

1 IN THE COURT OF COMMON PLEAS

2 LAKE COUNTY, OHIO

3 RUTH N. BURNHEIMER,  
4 Plaintiff

5 VERSUS

6 UNIROYAL CHEMICAL CO., INC. :  
7 ET AL, :  
8 Defendants

: CASE NUMBER 91CV001653

: JUDGE PARKS

9 \* \* \* \* \*

10 The deposition of JOSEPH P. VARIANI, a witness  
11 in this proceeding, was taken at the instance of the  
12 Plaintiff herein, before and by Sharon S. Wendt, a  
13 Certified Shorthand Reporter for the State of Louisiana  
14 and a Registered Professional Reporter, at the offices  
15 of Baton Rouge Court Reporters, located at 11832  
16 Newcastle Drive, Suite 16, Baton Rouge, Louisiana, on  
17 the 10th day of November, 1992, commencing at 8:44 a.m.  
18 and ending at 11:07 a.m.

19 APPEARANCES:

20 PETER J. BRODHEAD, ESQ. ) For the Plaintiff  
21 Spangenberg, Shibley, Traci & )  
22 Lancione )  
1500 National City Bank Bldg. )  
Cleveland, Ohio 44114 )

23 VICTORIA L. VANCE, ESQ. ) For the Defendants,  
24 Arter & Hadden ) Borden, Inc. and  
1100 Huntington Building ) Monochem, Inc.  
Cleveland, Ohio 44115 )

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1 ANNE Y. KOESTER, ESQ. ) For the Defendant,  
 Bunda, Stutz & DeWitt ) Uniroyal Chemical  
 2 One SeaGate, Suite 650 ) Company, Inc.  
 Toledo, Ohio 43604 )

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| 18 Incorporation                                       |
| 19 Variani 3 -- Diagram                                |
| 20 Variani 4 -- <u>Giant Molecules</u>                 |
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| 22 Variani 6 -- Monochem Supervisors' Safety Manual    |
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| 24 Variani 8 -- Emergency seal cap assembly diagrams   |
| 25 Variani 9 -- Chemical Safety Data Sheet SD-56, 1972 |

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- 1    Variani 10 -- Monochem Safety Handbook  
2    Variani 11 -- MCA Chem Card  
3    Variani 12 -- Letter from Mr. Harris to Mr. Gaffey  
                  dated 5-15-73  
4    Variani 13 -- Intercompany and Office Correspondence  
5                   dated 5-8-73  
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S T I P U L A T I O N

IT IS STIPULATED AND AGREED by and among the parties in the proceeding above numbered and entitled that the testimony of JOSEPH P. VARIANI, a witness in this matter, shall be taken at the instance of the Plaintiff herein, before and by Sharon S. Wendt, a Certified Shorthand Reporter for the State of Louisiana and a Registered Professional Reporter, on the 10th day of November, 1992, at the offices of Baton Rouge Court Reporters, located at 11832 Newcastle Drive, Suite 16, Baton Rouge, Louisiana; that the witness shall be sworn by said Court Reporter so reporting; that the testimony shall be taken under oral examination reserving the right to make objections, except as to the form of the question and the responsiveness of the answer, until the time of the trial of this matter; that the reading and signing of the deposition are not waived by the parties and by the witness; and that the said deposition is being taken for discovery purposes and for any and all purposes authorized under the Ohio Rules of Civil Procedure.

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1 MR. BRODHEAD: Let the record reflect  
2 that this deposition is being taken, though  
3 initially through a subpoena and notice, by  
4 agreement of counsel as to time and that the  
5 time for commencement was 8:30 a.m. as agreed  
6 to with counsel for Monochem and as  
7 communicated in my cover letter and my Brief in  
8 Opposition to Borden's Motion for Summary  
9 Judgment. The hour is now 8:44, and it was  
10 agreed that we would commence an attempt to  
11 state preliminary matters and then reassess the  
12 situation if counsel for Uniroyal does not  
13 appear.

14 \* \* \* \* \*

15 JOSEPH P. VARIANI, after having first been duly  
16 sworn, was examined and testified as follows:

17 EXAMINATION

18 BY MR. BRODHEAD:

19 Q Mr. Variani, would you state your full name and  
20 address, please, sir.

21 A Joseph Peter Variani. I live at 10838 Lynell  
22 Street in Baton Rouge, Louisiana.

23 Q Your age, sir?

24 A Fifty-four.

25 Q Can you tell me, beginning with high school,

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1                   what your education is?

2       A           Sure. I attended St. Aloysius High School in  
3                   New Orleans. Upon graduation I went to Tulane  
4                   University in New Orleans where I received a  
5                   B.S. degree in chemical engineering. I  
6                   graduated in 1960.

7       Q           After that, what did you do, sir?

8       A           I went to work for Dow Chemical in Plaquemine,  
9                   Louisiana. In May of 1962, I went to work for  
10                  Monochem, Incorporated. In July of 1969, I  
11                  transferred to Borden, Incorporated.

12      Q           What was the reason for the transfer in July of  
13                  '69?

14      A           John Lynn, who had been the vice-president in  
15                  charge of operations at Monochem, was  
16                  transferred to a general manager position at  
17                  Borden, and he had asked me to come join him.

18                               MR. BRODHEAD: Off the record.

19       [Off the record discussion.]

20      BY MR. BRODHEAD:

21      Q           You can resume your answer, sir. You were  
22                  talking about Mr. Lynn?

23      A           Yeah. -- asked me to come to Borden to perform  
24                  the same type of work that I had been  
25                  performing at Monochem.

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1 Q What was your job title then as you transferred  
2 to Borden?

3 A My job title when I was still a Monochem  
4 employee or --

5 Q Did it change?

6 A Yes.

7 Q It went from what to what?

8 A At Monochem I was chief process engineer at the  
9 time, and when I joined Borden, my title became  
10 data processing supervisor.

11 Q Where were you employed? In what city?

12 A Geismar, Louisiana.

13 Q You worked at the Borden facility?

14 A Yes.

15 Q What did they make there?

16 A At that time methanol, vinyl acetate, urea,  
17 ammonia, and acetic acid.

18 Q Was that on the same property as Monochem, or  
19 was it adjacent property?

20 A Adjacent property.

21 Q And you are presently employed by whom?

22 A Borden, Inc.

23 Q You have been an employee of Borden since July  
24 of '69?

25 A My service date with Borden goes back to May of

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1 1962 when I first joined Monochem. When I  
2 transferred to Borden, I carried, with me, my  
3 years of service with Monochem. They were  
4 transferred over as years of service with  
5 Borden.

6 Q Until July of '69, were your paychecks from  
7 Monochem?

8 A Yes.

9 Q You received a subpoena to appear for your  
10 testimony?

11 A Yes, last night at six o'clock.

12 Q Have you also been informed, by counsel for  
13 Monochem, that there were certain areas of  
14 testimony that were requested concerning  
15 Monochem? Has that been discussed with you?

16 A Yes.

17 Q I'm showing you the Notice of Deposition, Mr.  
18 Variani. Have you seen it before?

19 A No.

20 Q Just to try to expedite matters, on page two,  
21 there are five -- excuse me, on the bottom of  
22 page one and continuing on page two, it says,  
23 Monochem is requested to produce one or more of  
24 its employees, officers, agents or other  
25 persons within the employ of Monochem for some

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1 significant period between its creation and  
2 when it ceased to provide, sell, or supply VCM  
3 to the Uniroyal Painesville facility and who is  
4 most knowledgeable concerning the following:  
5 One, the formulation and content of the CSDS or  
6 its equivalent which was designed to accompany  
7 shipments of VCM from Monochem to Uniroyal,  
8 Borden or any other end user; two, the harmful  
9 effects vinyl chloride exposure on man and/or  
10 animal; three, the medical and scientific  
11 literature and data relating to subpart two  
12 above which was known and/or available to  
13 Monochem during the above-stated period; four,  
14 the VCM manufacturing process at Monochem; and  
15 five, the utilization by Monochem of employees  
16 of Uniroyal or its predecessors and/or Borden  
17 during the above-stated time period. My  
18 question to you, sir, is, which, if any, of the  
19 five items are you, in your judgment, competent  
20 to testify as to?

21 A First, I would like to correct my previous  
22 answer. After seeing this, I did see it. I  
23 did see this.

24 Q Okay.

25 A I can speak to items four and five.

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1 Q Four and five?

2 A Yeah.

3 Q All right. So would it be, as a corollary of  
4 that, fair to say that as to one to three, you  
5 do not consider yourself particularly  
6 knowledgeable?

7 A Yes.

8 Q As you sit here today, what present or past  
9 employees of Monochem, to the extent you may  
10 know, would be most knowledgeable concerning  
11 items one through three? And you can deal with  
12 them separately, of course, if you like.

13 A Well, items one through three would be the  
14 plant managers, the production managers, and  
15 the safety supervisors at Monochem at the  
16 various times.

17 Q Plant managers, production managers; is that  
18 right?

19 A Yes, and safety supervisors.

20 Q To the extent you can recall, Mr. Variani,  
21 going back to May of '62, who was the plant  
22 manager?

23 A The first plant manager was John V. Lynn, then  
24 W. J. Boyne -- that's B-o-y-n-e -- then J. R.  
25 Little, and the last was Tom Murray.

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- 1 Q As to those four individuals, could you go  
2 through them and tell me if you know whether or  
3 not they are alive and, if so, where they  
4 reside or were last known to reside?
- 5 A John Lynn retired some years ago from Borden,  
6 and last I knew he was living in the San Diego,  
7 California area. As to whether or not he is  
8 still living, I do not know. W. J. Boyne left  
9 Borden some years ago, and I don't know what  
10 his situation is now. I have not had contact  
11 with him for several years.
- 12 Q Mr. Little?
- 13 A Jack Little is alive, retired, and living in  
14 Bay St. Louis, Mississippi.
- 15 Q How many miles is that from here?
- 16 A That is about -- I guess about an hour, hour  
17 and a half drive from here.
- 18 Q And Tom Murray?
- 19 A Tom Murray is retired, and he lives both in  
20 Montreal and Baton Rouge at various times.
- 21 Q Production managers?
- 22 A The first production manager was Jack Little.  
23 The second was Dick Kogler, as I recall. The  
24 third was Sandy Harrod.
- 25 Q Spell the last name, please.

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1 A H-a-r-r-o-d. The last was Tom Donahue,  
2 D-o-n-a-h-u-e. In-between Kogler and Harrod or  
3 thereabouts, there was a gentleman. His name  
4 was Toby Gerhart as I recall, but he was killed  
5 in an airplane crash shortly after he was  
6 employed, very shortly.

7 Q Safety supervisors?

8 A Lavern Landry. I don't quite remember who was  
9 after him. I don't recall exactly who were the  
10 safety supervisors after Lavern.

11 Q You filed -- or your counsel filed an affidavit  
12 that you executed with respect to these  
13 proceedings; is that correct?

14 A Yes.

15 Q You were employed by Monochem, as a process  
16 engineer, from May of '62 until '67?

17 A Actually it was until January of '68. At that  
18 time, that was the date of my recollection; but  
19 I've since looked up the date, and it was in  
20 January of '68 my title changed to chief  
21 process engineer.

22 Q All right. From May of '68 then until July of  
23 '69, I take it you were the chief process  
24 engineer.

25 A Yes.

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1 Q What is your knowledge as to how Monochem was  
2 formed?

3 A Borden and Uniroyal were interested in  
4 producing vinyl chloride. Uniroyal had been  
5 producing vinyl chloride in Painesville, Ohio.  
6 Uniroyal wanted new facilities for producing  
7 vinyl chloride. Borden wanted to begin  
8 producing vinyl chloride.

9 Q Let me stop you for a second. Do you know why  
10 Uniroyal wanted new facilities?

11 A No, I do not.

12 Q Please go ahead.

13 A The quantities required by each party were not  
14 sufficient to justify, economically, facilities  
15 to be built individually. So each party -- so  
16 Monochem, Incorporated was formed, as a  
17 Louisiana corporation, to produce quantities  
18 for the exclusive benefits of Borden and  
19 Uniroyal.

20 Q I'm showing you what's been marked Exhibit 1,  
21 and these will all have your name on it, sir.  
22 Those are the Articles of Incorporation for  
23 Monochem, are they not?

24 A Yes.

25 Q Have you previously reviewed that document at

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1                   anytime?

2       A           Generally, I have, yes.

3       Q           When?

4       A           At various times through the years, and I  
5                   looked through it again yesterday.

6       Q           Is some of your affidavit taken directly from  
7                   the language of those Articles of  
8                   Incorporation?

9       A           My statements in my affidavit may have been  
10                  based on my knowledge of this document, but I  
11                  did not take anything word for word from here  
12                  as I recall.

13      Q           Mr. Variani, I had previously asked you to take  
14                  a look at the Articles of Incorporation of  
15                  Geismar Industries. That's been marked as  
16                  Exhibit 2, has it not?

17      A           Yes.

18      Q           Are you familiar with that document?

19      A           Yes.

20      Q           Prior to the commencement of this deposition  
21                  this morning, I asked you to take a look at  
22                  it. Can you tell me -- first of all, is it not  
23                  correct that it was created in late -- excuse  
24                  me -- in 1964?

25      A           Yes.

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1 Q What was the reason for the forming of Geismar  
2 Industries?

3 A Borden and Uniroyal decided that they needed  
4 additional quantities of the outputs that was  
5 being produced by Monochem, and the reason for  
6 Geismar Industries Corporation to be formed was  
7 to have the equipment to increase the  
8 quantities of output available for Monochem.

9 Q Those Articles of Incorporation are slightly  
10 different in the stated purpose of the  
11 corporation in that it doesn't address  
12 production of monomer or any of its --  
13 dispensing with any of its off-gases, but it  
14 does relate, specifically, to acquiring,  
15 selling, and leasing property.

16 A Yes.

17 Q Am I on the right track?

18 A Yes. The corporation was formed. It acquired  
19 the facilities to produce the additional  
20 outputs. These facilities were leased to  
21 Borden and Uniroyal. Borden and Uniroyal and  
22 Monochem Corporation operate these Geismar  
23 Industries facilities in addition to the  
24 Monochem facilities.

25 Q Were these strictly for monomer production?

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1 A No. It was a general expansion of the Monochem  
2 facilities.

3 Q In addition to monomer production, what did  
4 Monochem do?

5 A All of Monochem's outputs?

6 Q (Counsel nods head affirmatively.)

7 A Monochem produced vinyl chloride monomer;  
8 acetylene, which is one of the raw materials  
9 for the production of vinyl chloride monomer;  
10 oxygen, which is a raw material for the  
11 production of acetylene.

12 Monochem also produced utilities,  
13 that is, steam, demineralized water, river  
14 water and cooling water for its own internal  
15 usage and to supply Borden and Uniroyal's  
16 private adjacent facilities with these  
17 utilities.

18 Q Did Uniroyal have a private adjacent facility?

19 A Yes.

20 Q What was it?

21 A It was a chemical producing facility alongside  
22 the Monochem facility -- property. There  
23 were -- also acetylene and acetylene off-gas  
24 was supplied to Borden's private adjacent  
25 facility for its use. So the purpose of

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1 Monochem was -- and it was, at that time, to  
2 produce vinyl chloride monomer plus deliver to  
3 the owner's adjacent facilities whatever  
4 Monochem outputs that it needed to operate its  
5 private facilities.

6 Q If I were to give you a piece of paper, could  
7 you roughly sketch me, at least in some  
8 relative way that I can understand, where these  
9 adjacent properties were?

10 A Sure.

11 Q Why don't I just mark it Exhibit 3.

12 A (Witness draws diagram.) This is true north  
13 direction, and in this direction, for ease of  
14 discussions at the plant site, we call this  
15 plant north. I always talk in terms of  
16 directions when referring to the locations of  
17 everything. This is Louisiana Highway 73.  
18 This is the River Road. Here's the Mississippi  
19 River over here (Indicating).

20 Q I-p-p-i. It always amazed me that Huckleberry  
21 Finn could spell Mississippi, but he couldn't  
22 spell Pennsylvania.

23 A Okay. Now, presently, this is Louisiana  
24 Highway 30. Originally, it wasn't designated  
25 as such, but that's the layout of the land.

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1 MS. VANCE: Can I just interrupt?  
2 Are you going to draw -- Peter, do you want the  
3 configuration and the relative locations as  
4 they exist today or -- because there has been  
5 some sizing of changes to Monochem over the  
6 years.

7 BY MR. BRODHEAD:

8 Q The best approximation between '61 and '75 that  
9 you can, sir.

10 A Okay.

11 Q And add, on the side of it, original  
12 configuration if you would.

13 A Okay. (Witness complies.) This was Monochem.

14 Q How many acres, roughly?

15 A I think about four hundred, something --  
16 something like that. Monochem was around four  
17 hundred. Like Vickie has just mentioned, this  
18 has changed quite a bit over the years, but  
19 this is how the original layout of property  
20 was. This property line is right here  
21 (Indicating).

22 Q So these were contiguous properties?

23 A Yes.

24 Q What was the location of the property acquired  
25 by virtue of Geismar Industries?

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1 A Geismar Industries consisted of equipment,  
2 machinery and equipment. It was installed on  
3 Monochem property.

4 Q Was it an infusion of capital by any other  
5 term?

6 A Geismar Industries made -- acquired the loan  
7 for acquisition and installation of equipment  
8 if that answers your question.

9 Q Why was it necessary to create an entity to the  
10 extent you may know, sir?

11 A I do not specifically know. That was done by  
12 Borden and Uniroyal. I cannot give you a  
13 specific answer as to why it was done in that  
14 fashion.

15 Q Would it be fair to say that having been  
16 created in March of 1961, within about three  
17 years, it was apparent that the needs of Borden  
18 and Uniroyal were such that the monomer output  
19 of Monochem needed to be augmented? Is that  
20 correct?

21 A Yes.

22 Q As a consequence of which, Geismar Industries  
23 was created as, shall we say, an entity to  
24 finance and implement the expansion?

25 A Yes.

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1 Q Subsequent to which, I believe, in around 1971,  
2 there was a merger --

3 A Yes.

4 Q -- of Geismar into Monochem.

5 A The two merged together.

6 Q And the entity was known as Monochem  
7 thereafter?

8 A Yes.

9 Q Were they known separately prior to that time?

10 A Yes. There were two separate books and records  
11 on each corporation.

12 Q In what way did the Geismar Industries creation  
13 augment the production? Was it a separate soup  
14 to nuts creation of facilities, or did it  
15 augment certain portions of the Monochem  
16 facility?

17 A It augmented certain portions of the existing  
18 facilities by adding additional equipment  
19 similar or identical to what already was in  
20 place on Monochem.

21 Q Did Geismar have separate employees?

22 A No.

23 Q Did Geismar Industries have its own checks  
24 for --

25 A No.

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1 Q Its own bank?

2 A No.

3 Q Did you receive your paychecks from Monochem?

4 A Yes.

5 Q What bank were they drawn on, generally?

6 A Louisiana National Bank in Baton Rouge as I  
7 recall.

8 Q Let's talk about monomer production. Monochem  
9 was an acetylene based facility; is that  
10 correct?

11 A That's correct.

12 Q Acetylene, as it relates to monomer production  
13 nationwide, accounts for only a tiny fraction  
14 of monomer production; isn't that correct?

15 A Yes. Well, I think. I'm not -- are you asking  
16 the percentage of vinyl chloride produced from  
17 acetylene now, as opposed to a total  
18 production, it is a small percentage? I don't  
19 know the number. I don't know the number.

20 Q In any event, the process -- and correct me if  
21 my rough understanding is errant here, please.  
22 In order to make acetylene, you need natural  
23 gas?

24 A Yes.

25 Q And you need oxygen?

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1 A Yes.

2 Q You apparently super cool the oxygen?

3 A The oxygen is obtained from air. It's a  
4 cryogenic process in which air is compressed,  
5 cooled, liquefied, and separated into pure  
6 oxygen.

7 Q That oxygen, once pure, is joined with a  
8 natural gas in a heated state, is it not?

9 A Yes.

10 Q And that creates acetylene?

11 A Yes.

12 Q That acetylene has to -- that creation process  
13 is very water intensive to prevent flame-out  
14 and explosion, isn't it?

15 A Yes. Water is used, in the process, to  
16 extinguish the reaction, minimize the  
17 production of by-product, carbon, and the  
18 acetylene is transmitted in a water-saturated  
19 state.

20 Q I'm sorry, the last portion?

21 A The acetylene is transmitted in pipe lines in a  
22 water-saturated condition.

23 Q And it is introduced to hydrogen chloride?

24 A Yes.

25 Q In the presence of a catalyst in the form of

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1 mercuric chloride?

2 A Yes, embedded on carbon.

3 Q And that, basically, will interproduce the  
4 creation of the monomer?

5 A The acetylene and anhydrous hydrogen chloride  
6 chemically react to produce vinyl chloride.

7 Q This is an outdoor facility?

8 A Yes.

9 Q This vinyl chloride is only to be sent to one  
10 of two places, right? It's either going to go  
11 to Painesville, right?

12 A Borden and Uniroyal directed the shipments of  
13 vinyl chloride to whatever location they  
14 designated.

15 Q Where did you send Uniroyal's vinyl chloride?

16 A That was directed by Uniroyal. I don't know.  
17 The monomer was loaded into rail cars provided  
18 by Uniroyal. Uniroyal controlled the shipment  
19 of its monomers. One location was Painesville,  
20 Ohio or any other place that Uniroyal may have  
21 designated. I do not have knowledge of the  
22 shipping locations for Uniroyal.

23 Q Other than Painesville?

24 A Other than Painesville.

25 Q How about Borden?

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1 A Borden shipped vinyl chloride to Leominster,  
2 Massachusetts and possibly other locations.  
3 But once again, I do not have knowledge of the  
4 Borden shipping locations.

5 Q Illiopolis, Illinois?

6 A Illiopolis, Illinois has a polyvinyl chloride  
7 production facility, and monomer was shipped  
8 there. I do not know when the Illiopolis  
9 facilities were constructed. I answered that  
10 question in the time frame '62 to early  
11 seventies, so I do not know when Illiopolis was  
12 started.

13 Q I'm showing you what's been marked as Exhibit  
14 4. It's an excerpt from a book called Giant  
15 Molecules. Beginning on page 180, that is the  
16 Monochem facility, is it not?

17 A (Witness reviews document.)

18 Q Can we agree thus far it appears to be some  
19 pictures of the Monochem facility?

20 A Some pictures of Monochem's facility.

21 Q And some description of what it does?

22 A Yes.

23 MS. VANCE: The only caveat, the  
24 pictures are a little dark. We've never seen  
25 this before. We will accept the representation

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1 of the editorial comments around the pictures  
2 that these are, presumably, taken of Monochem.

3 BY MR. BRODHEAD:

4 Q Mr. Variani, I tried to go through the monomer  
5 production process only to speed it up. Did I  
6 leave out anything important, sir?

7 A No.

8 Q Would you turn to page 183?

9 A (Witness complies.)

10 Q The reactors for vinyl chloride are outdoors as  
11 well, correct?

12 A Yes.

13 Q And there are six of them shown in this  
14 picture. Were there more during the time  
15 period?

16 A Additional reactors were added with the Geismar  
17 Industries expansion.

18 Q Up to how many did you go?

19 A I don't recall.

20 Q More than ten?

21 A Well, I think it doubled the existing capacity.

22 Q What was the capacity of one of these reactors?

23 A The original plant was rated at 136 million  
24 pounds per year; and if there were originally  
25 six reactors, the capacity would be one sixth

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- 1 of 136 million, whatever that comes out to be.
- 2 Q About twenty-two point something?
- 3 A Something like that, yeah.
- 4 Q After it is, that is, the monomer is created in
- 5 the reactors, there is, apparently, a
- 6 purification process in towers; is that
- 7 correct?
- 8 A Yes.
- 9 Q And that's shown on page 184?
- 10 A It appears to be, yes.
- 11 Q On page 185, entitled "A Change from Gas to
- 12 Liquid," it says, "Monochem's part in the
- 13 making of Naugahyde ends when the gaseous vinyl
- 14 chloride monomer is purified and compressed
- 15 into liquid form for shipment. Each year the
- 16 plant consumes about 25 billion cubic feet of
- 17 natural gas and 90,000 tons of hydrogen
- 18 chloride to make more than 250 million pounds
- 19 of monomer. It also sells carbon monoxide and
- 20 hydrogen for the manufacture of formaldehyde,
- 21 widely used as a preservative and as a monomer
- 22 for other synthetics." Up to that point, sir,
- 23 is there anything incorrect about that that
- 24 you're able to say today?
- 25 A Let me see the date of this article first.

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1 Q It's 1966.

2 A Generally, that statement is correct, yes.

3 Q The next sentence, sir, is apparently in error,  
4 as I understand it, in that it says that all of  
5 it goes to United States Rubber when, in fact,  
6 some of it goes to Borden. Is that correct?

7 A Where are you reading?

8 Q (Counsel indicates to witness.)

9 A (Witness reviews document.) That sentence is  
10 not correct.

11 Q Let's set that one aside then. The next one  
12 says, "Pumped into oversized railroad tank  
13 cars, each with a capacity of 20,000 gallons,  
14 the monomer is transported 850 miles to the  
15 Painesville, Ohio plant where it is unloaded  
16 into spherical tanks to await the next step:  
17 polymerization." Anything that you know to be  
18 incorrect about that, sir?

19 A No.

20 Q The railroad cars were 20,000 gallons?

21 A As I recall.

22 Q Did Monochem own any railroad cars?

23 A No.

24 Q Did Borden?

25 A I don't think so. I think all of Borden's cars

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- 1           were leased.
- 2   Q       What about Uniroyal?
- 3   A       The same. I think they were leased, but they
- 4           could've been owned, but I have no specific
- 5           knowledge of that.
- 6   Q       What was the rail line provider? Who provided
- 7           those services?
- 8   A       Illinois-Central.
- 9   Q       Whose cars were they if you know, sir?
- 10  A       The owners of the cars if they were leased you
- 11           mean?
- 12  Q       Yes, sir.
- 13  A       There would've been cars designated ACFX
- 14           followed by a numerical number. The ACFX
- 15           stands for the manufacturer, which I believe
- 16           was American something and something, okay, and
- 17           cars with a prefix of GATX and UTLX and so on
- 18           and so on. There are a number of rail car
- 19           manufacturers. The prefix before the number on
- 20           a rail car designates the rail car owner.
- 21  Q       Do you have some idea how long it took a
- 22           shipment of VCM to get up to Painesville from
- 23           Geismar?
- 24  A       Not specific information.
- 25  Q       With what frequency did you send rail cars out?

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- 1 A Daily, Monday through Friday.
- 2 Q How many daily?
- 3 A That varied depending upon the amount or the
- 4 number of cars that were delivered to the plant
- 5 for loading by the respective owners.
- 6 Q You had a spur line into Monochem?
- 7 A Yes.
- 8 Q How many cars could you load simultaneously at
- 9 Monochem during this time period?
- 10 A I don't recall a specific number. It would be
- 11 a guess.
- 12 Q More than two?
- 13 A Yes.
- 14 Q More than four?
- 15 A Yes. I would say around six.
- 16 Q Okay. Might that six correlate to the six
- 17 reaction vessels?
- 18 A No.
- 19 Q Because that is held in a different reservoir
- 20 after purification, correct?
- 21 A Vinyl chloride is stored in spheres.
- 22 Q Vinyl chloride should not be stored for a
- 23 prolonged period of time, generally speaking;
- 24 is that correct?
- 25 A Yes.

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- 1 Q There are some dangers associated. It could  
2 begin to polymerize itself --
- 3 A Yes.
- 4 Q -- in part? What are some other dangers?
- 5 A I don't know of any other dangers.
- 6 Q But that's the concern, that it doesn't begin  
7 to polymerize?
- 8 A Yes.
- 9 Q Because that would affect end user purity?
- 10 A Yes.
- 11 Q Did the cars come back empty from Painesville?
- 12 A They came back slightly pressurized with vinyl  
13 chloride gas. There may have been occasions  
14 when a car returned with some liquid vinyl  
15 chloride in it but, generally, a car was  
16 returned containing only vinyl chloride vapor  
17 slightly pressurized.
- 18 Q Would it be a fair statement, Mr. Variani, that  
19 the same cars, generally, stayed in circulation  
20 between Geismar and Painesville?
- 21 A Yes.
- 22 Q And the circuit would be to take it up full and  
23 load it off and return it empty or nearly empty  
24 and repeat that process?
- 25 A Yes. I want to add now that those cars -- the

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1 scheduling of the cars to be loaded and shipped  
2 was done individually by the owners, so my  
3 answer to you that generally they would recycle  
4 is just based on the general impressions and  
5 information.

6 Q Do you have some idea how many cars would stay  
7 in circulation at the same time? Let's talk  
8 about when you first started there in May of  
9 '62. Roughly, how many cars would Uniroyal  
10 have leased to be making this continuous round  
11 trip?

12 A I do not recall.

13 Q More than fifty?

14 A I would guess around fifty.

15 Q Let's go back to your affidavit for a minute.  
16 In July 1969, you transferred from Monochem to  
17 Borden in Geismar but continued to consult with  
18 Monochem regarding the administration of the  
19 Borden-Uniroyal Operating Agreement. I take it  
20 you were, at this time, receiving Borden  
21 paychecks.

22 A Yes.

23 Q Thus, you say, you continued to have general  
24 familiarity with the operations of Monochem  
25 from '69 to 76.

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1 A Yes.

2 Q The by-products of the acetylene production are  
3 hydrogen and carbon monoxide?

4 A The by-product is a gaseous mixture which is  
5 called acetylene off-gas. Sometimes it's  
6 abbreviated as simply AOG. The composition of  
7 the AOG was roughly sixty percent hydrogen,  
8 twenty-five percent carbon monoxide, four or  
9 five percent methane, some nitrogen and other  
10 minor impurities. The product was not  
11 classified as hydrogen or carbon monoxide. It  
12 is known as acetylene off-gas.

13 Q You will have to attribute my ignorance to the  
14 way it's described in here.

15 A Sure. When I read that statement about the  
16 formaldehyde, I had to think to see what they  
17 were leading up to.

18 Q What did you do with the AOG?

19 A The AOG was used by Borden, in its private  
20 adjacent facility, to produce methanol. Later  
21 Borden also used part of that AOG to produce  
22 pure carbon monoxide and pure hydrogen. The  
23 pure carbon monoxide was used in acetic acid  
24 manufacturing. Any unused AOG was burned, in  
25 Monochem boilers, as a fuel.

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- 1 Q Generally speaking, was there a sharing, from  
2 time to time, of Borden and Uniroyal employees  
3 as it pertained to the Monochem enterprise?
- 4 A Yes. The plant manager and his staff were a  
5 combination of Borden and Uniroyal employees.  
6 I suspect, always thought, that their paychecks  
7 continued to come from their respective  
8 organizations and not Monochem, but I cannot  
9 tell you that for a fact.
- 10 Q Do you know whether or not the monomer produced  
11 previously in Painesville, before Monochem, was  
12 an acetylene based process?
- 13 A Presumably so because the Uniroyal know-how was  
14 used for the Monochem process.
- 15 Q Is it your understanding that this was a  
16 fifty-fifty enterprise, that is, that it was  
17 half Borden and half Uniroyal?
- 18 A Originally, the vinyl chloride facilities were  
19 owned fifty-fifty. All of the Monochem  
20 individual facilities were owned in different  
21 percentages. For example, the acetylene plant  
22 was something like sixty percent-forty percent.
- 23 Q Owing to individual needs?
- 24 A Yes, depending upon individual needs.
- 25 Q You state, in your affidavit, further, that as

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1 process engineer and chief process engineer for  
2 Monochem, your job was to administer the  
3 Operating Agreement between Uniroyal and Borden  
4 and, specifically, I supervise the proper  
5 allocation of each company's entitlement to the  
6 vinyl chloride process by Monochem, Inc. Was  
7 there a discreet document known as the  
8 Operating Agreement?

9 A Yes.

10 [Off the record discussion.]

11 BY MR. BRODHEAD:

12 Q Can you describe for me the essence of the  
13 Operating Agreement, what was its purpose and  
14 how was it implemented?

15 A The Operating Agreement described how the  
16 Monochem facilities were to be allocated --  
17 were to be operated, how the outputs were to be  
18 allocated to the individual owners, and how the  
19 cost of operations were to be allocated to the  
20 individual owners.

21 Q How were the cost of operations allocated?

22 A Monochem performed -- Monochem Corporation  
23 performed conversion services for the exclusive  
24 benefit of Borden and Uniroyal. Borden and  
25 Uniroyal, under separate contracts, supplied

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1 the raw materials and fuel to the Monochem  
2 facility.

3 Q Let me interrupt you for one moment, sir. Do  
4 you know why a separate entity was created for  
5 this purpose?

6 MS. VANCE: You're referring to  
7 Monochem?

8 MR. BRODHEAD: Yeah.

9 A For the economies of scale.

10 BY MR. BRODHEAD:

11 Q Please continue.

12 THE WITNESS: What was my last  
13 statement, please?

14 MS. VANCE: Can you also just  
15 indicate -- what was the question that led up  
16 to that? In other words, did you say to the  
17 best of his knowledge, why was a separate  
18 entity created? Obviously, he's been talking  
19 and testifying up to that --

20 MR. BRODHEAD: That's fine. And I  
21 think he said it previously anyway.

22 MS. VANCE: Okay. I think so, too.  
23 I just want to make sure. He didn't draw up  
24 these agreements.

25 MR. BRODHEAD: I understand.

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(The witness's last response was read back by the reporter beginning on Page 33, Line 23.)

A Monochem converted these raw materials and fuels into finished products incurring some expenses to do so. Borden and Uniroyal reimbursed Monochem Corporation for these expenses.

Monochem did not sell any of its outputs to its owners. Monochem did not earn any profits. Monochem Corporation was a nonprofit operation performing --

BY MR. BRODHEAD:

Q Excuse me.

A Yeah.

Q So we don't get into legal technicalities here and the specifics of Louisiana law, which you may or may not be familiar with, there is a distinction between whether or not something is a nonprofit corporation and whether or not it draws a profit. I just want to make sure that we don't confuse the two for the purpose of your answer. I've interrupted. Please continue.

A I state that because in the contracts, in the agreements, it says it shall be a nonprofit

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1 operation.

2 Q Is this in the Operating Agreement?

3 A Yes, and in the basic agreements.

4 Q It's not in the Articles of Incorporation so

5 far as I can see, Mr. Variani.

6 A Well, reading that in detail again, I cannot

7 say whether it is or it isn't.

8 Q But it's your testimony that in the Operating

9 Agreement and/or in other related documents, it

10 is stated that Monochem is not to recognize a

11 profit, is that it?

12 A Yes.

13 Q Go ahead, please, or are you done?

14 A I'm done answering that question.

15 Q Have you ever been to the Painesville plant?

16 A No.

17 Q Any of your employees, management people

18 periodically get up there?

19 A Initially, some Monochem employees may have

20 gone to Painesville for training purposes, but

21 I was not one of them.

22 Q Do you know who did?

23 A Not specifically, no.

24 Q Mr. Variani, I infer, from what I have read in

25 Exhibits 1 and 2, when it becomes the 31st of

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1 December of a given year, if Monochem has any  
2 balance on its books, it is distributed back to  
3 the shareholder corporations. If you know, do  
4 I correctly make that assumption?

5 A What type of balance are you referring to?

6 Q Well, you told me, previously, that Monochem is  
7 reimbursed by Borden and Uniroyal, which tends  
8 to suggest that Monochem, A, has to be  
9 capitalized somehow and, B, has to have initial  
10 expenditures for which it is reimbursed.

11 A That is done monthly.

12 Q Can you briefly explain that for me? Is  
13 Monochem given an allotment of cash monthly?

14 A Back then Monochem, as I recall, was provided  
15 with working capital. Monochem accumulated its  
16 costs, which consisted of variable and fixed  
17 costs, and each month Monochem would invoice  
18 Borden and Uniroyal for their respective shares  
19 of those accumulated costs.

20 Q Was the infusion of capital, at least for the  
21 purposes of ongoing operation, day-to-day  
22 operations, as a consequence of those invoices  
23 being paid?

24 A We're getting into an area in which I do not  
25 work as far as the financial area.

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1 Q I understand.

2 A The financial area -- and I cannot answer, with  
3 any specific knowledge, of exactly how money  
4 was infused into Monochem because that was  
5 handled by the Comptroller Department. I  
6 answer your questions based on my general  
7 knowledge and impressions, but financial was  
8 not my specific area in which I worked.

9 Q Who would've been in charge, when you started  
10 there, of the comptrollers?

11 A The Comptroller's name, at that time was Elmer  
12 Carroll, but he's deceased.

13 Q Who was his successor or successors?

14 A John Thudium, T-h-u-d-i-u-m; Wayne Winters; and  
15 Conrad Picou...

16 Q P-i-c-h-u?

17 A P-i-c-o-u.

18 Q I should have known better. When did you first  
19 have any experience with vinyl chloride?

20 A When I joined Monochem in July 1969, I'm sorry,  
21 May of '62.

22 Q When did you first have any familiarity with  
23 the Manufacturing Chemists' Association or the  
24 MCA?

25 A I guess in the early part of my career, I

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1 became aware of the MCA. I do not know of any  
2 specific date.

3 Q Did you ever have any association, personally,  
4 with that organization?

5 A No.

6 Q To your knowledge and to the best you can  
7 recall, what Monochem employees did have a  
8 professional association with MCA?

9 A I do not know specifically, but if you're  
10 asking me to guess, I would say the plant  
11 manager.

12 Q Who would that be? Jack Little?

13 A One of the plant managers, yeah, well, all of  
14 the plant managers.

15 Q Okay. John Lynn, W. J. Boyne, J. R. Little,  
16 and Tom Murray?

17 A Yes.

18 Q Anyone else?

19 A Perhaps the production managers. You're asking  
20 who had associations with the --

21 Q Yes, sir, in other words, corresponded with,  
22 attended meetings, received bulletins.

23 A I would say if anyone, it would've been the  
24 production managers and the plant managers and,  
25 perhaps, the technical manager.

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1 Q I'm showing you what's been marked Exhibit 5.  
2 That is the Chemical Safety Data Sheet, CSDS  
3 hereafter, for vinyl chloride, dated 1954; is  
4 that correct?

5 A Yes.

6 Q When did you first see that document, Mr.  
7 Variani?

8 A I don't recall. I'm sure I have seen this at  
9 some point in time, but I don't recall any  
10 specific dates.

11 Q I'm showing you what's been marked Exhibit 6.  
12 That is a Monochem, Inc. Supervisor Safety  
13 Manual; is that correct?

14 A Yes.

15 Q And it's dated April 18th, 1962?

16 A Yes.

17 Q When did you first see that document, sir?

18 A Most probably shortly after I joined Monochem.

19 Q You joined Monochem in a matter of days after  
20 that document was effective?

21 A In May of '62.

22 Q Within a matter of days?

23 A Yes.

24 Q How early on did you become familiar with that  
25 document, sir?

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1 A I don't recall.

2 Q Was it provided to you fairly early on?

3 A I don't recall if I had a personal copy of  
4 this.

5 Q I'm showing you what's been marked Exhibit 7.  
6 This is a May 22nd, 1964 Monochem Safety  
7 Handbook; is that correct?

8 A Yes.

9 Q Was that provided to you shortly after its  
10 implementation?

11 A It may have. I don't specifically recall.

12 Q With respect to Exhibit 6 and 7 and knowing the  
13 time frame when they were implemented, who  
14 would've been chiefly responsible for the  
15 formulation of these documents? I notice, for  
16 example, that J. V. Lynn's signature is the  
17 preamble of both of them.

18 A Generally, it is the responsibility of the  
19 Safety Department to put together these type of  
20 documents.

21 Q And in that period of time, I guess you would  
22 be talking about Mr. Landry.

23 A Yes.

24 Q And we will ask him about those principally. I  
25 may have some for you additionally.

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1 A Okay.

2 Q I'm showing you what's been marked Exhibit 8.  
3 This document appears to be a photocopy of a  
4 portion of a blueprint or a drawing having to  
5 do with an emergency seal cap for Midland  
6 safety valves on rail tank cars; is that  
7 correct?

8 A That is what the title block reads.

9 Q To that extent, I've correctly identified it?

10 A Yes.

11 Q Why would Monochem be in the business of  
12 blueprinting an emergency seal cap for Midland  
13 safety valves on rail tank cars?

14 A I do not know.

15 Q That's in December of '69?

16 A Yes.

17 Q Who is FJC who purports to be the drawer of  
18 that document?

19 A Frank J. Cagnolatti, C-a-g-n-o-l-a-t-t-i, who  
20 was a draftsman at Monochem.

21 Q Was he employed by Monochem?

22 A No.

23 Q Who was he employed by?

24 A I don't know. He left the organization years  
25 ago. I don't know what he is doing now.

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1 Q On the last page of Exhibit 8, it says  
2 emergency closure for A.C.F. rail tank car  
3 relief valve; is that correct?

4 A Yes.

5 Q And it is noted, quote, This valve exists on  
6 both Uniroyal and Borden cars SHPX, UTLX, and  
7 ACFX. Is that correct?

8 A Yes.

9 Q Apparently, those acronyms towards the end  
10 there would be the designations you previously  
11 referred to for ownership.

12 A Yes.

13 Q Same question: Why would -- if you know, why  
14 would Monochem be in the business of designing  
15 and blueprinting an emergency closure for  
16 A.C.F. rail tank car relief valve?

17 A I do not know.

18 Q Does this come as news to you?

19 A Yes. If I had seen that before, I don't  
20 recall. But, yes, I do not know why that is on  
21 a Monochem drawing.

22 Q Let me put it another way, Mr. Variani. If I  
23 had asked you -- that's assuming neither of us  
24 knew about this document, and I just asked you  
25 would it be your understanding that Monochem

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1 would be in the business of doing such a thing,  
2 would you be disinclined to say yes?

3 A Yes. I would not have said that I thought  
4 Monochem would have drawn that.

5 Q Let's look at Exhibit 6 for a minute.  
6 Actually, I've got my own copy.

7 MR. BRODHEAD: Off the record.  
8 [Off the record discussion.]

9 BY MR. BRODHEAD:

10 Q Mr. Variani, I take it that you had nothing to  
11 do with the formulation of the Supervisors'  
12 Safety Manual.

13 A Yes, that's correct.

14 Q On page 15 of the document, it says, under  
15 Vinyl Chloride, quote, Aside from the risk of  
16 fire and explosion, vinyl chloride presents no  
17 other very serious problem in general handling.

18 A Where are we reading?

19 MS. VANCE: On page 10 up here  
20 (Indicating).

21 BY MR. BRODHEAD:

22 Q Are we on the same page now?

23 A Yes.

24 Q "The presently accepted maximum allowable  
25 concentration is 500 parts per million. In

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1 concentrations well above 500 parts per  
2 million, vinyl chloride acts as a mild general  
3 anesthetic. In contact with the skin, vinyl  
4 chloride is irritating. Prolonged contact will  
5 result in refrigeration and freezing. Vinyl  
6 chloride is not a serious industrial hazard  
7 provided precautions are taken to avoid leaks  
8 or spills which might provide a fire or  
9 explosion hazard." I've read that correctly,  
10 have I not, sir?

11 A Yes.

12 Q Do you know whether or not the areas that I  
13 just read were taken directly from the 1954  
14 vinyl chloride CSDS?

15 A No, I do not without reading both documents and  
16 comparing them.

17 Q I could take the time and do that. I'm going  
18 to represent to you, sir, so far as I know,  
19 that they were for the purpose of any  
20 questions, okay?

21 A Okay.

22 Q You're free to dispute that if you want, and  
23 the records will show that. Was the level of  
24 vinyl chloride monitored to the extent it could  
25 detect 500 parts per million when you began

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1                   there in May of '62?

2     A            I do not recall.

3     Q            When, if at all, did Monochem first begin to

4                   monitor VCM levels?

5     A            I do not know.

6     Q            Did they ever?

7     A            Eventually they did. It's required by

8                   regulations.

9     Q            Federal regulations?

10    A            Yes.

11    Q            Do you know when the 500 parts per million TLV

12                  was first suggested?

13    A            No, I do not.

14    Q            Do you know what a TLV is?

15    A            Yes.

16    Q            In Exhibit 5, the 1954 CSDS, they talk about

17                  the presently accepted upper limit of safety as

18                  a health hazard is 500 parts per million,

19                  correct?

20    A            Yes.

21    Q            Now, your plant was an outdoor plant, right?

22    A            Right.

23    Q            Painesville was an indoor plant?

24    A            As I understand. I have not personally visited

25                  Painesville, so I cannot say for a fact, but my

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1 understanding is that it is an enclosed  
2 facility.

3 Q How about Illiopolis, Illinois? Is that indoor  
4 or outdoor?

5 A I think it would be indoor because it's in the  
6 same region as Painesville, but I have not --

7 Q You mean up north?

8 A Up north. But once again, I have not visited  
9 Illiopolis either.

10 Q Leominster, Massachusetts? Same answer  
11 probably, right?

12 A That was indoor, and I have visited the  
13 Leominster plant on one occasion.

14 Q Yours is a monomer manufacturing plant, right?

15 A Yes.

16 Q Painesville, Illiopolis and Leominster are all  
17 polymerization plants, correct?

18 A Yes. Now -- yes, sir, at that time.

19 Q Okay. Would you agree with me, Mr. Variani, to  
20 the extent you may know, that, generally  
21 speaking, the highest VCM exposure levels occur  
22 during the polymerization process?

23 A I do not know that.

24 Q Would you agree with me that there is a greater  
25 potential for ambient VCM levels in an indoor

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- 1 facility than in an outdoor facility?
- 2 A Most probably, but I do not know for a fact
- 3 that could occur.
- 4 Q So far as Monochem's industrial hygiene or
- 5 industrial toxicology, did you have anybody
- 6 that did that for you?
- 7 A There were no such individuals on Monochem's
- 8 staff.
- 9 Q Did that kind of expertise come laterally to
- 10 Monochem from either Borden or Uniroyal?
- 11 A I would suspect so, but that is an area I did
- 12 not work in. That was handled by the -- from
- 13 the safety end, but, once again, based on my
- 14 general knowledge and impressions of the
- 15 operations, I would suspect that that
- 16 information flowed in that direction.
- 17 Q Would that comport with the kind of economy of
- 18 scale concept which was the basis for Monochem
- 19 in the first place?
- 20 A Yes.
- 21 Q Did you ever hear of a Dr. Jack Wolfsi?
- 22 A I don't recall the name.
- 23 Q Did you ever hear of an industrial toxicologist
- 24 by the name of W. D. Harris?
- 25 A No.

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- 1 Q Did you ever hear of J. Dexter Forbes, M.D.?
- 2 A No.
- 3 Q Did you ever hear of Mr. Derringer?
- 4 A No.
- 5 Q Did Monochem ever get visited by doctors,  
6 toxicologists, or industrial hygienists on  
7 behalf of Borden or Uniroyal if you know?
- 8 A I do not recall. I do not know.
- 9 Q It says, on page 15 of the employee section of  
10 this safety manual, that vinyl chloride is not  
11 a serious industrial hazard, correct?
- 12 A That's what it says, yes.
- 13 Q Let me ask you, is it a serious industrial  
14 hazard?
- 15 A I go by what is written here because this was  
16 put together by people who are most  
17 knowledgeable in the handling of vinyl  
18 chloride.
- 19 Q So you would defer to them?
- 20 A I defer to them.
- 21 Q Okay. So there was, apparently, a basic  
22 agreement by which Uniroyal and Borden operated  
23 Monochem, and then there was an attendant  
24 Operating Agreement. Do I correctly infer that  
25 from your affidavit?

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- 1 A Yes. It was a basic -- it was a basic  
2 agreement with a number of appendices, one of  
3 which was in the form of an Operating  
4 Agreement. The formal Operating Agreement was  
5 a separately signed document.
- 6 Q They were executed by the same people?
- 7 A Yes.
- 8 Q Which were the chief officers of the respective  
9 shareholder owners, correct?
- 10 A Correct, authorized people from each company to  
11 sign those documents.
- 12 Q Who are the officers and directors of Monochem?
- 13 A It varied from time to time, but they consisted  
14 of Borden and Uniroyal employees. The basic  
15 agreement specifies who the original directors  
16 and officers are.
- 17 Q Right. For example, on Exhibit 1, on page  
18 AI-9, that shows the initial directors, and it  
19 appears that half are Borden people and half  
20 are Uniroyal people. Is that correct?
- 21 A Yes.
- 22 Q And was that generally the case?
- 23 A Yes. That is specified in the agreements.
- 24 Q In other words, the names may have changed, but  
25 they still had a shared Board of Directors?

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1 A Yes, equal number of directors from each  
2 company.

3 Q You say, in your affidavit, that Monochem was  
4 also governed by a two-person executive  
5 committee comprised of one Borden and one  
6 Uniroyal appointee. The executive committee  
7 held a position of superiority and control over  
8 Monochem. What was the purpose of that two-  
9 person executive committee?

10 A The executive committee represented the Board  
11 of Directors in-between meetings of the Board  
12 of Directors. The vice-president in charge of  
13 operation of Monochem reported to the executive  
14 committee. The executive committee was  
15 governed -- oversaw operations of Monochem.

16 Q These executives were liaisons to the separate  
17 companies, weren't they, conduits for  
18 information?

19 A Yes.

20 Q You use the term, in quotes in your affidavit,  
21 in paragraph eight, "know-how."

22 A Yes.

23 Q That is actually a term of art from the  
24 Technical Service Agreement?

25 A Yes. That is common terminology in licensing

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1 or obtaining information on various chemical  
2 processes.

3 Q Was there any patent or trademark associated  
4 with Monochem specifically as it related to  
5 monomer production?

6 A Monochem -- to my knowledge, Monochem did not  
7 acquire any patents in vinyl chloride. It, at  
8 one time, acquired a patent in the acetylene  
9 process for an improvement to the acetylene  
10 process, but there were no patents that I can  
11 recall obtained by Monochem for vinyl chloride  
12 process.

13 Q Do you know who was the chief contributor to  
14 the acetylene conversion patent?

15 A It was the production and technical staff.

16 Q Does the name ring a bell? Usually on patents  
17 they are shown as assignors to a corporation.

18 A I don't know whose name appears on the patent.  
19 I don't recall.

20 Q When the rail cars went out, what was the  
21 accompanying documentation on them when it left  
22 the Monochem premises?

23 A I do not know specifically because the  
24 scheduling of the cars to be delivered to  
25 Monochem for loading and pickup of the cars was

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1 done by Uniroyal and Borden individually; so,  
2 generally, whenever a car is loaded, there is a  
3 bill of lading for that car that goes to the  
4 railroad, but whatever documentation was sent  
5 along with the cars, I do not know.

6 Q The bill of lading is an interstate commerce  
7 requirement, is it not?

8 A Yes.

9 MR. BRODHEAD: I'm going to get into  
10 a new set of -- off the record.

11 [A short recess was taken.]

12 BY MR. BRODHEAD:

13 Q Mr. Variani, before we took our break, we were  
14 talking about, among other things,  
15 documentation that accompanied the rail cars  
16 out. I believe you stated that, to your  
17 knowledge, other than the bill of lading, you  
18 had no specific familiarity. Is that correct?

19 A Yes. On the rail cars that left the Geismar  
20 site to their designations, I do not know  
21 exactly what accompanied those cars.

22 Q The raw materials for the production of vinyl  
23 chloride were piped in natural gas to Monochem,  
24 correct?

25 A Natural gas was, yes, piped in to Monochem.

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- 1 Q And you took the air right out of the good old  
2 Louisiana sunshine, right?
- 3 A Yes.
- 4 Q What else did you need?
- 5 A Anhydrous hydrogen chloride.
- 6 Q Where did you get that?
- 7 A That was piped into the facilities from various  
8 suppliers.
- 9 Q Locally?
- 10 A Locally, yes.
- 11 Q What else did you need? Mercuric chloride?
- 12 A Catalysts for -- are you asking specifically  
13 for the vinyl chloride process?
- 14 Q Yes, sir.
- 15 A The vinyl chloride process required raw  
16 materials of acetylene and anhydrous hydrogen  
17 chloride. In addition to that --
- 18 Q The acetylene was based from the natural gas?
- 19 A Acetylene was based from the natural gas.  
20 Natural gas and oxygen were not used directly  
21 in the vinyl chloride process. The two raw  
22 materials were vinyl chloride or acetylene and  
23 anhydrous hydrogen chloride. In addition to  
24 that, various utilities are used: electricity,  
25 steam, cooling water, clarified water,

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1 nitrogen, some production materials such as  
2 sulfuric acid, and back then caustic soda was  
3 also used.

4 Q With respect to each of those items, to the  
5 extent it involved having to pay for them --

6 A Yes.

7 Q In other words, if it's not air and if didn't  
8 come from the Mississippi River, was Monochem  
9 the vendee of those items?

10 A Except for the natural gas and the anhydrous  
11 HCl. The electricity was purchased by Monochem  
12 from Gulf States Utilities Company. The steam  
13 and the various types of water -- cooling water  
14 and clarified water -- were pumped by  
15 Monochem -- was produced from water pumped by  
16 Monochem from the Mississippi River.  
17 Production materials such as sulfuric acid,  
18 boiler treating chemicals, cooling water  
19 treating chemicals, those were purchased by  
20 Monochem as part of the conversion services  
21 performed by Monochem.

22 Q This product that Monochem made, specifically  
23 the VCM, what is its intended use?

24 A For polymerization into polyvinyl chloride.

25 Q That's its only use, isn't it, so far as where

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1           you people send it?

2    A       Yes. I don't know, but Borden may have made  
3           some copolymers, in other words, take two  
4           different materials and polymerize them  
5           together; but let me say that the intended use  
6           of vinyl chloride monomer was for use in the  
7           production of polymers.

8    Q       This monomer that was made by Monochem and  
9           shipped -- let's talk about Painesville -- was  
10          shipped up to Painesville, it was specifically  
11          known by Monochem that it was would be  
12          polymerized at the Painesville plant, correct?

13   A       Yes.

14   Q       As a chemist -- you are a chemist, aren't you?

15   A       Chemical engineer.

16   Q       You have -- and as an employee of Monochem, you  
17          have some familiarity with what polymerization  
18          entails, do you not?

19   A       I know what a polymer is.

20   Q       What is necessary in order for polymerization  
21          to occur?

22   A       The polymer is mixed with a catalyst to start  
23          the polymerization, and then a chemical is  
24          added to stop the polymerization at a  
25          designated point in the process.

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1 Q The polymerization, that can be suspension or  
2 emulsion polymerization, correct?

3 A Yes.

4 Q They did both at Uniroyal, did they not?

5 A I have no knowledge of the Uniroyal operations  
6 at Painesville other than they received vinyl  
7 chloride monomer and polymerized it.

8 Q How much -- talking about when you began there  
9 in May of '62, how many cars a week, roughly,  
10 would head up to Painesville?

11 A I do not know. If you're asking me to guess,  
12 three, four, five a day for five days a week.

13 Q Okay. If it's five, it's a hundred thousand a  
14 day, so that's 500 thousand pounds a week  
15 roughly speaking?

16 A Roughly, yeah.

17 Q Referring back to Exhibit 4, at page 189, it  
18 says that 100 million pounds of PVC, that is,  
19 polymerized vinyl chloride, are produced at  
20 Painesville each year. As of 1966, when that  
21 was written, do you have any basis upon which  
22 to dispute that?

23 A No.

24 Q At any time prior to the federal standards,  
25 that is, after January '74 when OSHA came in

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1 and implemented some rather strict regulations,  
2 at any time between when you began in May of  
3 '62 and that juncture in time, did you ever  
4 participate in any discussion, meeting,  
5 reading, or preparation of any document that  
6 had to do with the health hazards of vinyl  
7 chloride?

8 A Not that I recall, and that would've been '62  
9 until '69 in my case. My answer applies to the  
10 '62-'69 period.

11 Q Referring to Exhibit 5, on page 6 of that  
12 document, sir, under 3.2.2, it says --

13 A I'm sorry, say that again? 3.2.2? Okay.

14 Q It says The MCA recommends the following, in  
15 addition to, or in combination with, any label  
16 warnings or other statements required by  
17 statutes, regulations or ordinances, and there  
18 is a label below. It says, Vinyl Chloride,  
19 Danger, Extremely Flammable. Keep away from  
20 heat, sparks, and open flame. Keep container  
21 closed. Use with adequate ventilation. Avoid  
22 prolonged breathing of vapor.

23 What, if anything, to your knowledge,  
24 did Monochem send on, to Borden or Uniroyal, in  
25 terms of warnings, either this specifically or

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1           like it, generally, as to the shipments that  
2           went out of the Monochem plant in Geismar?  
3    A       Any warnings placed on the rail cars would've  
4           been done by the Production Department and,  
5           specifically, the people who load the vinyl  
6           chloride cars, so I cannot tell you exactly  
7           what they put on it. I don't recall.  
8    Q       Should I talk to Mr. Landry about that?  
9    A       Yes.  
10   Q       Are you familiar, generally, with the  
11           technology of monitoring parts per million of  
12           certain chemicals in the air?  
13   A       Now I am. Back then I was not.  
14   Q       When were you first familiar, sir?  
15   A       Late seventies, early eighties.  
16   Q       On the immediate inside page of Exhibit 5, it  
17           says, quote, It has a mild anesthetic action in  
18           concentrations above 500 parts per million and  
19           its vapors are irritating to the eyes.  
20   A       I'm sorry, what page are we on, please?  
21   Q       (Counsel indicates). My question to you, Mr.  
22           Variani, is, would it be a safe statement that  
23           with respect to the reference to 500 parts per  
24           million in this 1954 document, which is Exhibit  
25           5, that at Monochem, those levels, to the

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1 extent 500 parts per million was a standard,  
2 was not monitored so far as you know?

3 A Was not monitored? I cannot answer that. You  
4 will have to direct that question to the  
5 production managers and to Mr. Landry.

6 Q Did Monochem have any regular periodic  
7 meetings, with Uniroyal or Borden, concerning  
8 the adverse health effects of vinyl chloride?

9 A I do not know. That was not in my area.

10 Q You have never attended a meeting of the MCA?

11 A No.

12 MR. BRODHEAD: Off the record.

13 [Off the record discussion.]

14 BY MR. BRODHEAD:

15 Q I'm showing you what's been marked Exhibit 9,  
16 Mr. Variani. This is a CSDS sheet for vinyl  
17 chloride from the MCA, revised 1972; is that  
18 correct?

19 A Yes.

20 Q When were you first familiar with that  
21 document?

22 A I do not recall.

23 Q Did you review it preparatory to your testimony  
24 today?

25 A Did I review this? I did not read it in

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1 detail. I leafed through it.

2 Q Okay. I'm showing you what's been marked  
3 Exhibit 10. It is the Monochem Safety Handbook  
4 dated August 1, 1974; is that correct?

5 A Yes.

6 Q Are you familiar with that document?

7 A No. I had left Monochem in July of '69, so I  
8 would not have seen this document.

9 Q On page 15 of that document, Mr. Variani, in  
10 contradiction to what had been said in one of  
11 the earlier Monochem safety handbooks, it says,  
12 "Vinyl chloride is to be considered a serious  
13 industrial hazard." My question to you is,  
14 when, if at all, if you know, did the position  
15 on Monochem's part, as to whether or not vinyl  
16 chloride was a serious industrial hazard, take  
17 place?

18 A I do not know.

19 MS. VANCE: Let me just begin --  
20 preliminarily object to the introductory  
21 comment about in contradiction. That carries  
22 with it a little bit of implication about,  
23 perhaps, Monochem's change of knowledge or  
24 intent, and I don't want it to be interpreted  
25 that way.

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1 MR. BRODHEAD: Well, I'm going to go  
2 back then to the exhibit and point it out  
3 because I took the time to do that previously.

4 MS. VANCE: The words will say what  
5 they are, but to characterize them as  
6 contradiction suggests that we were in error at  
7 one point or another or that it might carry  
8 with it some implication about our state of  
9 knowledge or intent or conduct, and I don't --  
10 it's that reference to which I object. I know  
11 that the language does change. The documents  
12 will speak for themselves in that respect.

13 BY MR. BRODHEAD:

14 Q So that the record is clear, Mr. Variani, on  
15 Exhibit 7, on page 20 -- and Exhibit 7 is  
16 Monochem's safety handbook; in this particular  
17 instance, May 22nd of '64 -- it does say,  
18 "Vinyl chloride is not a serious industrial  
19 hazard provided precautions are taken to avoid  
20 leaks or spills which might provide a fire or  
21 explosion hazard." Have I read that correctly?

22 A Yes.

23 Q Now, I had asked you a question. Did you  
24 understand the question, or would you like me  
25 to rephrase it?

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1 A You asked when did Monochem change to consider  
2 vinyl chloride as a serious industrial hazard,  
3 and my answer is I do not know.

4 Q I'm showing you what's been marked Exhibit 11.  
5 Can you identify that?

6 A It's entitled MCA Chem Card Transportation  
7 Emergency Guide for Vinyl Chloride.

8 Q When were you first familiar with that  
9 document?

10 A I don't know if I have seen this before or not.

11 Q Do you know what it is intended to accompany?

12 A No, I do not without reading it.

13 Q Why don't you take a minute and take a look at  
14 it.

15 A (Witness reviews document.) It implies to me  
16 what to do should an emergency occur while  
17 vinyl chloride is being transported.

18 Q Okay. But you're not familiar with how it is  
19 used, if at all, by Monochem?

20 A That's correct. I'm not familiar.

21 Q That's a 1965 August document?

22 A Yes.

23 Q Do you know whether or not this was  
24 co-referenced in the CSDS?

25 A I do not, no.

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1 Q When did Mr. Kogler begin with Monochem to your  
2 knowledge?

3 A 1969.

4 Q Who was his predecessor?

5 A Jack Little.

6 Q Do you know Benton Leach?

7 A No.

8 Q Have you ever spoken with him?

9 A No.

10 Q Did the expansion of Geismar Industries or that  
11 was provided by Geismar Industries provide the  
12 necessary augmentation of the VCM production  
13 facilities?

14 A Yes.

15 Q Was it necessary to augment production again at  
16 any later time?

17 A I think so by making various improvements to  
18 the process.

19 Q But there was no new corporation formed?

20 A No.

21 Q Who, in your judgment, would be most  
22 knowledgeable as to why Geismar Industries was  
23 formed for the purpose of augmenting Monochem's  
24 production?

25 A In my judgment, it would be the legal staffs of

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1 Borden and Uniroyal and the Monochem Board of  
2 Directors at that time.

3 MR. BRODHEAD: Okay. I think I'm  
4 just about done. Why don't we take a break for  
5 a couple of minutes.

6 MS. VANCE: Okay.

7 [A short recess was taken.]

8 BY MR. BRODHEAD:

9 Q Did you ever participate in any epidemiological  
10 study or help to gather data concerning the  
11 harmful effects of vinyl chloride?

12 A No.

13 Q Do you know what acroosteolysis is?

14 A No.

15 Q Raynaud's disease or phenomenon?

16 A No.

17 Q Do you have, as you sit here today, any  
18 familiarity with the results of animal studies  
19 concerning vinyl chloride exposure?

20 A Results of studies, no.

21 Q Do you have any familiarity, generally, about  
22 the toxicity of vinyl chloride to humans?

23 A No.

24 Q Do you know anything about vinyl chloride in  
25 the disturbances of liver function?

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1 A My understanding is that vinyl chloride has  
2 been designated as can cause cancer suspect  
3 agent for liver diseases.

4 Q What kind of liver diseases?

5 A I've heard the term angiosarcoma.

6 Q Do you know what that is?

7 A No, other than it's a disease of the liver.

8 Q Mr. Variani, referring to Exhibit 9, on page 6  
9 under Health Hazard, it says, "Exposure to high  
10 levels may produce some lung irritation.  
11 Chronic overexposure may produce liver injury."  
12 Is that correct?

13 MS. VANCE: Is what correct?

14 A That's what it reads.

15 MS. VANCE: Thank you.

16 MR. BRODHEAD: Yeah. He is not going  
17 to let me get away with that. He is going to  
18 check on me, right?

19 BY MR. BRODHEAD:

20 Q What does that mean to you, Mr. Variani:  
21 "Chronic overexposure may produce liver  
22 injury"?

23 A Just what it says. If you're exposed to vinyl  
24 chloride over -- with frequency over a period  
25 of time, it could cause liver problems.

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1 Q What does the term overexposure mean to you?  
2 Can you quantify that in any way?

3 A As mentioned there, they must have defined what  
4 is the exposure limits that should be incurred;  
5 and if those limits are exceeded, that could be  
6 classified as overexposure as defined --

7 Q In the document?

8 A -- in the document.

9 Q In the same document, Mr. Variani, on page 7  
10 under 4.4.3, it says, "Vinyl chloride vapor  
11 concentrations in air near or within the  
12 explosive range are most easily determined by  
13 the use of a standard combustible gas  
14 indicator. The concentration of vapor may be  
15 read directly on the meter which is usually  
16 graduated in percent of the lower flammable  
17 limit. The above should not be used for the  
18 detection of health hazards." I've read that  
19 correctly, have I not, sir?

20 A Yes.

21 Q Did Monochem utilize a standard combustible gas  
22 indicator to detect the explosive range?

23 A Most probably. As to whether or not it -- I do  
24 not know whether or not it was used for health  
25 monitoring, but it's standard practice, in a

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1 chemical facility, that you check -- before you  
2 do any work on a vessel and so forth, you check  
3 to be sure that there is not an explosive  
4 mixture in the vessel or surrounding the  
5 vessel, and this is done with the type of  
6 explosion meter that is described there.

7 Q What I need to know is, did Monochem use these  
8 kind of meters?

9 A I assume so.

10 Q While you worked for Monochem?

11 A I assume so.

12 Q You have no specific knowledge?

13 A I have no specific knowledge.

14 Q Under 4.4.4 on the following page, that is,  
15 page 8, it says, "A specially calibrated  
16 indicator is commercially available for vinyl  
17 chloride monomer determination within the toxic  
18 range. Ampules which change color on exposure  
19 to VCM vapors are also commercially available  
20 and may be employed for the detection of low  
21 level concentrations." My question to you,  
22 sir, is, do you have any knowledge of the  
23 existence of such an ampule which changes color  
24 on exposure?

25 A Let me see how it's worded, please. Not of the

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1           ampule, no.

2   Q       You ever heard of it before we just discussed  
3           this today?

4   A       No. I assume when they say ampule, they mean  
5           ampule containing a liquid of some sort. I  
6           don't know what the definition of ampule is, so  
7           I can't -- I'll say I don't know.

8   Q       Mr. Variani, on page 17 of Exhibit 9, under  
9           10.1.1, paragraph three, it states, "Recent  
10          research studies reported from Italy indicate  
11          that repeated, long-term high level exposure of  
12          rats to vinyl chloride monomer vapor can result  
13          in the development of malignant tumors.  
14          However, many years of industrial experience  
15          with human exposures to concentrations  
16          frequently far above current standards have not  
17          demonstrated any carcinogenicity to humans."

18                   My question to you, sir, is, where,  
19          on God's green earth, is the data which would  
20          suggest that statement if you know? Do you  
21          know where that is?

22   A       I do not know. You're asking particular to  
23           this last sentence that says have not  
24           demonstrated any carcinogenic effect to humans?

25   Q       Yes.

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1 A I do not know where the data is or on what  
2 basis that statement was made.

3 Q If you were -- well, first of all, have you  
4 ever read that statement before?

5 A No.

6 Q If you were a vinyl chloride worker, would that  
7 be reassuring to you?

8 MS. VANCE: Objection.

9 BY MR. BRODHEAD:

10 Q You can answer.

11 A Would that be objectionable to me?

12 Q No, reassuring to you.

13 A Reassuring to me?

14 MS. VANCE: As of now? As of 1972?  
15 As of 1974?

16 MR. BRODHEAD: It's either true or  
17 it's untrue.

18 MS. VANCE: Well, reassuring with  
19 what present state of knowledge? I object to  
20 the form of the question.

21 BY MR. BRODHEAD:

22 Q You may answer, Mr. Variani.

23 A I guess it would be assuring, yes; assuring to  
24 me, yes.

25 Q Did you have any participation, whatever, in

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1 the preparation of this document? I think you  
2 told me you did not. Is that correct?

3 A That's correct.

4 Q Okay. And I think you told me, as far as  
5 Monochem employees would be concerned, that  
6 would be Mr. Little, possibly, Mr. --

7 MR. BRODHEAD: We have already  
8 established he had nothing to do with the  
9 preparation of that document.

10 MS. VANCE: It's from the MCA. Of  
11 course he didn't.

12 MR. BRODHEAD: Right.

13 BY MR. BRODHEAD:

14 Q You told me previously that there were some  
15 representatives from Monochem that participated  
16 in the MCA; is that correct?

17 A I said if there were some representatives, if  
18 Monochem were a member of the MCA, the people  
19 representing Monochem would most probably have  
20 been the plant manager, the production manager,  
21 or the technical manager.

22 Q Okay. And I can take that up with others since  
23 it's not in your field. Fair enough. I was  
24 asking you previously -- one more question  
25 about this document. Back to Exhibit 9, on

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1 page 11, under 7.2.2.1, and I quote, The  
2 Manufacturing Chemists' -- MCA -- recommends  
3 that all the containers of VCM should bear a  
4 label as shown. The text is designed for the  
5 product as shipped for industrial use. And  
6 then there is a recommended label on the bottom  
7 half of the page, is there not, sir?

8 A Yes.

9 Q I believe I know your answer to this one, but I  
10 want to make perfectly sure. Do you know  
11 whether or not Monochem shipped, for industrial  
12 use, its containers with that label on it?

13 A I do not know.

14 Q Okay. Getting back to some medical conditions,  
15 I already asked you about acroosteolysis, and  
16 you said you never heard of it, right?

17 A Yes.

18 Q How about lung changes associated with vinyl  
19 chloride exposure? Have you ever heard of  
20 that?

21 A No.

22 Q How about changes in blood levels, hematologic  
23 changes?

24 A No.

25 Q You already told me you had no knowledge of

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1 animal studies, right?

2 A Yes.

3 Q How about a brain cancer called glioblastoma  
4 multiforme? Did you ever hear of that?

5 A No.

6 Q Did you ever hear of it suggested to be  
7 associated with vinyl chloride exposure?

8 A No.

9 Q How about lung cancer? Same question.

10 A No. The only medical term I've ever heard  
11 associated with vinyl chloride is angiosarcoma.

12 Q Mr. Variani, to your knowledge, did Monochem,  
13 after OSHA came in and reduced levels 500 fold  
14 in 1974, did Monochem ever undertake to do any  
15 post marketing warnings about what was now  
16 known about vinyl chloride?

17 MS. VANCE: Objection to post  
18 marketing.

19 A Would you define post marketing?

20 BY MR. BROADHEAD:

21 Q In other words, after it supplied it, after it  
22 shipped it, after the fact, what it learned  
23 after the fact.

24 MS. VANCE: Supplied to whom?  
25 Anybody?

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1 MR. BRODHEAD: Well, they only  
2 supplied it to two places so far as his  
3 testimony is concerned.  
4 A No, no. Monochem wouldn't have done that to my  
5 knowledge.  
6 BY MR. BRODHEAD:  
7 Q Yes, sir. Do you know a William J. Boyne? You  
8 mentioned him previously, didn't you?  
9 A Yes.  
10 Q And what about Gordon Anderson? Do you know  
11 him?  
12 A Yes.  
13 Q I'm showing you what's been marked Exhibit 12,  
14 Mr. Variani. This is a multiple page  
15 document -- the first page is dated 5/15/73 --  
16 from Dr. Harris to Dr. Gaffey at  
17 Tabershaw-Cooper, correct?  
18 A Yes.  
19 Q Attached to it are multiple pages, two of which  
20 have to do with the MCA VCM epidemiology study;  
21 is that correct?  
22 A Yes.  
23 Q Followed by which, apparently, is a list of  
24 employees of Monochem; is that correct?  
25 A Yes.

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- 1 Q Just glancing through it, do you recognize a  
2 number of those names?
- 3 A Any of these names?
- 4 Q Yes, sir. I don't want to know which ones you  
5 recognize but just generally.
- 6 A I recognize a couple of them I saw, yeah.
- 7 Q So far as you know, that is, in fact, a list of  
8 Monochem employees as of that time or who had  
9 VCM exposure?
- 10 A Yes. These are Monochem employees.
- 11 Q Some are no longer employed?
- 12 A Some are no longer employed. There is a column  
13 here labeled Total Vinyl Exposure, so I assume,  
14 from that, these were exposed.
- 15 Q I just wanted to make sure that this list is  
16 what it purports to be. Who is H. L. Schmidt?
- 17 A He was a Borden employee stationed at Borden's  
18 administrative headquarters. Henry had various  
19 levels of responsibility at Borden. I think  
20 one of which may have been in the safety area.
- 21 Q I'm showing you what's been marked Exhibit 13,  
22 Mr. Variani. It is a May 8th, 1973 interoffice  
23 -- excuse me -- intercompany and office  
24 correspondence, on Borden's stationery, to  
25 Messrs. Peed, Little, and Bevis from Mr.

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1 Schmidt that we just referred to; is that  
2 correct?

3 A Yes.

4 Q There is one page attached which also shows the  
5 MCA VCM epidemiology study, correct?

6 A Yes.

7 MS. VANCE: It makes reference to  
8 that study. It's not, obviously, the study  
9 itself.

10 BY MR. BRODHEAD:

11 Q And it shows Tabershaw-Cooper Associates  
12 contact for subject study Jack Little?

13 A Yes.

14 Q Why, if you know, sir, was Mr. Little  
15 designated so far as the epidemiology issue was  
16 concerned?

17 A I do not know.

18 Q Okay.

19 MR. BRODHEAD: Off the record.

20 [Off the record discussion.]

21 MR. BRODHEAD: I think that's all I  
22 have, Mr. Variani. Thank you very much. I  
23 appreciate you coming in.

24 MS. KOESTER: I don't have any  
25 questions. Thank you for your time, Mr.

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1 Variani.

2 MS. VANCE: Mr. Variani, I do want to  
3 ask just a couple of clarifying questions since  
4 we're down here.

5 MR. BRODHEAD: Show my objection to  
6 your inquiry. Go ahead.

7 EXAMINATION

8 BY MS. VANCE:

9 Q As far as you know, did Monochem, Inc. always  
10 function as a corporation in the course of its  
11 business in Geismar, Louisiana?

12 A Yes.

13 Q To your knowledge, did that corporation ever  
14 dissolve or, by any other means, terminate its  
15 continuity during the time that it was in the  
16 business of preparing VCM for shipment to  
17 Uniroyal?

18 A No.

19 Q To your knowledge -- and I think as we  
20 discussed here today -- did Monochem, Inc.,  
21 while it was acting in the form of a  
22 corporation, maintain a Board of Directors?

23 A Yes.

24 Q Did it have Articles of Incorporation?

25 A Yes.

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1 Q Did it have shareholders?

2 A Yes.

3 Q Did it have officers of the corporation?

4 A Yes.

5 Q And did it maintain separate sets of corporate  
6 books and records?

7 A Yes.

8 Q Did Monochem, Inc. ever own any assets?

9 A Yes.

10 Q What was the nature of the assets as owned by  
11 Monochem as far as you know?

12 A For the production of vinyl chloride monomer,  
13 acetylene, oxygen, and utilities for the  
14 exclusive benefit of its owners, of its  
15 shareholders.

16 Q As far as you know, were any of those  
17 production assets ever owned by Borden and/or  
18 Uniroyal?

19 A No.

20 Q As far as you know, did Monochem exercise any  
21 degree of control over the operation of  
22 Uniroyal's Painesville polymerization plant?

23 A It did not.

24 MS. VANCE: I have nothing further.

25 Thank you. If we're through, he will not waive

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1 signature pursuant to the Rules of Civil  
2 Procedure in Ohio depositions.

3 MR. BROADHEAD: Nothing further right  
4 now. Thank you.

5  
6 WITNESS EXCUSED AT 11:07 A.M.

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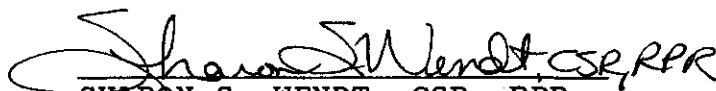
1 STATE OF LOUISIANA

2 PARISH OF EAST BATON ROUGE

3 I, SHARON S. WENDT, a Certified Shorthand  
4 Reporter and a Registered Professional Reporter, do  
5 hereby certify that the foregoing is a true and  
6 correct transcript of the deposition of JOSEPH P.  
7 VARIANI given under oath in the preceding matter on the  
8 10th day of November, 1992, as taken by me in  
9 Stenographic machine shorthand, complemented with  
10 magnetic tape recording, and thereafter reduced to  
11 transcript using Computer-Aided Transcription.

12 I further certify that I am not an  
13 attorney or counsel for any of the parties; that I  
14 am neither related to nor employed by any attorney  
15 or counsel connected with this action; and that I  
16 have no financial interest in the outcome of this  
17 action.

18 Baton Rouge, Louisiana, this 12th day of  
19 November, 1992.

20  
21  
22   
23 SHARON S. WENDT, CSR, RPR  
24  
25

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STATE OF LOUISIANA

PARISH OF EAST BATON ROUGE

BEFORE ME, the undersigned Notary Public,  
within and for the Parish of East Baton Rouge,  
Louisiana, personally came and appeared, JOSEPH P.  
VARIANI, who, after having been first duly sworn, did  
depose and say:

THAT he is the witness named in the foregoing  
deposition; that he has read or has had read to him the  
preceding 80 pages of transcribed matter, and that the  
same constitute a true and correct transcription of the  
testimony given by him in this matter on the 10th of  
November, 1992, except for the following corrections,  
if any:

| <u>PAGE</u> | <u>LINE</u> | <u>DESCRIPTION</u> |
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\_\_\_\_\_  
Joseph P. Variani

SWORN TO AND SUBSCRIBED before me, Notary,  
this \_\_\_\_ day of \_\_\_\_\_, 1992, in Baton Rouge,  
Louisiana.

\_\_\_\_\_  
NOTARY PUBLIC

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IN THE COURT OF COMMON PLEAS

LAKE COUNTY, OHIO

RUTH N. BURNHEIMER,  
Plaintiff

VERSUS

UNIROYAL CHEMICAL CO., INC.  
ET AL,  
Defendants

CASE NUMBER 91CV001653

JUDGE PARKS

\* \* \* \* \*

EXHIBITS to the deposition of JOSEPH P.

VARIANI, taken before and by Sharon S. Wendt, a  
Certified Shorthand Reporter for the State of Louisiana  
and a Registered Professional Reporter, at the offices  
of Baton Rouge Court Reporters, on the 10th day of  
November, 1992, commencing at 8:44 a.m. and ending at  
11:07 a.m.

APPEARANCES:

PETER J. BRODHEAD, ESQ. ) For the Plaintiff  
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1100 Huntington Building ) Monochem, Inc.  
Cleveland, Ohio 44115 )

ANNE Y. KOESTER, ESQ. ) For the Defendant,  
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