER 1. Mid 1930's.

QUESTION 2. When did the Defendant first sell any "PVC product"?

ANSWER 2. Mid 1930's.

LAW OFFICES
BARBIER, GOULET, PETERSMARCK, TOLLESON & MEAD, P. C.
34820 HARPER AVENUE • MT. CLEMENS, MICHIGAN 48043 • (313) 792-4000

20209001

BFG02383

QUESTION 3. Does the Defendant now manufacture any "PVC product"?

ANSWER 3. Yes.

QUESTION 4. Does the Defendant now sell any "PVC product"?

ANSWER 4. Yes.

QUESTION 5. For each "PVC product" directly or indirectly made available to the Mt. Clemens Plant of the Ford Motor Company, for the years 1968 through 1976 state:

- (a) The Identification and/or Specification Number of the "PVC product".
- (b) The year or years each "PVC product" was sold to the customer.
- (c) The chemical composition of each "PVC product".
- (d) The quantity by year of each "PVC product" sold to Ford Motor Company.

ANSWER 5.

- (a) Geon^R 101, 102EPF-5, 121, 135F-1, 400X47, 576, 580X12, 109, 8750, 575X43, 92, 93, 99, 90X6, 103EPF-71, 130X17, 124F-1, 130X17, 103EP, 135.
- (b) Geon^R 101 1968 through 1972
 102EPF-5 1968, 1969, 1975, 1976
 121 1968, 1969
 135F-1 1968
 400X47 1968 through 1972
 576 1968
 580X12 1968 through 1971,
 (1973, 1974)
 109 1969
 8750 1969
 575X43 1970
 92 1971, 1973
 93 1971, 1972
 99 1971, 1973
 80X6 1971
 103EPF-71 1972
 130X17 1972, 1973, 1974
 124F-1 1973, 1974
 103EP 1976
 135 1976
 85766 1972

- (c) Polyvinyl Chloride homopolymers and copolymers.

(d)	<u>Product</u>	<u>Pounds</u>
<u>1968</u>	Geon ^R resin 101	241,000
	Geon ^R resin 102EPF-5	883,000
	Geon ^R resin 121	110,000
	Geon ^R resin 135F-1	16,000
	Geon ^R resin 400X47	5,100
	Geon ^R latex 576	107,940
	Geon ^R latex 580X12	22,369
<u>1969</u>	Geon ^R resin 101	280,000
	Geon ^R resin 102EPF-5	40,000
	Geon ^R resin 109	4,000
	Geon ^R resin 121	13,320
	Geon ^R resin 400X47	22,000
	Geon ^R latex 580X12	255,041
<u>1970</u>	Geon ^R resin 101	240,000
	Geon ^R resin 400X47	14,950
	Geon ^R 8750 Gray 259	300
	Geon ^R latex 575X43	292
	Geon ^R latex 580X12	241,034
<u>1971</u>	Geon ^R resin 101	287,900
	Geon ^R resin 92	50
	Geon ^R resin 93	400
	Geon ^R resin 99	50
	Geon ^R resin 80X6	1,000
	Geon ^R resin 400X47	25,000
	Geon ^R latex 580X12	275,410
<u>1972</u>	Geon ^R 85766 Natural 021	1,900
	Geon ^R resin 101	94,700
	Geon ^R resin 103EPF-71	496,340
	Geon ^R resin 93	170,840
	Geon ^R resin 130X17	720
	Geon ^R resin 400X47	70,000
<u>1973</u>	Geon ^R resin 92	22,800
	Geon ^R resin 99	1,000
	Geon ^R resin 124F-1	120
	Geon ^R resin 130X17	80
	Geon ^R latex 580X12	152,946
<u>1974</u>	Geon ^R resin 124F-1	2,280
	Geon ^R resin 130X17	80
	Geon ^R latex 580X12	116,141
<u>1975</u>	Geon ^R resin 102EPF-5	380,100

20209003

1976

Geon ^R resin 102EPF-5	2,314,990
Geon ^R resin 103EP	299,470
Geon ^R resin 135	40,000

QUESTION 6. For each "PVC product" manufactured and/or sold to the Mt. Clemens Plant of the Ford Motor Company for the years 1968 through 1976 state:

- (a) The generic name of the "PVC product".
- (b) The brand or Trade name and description of each product.
- (c) The intended use of each product.
- (d) The form in which the product is sold, e.g., bags, drums, boxes, etc.
- (e) Does the "PVC product" have to be mixed, altered, or compounded, with other products or materials? If so, describe what the user had to do to process the product, before applying and using the product.

ANSWER 6.

- (a) Polyvinyl Chloride.
- (b) Geon^R.
- (c) Diverse variety of uses and applications as determined by the purchaser.
- (d) Multiwall bags, semi-bulk boxes, or bulk.
- (e) Yes. Although the specific details of Ford Motor Company's manufacturing processes are unknown, defendant is informed and believes that Ford Motor Company mixed the PVC products with other materials to produce desired end product.

QUESTION 7. For each "PVC product" referred to in Answers to Interrogatory 6, state:

- (a) The date the product was first commercially sold.
- (b) The date and place where the product was designed or developed.
- (c) The identity and present whereabouts of the person or persons responsible for the design or development of the product.
- (d) The identity and present location of all records describing and dealing with the design and development of the process.
- (e) The identity and present location of all records dealing with the testing of the product.
- (f) The professional qualifications of the person or persons responsible for the design or development of the process, including:
 - 1. His education;

2. His experience in various professional positions that he has held in the past with your company or any previous employer;
3. Whether he has had any special training in this specific area of "PVC product" use;
4. Whether he is licensed by any government agency or holds membership in a professional society or association;
5. Whether he has published any papers or books or given lectures on subjects dealing with use of "PVC products", and if so, the title of each paper and the date and place of publication;
6. What trade or professional journals he subscribes to or reads on a regular basis;
7. Those fields in which he feels that he qualifies as an expert.

ANSWER 7.

- (a) All products referred to and answered in Interrogatory No. 6 were first sold during or prior to 1968 with the exceptions of Geon^R 130X17 (1970) and Geon^R 80X6 (1970).
- (b) The products were developed primarily at Avon Lake Technical Center, Avon Lake, Ohio starting in the early 1930's and continuing to date.
- (c) This development was and is a group effort with no one particularly identifiable individuals.
- (d) BFGoodrich Chemical Group headquarters, 6100 Oak Tree Blvd., Cleveland, Ohio 44131 and Avon Lake Technical Center, Avon Lake, Ohio 44012.
- (e) Avon Lake Technical Center and the manufacturing facility of the particular product.
- (f) See answer to Interrogatory No. 7(c).

QUESTION 8. With respect to each "PVC product", state whether you gave any consideration to the possibility of inhalation of the chemical or chemical combinations, and the possible injurious effect by users of the product and residents of the adjacent residential neighborhood. If so:

- (a) Describe, in detail, the factors considered.
- (b) Give the date, location and names of participants at each meeting where the matter was discussed or considered.
- (c) Identify each document recording such consideration by date, title, file designation, author and present location.

ANSWER 8(a)-(c) Yes. However the PVC products are stable polymers with so little residual monomer that they are not considered to be significant health hazards, apart from the normal problems which would be created if a user generates and does not control excessive heat or dust in its manufacturing process.

QUESTION 9. With respect to each "PVC product" referred to in Answer 6, state whether any instructions, operating instructions or warnings were given to purchasers or users of the product, or residents of the adjacent residential neighborhood. If so, state separately for each product:

- (a) The name, title and present address of the author of each such warning and/or instructions.
- (b) The verbatim content of each warning or instructions.
- (c) The inclusive dates of use of each such warning or instruction.
- (d) Whether the instructions were communicated or delivered to the distributor and/or purchaser of the products, and if so, state the name, address and telephone number of the persons who communicated and who received the instructions and the date delivered to the purchaser.
- (e) Whether the warning and instructions were attached to the product when sold and/or delivered by you, and if so, the method of attachment.
- (f) Whether you have a copy of the warning and/or instructions in your possession at the present time, and if so, where it is located.
- (g) Whether any studies, evaluations or analyses were conducted by you prior to your use of each warning and/or instructions. If so, identify the study by date, author, title and file number and state its present location.

ANSWER 9. A search for documents is currently in process. This answer will be supplemented.

20209006

QUESTION 10. Have you ever imposed or considered any restriction or limitation on the use of the "PVC product" referred to in Answer 6? If so, state separately for each product:

- (a) The verbatim content of each limitation indicating which product is applied to.
- (b) The date it was first imposed.
- (c) The reason for imposing the restriction or limitations.
- (d) If the reason for the restriction is stated in any document, identify each document by date, author, title and state where it is presently located.
- (e) The person responsible for imposing the restriction or limitation.
- (f) If the limitation or restriction was communicated to purchasers of the product, state how this was communicated and if in writing, identify the communication and attach a copy to your answer.
- (g) If not imposed, state why not.

ANSWER 10. See answers to Interrogatory Nos. 9 and 11.

QUESTION 11. At the time of the development of each "PVC product" listed in Answer 6, did you attempt to determine whether the product complied with the then applicable safety standards, safety orders, regulations, laws, rules, and design requirements of any city, county, state, or the Federal Government of the United States?

- (a) If the answer is in the negative, please state the reason for not conducting such an analysis and identify the name of the person deciding not to conduct the analysis.
- (b) If the answer is in the affirmative, identify those safety standards, safety orders, regulations, laws, rules or other ordinances which you claim you considered.

ANSWER 11. There are no standards specifically regulating PVC resins. BFGoodrich did consider standards and regulations in effect at the time of product development which addressed the residual VCM monomer content in PVC products.

- (a) Not applicable.
- (b) OSHA 1910.1017 (1974) and the previous Emergency Temporary Standard. Also the OSHA Nuisance Dust Standard.

QUESTION 12. At the time of the development of each "PVC product" listed in Answer 6, did you attempt to determine whether the product complied with any applicable safety standards, orders or rules, regulations or design requirements promulgated by any professional society or association?

- (a) If the answer is in the negative, please state the reasons for not conducting such an analysis and identify the name of the person deciding not to conduct the analysis.
- (b) If the answer is in the affirmative, identify the safety standards, safety orders, rules, regulations, which you claim you considered by naming the title, number, page and date of the regulation and identifying the place where a copy can be obtained of said regulations.

ANSWER 12. Yes. See answer to Interrogatory No. 11. See also the 500 ppm threshold limit for VCM established by the American Conference of Governmental and Industrial Hygienists in 1961, and revised to 200 ppm in 1974.

QUESTION 13. With respect to each "PVC product" listed in Answer 6, state whether there has been any change, alteration or modification (hereinafter collectively called "change") from when it was first developed to the present. If so, state:

- (a) The nature of each such change.
- (b) The reason for such change.
- (c) The details of how the changed product differed from the original product.
- (d) The names of each person recommending and/or approving such change.
- (e) The date each change was accepted by you and made commercially available.
- (f) Whether there were any studies, evaluations, or tests made in connectin with such change, and if so, identify each such study by title, date, name of author and present location and custodian.

ANSWER 13. The Company maintains an on-going program to improve its products. As part of this program, numerous small changes have been made through the years. These changes are checked for effect on resin physical properties and effect on customer specification. Any major changes in the resin are accompanied by a new product identification number.

QUESTION 14. Did Defendant ever recommend to purchasers or users of the "PVC product" listed in your Answer 6 that respirators, protective masks and/or protective clothing be worn with the product, or that ventilation and emission equipment be installed? If so, state:

- (a) The date or dates when such recommendation was made to customer, or any other users.
- (b) The date or dates when each such recommendation was made to each user.
- (c) Who made the recommendation?
- (d) Who received the recommendation?
- (e) If oral, the manner and substance of the recommendation.
- (f) If written, identify the document by title, date, file designation and author of each such recommendation and the location and present custodian of each such recommendation.

ANSWER 14. See answers to Interrogatory Nos. 8 and 9. The VCM standard by OSHA regulated all personal protective measures, including respiratory devices and clothing requirements. If the VCM concentrations exceeded the limits set forth in the standard, respiratory protection was required.

QUESTION 15. Have you undertaken or financed any studies to determine what type of respirators, protective masks, ventilation equipment and emission equipment would either eliminate or afford maximum protection against the inhalation of "VCM"? If so, state:

- (a) Who made the study?
- (b) When was the study made?
- (c) What was the result of the study?
- (d) If the result was written, identify the document by title, date, file designation and author of each such study, and the locations and present custodian thereof.

ANSWER 15. Yes.

- (a) The studies were conducted by various BFGoodrich employees from the health, environmental affairs, chemical and laboratory areas.
- (b) 1974.
- (c) The study led to the use of air-fed respirators for BFGoodrich employees exposed to VCM above various threshold levels.
- (d) Documentation pertaining to these studies is located at the Avon Lake Technical Center.

QUESTION 16. To produce the various "PVC products", have you also carried out the polymerization reaction to produce the required PVC?

- (a) Have you ever purchased the PVC?
- (b) Please indicate dates when such purchasing started.
- (c) What percentage of total usage was purchased?

ANSWER 16. Yes.

- (a) No.
- (b) Not applicable.
- (c) Not applicable.

QUESTION 17. Do any of the various molecular weight grades of "PVC" contain any VCM?

- (a) If they do, please indicate the amounts, going back to at least 1965 and preparing an illustration of any variation in later years.

ANSWER 17. Yes. No Quality Control program existed for the monitoring of VCM content of Geon^R PVC resins during the period from 1965 to approximately 1974. Information from 1974 will be supplemented.

20209010

QUESTION 18. Do any of the "PVC products" release detectable amounts of VCM at room temperature (approx. 75 degrees).

- (a) If the answer is Yes, please indicate which of the products.

ANSWER 18. See Exhibit A attached hereto.

QUESTION 19. For each of the "PVC products" please indicate the temperature at which detectable amounts of VCM are released.

- (a) If they do, please indicate the amounts going back to at least 1965 and preparing an illustration of any variation in later years.

ANSWER 19. See Exhibit B attached hereto.

QUESTION 20. To produce the various "PVC products", have you also carried out the polymerizatio reaction to produce the required PVC?

- (a) Have you ever purchased the PVC?
(b) Please indicate dates when such purchasing started.
(c) What percentage of total usage was purchased?

ANSWER 20. See answer to Interrogatory No. 16.

QUESTION 21. Please indicate which of your "PVC products" conforms to which of the customer's specifications.

ANSWER 21.	<u>Geon^R</u>	<u>Ford Spec No.</u>
	101	M96F-60
	102EPF-5	M96F-60A
	121	M96F-160
	135F-1	M96F-181
	400X47	No code assigned
	576	No code assigned
	580X12	No code assigned
	109	M96F-63
	8750 Gray 259	No code assigned
	575X43	No code assigned

20209011

92	M96F-60A
93	No code assigned
99	M96F-63
80X6	M96F-205
130X17	No code assigned
85766 Natural 021	No code assigned
124F-1	No code assigned
103EPF-71	M96F-51A
103EP	M96F-51A
135	M96F-181

QUESTION 22. Have you undertaken or financed any tests or studies to determine what type of ventilator or ventilating system would eliminate or decrease the number of "VCM" monomer ejected or produced by the "PVC product"?

- (a) Who made the test or study?
- (b) When was the test or study made?
- (c) What was the result of the study or test?
- (d) If the result was written, identify the document by title, dates, file designation and author of each such test or study and the location and present custodian thereof.

ANSWER 22. See answers to Interrogatory Nos. 18 and 19. See also Exhibit B.

QUESTION 23. Have you conducted any tests or research studies to limit the volatility and improve the heat stability of your "PVC product"?

- (a) If the answer is in the affirmative, give dates, name of tester, and why this study was conducted.
- (b) If the answer is in the negative, state why.

ANSWER 23. BFGoodrich maintains an on-going program to improve the heat stability of its products.

QUESTION 24. Has your company had as part of its processing, distribution, and sales of "PVC products" a system of inspections, relating to the safety to the users of the product.

20209012

- (a) If the answer is in the negative, please state the facts for not having such a system, and give the name, present address and telephone number of the person responsible on behalf of your company for making such a decision.
- (b) If the answer is in the affirmative, state:
 - 1. When the system was initiated;
 - 2. Who was responsible for initiating and overseeing the system;
 - 3. Describe the system used;
 - 4. If there are any documents describing the inspection system, identify each such document.

ANSWER 24. BFGoodrich has quality control and industrial hygiene systems to ensure that products introduced into the marketplace by BFGoodrich are commercially safe for reasonably anticipated applications by end users. Documentation pertaining to these systems is located at BFGoodrich Headquarters in Akron, Ohio, Chemical Group Headquarters and all production locations.

QUESTION 25. Were the "PVC products" sold, distributed or delivered to the customer directly or indirectly, subject to such a system of inspection? If so, describe the inspection system used.

ANSWER 25. The products are tested in accordance with quality control standards as outlined by the Company. The chief chemist at each production location is responsible for testing and retention of documents that exist.

QUESTION 26. Please state for each inspection of material sold, distributed or delivered to the customer.

- (a) The stage of production, processing and packing of the "PVC product" when such inspections were performed.
- (b) The name, present title and present address of the persons responsible for each and every inspection.

- (c) The present location of all notes and records for each such inspection.

ANSWER 26.

- (a) Initial inspections of raw materials are accomplished, while other inspections and quality control testing are done during the manufacturing process and before packaging.
- (b) The chief chemist at each production location.
- (c) Each production location.

QUESTION 27. State whether any such "PVC product" was rejected during the inspection process. If so, state what the reasons were for any such rejection.

ANSWER 27. Resins have been rejected as a result of inspections for not passing quality control criteria or for failing to satisfy a particular customer specification.

QUESTION 28. State whether any subsequent corrections, changes or modifications were made in your procedures as a result of a rejection made during the inspection of "PVC product" or materials sold and/or distributed to the customer.

ANSWER 28. BFGoodrich is continuously modifying and improving its procedures, particularly to conform to changes in customer specifications.

QUESTION 29. Identify all records of inspections and state the name, present address and telephone number of the custodian of such records, including notations or corrections to be made and whether or not the corrections were made.

- (a) If the answer to the foregoing interrogatory is all records of such inspections and corrections were oral communications, state the date, name of the person making the oral communication and the subject matter of each such communication.

ANSWER 29. See answer to Interrogatory No. 26.

QUESTION 30. State whether the "PVC products" were the subject of any type of advertisement, regardless of media, issued on behalf of your company. If so, state for each product:

- (a) The subject matter of the advertisement.
- (b) The media in which the advertisement was placed.
- (c) When the advertisement(s) was so placed.
- (d) The geographic area(s) the advertisement was used in.
- (e) Whether any photographs or diagrams were included in the copy of the advertisement.
- (f) Identify the advertisement by author, date and present location and custodian, and attach copies of all advertisements.
- (g) Was anyone, besides you, involved in the preparation of the copy for the advertisement, and if so, state such others name and address.

ANSWER 30. Yes.

- (a) Geon^R PVC Resin and Compounds.
- (b) Trade journals and business journals.
- (c) Continuous.
- (d) World-wide.
- (e) Yes.
- (f) BFGoodrich Advertising Department.
- (g) Griswold-Eshleman, 55 Public Square, Cleveland, Ohio.

QUESTION 31. State whether any brochures, writings, or other materials, written or photographic, were made available to distributors, ultimate users or the general public concerning the design, manufacture, distribution, selling, and/or use of the "PVC product". If so, for each such brochure or material:

- (a) State the purpose of the brochure and material.
- (b) When was the material accepted on behalf of the company for general distribution.
- (c) Give the name, present address, telephone number of the person responsible for the preparation and acceptance of the material for general distribution on behalf of the company.
- (d) Identify the brochure or material by author, date and present location and custodian, and attach copies of each.
- (e) Please attach a copy of the applicable aforementioned material to your answers.

ANSWER 31. Yes.

- (a) The Company prepares product data brochures to provide relevant information regarding the product to customers and potential customers.
- (b) Such brochures are periodically updated.
- (c) No one person authors product literature, it is a group effort. John Urbancic is currently responsible for the distribution.
- (d) BFGoodrich Chemical Group Headquarters.
- (e) BFGoodrich Chemical Group Headquarters.

QUESTION 32. Please indicate examples of your early awareness of the health hazards in the use of VCM containing materials, by stating:

- (a) When the findings were made available.
- (b) By whom these data were developed.
- (c) Was the information oral or written.
- (d) The precise nature of the findings.
- (e) If the findings were written, please attach copies to them.

ANSWER 32. See answer to Interrogatory No. 8. See also the answers to Interrogatory Nos. 18 and 19, concerning the residual VCM monomer in PVC products.

QUESTION 33. Please indicate examples of your early warnings of the possible health hazards in the use of your "PVC products" to your customer, by stating:

- (a) When the warnings were made.
- (b) Were the warnings oral or written.
- (c) The precise nature of the warnings.
- (d) If the warnings were written, please attach copies of them.

ANSWER 33. See answer to Interrogatory Nos. 8, 9, and 32.

QUESTION 34. Does the customer mix other ingredients with the purchased "PVC products" to make processing effective? If such mixing is done, please state:

- (a) What ingredients are mixed with each of the "PVC products".

20209018

BFG02398

- (b) What the proportions of the various ingredients in each of the mixtures are.
- (c) What the purpose of the ingredients are.

ANSWER 34. See answer to Interrogatory No. 6(e).

QUESTION 35. Please indicate examples of your early warnings to the customer of the possible release of VCM when heating the "PVC products" or the mixtures including the "PVC products", during the processing in the customer's factory, by stating:

- (a) When the warnings were made.
- (b) Were the warnings oral or written.
- (c) The precise nature of the warnings.
- (d) If the warnings were written, please attach copies of them.

ANSWER 35. See answer to Interrogatory No. 33.

QUESTION 36. Please indicate examples of your early warnings to the customer of the possible release of deleterious materials other than VCM when heating the "PVC products", or the mixture including the "PVC products", during the processing in the customer's factory, by stating:

- (a) When the warnings were made.
- (b) Were the warnings oral or written.
- (c) The precise nature of the warnings.
- (d) If the warnings were written, please attach copies of them.

ANSWER 36. See answer to Interrogatory No. 33.

QUESTION 37. Does your company recognize that "PVC products" are associated with liver cancer, brain cancer, breast cancer, hematolymphopoietic system cancer?

- (a) If your answer is "Yes", when did you come to the realization and what action, if any, did you take in response to it?
- (b) If your answer is "No", explain the basis for this answer and/or why no studies were made by your company to learn this fact and

to thereafter advise those exposed of the danger?

ANSWER 37. No.

- (a) Not applicable.
- (b) No epidemiological studies of workers involved in PVC product processing have shown abnormal incidences of liver cancer, brain cancer, breast cancer, hemato-lymphopoietic system cancer among such workers.

QUESTION 38. Does your company recognize that the physical and chemical properties of VCM persist unimpaired after being inhaled into the human body and do not eventually dissipate?

ANSWER 38. No.

QUESTION 39. State whether you had knowledge of any illness or death cases of liver cancer, brain cancer, breast cancer, hematomorphopoietic system cancer among your employees which are or may be attributable to the inhalation of VCM?

- (a) If so, please give the number, the name and address of such persons, together with the dates of treatment and the names and addresses of the doctors who administered treatment to such persons and reports of occupational disease furnished Industrial Commission of the states and attach copies of the latter.

ANSWER 39. Yes.

- (a) Medical details are on file at BFGoodrich Chemical Group Headquarters and the Medical Department at the production locations involved, and will be produced in accordance with a satisfactory protective agreement.

QUESTION 40. Do you have any statistical data showing the number of your employees who have been exposed to VCM for more than ten years who have contracted or died of liver cancer, brain cancer, breast cancer, hematomorphopoietic system cancer? If so, identify the data and provide the figures.

ANSWER 40. No.

QUESTION 41. Have any worker's compensation claims based on VCM exposure been filed against you? If so, state:

- (a) When and where the claims were filed.
- (b) The number of claims filed.
- (c) The outcome of the claims.

ANSWER 41. Yes.

- (a) Claims filed during 1974 through 1983 at BFGoodrich facilities in Louisville, Kentucky and Avon Lake, Ohio.
- (b) Thirty-five claims have been filed.
- (c) BFGoodrich is paying, or has paid, Workers' Compensation benefits for 26 claims while 9 remain in abeyance.

QUESTION 42. When did you learn for the first time of a diagnosed case of liver cancer, angiosarcoma, brain cancer, breast cancer, hematolymphopoietic system cancer?

- (a) Within your own employees?
- (b) Involving Users of "PVC products"?
- (c) Involving users of "PVC products" manufactured, sold or distributed by you.
- (d) Involving families of workers using your product.
- (e) Involving residents of dwellings adjacent to or near plants using your "PVC products".

ANSWER 42.

- (a) December, 1973.
- (b)-(d) BFGoodrich is not aware of any proven cases of liver cancer, angiosarcoma, brain cancer, breast cancer, hematolymphopoietic system cancer diagnosed as connected to or caused by "PVC products".

QUESTION 43. Have you ever been named as a Defendant in any other action in which damages were sought for personal injuries, sickness or death, as a result of use of your "PVC product"? If so, state:

- (a) What products were involved.
- (b) The name of the court, the docket number and each party to the lawsuit.
- (c) The date the action was filed.
- (d) The judgment that was rendered in the action.

20209019

- (e) The date set for trial of any action not yet concluded.
- (f) State the terms by which any settlement was arrived at and disposition of any such aforementioned legal action.

ANSWER 43. Yes. See Attachment C as a listing of lawsuits which allege injuries as a result of exposure to PVC.

QUESTION 44. Have you ever conducted any inspection or made any air analysis at the Ford Motor Company or at other facilities where workers used "PVC products" manufactured by your company?

- (a) If you have not, explain why this was not done.
- (b) If you have, explain what action, if any, was taken by your company following the inspection or the taking of test results at any of the locations referred to above. Also, please give the dates and places if any, that your company first started making such tests, and set forth in detail the dates and places this has been done since the results.

ANSWER 44. Yes.

- (a) Not applicable.
- (b) BFGoodrich has not conducted any air analysis or inspected the Ford installation where this incident is alleged to have occurred. See also answer to Interrogatory No. 9.

During 1974, BFGoodrich did test or inspect some facilities where PVC products were used, and documentation is available at BFGoodrich Corporate Headquarters, Akron, Ohio.

QUESTION 45. When and where did you first begin monitoring VCM levels in your own plant and manufacturing facilities?

ANSWER 45. Spot monitoring was done before 1974, and routine monitoring thereafter, throughout BFGoodrich's production facilities.

QUESTION 46. Was the monitoring of VCM required by any Government regulation or rule of any government, agency or insurance company? If so, state the substance of the rule, the source imposing it and the date it was first imposed.

ANSWER 46. Yes. See 39 Fed. Reg. 12342 (1974) and 29 C.F.R. Sec 1910.1017, 39 Fed. Reg. 35896 (1974).

QUESTION 47. What technique, if any, do you use to take air samples, explain the technique, when it was commenced, what the purpose was and what action has been taken in response to the findings as to the air samples.

ANSWER 47. Test procedures have been conducted in accordance with OSHA 1910.1017 since approximately 1974. The purpose is to monitor the air and environment of our manufacturing facilities. There has been a continual effort to reduce VCM in all of our facilities.

QUESTION 48. State whether from 1965 to date you have promulgated any rules, written or oral, for the handling of VCM and/or PVC products by your own employees? If so, state:

- (a) When such rules were promulgated.
- (b) The substance of the rules, if oral, and the name, and title of the person who disseminated them.
- (c) If in writing, either attach a copy of the rules or identify the written rules by date, title, identification number, present location and the name and address of the custodian thereof.
- (d) Whether any such material was provided to Ford Motor Company or any other users and, if so, when and to whom.

ANSWER 48. Yes.

- (a) Over the years, the Company has continuously promulgated numerous rules, both oral and written, concerning the safety and health of

20209021

its employees. These rules have been promulgated by countless operational, safety, medical, hygiene and other managerial personnel and have covered the handling of VCM and/or other PVC products. Much of this material has become obsolete and is irretrievable. Other materials are available at BFGoodrich Chemical Group Headquarters and the various production facilities. These rules do not apply to employees of the Ford Motor Company or other processors, and therefore, were not furnished to them.

- (b) BFGoodrich has adopted for its employees numerous rules for the handling of VCM and/or PVC products. Since 1974, BFGoodrich has complied with the requirements of OSHA 1910.1017.
- (c) See (a) above.
- (d) See answer to Interrogatory No. 9.

QUESTION 49. Since 1965, state the names and addresses of any organizations to which you have belonged having anything to do with setting of standards, regulations, information, lobbying, research, engineering, or use of "PVC products".

ANSWER 49. Society of Plastics Industry; Chemical Manufacturers Association; Plastic Pipe and Fitting Association; Chemical Institute for Industrial Toxicology; American Society of Testing and Materials; American Industrial Health Council; Plastic and Pipe Institute; and Vinyl Institute.

QUESTION 50. Have you, at any time since 1965, maintained any office or department dealing with medical research? If so, state:

- (a) The name of such department.
- (b) The location of such department.
- (c) The name, address and title of each person who has been in charge of the department.

ANSWER 50. BFGoodrich does not have an office or a department dealing with medical research, but has supported medical research through membership in various research organizations.

QUESTION 51. When was the first time you hired a "medical director"? Please state:

- (a) The reason for hiring such a medical director.
- (b) The location where the medical director was assigned.
- (c) The duties of the medical director.
- (d) The names and addresses of the persons hiring such medical director and of the medical director.

ANSWER 51. BFGoodrich first hired and assigned to its Akron headquarters a Medical Director in the 1920's to establish and implement medical policies for the examination, health and care of employees. No more detailed information concerning this topic is available.

QUESTION 52. When was the first time you hired an "industrial hygienist"? Please state:

- (a) The reason for hiring such a hygienist.
- (b) The location where the hygienist was assigned.
- (c) The duties of the hygienist.
- (d) The names and addresses of the persons hiring such hygienist and of the hygienist.

ANSWER 52. BFGoodrich first hired an Industrial Hygienist in the mid-1940's. The Industrial Hygienist was hired and assigned to BFGoodrich's Akron headquarters by Rex Wilson, M.D. to establish a department of industrial hygiene.

QUESTION 53. Had you done anything prior to 1974 to notify users of your products of the dangers of VCM? If so, explain in detail what you did and give the dates.

ANSWER 53. See answers to Interrogatory Nos. 8, 18, 19, 33, 35 and 36. See also answer to Interrogatory No. 9.

QUESTION 54. Have you contributed any funds to research concerning VCM and its relation to bodily health? If so, please state for each year the amount of money contributed, when and to whom, attaching any report or reports from each individual or organization to who your funds were contributed.

ANSWER 54. Yes. These studies began in 1973 and have continued to date. The primary recipient of BFGoodrich funding has been the University of Louisville. The average annual amount spent on these studies is currently being checked. This answer will be supplemented.

QUESTION 55. If any of your employees or officers have testified at trial or by deposition in any litigation or before any Congressional Committee or administrative agency concerning the possible health hazards involved in manufacturing when VCM and/or PVC were basic ingredients, state:

- (a) The name, address and title of each person who testified.
- (b) The date, location and form of such testimony.

ANSWER 55.

- (a) M.N. Johnson, M.D., Director of Toxicology, BFGoodrich, Akron, Ohio.
R.W. Strassberg, retired. Formerly Director of Environmental Regulatory Affairs, BFGoodrich, Akron, Ohio.
A. Vitoni, deceased.
W.C. Becker, Staff Vice President, BFGoodrich, Chemical Group Headquarters.
W.C. Holbrook, Director of Environmental Affairs, BFGoodrich Chemical Group Headquarters.
- (b) The individuals identified all testified at administration hearings in Washington, D.C. conducted by OSHA.

QUESTION 56. State the names, home and business addresses of all persons whom you expect to call as expert witnesses at the trial.

ANSWER 56. Unknown at this time. My attorney advises me that expert witnesses will be listed pursuant to the Court's pretrial order.

QUESTION 57. For all those persons named in answer Number 56, states their occupations and if they specialize in any particular field, set forth their specialization.

ANSWER 57. See answer to Interrogatory No. 56.

QUESTION 58. Set forth the qualifications of those persons listed in answer Number 56. In doing so, list: the schools each has attended, including years in attendance and degrees received; experience in particular fields, including names and addresses of employers with inclusive years of employment; and a list of all publications authored by such person, including the title of the work, the name of the periodical or book in which it was printed, and the date of its printing. (If the persons listed in answer Number 56 print, mimeograph or otherwise reproduce a list of qualifications, you may attach a copy of same in lieu of answering this question.)

ANSWER 58. See answer to Interrogatory No. 56.

QUESTION 59. Set forth the facts to which each such expert is expected to testify.

ANSWER 59. See answer to Interrogatory No. 56.

QUESTION 60. Set forth the opinion to which each such expert is expected to testify.

ANSWER 60. See answer to Interrogatory No. 56.

QUESTION 61. Set forth in detail the factual information supplied to each such expert which was used as a basis for his opinion, including all objects examined, the type, the place and date of examination, as well as a description of all photographs or plans reviewed.

ANSWER 61. See answer to Interrogatory No. 56.

QUESTION 62. Set forth a summary of the grounds for each such opinion, including any text material upon which the expert witness will rely. Identify all such texts, including name, author, edition and page.

ANSWER 62. See answer to Interrogatory No. 56.

QUESTION 63. As to all persons listed in answer to interrogatory Number 56, state the full caption of all cases in which that person has testified in the past five years. If the full captions are unavailable, give the names of the cases and state the names of each court in which they were tried, as well as the approximate date of trial.

ANSWER 63. See answer to Interrogatory No. 56.

/

Please state each person who provided the information in answer to interrogatories contained herein, indicating with specificity what person(s) was(were) responsible for each such answer.

20209026

The responses to these Interrogatories are the result of research by numerous BFGoodrich employees and our attorneys.

BFGoodrich Company

By: _____

Harold J. Fast
500 South Main Street
Akron, Ohio 44318
(216) 374-2252

STATE OF MICHIGAN)
COUNTY OF) SS.

On this _____ day of November, 1984, before me personally appeared Harold J. Fast, of BFGoodrich Company, who made oath that he has read the foregoing Answers to Interrogatories, by him subscribed, and that the same are true of his own knowledge, except as to those matters therein stated to be of information and belief, and as to those matters he believes them to be true.

Notary Public, _____ County, OH
My Commission Expires: _____

LAW OFFICES
BARRIER, GOULET, PETERSMARCK, TOLLESON & MEAD, P. C.
34820 HARPER AVENUE • MT CLEMENS, MICHIGAN 48043 • (313) 792-4000

20209027