

1 STATE OF INDIANA
 2 COUNTY OF MARION
 3
 4 IN THE MARION SUPERIOR COURT
 5 CIVIL DIVISION, ROOM 2
 6 CAUSE NO. 49D02-9501-MI-0001-374
 7

8 FREAL and MARY FRYE, :
 9 Plaintiff, :
 10 vs. :
 11 ACandS, INC., et al, :
 12 Defendants. :
 13 - - - - -
 14
 15

16 DEPOSITION OF: CARLO MARTINO
 17 WEDNESDAY, MAY 9, 2001
 18
 19
 20
 21

22 ATLANTIC CITY COURT REPORTING COMPANY LLC
 23 1125 Atlantic Avenue, Suite 416
 24 Atlantic City, New Jersey 08401
 25 609-345-8448

DUPLICATE
 FILE COPY

dupl. VC

1 Deposition of CARLO MARTINO, taken
2 in the above-entitled matter before Phyllis A.
3 Semanchik, a Certified Shorthand Reporter
4 (License No. XI 01200) and Notary Public of the
5 State of New Jersey, taken at the EMBASSY
6 SUITES, 121 Centennial Avenue, Piscataway, New
7 Jersey, on Wednesday, May 9, 2001, commencing
8 at 2:55 p.m.

9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

3

1 A P P E A R A N C E S:

2
3 NESS, MOTLEY, LOADHOLT, RICHARDSON & POOLE
4 BY: M. ERIC BOITER, ESQ.
5 P.O. Box 365
6 1730 Jackson Street
7 Barnwell, South Carolina 29812
8 (803) 224-8729
9 Attorneys for Plaintiffs
10
11 LAUDIG, GEORGE, RUTHERFORD & SIPES
12 BY: MICHAEL L. SCHULTZ, ESQ.
13 156 East Market Street, Suite 600
14 Indianapolis, Indiana 46204
15 (317) 637-6071
16 Attorneys for Plaintiffs
17
18 KELLEY, DRYE & WARREN
19 BY: JONATHAN GLASSER, ESQ.
20 101 Park Avenue
21 New York, New York 10178
22 (212) 808-7583
23 Attorneys for Defendant UNION CARBIDE
24
25

4

1 A P P E A R A N C E S (continued):
2

3 LOCKE, REYNOLDS
 4 BY: MICHAEL BERGIN, ESQ.
 5 1000 Capitol Center South
 6 201 North Illinois Street
 7 Indianapolis, Indiana 46204
 8 Attorneys for Defendants UNION CARBIDE and
 9 USG CORPORATION
 10
 11 WOODEN & McLAUGHLIN
 12 BY: JAMES M. SNYDER, ESQ.
 13 1600 Capitol Center South
 14 201 North Illinois Street
 15 Indianapolis, Indiana 46202
 16 Attorneys for Defendant FLINCOTE
 17
 18
 19
 20
 21
 22
 23
 24
 25

5

1	I N D E X		
2			
3	WITNESS	EXAMINATION BY	PAGE
4	CARLO MARTINO	MR. BOITER	7,126,144

5 MR. BERGIN 114,143
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

6

1 CARLO MARTINO,
2 125 River Road, Somerville, New Jersey, having
3 been first duly sworn, was examined and
4 testified as follows:

5 EXAMINATION

6 BY MR. BOITER:

7 Q. Mr. Martino, my name is Eric Boiter
8 and I'm representing the plaintiff. As you
9 know, we noticed your deposition this
10 afternoon.

11 I don't know if you've given a
12 deposition before. It's going to be a series
13 of questions I'm going to ask you and I'm going
14 to ask you to answer to the best of your
15 ability. If that's okay with you?

16 A. Yes, it is.

17 Q. If you don't understand a question
18 I ask, stop me and tell me you don't understand
19 it, it was a goofy question. If you don't hear
20 it, just tell me to speak up a little bit. I
21 will try to keep my voice up, if you try to do
22 the same for me.

23 A. The speaker phone is not the best
24 and I am a little hard of hearing, so I may
25 have to do that.

7

C. MARTINO - MR. BOITER

1 Q. If you need to take a break, just
2 let us know, if you need a rest or to go to the
3 bathroom.

4 If you can start by giving your
5 full name and address for the record, please.

6 A. Carlo Frances Martino,

7 M-A-R-T-I-N-O, 125 River Road, Somerville,
8 S-O-M-E-R-V-I-L-L-E, New Jersey 08876.

9 Q. A couple of minutes ago Mr. Glasser
10 indicated that you are retired. When did you
11 retire and who was the employer that you
12 retired from?

13 A. I retired the end of March in 1996.
14 I was working for Union Carbide at the
15 Piscataway location. That's usually called the
16 Bound Brook plant.

17 Q. We'll talk a little bit more about
18 your work at Union Carbide in a little bit.
19 Could you just briefly describe for us your
20 educational background, when you finished high
21 school and then what further education you had.

22 A. Yes. I graduated from the Brockway
23 High School -- that's in Pennsylvania where I
24 was born -- in 1944 and then enrolled in an
25 engineering course at Carnegie-Mellon

C. MARTINO - MR. BOITER

1 University. At that time it was known as
2 Carnegie Institute of Technology in Pittsburgh.
3 I received a BS degree in chemical engineering
4 from Carnegie-Mellon in 1948. My education
5 there was interrupted for one year because I
6 joined the Navy, US Navy. That was from 1945 to

7 1946.

8 I went to work for Union -- well,
9 at that time I went to work for the Bakelite
10 division of Union Carbide in Bound Brook. That
11 was August, 1948.

12 Q. So, that was working -- going to
13 work for Bakelite was the first job you had
14 after graduating from college?

15 A. Yes. And all of my career was at
16 that site, which was forth-seven years and
17 eight months.

18 Q. So, actually, from 1948 to 1996 you
19 worked at the Bound Brook plant?

20 A. That's right.

21 Q. That makes it simple. You got your
22 BS degree in chemical engineering. Have you
23 gotten any further degrees or technical
24 training, other than on-the-job training at
25 Union Carbide?

9

C. MARTINO - MR. BOITER

1 A. Well, on-the-job training, and we
2 had educational programs to keep up to date,
3 but nothing that led to another degree.

4 Q. Let's start in August of '48, then,
5 when you went to work for Bakelite and try to
6 get a little bit of the background in terms of
7 your work at Union Carbide.

8 When you started in August of 1948,
9 what were your job responsibilities?

10 A. My first assignment was as
11 production trainee. It consisted of being
12 assigned to a department in the plant for about
13 two or three weeks and then reassigned to
14 another. It was a training program whose
15 purpose was to make sure that those of us who
16 were just hired were acquainted with all of the
17 operations at that location. That lasted about
18 a year.

19 Q. Okay. And do you remember -- let me
20 phrase it this way. As best you can recall,
21 would you tell me what various types of
22 training you went through. When you went one
23 place for three weeks, what was that; when you
24 went somewhere else, what was that. Just some
25 idea of what was going on at the plant is what

10

C. MARTINO - MR. BOITER

1 I am asking.

2 A. We would be assigned to the
3 department head, who would formally assign us
4 to someone who worked for him. We would spend
5 those two or three weeks just following that
6 person around and observing what was being
7 done. In some cases we were given presentations

8 on the background of what was being made there,
9 a description of the process. We often would
10 spend time in the manufacturing operation
11 observing what the various operators did.

12 Q. Was the manufacturing operation
13 considered one of the departments?

14 A. No. It was -- it had many
15 departments. It was one of the main
16 manufacturing plants at that time. It had the
17 Bakelite phenolic resin manufacturing area, the
18 Bakelite phenolic molding material plant. It
19 made some of the raw materials, like
20 formaldehyde and later phenol. There was a
21 polystyrene plant there. A little bit later
22 there was a vinyl plant and a vinyl calendaring
23 operation. At one time there were 3,300
24 employees there.

25 It also was -- had a small part of

11

C. MARTINO - MR. BOITER

1 the research and development department there,
2 which -- and later that became -- was expanded
3 to be the center for R&D.

4 Q. Okay. So, you were about a year as
5 a production trainee. What did you then do
6 next?

7 A. I was transferred to the research
8 and development department and assigned to the

9 polystyrene section. That's a thermoplastic.
10 Are you familiar with the difference between
11 thermoplastic and thermoset?
12 Q. I am to some extent. What little I
13 know about it -- and correct me if I'm wrong --
14 that didn't have anything to do with the
15 Bakelite?
16 A. It's important in that we may be
17 referring to thermoset and thermoplastic
18 materials.
19 Q. Why don't you explain what you mean
20 when you use those two terms.
21 A. The thermosetting materials are
22 plastics that will cure when they're molded,
23 and they cannot be melted and reformed. The
24 thermoplastic--
25 Q. That would be like Bakelite, as I

12

C. MARTINO - MR. BOITER

1 understand it?
2 A. That's right. Bakelite is one of
3 the first that fit into that category.
4 Thermoplastic resins can be formed under heat
5 and whatever you make can be reheated and
6 melted and reformed again if you want to. We
7 had both thermoset and thermoplastic being
8 manufactured at that location.

9 Q. And when you went into their
10 research and development, you were involved
11 initially with the thermoplastics?
12 A. Yes, for the first -- up until
13 1959.
14 Q. For about 10 years, from about late
15 '49, early '50, to '59, did you say?
16 A. '59, yes.
17 Q. You had been involved with the
18 thermoplastics?
19 A. I was involved with the polystyrene
20 thermoplastics until 1959. Then I was appointed
21 to a group manager position.
22 Q. During the period from -- is it
23 okay if I just call it '49 to '59 for that
24 period you were doing the thermoplastics?
25 A. That's right.

13

C. MARTINO - MR. BOITER

1 Q. From the '49 to '59 time period
2 when you were involved in thermoplastics did
3 you have any responsibilities or duties with
4 regard to Bakelite?
5 A. Not during that time. I worked
6 nearby the people who did, so I was familiar
7 with the product during that time, but I was
8 not involved in doing anything with it.
9 Q. Describe for me what your

10 familiarity with the Bakelite was from '49 to
11 '59.

12 A. During that time would be
13 information that I -- business type information
14 which was available to us, presented at sales
15 meetings. Both -- all groups were represented
16 there, and we would hear presentations on what
17 was happening and all the businesses. There
18 would also be technical presentations to our
19 management organization, and there would be
20 people giving technical presentations both on
21 -- on all products.

22 Q. In that period of time, did you
23 have familiarity with formulations of the
24 products and the fillers that were used in the
25 products and that type of information?

14

C. MARTINO - MR. BOITER

1 A. In a general way. I knew what was
2 being used. I at the time did not get into the
3 technical details. I didn't do any formulation
4 at that time in the Bakelite product area.

5 Q. Are you familiar with whether or
6 not asbestos was used as a filler in some of
7 the Bakelite in the '49 to '59 time frame?

8 A. Not in detail, no.

9 Q. But you were aware it was being
10 used as a filler?

11 A. I knew it was a filler, among many.

12 Q. That's what I'm asking. You knew it
13 was a filler. If I started asking you which
14 products or how much or whatever, would you
15 have any information during that period of
16 time?

17 A. Not during that time, but as I
18 assume -- as we proceed, I did manage that area
19 for about 14 years, so the products that I
20 inherited didn't start when I became the group
21 manager there. They started before. So I had to
22 learn what was done before.

23 Q. We will get to that in a minute.
24 I'm really -- if it's possible to put yourself
25 in that position, I want to know what you knew

15

C. MARTINO - MR. BOITER

1 in that 10-year period before you moved on to
2 become group manager.

3 A. In the Bakelite area?

4 Q. What you knew about Bakelite in the
5 '49 to '59 time period. You knew asbestos was
6 used as a filler, for example, and that's all
7 you kind of indicated you knew about the
8 asbestos used during the period of time from
9 '49 to '59, before you became a group
10 manager.

11 MR. BERGIN: I'm going to object to
12 the form because it's a little confusing. You
13 are suggesting a time period and it's not clear
14 from the time period whether you are saying at
15 that point in time did he know, or did he know
16 what was done in that point of time, whether he
17 knew it then or later he learned.

18 Q. What I'm talking about is what you
19 knew at that point in time from '49 to '59. You
20 indicated that you knew asbestos was a filler.
21 What else -- during that period of time, '49 to
22 '59, what else did you know about asbestos and
23 Bakelite?

24 A. Only that it could be used as a
25 filler, and I knew enough about the process,

16

C. MARTINO - MR. BOITER

1 the thermosetting processes and the
2 manufacturing methods, to know how it was used
3 by customers. It's difficult for me to answer
4 that because a lot of my knowledge came
5 afterwards and I can't say, well, how much of
6 that was available before 1959 and how much was
7 available after. It's a long time.

8 Q. I understand that. I really do. I
9 am really just sort of trying to get a feel --
10 from '49 to '59 I know you are doing
11 thermoplastics -- just how much information you

12 felt you knew and how knowledgeable you were
13 during that ten-year period.

14 A. For example, BMG 5000, which is a
15 wood flour filled molding material, I knew that
16 was being made during that period of time and I
17 knew how it was being used.

18 As a production trainee, I spent
19 several months in the various departments in
20 that area. So, I was familiar with how the
21 product was made and what it looked like and
22 who the large customers were. So, it wasn't
23 that I was without knowledge. The people who
24 worked in the area next to me, who are in the
25 same building, were working on the products.

17

C. MARTINO - MR. BOITER

1 Q. Okay. Well, my next questions I am
2 not going to limit by time. I would like for
3 you to use knowledge of that period from '49 to
4 '59 or that you had gained since that time at
5 Union Carbide. Besides the BMG 5000, what other
6 Bakelite products, by that numerical
7 designation, were being manufactured in the '49
8 to '59 time period?

9 A. There was an BMG 7000, which was
10 another wood flour filled material.

11 Q. Okay.

12 A. BMG 2028, which was a cotton flock
13 filling material. Those were the popular ones.
14 BMG 5498.

15 Q. Okay.

16 A. Those numbers were the numbers I
17 heard, and variations of those. I don't
18 remember all the numbers. Those were the
19 numbers that were used in a lot of the
20 technical applications I sat in on. I knew from
21 what was being discussed where they were being
22 used.

23 Q. Let's talk for a minute while we're
24 on these numbers what the numbers in the
25 designations and all that means. If you could

18

C. MARTINO - MR. BOITER

1 just kind of walk me through what that
2 designation means. For instance, like the BMG,
3 is that one term or each letter for a different
4 term?

5 A. We had a nomenclature system that
6 applied to both thermosets and thermoplastics.
7 The B stands for Bakelite in the case of the
8 phenolics.

9 M stands for molding material.
10 That's the second letter.

11 The third letter is to designate
12 the granulation, being the product form. If

13 it's G, that's granular. If it's R, it would be
14 a coarser granulation that -- designed for
15 injection, molding of thermosets.

16 And then the fourth letter
17 designated whether it was a variation of the
18 original product. By variation I mean minor
19 variation now. In other words, the composition
20 didn't change. It might have been processed a
21 little differently.

22 And the numbers were four-digit.
23 Now, if it's Bakelite, if it's BR, that means
24 it's a Bakelite resin.

25 Q. Besides a BM or a BR, were there

19

C. MARTINO - MR. BOITER

1 any other designations in those first two
2 letters?

3 A. For the other thermoplastics, they
4 each had their own letter. For example,
5 polyethylene was a D. Polystyrene I think was
6 an S.

7 Q. Explain to the jury the difference
8 between Bakelite molding and Bakelite resin.

9 A. Bakelite resin is the plastic that
10 you start with. It's a resin made by reacting
11 phenol and formaldehyde under very controlled
12 conditions in a large reactor. Under those

13 conditions you get the formaldehyde linking the
14 phenol unit to another phenol unit and you can
15 build a chain, just like a chain, one after
16 another, each link being a phenol group.

17 In low molecular weights or short
18 chains the product when it cools is a liquid.
19 In the high molecular weights when it cools it
20 becomes a very glassy solid. Unless a
21 cross-linking agent is added, it will stay
22 glassy. In other words, you could heat and cool
23 it and -- you can cool it and then reheat it
24 and it will melt again. That resin does not
25 contain any additives. The problem is that by

20

C. MARTINO - MR. BOITER

1 itself it's glassy and brittle.

2 It's really a good adhesive. That's
3 where all its applications derive from. The
4 resin is a very good adhesive for making
5 plywood, gluing the layers together, especially
6 for outdoor use, because it's very water
7 resistant. It's very good for binding various
8 fillers and fibers together. It's also used as
9 a coating and varnish, so the broad spectrum of
10 applications.

11 Union Carbide and the competitors
12 made that resin and sold it to customers who
13 would take the resin and make their own

14 products from it.

15 Another big use is decorative
16 laminates, like are used to make countertops --
17 to cover your countertops in the kitchen and
18 bathroom. Typical -- well, the trade name for
19 that is Formica. You are probably familiar with
20 that.

21 Q. Yes.

22 A. That's a process where paper is
23 dipped into the phenolic resin, dried, and then
24 the sheets are cut to size and stacked in
25 presses, then cured under heat and pressure to

21

C. MARTINO - MR. BOITER

1 form that sheet. For Formica they put a printed
2 decorative cover on it. Hundreds and hundreds
3 and hundreds of uses.

4 Now, the phenolic molding business
5 was a separate department from the resin
6 business. In effect, we were a customer of the
7 phenolic resin business. We would take the
8 solid resin, pulverize it and blend it with
9 wood flour, and that was the most common
10 filler. It was ground for wood flour. The wood
11 flour would give the glassy resin strength
12 because of the fibrous nature of the wood, and
13 the phenolic would penetrate the wood and bond
14 well with it.

15 Now, along with the wood flour
16 would be colorants, cure accelerators, the
17 cross-linking agent, which was hexamethone
18 tretamine, lubricants like stearates; and then
19 you could add to the wood flour, if you needed
20 more impact strength, cotton flock. That was a
21 very popular way of getting more toughness in
22 the resin.

23 If you wanted more water
24 resistance, then you put in mineral fillers.
25 We had a big choice there. You could use talc.

22

C. MARTINO - MR. BOITER

1 You could use calcium carbonate, mica. You
2 could use asbestos. And asbestos was used if
3 you needed a fibrous mineral filler. Of the
4 mineral fillers, it was probably the only one
5 that was fibrous enough to give us a little
6 improvement in strength.

7 In other processes glass fiber is
8 used, but we could not use that. Let me add one
9 more thing. That blend was -- do you want me to
10 continue to describe the process?

11 Q. Sure. I'd be glad for you to.

12 A. That blend was then fed down to a
13 set of heated rolls, huge rolls. One roll would
14 turn faster than the other. And on those rolls

15 the resin would melt and mix -- coat all the
16 other ingredients.
17 Then that -- much like making bread
18 dough. This process is very similar. That would
19 then come off in a sheet onto a conveyor belt.
20 That sheet would then be fed up into a
21 granulator. In the granulator it would be
22 chopped up into small particles.
23 Then that would passed over some
24 screens where we take out the fine particles
25 and take out the coarse particles and recycle

23

C. MARTINO - MR. BOITER

1 them into the process. And the product that we
2 wanted would then be taken over into -- and
3 packed out into various types of containers.
4 It looked like a coarse sand at
5 that stage and it was black or brown. Those
6 were your primary choice of colors. It was very
7 difficult to put coloring into the product
8 other than that, because without color it was
9 just a dark brown shade. You could not make a
10 white or a gray. You could, but it would be
11 very expensive. That's a product we sold to our
12 customer.
13 They then would take it and put it
14 into their equipment to form a shape out of it,
15 whatever they wanted to make -- washing machine

16 agitator, steam iron, pot handle.
17 Q. Okay. Now explain to me, if you
18 can, so I understand the difference between the
19 two products. Maybe you just misunderstood.
20 When you talk about taking the solid resin,
21 pulverizing it and blending it with some
22 filler, you mentioned a process where then it
23 went down the heated rolls, and I guess I'm
24 sort of going back to the concept that you
25 talked about earlier.

24

C. MARTINO - MR. BOITER

1 With the thermosetting, is it just
2 that this was not a high enough heat
3 temperature to thermoset or was something done
4 later, because as I understood what you said,
5 once the customer took your end product and
6 molded it into something, that was it?

7 A. That's right. When it was being
8 processed on the rolls, the temperatures were
9 kept low enough, and of course the time -- we
10 had to control the timing so that you would not
11 get that curing on the rolls. If somebody made
12 a mistake and raised the temperature too high
13 on the rolls, then they ended up with a solid
14 material they had to break up and get rid of.
15 So, it still had some life in it

16 when it ended up being a granular product in a
17 bag. Then the customer could at that point
18 still melt it and shape it, form it into a
19 shape.

20 Q. Can you give me some idea of the
21 temperatures being different, where you are
22 keeping it low enough versus what temperature
23 customers would be curing it at?

24 A. The mold temperatures were usually
25 around 350 degrees Fahrenheit. For large parts

25

C. MARTINO - MR. BOITER

1 where you wanted to keep the material flowing
2 for a longer period of time, you probably could
3 drop it to 325. And you had to use high
4 pressures in order to make it flow.

5 Q. Was there an upper temperature
6 limit for which you could use your granular
7 product?

8 MR. GLASSER: Objection. At what
9 point in the process?

10 MR. BOITER: For the customer. I
11 will ask another question. No problem.

12 MR. BERGIN: I would like to object
13 to the form for this reason.

14 MR. BOITER: I withdraw the question
15 so you don't have to object to the form.

16 MR. BERGIN: Okay.

17 Q. If I ordered a bag of your granular
18 products -- let's say I ordered your BMG 5000.
19 Is there an upper temperature limit at which I
20 could work with it?

21 A. As long as it's in the bag?

22 Q. No, when I start the molding
23 process.

24 A. Oh, in the molding process, it's a
25 time-temperature relationship. The higher the

26

C. MARTINO - MR. BOITER

1 temperature, the shorter the time you have to
2 work with it, so that the molder also has to
3 carefully control time and temperature when he
4 forms it.

5 We also made the material available
6 in what we said were different grades, which
7 generally meant that the material had a little
8 more resin in it so it gave the customer a
9 little more time to -- before it cured or the
10 material would flow a little further. So, the
11 process to make it and the process to mold it
12 required control of conditions, and people in
13 the industry were well aware of that, and, of
14 course, of the right technology to do it.

15 Q. Sure. And I guess I was sort of
16 thinking back to your cooking and bread dough

17 analogy. Is there a point at which you turn it
18 up so high that you burnt the bread, so to
19 speak?

20 A. You can do that in the mold.

21 Q. It would just be impractical to use
22 it in a process mold temperature?

23 A. No, no. If you had the temperature
24 too high -- let's say you were making a washing
25 machine agitator -- you would end up with an

27

C. MARTINO - MR. BOITER

1 incomplete part. You might not have the fin,
2 the blade mold itself, or you end up with
3 blades that are half filled. It's not a
4 disaster. You just take that part and throw it
5 away and mold another one after you lower your
6 temperature.

7 Often that is a way that the
8 operator determines what the optimum
9 temperature was going to be. There was always a
10 temptation to raise the temperature to get the
11 part out faster. That was the way they -- parts
12 per hour were very important as far as the
13 customer was concerned.

14 Q. I may be just inartfully asking the
15 question. Was there a mold temperature at which
16 it was just impractical to work with this
17 product?

18 A. Over 400 degrees Fahrenheit would
19 be difficult. I won't say it can't be done. If
20 you had a very fast machine and a small part it
21 could be done. But I seldom saw people molding
22 higher than that.

23 Q. Would the temperature at which you
24 could work with it have anything to do with the
25 type of filler that is put in or is this purely

28

C. MARTINO - MR. BOITER

1 the chemistry of working with the phenolic
2 resin?

3 A. It's the chemistry of working with
4 the phenolic resin.

5 Q. How -- maybe not how, but was there
6 some sort of designation, be it a letter or
7 number, used to represent the different grades
8 of the Bakelite or was that just how all the
9 different numbers came about?

10 A. No. After the designation, the BMG
11 5000, there would be a color designation -- a
12 BK for black, BN for brown. Then as I recall
13 there was a grade number. It would be followed
14 by grade 9, grade 12, grade 15. The higher the
15 number, the slower the flow. The customer would
16 designate the grade when he ordered.

17 That was standard throughout the

18 industry. Our competitors did exactly the same
19 thing. They didn't use the same product
20 designation, but they did use the flow system.
21 Q. You mentioned four products -- the
22 BMG 5000, 7000, 2808 and 5498. If we sort of
23 encompass the entire period of time that you
24 were at Union Carbide, was there ever a
25 specific numerical designation for the Bakelite

29

C. MARTINO - MR. BOITER

1 that contained asbestos as a filler?

2 A. No. The designations were not based
3 on the filler that was in there. The
4 designation, the first number was usually an
5 indication of the type of resin you used in the
6 product. It didn't make any difference what
7 filler you used.

8 Q. Okay. So the 5000 versus the 7000,
9 the five and the seven are just different
10 designations for different types of resin?

11 A. That's right. Just like we could
12 make a variety of molding compounds. To put it
13 in perspective, at the time I became group
14 manager of the Bakelite molded material and
15 laminating resins group, we had about 200
16 compounds, which were variations of filler and
17 resins and all sorts of combinations. It's
18 limitless, what you can do with the product,

19 and you could not tell what the fillers were
20 just by looking at the numbers.
21 Q. I have some other questions, but I
22 probably want to finish getting an idea of when
23 you worked and where you worked before we go
24 into those. I think you said it was '59. I
25 believe from '49 to '59 you were in

30

C. MARTINO - MR. BOITER

1 thermoplastics. What happened in '59?

2 A. In '59 I was promoted to group
3 manager and given responsibility for the
4 technical services of all the molding and
5 extrusion products that we made in Bound Brook.
6 And that was thermoplastics and thermoset
7 resins. In the thermoset resins were the
8 Bakelite phenolic compounds.

9 In 1960 I was asked to become the
10 group manager of the Bakelite phenolic molding
11 compounds and laminating resins group. The
12 responsibility there was not to just give the
13 customer technical service, but also to
14 formulate any new products or modify the old
15 ones in order to fit any new applications that
16 customers were interested in. And I was in that
17 position for 14 years.

18 It was at that time I became -- my

19 knowledge of the industry grew in considerable
20 depth. I got to know the customers and
21 applications and uses and properties and et
22 cetera.

23 Q. That would take us -- that group
24 manager would take us up 14 years to about
25 1974. What happened in '74, then? Did you

31

C. MARTINO - MR. BOITER

1 transfer?

2 A. I was transferred to become group
3 manager of a polyethylene molding group.
4 Polyethylene is another thermoplastic. That's
5 used for detergent bottles, dish pans, Glad
6 Wrap, bottle caps. Probably one of the most
7 widely used plastics today.

8 MR. GLASSER: Would this be an okay
9 time for about two minutes.

10 (Whereupon, there was a brief
11 recess.)

12 Q. I think when we took a break you
13 had just indicated and said before you became a
14 new group manager. Does that coincide -- let me
15 ask you this. At what point in time did Union
16 Carbide cease to make Bakelite?

17 A. I think it was a year later, 1975.

18 Q. So, it was still going when you
19 left?

20 A. Yes, it was.
21 Q. '74 forward, I guess, did you sort
22 of keep up with what was going on in Bakelite?
23 A. I was very busy in my new job, so
24 it was occasional conversations.
25 Q. Can you sort of give me in a

32

C. MARTINO - MR. BOITER

1 nutshell what happened from '74 to retirement,
2 just generally, in terms of your job
3 responsibilities.
4 A. In terms of my job?
5 Q. Right.
6 A. The activities were similar to what
7 I was doing in the other groups, but with a
8 different product.
9 Q. From '74 until you retired, did you
10 remain the same group manager?
11 A. No. I was assigned as group manager
12 to a variety of other businesses, polyethylene
13 business, including the licensing business.
14 Q. That would have been true up until
15 you retired?
16 A. I was promoted to associate
17 director of research and development in 1995.
18 Q. You had indicated earlier that when
19 you took over, I guess for the group manager of

20 Bakelite, there were about 200 different
21 compounds that they made?

22 A. Yes.

23 Q. Was that an increase or decrease
24 from the number that they had when you took
25 over as group manager?

33

C. MARTINO - MR. BOITER

1 A. I can't answer that. I'm not sure.
2 My guess is that it was about the same.

3 Q. During the period, I guess, from
4 '60 to '74, during the 14 years that you were
5 there -- and if you had to break them down into
6 subyears you can do that for me. But what was
7 the percentage generally of the Bakelite
8 compounds which contained asbestos, versus the
9 Bakelite compounds which did not contain
10 asbestos?

11 A. There were about, oh, a dozen or so
12 that contained asbestos. The others did not.

13 Q. Do you remember during that period
14 -- well, actually -- well, let's start off by
15 limiting it to the period from '60 to '74, any
16 of the designations for any of the
17 asbestos-containing Bakelite?

18 A. Could you repeat that, please.

19 Q. Sure. What I'm talking about when I
20 say this designation, like the BMG numbers or

21 whatever they called it. Do you recall what
22 the name was for the asbestos-containing
23 compound?
24 A. BMG 5138, 2035, 5020, 5033. Did I
25 mention 2035?

34

C. MARTINO - MR. BOITER

1 Q. Yes, sir.
2 A. 2035. You are really challenging my
3 memory. Those were the popular ones.
4 Q. Any others you can think of?
5 A. Not at this time, no.
6 Q. And there were about eight others
7 and you just can't recall the numbers?
8 A. Right, that's correct. It's about
9 30 years, so I'm surprised I remember that
10 many.
11 Q. So, about a dozen out of 200?
12 A. That's right.
13 Q. During that same period of time
14 from '60 to '74, what was the percentage
15 production of the asbestos-containing versus
16 the non-asbestos-containing?
17 A. I didn't keep a record of the
18 yearly production of each of the products, so I
19 could only guess that it was in proportion to
20 the number of products.

21 Q. Okay. Who would have been the
22 person who would have kept the yearly
23 production numbers?

24 A. The marketing manager or the
25 production manager.

35

C. MARTINO - MR. BOITER

1 Q. Okay. Now, in terms of your
2 responsibilities then as sort of the group
3 manager, did you have any responsibility for
4 the production stage?

5 A. I was responsible for the first
6 production runs of an experimental product.

7 Q. Sort of explain to me what that
8 means.

9 A. We would first develop the product
10 on a small scale in the laboratory and make
11 sufficient quantities for initial tests in the
12 customer's plant. If the customer liked it and
13 ordered, say, 10,000 pounds, we would have to
14 go into the manufacturing facility to make it.

15 And the procedure was to put in a
16 request for a production run. When that was
17 scheduled, have people from research and
18 development there to supervise how it was run
19 and determine whether there were any
20 manufacturing problems in making it.

21 Q. Was that actually a production run

22 in your customer's facility?

23 A. No, this would be in our own plant,
24 making it in our own plant. Now, the sample we
25 made in the laboratory, that was taken out to

36

C. MARTINO - MR. BOITER

1 the customer and run in his plant. That would
2 be the initial confirmation as to whether the
3 product worked or not.

4 Q. So, what would a customer tell you
5 in terms of what they were doing that would
6 allow you, then, to make your first production
7 run?

8 A. Usually the customer will have
9 asked for a particular performance requirement,
10 and we would have tried to meet that. If we
11 thought we did in the lab, then we would go out
12 and try to confirm it in his equipment. If we
13 did and he liked it, he would order more. If
14 not, we had to go back and work some more.

15 Q. There was a squeak and I may have
16 misunderstood. Did you say you would go out to
17 his facility to make sure it worked?

18 A. Someone from our group or I would
19 go to the customer's plant and actually see it
20 molded.

21 Q. And that would be after you did

22 your first production run?
23 A. No, we would do that with the
24 laboratory sample first.
25 Q. You do your first laboratory

37

C. MARTINO - MR. BOITER

1 sample. You satisfy yourself and someone would
2 go out at the plant for their production run
3 when they started it?

4 A. That's right. Production run,
5 usually the sample was about a hundred pounds.
6 That would usually, depending on the part, be
7 an hour production.

8 Q. During that period of time from '60
9 to '74, did you have someone from your group
10 ever go to any of the Delco Remy plants to do
11 these production runs?

12 A. I only recall one experimental
13 sample being sent to them, and I don't remember
14 anybody going with it. Usually the customer
15 would request somebody come out when they were
16 ready to run it.

17 Q. What experimental sample do you
18 recall?

19 A. BMG 5020.

20 Q. And what about that made it
21 experimental, at the time anyway?

22 A. Well, up until that time the

23 products that they were using had -- were wood
24 flour filled, and this one had five percent
25 asbestos in it.

38

C. MARTINO - MR. BOITER

1 Q. Now, how do you know that all --
2 what they were using up to that time was wood
3 flour filled?

4 A. It's basing that just on the
5 products that they were buying from us. We were
6 not their only supplier.

7 Q. What records do you have -- well,
8 let me back up. We have records from '66. What
9 records do you have from '60 to '66 that allow
10 you to know that?

11 A. There were some call reports that
12 indicated what products they were buying at the
13 time from us.

14 Q. What type of report?

15 A. Call report. This is a salesman's
16 report on his visit to the customer.

17 MR. BOITER: Do we have these call
18 reports, Mike, Mike Bergin? Is Mike Bergin
19 there?

20 MR. BERGIN: Yes. I don't know if I
21 have what he's referring to.

22 Q. Explain to me what you're talking

23 about when you say what this call report is and
24 where you have it.
25 A. I don't have it. I remember --

39

C. MARTINO - MR. BOITER

1 that's where we got our information, if we
2 hadn't visited the customer. I'm just
3 responding to your question, where did I see
4 the products that they were buying.
5 Q. And it's your recollection, then,
6 from the call reports from '60 to '66 that you
7 can say with certainty that they weren't buying
8 any asbestos-containing Bakelite products,
9 compounds?
10 A. The numbers I saw did not.
11 Q. Did you see all the numbers?
12 A. The only ones that were mentioned
13 in the report, no way I could -- I didn't look
14 into it any further than that.
15 Q. I guess what I'm asking, did you
16 see all the call reports?
17 A. I would get a copy of all the call
18 reports, yes.
19 Q. What specifically did the call
20 report have in it?
21 A. That the 5276 was being molded into
22 -- in one of the plants, and the 5507 was
23 being molded in the other plant.

24 Q. I guess what I'm asking is what
25 specifically did the call report have on it.

40

C. MARTINO - MR. BOITER

1 Did it have quantity, type, order dates? What
2 sort of information did it have?

3 A. No. A call report is just a summary
4 of the salesman's visit when he visits a
5 customer. We were trying to get more of their
6 business.

7 Q. How many customers did you guys
8 have? By you, I'm talking about Union Carbide,
9 Bakelite.

10 A. That I would have to give you a
11 rough estimate because I didn't keep track of
12 everyone. I would be familiar with those who
13 were asking for technical information or
14 requested our assistance.

15 Q. A rough estimate is fine, just some
16 idea.

17 MR. GLASSER: Objection. What time
18 frame? Are you talking about only the phenolic
19 compound or other things that Bakelite made?

20 MR. BOITER: I am limiting it to '60
21 to '74. I'm actually just talking about
22 Bakelite products.

23 Q. Is it more than 100 customers?

24 A. My belief was that it was at least

25 100.

41

C. MARTINO - MR. BOITER

1 Q. More than 500?

2 A. I don't think it was that large,
3 but I don't access to those records.

4 Q. I guess what I'm trying to figure
5 out is why was it that out of 100 plus
6 customers that you are certain that the Delco
7 Remy plants weren't getting any
8 asbestos-containing Bakelite from '60 to '74.

9 A. Those were the only products that
10 were mentioned being used by them. I would
11 assume that if there were others it would have
12 also appeared in that report.

13 Q. If there was another customer, it
14 would have been a customer of the Bakelite
15 group at that time?

16 A. Another customer?

17 Q. Yes, sir, just any customer.

18 A. Square D.

19 Q. Did Square D ever use any of the
20 asbestos-containing compounds from '60 to '74?

21 A. I don't think so.

22 Q. Can you say for sure that they did
23 or didn't?

24 A. I'm trying to recall. They may have

25 been sampled with the 5020 also.

42

C. MARTINO - MR. BOITER

1 Q. Have you talked to anyone about
2 whether or not the asbestos-containing Bakelite
3 was used at Delco Remy within the past six
4 months?

5 A. I am sorry. Could you repeat that
6 question, please.

7 Q. In the past six months -- it may
8 not be that long. I don't know when you were
9 contacted about testifying in this case. In the
10 last six months or so have you talked to anyone
11 or had any discussions as to whether or not
12 they had asbestos-containing Bakelite at Delco
13 Remy from '60 to '74?

14 MR. BERGIN: The question could also
15 include confidential communications with
16 counsel. I'm going to object to the extent it
17 may deal with conversations with counsel on the
18 grounds that it's privileged.

19 MR. BOITER: What he said clearly is
20 privileged, but if he had a conversation about
21 it, then it's not.

22 MR. BERGIN: I think the
23 conversations he has with counsel is
24 privileged.

25 Q. Let's leave conversations with

C. MARTINO - MR. BOITER

1 counsel out. Any conversations with anyone
2 else?

3 A. Conversations with anyone other
4 than the people present here?

5 Q. Yes, sir.

6 A. No.

7 Q. Have the people who are the people
8 who are present there shown you any call
9 reports from the last six months?

10 A. No, I have not. Repeat that
11 question again. Make sure I understood it.

12 Q. I was asking you if they had showed
13 you any of the call results in the last six
14 months.

15 A. The call results?

16 Q. The call reports. I'm sorry. The
17 call reports are what I'm talking about.

18 MR. GLASSER: Objection. Vague.

19 Q. What documents, if any, have you
20 looked at in preparation for this deposition or
21 in preparation for refreshing your knowledge
22 about sales to Delco Remy?

23 A. I've taken a look at papers that I
24 had in my possession with regard to the
25 business, which weren't too helpful. Most of

C. MARTINO - MR. BOITER

1 what I'm giving you is recollection.

2 Q. Does that mean other than the
3 papers in your possession, which weren't very
4 helpful, you haven't looked at anything else?

5 A. I have no papers in my possession,
6 no call reports.

7 Q. Sure. I understand that. I'm just
8 asking what else you looked at other than the
9 papers that were in your possession, if you've
10 looked at anything at all.

11 A. No.

12 Q. You didn't look at anything?

13 A. No, no. I'm no longer at the plant,
14 so I don't have access to any of that.

15 Q. I understand. I want to make sure
16 there hasn't been anything you looked at.

17 A. No.

18 MR. BERGIN: Excuse me. I think the
19 witness previously disclosed that he received a
20 partial transcript of Mr. Frye, that he
21 received the transcript by e-mail and printed
22 part of it and looked at it.

23 MR. BOITER: I apologize. I thought
24 Jonathan was the one who told us that he had
25 printer problems.

C. MARTINO - MR. BOITER

1 MR. BERGIN: I believe that was the
2 witness.

3 MR. BOITER: I'm sorry.

4 Q. Was there a point in time when
5 African blue asbestos was used in Bakelite?

6 A. Would you repeat that, please.

7 Q. Was there a period of time when
8 African blue asbestos was used in Bakelite?

9 A. Not in the hot compounded product,
10 no.

11 Q. Explain to me what that means.

12 A. In that process that I described
13 where the fillers were blended and the material
14 was processed on hot rolls, it was not used in
15 that process.

16 Q. What process was it used in?

17 A. There was one product that was a
18 descendant from the past where the Cape Blue
19 asbestos was blended with some phenolic resin.

20 Q. When you say a descendant from the
21 past, what are you talking about?

22 A. It was a product that was very
23 difficult to make and very difficult to use and
24 had been developed because there were no other
25 fibrous mineral reinforcing fillers available

C. MARTINO - MR. BOITER

1 at the time. It resembled insulation, attic
2 insulation. It was replaced as soon as the
3 Fiberite glass-filled reinforced product came
4 on the market by the molders because of the
5 difficulty they had in molding with it.

6 Q. About when would that have been?

7 A. That would have been in the '50s.

8 Q. So, the products with the African
9 blue, when you say descended from the past,
10 you're talking about in the '40s and '50s?
11 That's when it would have been used?

12 A. I would guess in the '40s. It's
13 like trying to stuff a bunch of feathers in a
14 mold. It was not at all popular. It was made
15 in separate facilities.

16 Q. Where were those facilities?

17 A. In another part of the building.

18 Q. Did it have a different name for
19 that part of the building? How did you identify
20 that part of the building?

21 A. They had department numbers, which
22 I don't recall.

23 Q. What was it about that department
24 that made it appropriate for that compound to
25 be developed there?

C. MARTINO - MR. BOITER

1 A. They had the -- since it was a dry
2 blend -- well, it was a ball milled product, so
3 they had a ball mill there.

4 Q. Now you are going to have to
5 definitely tell me what a ball mill is.

6 A. It's a large blender. Instead of
7 paddle wheels or ribbons in it, it has ceramic
8 balls, and it pulverizes the resin and
9 distributes it with the product. Apparently
10 that's the only way they could get a good
11 distribution on a matted material like that.

12 Q. Did it then go through that rolling
13 process you talked about earlier?

14 A. Did it go through what?

15 Q. Once it was mixed up in the
16 blender, did it then go through that roller
17 process you talked about earlier?

18 A. No, it would be sold as is.

19 Q. In -- if the '50s is the best date
20 you can give me, that's fine. But if you can
21 pinpoint it closer, what is your recollection
22 of when Union Carbide discontinued the Bakelite
23 that had the African blue?

24 A. I think it was in the early '60s,
25 maybe mid-'60s. The facilities were often idle.

C. MARTINO - MR. BOITER

1 Most of our -- I never saw it in any of the
2 plants that I visited, so I assume it was
3 replaced by that time by the Fiberite
4 materials.

5 Q. Did you have any part in the
6 decision-making to discontinue that?

7 A. No, that was a business decision.

8 Q. Bakelite, was that actually a
9 trademark that Union Carbide had, if you know
10 what I'm saying? Was Bakelite something that
11 was a trademark name?

12 A. I don't know whether it was a
13 registered trademark or not because it goes
14 back so many years. The phenolic resin was
15 developed in the early 1900s. Bakelite was the
16 first plastic discovered, so it became widely
17 known.

18 Q. Unless I'm mistaken, I think the
19 gentleman who invented it, created it or
20 actually came up with it was named Bakelite?

21 A. Baekeland was his name.

22 Q. I knew it was something similar to
23 the product name. Were there any patents on the
24 Bakelite?

25 A. On the basic invention, yes. Dr.

C. MARTINO - MR. BOITER

1 Baekeland had a patent on the resin, and that
2 expired in 1927.

3 Q. Were any of the ensuing compounds
4 that were made ever trademarked -- or patented,
5 rather?

6 A. I can't answer that. They could
7 have been, but I'm not familiar with that.

8 Q. You don't have any Bakelite
9 compound patents in your name, do you?

10 A. No, I don't.

11 Q. In terms of -- I guess is it fair
12 to say if something was changed about the
13 product it would be considered a different
14 formulation?

15 A. Yes.

16 Q. Do you recall--

17 A. Well, let me clarify that a bit. If
18 any of the ingredients were changed, if we
19 rolled it a little longer or a little less or
20 double-compounded it, it would retain the same
21 number and just have a different letter in the
22 fourth position.

23 Q. What's the earliest product
24 formulation that you recall seeing and knowing
25 specifically the ingredients?

C. MARTINO - MR. BOITER

1 A. Probably BMG 5000.

2 Q. Do you recall when BMG 5000 first
3 started being used, that formulation?

4 A. In the 1950s it existed.

5 Q. When shipping the Bakelite products
6 to the company, how were these products
7 packaged?

8 A. Would you repeat that, please.

9 Q. You make your compound for shipment
10 to a customer. How was it packaged to ship the
11 product to a company, the Bakelite compound?

12 MR. BERGIN: I'm going to object to
13 the question only because it doesn't specify
14 either product type or point in time. I think
15 those go to the form.

16 Q. Let's start from -- let's start
17 what information you have from '49 to '59. Do
18 you recall from '49 to '59 how Bakelite
19 compounds were packaged and shipped to
20 customers?

21 A. One common form was a large drum.

22 Q. When you say large drum, how large
23 a drum?

24 A. It would hold about 200 pounds of
25 material, probably three feet high, almost two

C. MARTINO - MR. BOITER

1 feet in diameter.

2 Q. Would it have any writing on the
3 outside of it?

4 A. Yes, it would have the Bakelite
5 label. And the material was also packaged in
6 bags, 50-pound bags.

7 Q. 50-pound bags?

8 A. Yeah.

9 Q. From '60 to '74, did the packaging
10 change?

11 A. The drums were eliminated and
12 replaced by gaylords.

13 Q. That brings to mind two questions.
14 First, when were the drums replaced that you
15 can recall?

16 A. I don't have the exact date on
17 that.

18 Q. And the second question would be
19 what is a gaylord?

20 A. A gaylord is a big cardboard box on
21 a pallet. It holds almost a thousand pounds.

22 Q. Would the drums have been
23 eliminated by, say, 1975 on?

24 A. Yes. They could have been
25 eliminated much sooner than that, because I

C. MARTINO - MR. BOITER

1 don't recall seeing them in the '60s either.

2 They were expensive.

3 Q. In terms of the drums versus the
4 bags, for instance, was there any distinction
5 in what was shipped one way or the other?

6 A. To use a gaylord, a customer had to
7 have a large volume requirement.

8 Q. That was probably a poorly stated
9 question. Would any of these formulations that
10 you mentioned back at the time you mentioned be
11 available for shipping either in a bag or a
12 drum?

13 A. Could you repeat that, please.

14 Q. Say, in the '49 to '59 time frame,
15 would any formulation of Bakelite that was
16 being manufactured for sale have been available
17 in both drum and bag size?

18 MR. BERGIN: Excuse me. Is your
19 question would any be involved or would all be
20 involved, available?

21 MR. BOITER: Would every.

22 A. Every one that was hot-compounded
23 was.

24 Q. If they weren't hot-compounded, how
25 were they available?

C. MARTINO - MR. BOITER

1 A. Both the bags and drums, and later
2 gaylords.

3 Q. So, you are saying if they were
4 hot-compounded?

5 A. Yeah.

6 Q. If they weren't hot-compounded, how
7 were they available?

8 A. There was only one that wasn't.
9 That was the one you asked me about earlier.

10 Q. How was that shipped?

11 A. That was put in drums.

12 Q. Do you know the compound
13 designation for the Bakelite product that
14 contained the African blue?

15 A. Do I know the what?

16 Q. The number, the BMG whatever number
17 it would have.

18 A. I believe it would have been BMZ
19 5250.

20 Q. We didn't talk about a Z before.
21 What does this Z stand for?

22 A. The Z is, I mentioned earlier, the
23 form that it is made in -- powder, granular,
24 pulverized. The BMZ 5250 was a matted type
25 material.

C. MARTINO - MR. BOITER

1 Q. Matted?

2 A. Matted. It looked like feathers.

3 Q. And that's what the Z designation
4 was for?

5 A. More like an attic insulation.

6 Q. That's what the Z designation was
7 for?

8 A. Yes. That's the only product -- I
9 don't know of any other Z product.

10 Q. Do you have any knowledge about the
11 purchase of the raw asbestos that went into the
12 Bakelite products by Union Carbide?

13 A. The asbestos was purchased from
14 Carey Mines in Canada. That was the chrysotile
15 asbestos, which is what we used.

16 Q. What period of time do you believe
17 that to be the case?

18 A. Period of time?

19 Q. Yes, sir.

20 A. During the time I was responsible
21 for the group that was the source of supply.

22 Q. So, from '60 to '74?

23 A. Right. I don't know if it was used
24 prior to that time. I never heard of any other
25 supplier, you know, prior to '60.

C. MARTINO - MR. BOITER

1 Q. Could you -- and I may be assuming
2 something here that I shouldn't -- but I am
3 assuming if there were 12 different numbers for
4 the asbestos-containing products that meant
5 there were essentially 12 different
6 formulations. Can you give me some ideas of how
7 the formulation was different? Was it because
8 of asbestos content or was it because of some
9 other--

10 A. The content was five percent in all
11 of them. There may have been one eight percent,
12 but five percent was usually -- was the common
13 one. I would say probably all of them that we
14 were making in the '60s were five percent.

15 MR. GLASSER: Could we hold just one
16 second. The phone is ringing in the other room.

17 (Whereupon, there was a discussion
18 off the record.)

19 MR. GLASSER: The phone stopped
20 ringing.

21 Q. To your knowledge, in the '60s all
22 of those dozen formulations were five percent
23 asbestos?

24 A. Yes, except for the BMZ 5250.

25 Q. What was that?

C. MARTINO - MR. BOITER

1 A. It was probably around 40 percent,
2 maybe a little higher. Roughly there.

3 Q. I don't know if this question makes
4 sense, but that was five percent of what --
5 volume, weight?

6 A. A weight percent.

7 Q. Is there any way to give me some
8 idea about volume, if that makes sense? In
9 other words, was the phenolic resin heavier or
10 lighter than the asbestos?

11 A. The phenolic resin definitely is
12 lighter. The mineral fillers were the heaviest
13 of all the components.

14 Q. Generally speaking by volume, how
15 much was the metal fillers?

16 A. Since they were heavier, they would
17 be less than five percent. I can't remember the
18 specific gravity of wood flour versus asbestos.
19 Roughly one versus two, but the exact figure I
20 can't remember.

21 Q. Why is -- how does just
22 automatically five percent by weight make it a
23 smaller amount by volume?

24 A. Well, if it's heavier, you need --
25 if it's heavier, your specific gravity is

C. MARTINO - MR. BOITER

1 higher. That means for a given volume you end
2 up with more weight. It's grams per cubic
3 centimeter, I believe.

4 Q. When you were in school -- you
5 graduated in 1948 -- at that point in time did
6 you know that asbestos was a potentially
7 hazardous substance?

8 A. No, I did not.

9 Q. When did you first learn that?

10 A. When there was a lot of publicity
11 about the asbestos at Johns-Manville. Manville
12 is about five miles from where I live.

13 Q. Do you recall when that would have
14 been?

15 A. Around '68, 1968.

16 Q. Okay.

17 MR. BERGIN: Excuse me, I didn't
18 hear that date again.

19 MR. BOITER: 1968 is what the
20 witness said.

21 MR. BERGIN: Thank you.

22 Q. In any of the training updates or
23 any of the technical sessions that you went to,
24 when is the first time that anyone at Union
25 Carbide ever discussed with you the fact that

C. MARTINO - MR. BOITER

1 asbestos was a potentially hazardous substance?

2 A. At the same time that was
3 discussed, but the studies at that time
4 indicated that it was massive exposures over
5 long periods of time, and there were a lot of
6 discussions as to does that really apply to us.

7 Q. Do you have that information? Did
8 you actually read those materials or were you
9 told that by Union Carbide?

10 A. Could you repeat that again,
11 please.

12 Q. You mentioned that it was your
13 belief -- and I don't know if I'm going to be
14 able to paraphrase you correctly -- but it was
15 something that would require massive exposures
16 to cause injuries. Was that something you read
17 or something Union Carbide told you?

18 A. No, this was studies that were
19 published. I recall picking one up and reading
20 it to get more information on what happened at
21 Johns-Manville.

22 Q. Do you recall what that study was
23 or what the publication was?

24 A. I can't remember the name of the
25 person who did the studies. It starts with an

C. MARTINO - MR. BOITER

1 S, I believe.

2 Q. Does Selikoff ring a bell?

3 A. That's it.

4 Q. Would that have been a publication
5 that you had at Union Carbide or something you
6 went out and bought or something you subscribed
7 to?

8 A. I think I found -- it was
9 information that became available within Union
10 Carbide.

11 Q. Were there any publications that
12 you received or you subscribed to in
13 conjunction with your employment with Union
14 Carbide?

15 A. Would you repeat that again,
16 please. I didn't hear it.

17 Q. Publications, magazines,
18 professional subscriptions that you had in
19 conjunction with your employment with Union
20 Carbide.

21 A. Modern Plastics, Modern Plastics
22 Encyclopedia, Plastics Engineering.

23 Q. Any other publications available to
24 you through Union Carbide?

25 A. Of course we had a library.

C. MARTINO - MR. BOITER

1 Q. Do you recall what publications
2 were available in the library?

3 A. Any of the publications on plastics
4 and chemicals. If they didn't have them, we
5 could get them.

6 Q. Prior to approximately 1968, had
7 you ever heard of Irving Selikoff before?

8 A. No.

9 Q. Prior to 1968, had you ever heard
10 of Mary Witherpraise?

11 A. No.

12 Q. Have you heard of them since then?

13 A. No.

14 Q. Had you heard of Fletcher Drinker
15 prior to 1968?

16 A. No.

17 Q. How about after 1968?

18 A. No.

19 Q. Had you heard of Driesen prior to
20 1968?

21 A. Would you repeat that again,
22 please.

23 Q. Had you heard of Driesen prior to
24 1968?

25 A. No.

C. MARTINO - MR. BOITER

1 Q. How about since 1968?

2 A. No.

3 Q. Was there ever a point in time when
4 you had any type of testing done on the
5 Bakelite products? Let me withdraw that
6 question. Was there ever a point in time when
7 you sat down to do any testing of any of the
8 Bakelite products to determine whether or not
9 they released asbestos fibers during use?

10 MR. GLASSER: Objection. Vague as to
11 the meaning of the term "use."

12 MR. BERGIN: I'm going to make a
13 further objection on the grounds that the
14 question calls for any point in time up to the
15 present and is specific as to this witness, as
16 opposed to somebody else, and Mr. Frye
17 unequivocally stated that all of his
18 involvement was in the period from 1951 to '58.
19 So, the question as phrased is improper form
20 for failure to put in the appropriate
21 limitations of time.

22 MR. BOITER: I'm not going to put
23 any limitation of time as to when Mr. Frye was
24 working there at all, so you needn't worry
25 about that.

C. MARTINO - MR. BOITER

1 Q. What type of testing would the
2 facility at Bound Brook have been capable of
3 doing on a product, if you requested it?

4 A. It was common practice to determine
5 whether we met the OSHA limits on threshold
6 limit values for any material that was
7 considered or thought to be a potential hazard.
8 So, tests were run to determine whether any was
9 detected in the work environment.

10 Q. Was there ever any testing done to
11 determine the threshold value of the Bakelite
12 products in the manufacturing department?

13 A. In the manufacturing operation? I'm
14 speaking only for research and development now.
15 I had the air tested in my laboratory while one
16 of the laboratory assistants was performing a
17 molding operation with product containing five
18 percent asbestos in it.

19 Q. When was that done?

20 A. That was done in the late '60s.
21 Probably around '69.

22 Q. We will come back and talk about
23 that in just a minute. Do you know of any other
24 testing that was done regarding Bakelite and
25 whether or not it met the threshold limit

C. MARTINO - MR. BOITER

1 values in any circumstance?

2 A. Outside of my own laboratory?

3 Q. Any that you are aware of, be it

4 manufactured in their facility or that you

5 became aware of in a customer's plant.

6 Anywhere. Any other testing that you know

7 about.

8 A. I suspect that a lot was done in

9 the manufacturing department, but I wasn't

10 present and I am not familiar with the details.

11 Q. You have no idea one way or the

12 other?

13 MR. BERGIN: Objection to form of

14 the question.

15 A. At that period of time I'm sure it

16 was done.

17 Q. And you are sure it was done why?

18 A. Because there was an indication

19 that it might pose a hazard, so the safety

20 department would have insisted on tests to show

21 whether or not we were within the OSHA limits.

22 Q. Are you just assuming that that's

23 what they would have done?

24 A. I'm just saying that based on what

25 I have seen as common practice at Union

C. MARTINO - MR. BOITER

1 Carbide.

2 Q. As we sit here today, do you know
3 for a fact that that was done?

4 A. I have no paperwork nor saw any
5 correspondence. Let me put it this way. I see
6 no reason why it wouldn't have been done.

7 Q. I understand that, but my question
8 to you -- I'm not trying to be difficult. I
9 understand what you are saying. But do you
10 know for a fact whether it was or whether it
11 wasn't done?

12 A. I breathe the same air that they do
13 and I go into the manufacturing department as
14 well. So, it was as much of a concern to guard
15 my health, so we would certainly not want to
16 work in an environment that we considered
17 dangerous. There was no reason for us to
18 believe that it was.

19 Q. I understand that, and again with
20 counsel's permission, I will ask the question.
21 Do you know -- you are assuming that that is
22 probably what they would have done, but do you
23 know if that is what they did or didn't?

24 MR. BERGIN: Let me object to the
25 form. It's something I think you can correct.

C. MARTINO - MR. BOITER

1 When you say whether it was done, it's not at
2 all clear to me what you are asking him. Are
3 you saying does he know and did he observe that
4 industrial hygienists did do testing or testing
5 for a specific product? I'm not sure what you
6 are asking at this point. I think there has
7 been enough dialogue so that it's unclear.

8 MR. BOITER: I'm going to move to
9 strike his last answer as nonresponsive because
10 he did not indicate to me whether he knew for a
11 fact, yes or no. I am going to rephrase my
12 question based on your objection.

13 Q. My question is this. You indicated
14 that you did your own air testing to determine
15 a threshold limit value in your department. You
16 then went on to indicate that you believe it
17 would have been done in manufacturing.

18 My question to you is during the
19 entire period of time that you were working at
20 Union Carbide, do you know for a fact that
21 there was actually air testing done to
22 determine whether or not the threshold limit
23 value was being met in the manufacturing
24 department or any other department besides
25 yours at Union Carbide?

C. MARTINO - MR. BOITER

1 A. There was discussion about putting
2 in bulk handling equipment for asbestos, and at
3 that time I remember we did meet the OSHA
4 limits. I did not see the paperwork.

5 Q. And you believe that you met the
6 OSHA limits why?

7 A. Because the results were that we
8 were well below.

9 Q. What results?

10 A. The results of the air samples
11 taken. I'm talking about my own lab, or are we
12 back to manufacturing?

13 Q. I want to talk about your lab.

14 A. My lab, the safety engineer called
15 me after he analyzed the air samples and said,
16 you are well below the threshold value.

17 MR. BOITER: I'm going to ask the
18 court reporter to read back my last question so
19 that we can try to answer that. Move to strike
20 the last answer.

21 (Whereupon, the reporter read back
22 the requested question.)

23 MR. BOITER: I want to go back to
24 the original question I asked about threshold
25 limit values other than his department at Union

C. MARTINO - MR. BOITER

1 Carbide from '49 during the entire time he was
2 there.

3 Q. Let me reask the question to you.
4 I'm not talking about your department at all
5 and the tests you said were done in your
6 department. I'm talking about the period of
7 time you were at Union Carbide, the entire
8 period of time, do you know for a fact that
9 other air testing was done in other departments
10 to determine threshold limit values -- not your
11 department, but any other department in this
12 facility during the entire time you were there?

13 MR. BERGIN: I'm going to object to
14 the form of the question because it doesn't say
15 what threshold limit TLV.

16 Q. Do you understand what TLV is, Mr.
17 Martino?

18 A. Yes, I do.

19 Q. What is your understanding?

20 A. It's the maximum number of fibers
21 that are permissible in an area, the best
22 information as to whether a nonhazardous
23 condition exists.

24 Q. How long have TLVs been in
25 existence?

C. MARTINO - MR. BOITER

1 A. That I don't know.

2 Q. No idea?

3 A. I saw the term mentioned in the
4 '60s, but I don't know when it started.

5 Q. Do you know whether or not they had
6 TLVs in the 1940s?

7 A. I never worked with hazardous
8 materials that required such a measurement in
9 that period of time, so I did not encounter it
10 then. That didn't mean that it didn't exist.

11 Q. Do you know whether or not they had
12 TLVs in the '50s?

13 A. No, I did not encounter it in the
14 '50s either. I was not working in hazardous
15 chemical areas at that time, nor did I think I
16 was in the '60s as well.

17 Q. That was going to be my next
18 question. Do you know whether or not they had
19 TLVs in the '60s?

20 A. In the '60s, yes.

21 Q. When do you think in the '60s that
22 you first became familiar with TLVs?

23 A. When the asbestos problem arose at
24 Johns-Manville.

25 Q. That would have been about 1968, I

C. MARTINO - MR. BOITER

1 believe you said?

2 A. That's correct, because then we had
3 reason to look into it.

4 Q. Had you ever -- not had you ever.
5 Let me ask you this. Are you familiar with the
6 National Safety Council?

7 A. Yes. I don't know in detail what it
8 does.

9 Q. When did you first become familiar
10 with an organization called the National Safety
11 Council?

12 A. I don't remember. I've seen that in
13 -- on letterheads, but I don't remember when
14 is the first time I saw it.

15 Q. Ever heard of the IHF, Industrial
16 Hygiene Foundation?

17 A. No.

18 Q. I think we both understand what
19 TLVs are, but I'm asking my question based on
20 the definition you just gave regarding TLVs.

21 Again, I want to exclude your
22 department. We've already discussed the air
23 testing that you had done in your department. I
24 want to talk about the entire time period that
25 you were employed with Union Carbide at the

C. MARTINO - MR. BOITER

1 Bound Brook plant, and I want to ask you if you
2 know for a fact as to whether or not the air
3 was ever tested to determine whether or not it
4 met the threshold limit values anyplace else in
5 the plant besides your department.

6 A. Maybe I'm misinterpreting the terms
7 you are using for a fact. I relied on the
8 safety department doing the testing that was
9 required to maintaining a safe environment. I
10 didn't call them up every month to find out
11 what testing they did and what the results
12 were. I had faith in them, and I had no reason
13 to go any further than that. And that applied
14 to any hazardous chemical.

15 Now -- and I don't think you are
16 going to find any other employee that went
17 beyond that in any other organization. I think
18 that is a ridiculous question, if you don't
19 mind my saying.

20 Q. I promise I don't mind you saying
21 so. You assume they did, but you don't know for
22 a fact whether they did or didn't, do you?

23 A. I assumed that they did, and I
24 can't tell you any more than that.

25 Q. Okay. That's fair. I accept that

C. MARTINO - MR. BOITER

1 answer. To your knowledge, was there ever any
2 type of warning at all put on the Bakelite
3 compounds that were shipped to customers, ever?

4 A. The products did have a warning
5 label with regard to dust.

6 Q. When was that warning label
7 regarding dust first put on it?

8 A. It was always there when I was
9 involved with the material.

10 Q. You're talking about what date?

11 A. '60s.

12 Q. Okay. And what did this warning
13 say?

14 A. I can't remember the exact wording
15 of it, just that under -- that a dust could be
16 produced going through -- I don't remember
17 exact wording.

18 Q. What about your recollection that
19 makes you think it was a warning of some type?

20 A. Would you repeat that, please.

21 Q. What about your recollection makes
22 you believe, then, that it was a warning, if
23 you don't remember what it said?

24 A. It was a piece of information that
25 went along with the product. It was on the bag,

C. MARTINO - MR. BOITER

1 so I would describe that as information that
2 the customer should have. You could call it
3 warning.

4 Q. You don't recall what it warned
5 about?

6 A. Not in detail, no.

7 Q. Did it warn that there was a
8 problem with dust; it may contaminate the
9 product when you are mixing it; they don't want
10 people breathing the dust? Do you have any idea
11 at all what it said?

12 A. I don't remember the exact wording.
13 In the '60s I probably could, but I don't now.

14 Q. You don't remember the exact
15 warning. Any idea of what the substance of the
16 warning was?

17 A. No.

18 Q. Were there any other facilities
19 besides the Bound Brook facility that developed
20 or manufactured Bakelite compounds?

21 A. In the US?

22 Q. The US or anywhere else, actually.

23 A. Well, in the US the Bound Brook
24 location was the only one that made phenolic
25 compounds for us. I assume you're not talking

C. MARTINO - MR. BOITER

1 about competitors?

2 Q. Not competitors. So, Bound Brook is
3 the one who actually made the compounds. Were
4 there any other facilities that made components
5 that you used to make the compounds?

6 A. Would you repeat that again,
7 please.

8 Q. As I understood your distinction,
9 Bound Brook was the only plant in the US that
10 actually made the compound and it was shipped
11 out to customers.

12 A. That is correct.

13 Q. Were there other facilities
14 anywhere that made any of the component parts
15 that Bound Brook used to make the compounds it
16 shipped to the customers?

17 A. No. The resin came from the resin
18 department at Bound Brook.

19 Q. Okay.

20 A. The fillers were purchased from
21 various suppliers, and the lubricants and the
22 colorants.

23 Q. I guess the only other component
24 actually would be the resins, and they are all
25 made there at Bound Brook too?

C. MARTINO - MR. BOITER

1 MR. GLASSER: Objection. Misstates
2 testimony.

3 Q. You can answer the question.

4 A. I am sorry?

5 Q. You can answer.

6 A. What was the question?

7 Q. Were all the resins made at Bound
8 Brook?

9 A. The resins used in molding material
10 were made at Bound Brook, as well as for sale
11 to customers. There was another plant location
12 in California that made resins for use in the
13 wood industry.

14 Q. So, that didn't have anything to do
15 with you? Am I correct that didn't have
16 anything to do with you guys and what you all
17 were doing?

18 A. Again, that didn't come through too
19 clearly.

20 Q. The other facility that you were
21 just describing didn't have anything to do with
22 what was going on at Bound Brook?

23 A. No, it didn't have anything to do
24 with the molding material department at Bound
25 Brook, but it did make some of the same resins

C. MARTINO - MR. BOITER

1 that were made at Bound Brook.

2 Q. Now, I'm going to sort of back
3 track a little bit here. I am looking at my
4 notes. I kind of got off track before. I'm
5 going back to questions that were talking about
6 the air testing that was done.

7 Describe for me, if you would, what
8 was done and what you had done to determine
9 whether or not the molding process in your
10 department met the threshold limit values.

11 A. I had the lab assistant take bags
12 of product that contained five percent
13 asbestos, pour the powder into the hopper of a
14 preformer, form the preform and then take it
15 and put it into a high frequency oven, which is
16 similar to our present day microwave, heat it
17 up to temperature and then put it in a press
18 and mold an ashtray about, oh, five, six inches
19 in diameter.

20 That was repeated over a period of
21 three hours. Air samples were taken by a safety
22 engineer at various locations around the press.
23 Those air samples were later analyzed by that
24 engineer to determine whether they met OSHA
25 standards.

C. MARTINO - MR. BOITER

1 Q. How many air samples were taken?

2 A. Well, it would be every twenty
3 minutes over a period of about three hours. So,
4 about three an hour. Probably nine or ten. Nine
5 and ten at each location, so as I recall there
6 were probably two or three locations. Overall,
7 probably about thirty samples.

8 Q. And how many bags of material were
9 used during this three-hour time period?

10 A. How many what?

11 Q. How many bags of material were used
12 during this three-hour time period?

13 A. Probably a half a dozen.

14 Q. What prompted you to do the
15 testing?

16 A. I wanted to -- we didn't think that
17 asbestos that was compounded and completely
18 encapsulated would be a problem. I wanted to
19 satisfy myself that it wasn't.

20 Q. Why were you doing the testing,
21 rather than relying on the safety guys?

22 A. I wasn't doing the testing. I was
23 there observing.

24 Q. Who suggested doing the actual
25 testing, then?

C. MARTINO - MR. BOITER

1 A. Who suggested it?

2 Q. Yes.

3 A. Me.

4 Q. Had the safety guys you were
5 talking about earlier ever suggested that you
6 do that?

7 A. No. When we wanted a test run, we
8 had to request it, in our area of
9 responsibility. Now, the safety department can
10 make that decision if they expect there is
11 going to be a problem.

12 Q. I understand, but the safety guy
13 you were talking about, you were relying on him
14 to say if you needed to do any sort of air
15 safety testing?

16 A. Not in this particular instance,
17 no.

18 Q. Had air testing ever been routine
19 in your department?

20 A. No.

21 Q. Was that the first time you'd ever
22 done one?

23 A. That's right. Let me just comment.
24 If there was a strong odor of some chemical or
25 unfamiliar material, the safety department

C. MARTINO - MR. BOITER

1 would be immediately called in to determine the
2 cause, and they would run whatever tests would
3 be required to determine whether it was a
4 problem and what the source was.

5 Q. That was probably a poorly phrased
6 question on my part. The question I probably
7 should have asked you is is that the only time
8 that you are aware of that you or anyone else
9 in your department had ever done air testing
10 for asbestos TLVs?

11 A. Yes, that's right.

12 Q. Can you describe -- it's probably
13 hard to do because it's by phone. But can you
14 sort of describe to me this hopper or this
15 process where he was pouring.

16 A. A preformer is like a punch press,
17 a large punch press. The preform would be
18 about two inches, three inches diameter and
19 maybe an inch thick. You also had the option of
20 using more than one preform for the part.

21 There's a hopper where you pour the
22 material in, and that feeds the amount of
23 material to fill the cavity that forms the
24 pill. There is no -- other than the hoods that
25 we had in the area, and we did have hoods where

C. MARTINO - MR. BOITER

1 any powdered materials would be used to draw
2 the air into the system, rather than out into
3 the area -- there was a hood over the hopper.

4 The pill, then, would be taken out
5 of the press, and by hand -- the operator wore
6 leather gloves -- and placed in the oven.
7 After it was heated, just like you would heat
8 some food in the microwave, it was taken out by
9 hand and placed in the press. Then the press
10 was closed and the part molded.

11 That was repeated over and over
12 again. Then as the hopper went empty, another
13 bag would be poured into the hopper. The hopper
14 held about a half a bag.

15 Q. Okay. Now if I understand you
16 correctly, this facility where you were doing
17 this air testing was actually a system that had
18 its own ventilation control system for it for
19 dust, for using the dusty products?

20 A. Yes. It was common to what was used
21 throughout the industry. Dust -- the dust is
22 also a housekeeping problem.

23 Q. This ventilation system, I assume,
24 was functioning and operating properly at the
25 time?

C. MARTINO - MR. BOITER

1 A. Yes.

2 Q. Did you ever have any other type of
3 analytical type testing done to the
4 asbestos-containing compounds where you were
5 trying to find out anything regarding the
6 release of asbestos fibers from the product
7 during its use?

8 MR. GLASSER: Objection. Vague as to
9 the term product. Are you referring to the end
10 product, the product sold to the molding
11 companies?

12 MR. BOITER: I would be glad to
13 rephrase it.

14 Q. In terms of any other testing that
15 you had done to the asbestos-containing
16 Bakelite compounds, in their final form as you
17 would ship them to a customer, was there any
18 testing ever done to determine--

19 A. On the molded piece? Are you saying
20 the molded piece?

21 Q. I'm talking about the actual
22 compound that you would ship out to customers.
23 Was there any testing ever done of those
24 products to determine whether or not their use
25 or handling released asbestos fibers into the

C. MARTINO - MR. BOITER

1 air or any other type of testing, analytical in
2 nature, looking to see if there -- under a
3 microscope to see if fibers were sticking out?
4 Any other actual use testing, other than the
5 one test that you did that you just described
6 to me where you did your own air sample?

7 A. In the laboratory when the product
8 is manufactured, there are tests run to
9 determine whether the solid fillers are fully
10 disbursed. They are primarily appearance tests
11 and molding tests.

12 (Whereupon, there was a brief
13 recess.)

14 Q. You had just talked about some
15 laboratory testing that was done. One of the
16 things you mentioned was sight testing or
17 something along those lines. Can you explain to
18 me what that involves.

19 A. Would you repeat what kind of
20 testing.

21 Q. I thought you said sight testing.
22 That's what I wrote down on my piece of paper.

23 A. Could you spell that word.

24 Q. I assume S-I-G-H-T.

25 A. Oh, you mean visual tests? Well,

C. MARTINO - MR. BOITER

1 the tests in the quality control department are
2 to determine whether the fillers have been
3 thoroughly coated by the phenolic resin and
4 we've gotten a good dispersion.

5 One is to mold a plaque and
6 determine whether there are any of those
7 particles visible.

8 There are also physical properties
9 run to determine whether you've gotten the
10 optimum -- met the specification on strength.
11 If you do not get good dispersion and coating
12 of the fillers, you will not get the best
13 properties.

14 There are also longer term tests,
15 like moisture resistance, that are run. If you
16 do not thoroughly disburse and coat the
17 fillers, your moisture resistance will be too
18 high, especially with wood flour filler
19 materials.

20 Q. When you did this visual test, was
21 this with the naked eye or were you somehow
22 aided?

23 A. It was done with the naked eye.
24 Also tests where a specimen was broken, like an
25 impact test. The break was examined by the

C. MARTINO - MR. BOITER

1 naked eye.

2 Q. At any time from 1949 to 1974 do
3 you know if it was ever inspected by use of a
4 microscope or some other type of device to
5 magnify what you were looking at?

6 A. The microscopes would be used only
7 if we saw something that needed further
8 follow-up. For example, a contaminant. Let's
9 say a gasket broke off in this process and got
10 into the material. That might be visible and
11 then became a problem of trying to determine
12 what it was. Might have been a piece of rubber.
13 Anything that was -- if you saw a nonuniform or
14 a speck in the material, then other tests were
15 run. Probably a microscope would be the next
16 step.

17 Q. From '49 to '74 did you ever look
18 at the completed product using a microscope?

19 MR. BERGIN: Excuse me. I'm going
20 to object to the form because you used the term
21 "completed product" and I'm not sure what
22 you're referring to.

23 Q. At any time from 1949 to 1974 did
24 you ever look at anything in any way associated
25 with a Bakelite compound or product that you

C. MARTINO - MR. BOITER

1 looked at under a microscope?

2 A. Yes. If a part was sent back from
3 the customer that required magnification. For
4 example, if there were cracks around a metal
5 insert that was molded into the part, we would
6 probably use a microscope to take a closer look
7 to see what the fracture looked like and
8 whether it was due to a sharp corner or
9 contaminant. Part of the detective work we
10 would have to do. It was like a tool. Just like
11 any tool, gardening tool. You use it when you
12 need it.

13 Q. Did you use the microscope for
14 anything other than that purpose?

15 A. Other than for contaminants, to see
16 if we had good dispersion, no. If we needed any
17 more definitive analysis, we would use other
18 tests.

19 You know, the phenolic compound has
20 black in it and a lot of fillers. You can't see
21 too much below the surface. All you have is a
22 very rich surface layer. The only thing that
23 flows when you mold a piece is the resin and
24 the colorant in it. So, you get a piece with a
25 -- a surface that's resin-rich and glossy, and

C. MARTINO - MR. BOITER

1 then you have all these different fillers
2 underneath it. So, the microscope can't see
3 very far into the part. You can just look at
4 surface.

5 Q. Well, from the period of time from
6 1949 to 1974 did you ever use a microscope to
7 determine whether or not the asbestos fibers in
8 the Bakelite compound that contained asbestos
9 were fully encapsulated or not?

10 A. Only by the tests that I previously
11 described. The asbestos, as delivered to us,
12 was not a fine powder or fine fibers that
13 floated through the air. It was clumpy. It was
14 -- if it was not uniformly dispersed, you
15 would get white specks from the product.

16 Picture taking your insulation from
17 the attic, trying to disburse it into a
18 product. If it didn't break up and get
19 thoroughly and uniformly mixed in, you would
20 not get the impact strength that you required.

21 So, it was only by way of indirect
22 measurements and visual appearance.

23 Q. Well, that's what I'm asking you.
24 Maybe you and I just aren't understanding each
25 other.

C. MARTINO - MR. BOITER

1 Do you know of specific instances
2 between 1949 and 1974 where the Bakelite
3 compounds containing asbestos were looked at
4 under a microscope to determine whether or not
5 the asbestos contained in the compound was
6 fully encapsulated?

7 A. It was done to determine -- it was
8 used only if the visual tests indicated that it
9 was not and we wanted to further magnify the
10 defect. As I mentioned before, if it is well
11 disbursed, the microscope doesn't help you very
12 much. You only see the very top surface layer.

13 Q. What were the results -- let me go
14 back. How many times do you recall between 1949
15 and 1974 the testing department doing
16 microscopic examinations to determine whether
17 or not the asbestos in the asbestos-containing
18 Bakelite products were fully encapsulated?

19 A. I don't know. That was not a
20 standard QC test. It was a backup test.

21 Q. How many times do you recall that
22 you saw results indicating by microscopic
23 examination whether or not the
24 asbestos-containing Bakelite -- the asbestos in
25 the asbestos-containing Bakelite products were

C. MARTINO - MR. BOITER

1 fully encapsulated?

2 A. By microscopic examination?

3 Q. Yes, sir.

4 A. Maybe I didn't make it clear
5 before. We did not think that the microscopic
6 examination of a product with five percent
7 asbestos in it was meaningful. You don't see
8 below the very top layer of the material
9 because you have so much other filler in there.

10 To distinguish between wood fiber
11 and asbestos fiber when you've completely
12 covered it with black resin, the test is not
13 useful, so why run it.

14 Q. That may be my fault. I thought you
15 had told me you had done that type of test.
16 What are telling me is that you didn't -- is
17 that correct -- because you didn't think it
18 would give you useful information?

19 A. I did it in the instances, or
20 people did it in the instances I mentioned. But
21 you are implying that we should have run some
22 test to determine if a material was fully
23 encapsulated, and I'm telling you the test
24 wasn't any good and it wasn't run for that
25 reason.

C. MARTINO - MR. BOITER

1 Q. I'm on the right track. I'm asking
2 you what specifically did the reports indicate
3 about the encapsulation of the asbestos on
4 those times you are saying that was done? What
5 did it indicate?

6 A. You mean with the microscope?

7 Q. Yes, sir.

8 A. When the microscope was used the
9 material was not encapsulated to determine the
10 source, whether it was wood fiber or whether it
11 was asbestos that wasn't being disbursed.

12 It was not used when there was no
13 evidence to indicate that the material had not
14 been disbursed. I don't think I can make it any
15 clearer than that.

16 Q. Can you -- I presume, then, that
17 you were privy to whatever test results -- you
18 were privy to the results of any microscopic
19 test results by the testing department?

20 A. No. I could have obtained them if I
21 wanted them. I had no reason to obtain them.

22 Q. So, you don't have any idea what
23 results they obtained when they looked at fiber
24 encapsulation?

25 A. Let's go over this one more time.

C. MARTINO - MR. BOITER

1 Q. Okay.

2 A. We did not think that a microscopic
3 examination of a phenolic compound that
4 contained five percent asbestos, carbon black
5 or nigrosine and a variety of other fillers,
6 was any good.

7 And therefore, we did not run it
8 for that purpose. So, therefore, there is no
9 reason for me to want to see any results
10 because they wouldn't have been run unless
11 there was a problem.

12 Q. Can you give me an estimate of what
13 period of time would it have been that Union
14 Carbide was producing their highest percentage
15 of asbestos-containing Bakelite products?

16 A. Percentage in terms of the total
17 volume?

18 Q. Yes, sir.

19 A. Probably 1972 or '73 we may have
20 reached our peak, because we were eliminating a
21 lot of products, and the ratio of the materials
22 containing five percent asbestos to those that
23 didn't contain any was increasing. We were down
24 -- we ended up down to 14 products.

25 Q. Out of the initial 200 or so?

C. MARTINO - MR. BOITER

1 A. That's right.

2 Q. Was 200 sort of the highest number
3 of different compounds you would have had?

4 A. I don't -- I don't remember more
5 than that, because that included colored
6 molding materials as well. And we did make
7 those for a short period of time.

8 Q. Some of the product number
9 designations actually had four letters instead
10 of the three letters that you were referring
11 to, like the BMG or I guess BMR. What was the
12 specific purpose of that fourth letter?

13 A. Originally it was supposed to
14 indicate that it was a modification of the
15 original product.

16 For example, if we wanted to put in
17 a double roll of product to make it more
18 water-resistant or if we wanted to increase the
19 amount of colorant, minor variations, it would
20 be given a fourth letter.

21 The intent was to drop that fourth
22 letter when that product replaced the original.
23 In actual practice that didn't always occur
24 because there was always somebody who wanted
25 the old product and wouldn't go to the new one.

C. MARTINO - MR. BOITER

1 So, you will find in some cases
2 there is an BMGA and a BMGB, and that's the
3 reason for it. But it's basically the same
4 product, same ingredients.

5 Q. Was there ever a series of Bakelite
6 products that had like a BMM letter
7 designation?

8 A. Yes. Again, I'm going by memory
9 here. The M stands for a change in the
10 granulation, and I think M meant that there
11 were fewer fines in the material, but I'm not
12 certain of that.

13 Q. Fewer what?

14 A. Fines, fine particles. There was a
15 specification on the granulation, how much you
16 could have. Screen tests were always run on the
17 granulation. There was a percent on each
18 screen. Specifications were set up on what was
19 permitted on each screen as a percentage of the
20 total. Some formulations had less fines than
21 others.

22 Q. Do you know how many different
23 designations there were -- we talked about a G;
24 we talked about an R; we talked about an M.
25 Were there any others?

C. MARTINO - MR. BOITER

1 MR. BERGIN: Excuse me. For
2 clarification, are you talking about a specific
3 digit location or numeric location? He went
4 earlier on in his deposition through a fairly
5 elaborate description of what they were and
6 what the letters meant and in how many places
7 and why. I think we are retreading.

8 MR. BOITER: I don't think we are
9 retreading because he told me about a G and an
10 R in the third digit place. Now he told me
11 about an M.

12 MR. BERGIN: If you're talking about
13 the third digit place, let's at least be clear
14 about that.

15 MR. BOITER: Okay. I don't have any
16 problem with that.

17 Q. Let's start at the beginning. In
18 the first digit place, was there always a B if
19 it was a Bakelite product?

20 A. Yes. Let me take that back. If you
21 are talking about Bakelite phenolic compound or
22 Bakelite phenol -- I mean phenolic resin, that
23 was a B. We also made epoxy resins that we
24 called Bakelite resins, so that Bakelite didn't
25 necessarily have to apply just to the phenolic

C. MARTINO - MR. BOITER

1 compounds.

2 Q. If it was an epoxy resin, what
3 would that first letter be?

4 A. It would be an E, and it was sold
5 as resin only.

6 Q. It would have just been a resin.

7 A. At one period of time in the '60s,
8 the thermoplastics were also called Bakelite
9 brand polyethylene, Bakelite brand
10 polystyrene. It was a marketing decision that
11 tried to capitalize on the popularity of the
12 Bakelite name. So that Bakelite over the years
13 has come to mean a lot more than just the
14 Baekeland original resin.

15 Q. Assuming it was a Bakelite phenolic
16 resin, it always had a B?

17 A. That's correct. The Bakelite
18 phenolic compounds, yeah.

19 Q. The second letter space, as I
20 understand your prior testimony, you could have
21 an M or an R; is that correct?

22 A. Yes.

23 Q. Were there any other letter
24 designations it could have besides an M or an
25 R?

C. MARTINO - MR. BOITER

1 A. I don't remember any others for the
2 Bakelite products.

3 Q. You can assume I'm talking about
4 the Bakelite products right now. In the third
5 letter designation area we talked about a G.
6 We talked about an R. Just a few minutes ago we
7 talked about an M. Were there any other letter
8 designations in that third position?

9 A. Well, the Z that we talked about
10 earlier.

11 Q. The Z. I'm sorry. You are right.

12 A. I don't remember any others.

13 Q. Is that the -- speaking
14 specifically about those first three letter
15 designations, had that type of coding system
16 been in place since 1949, to your knowledge?

17 A. I think it was put in place in the
18 '50s.

19 Q. Okay.

20 A. Because I've seen some -- I
21 remember seeing data sheets with the old number
22 and a new one in the '50s.

23 Q. Okay. Was there -- as I understood
24 earlier, that fourth letter designation
25 represented some change in the product. Was

C. MARTINO - MR. BOITER

1 there any specific pattern or sequence of how
2 they did that? Would they start at A and go to
3 Z or was it random?

4 A. No, you were supposed to start with
5 A and then go to B and then go to C. And the
6 system was that -- if you used the A version,
7 you didn't use it again, so that if anybody
8 went back to the records, they would know --
9 they could trace what the changes were. If
10 there were two A's, it could be very confusing.
11 So, it was done in sequence. Every minor
12 variation had the next letter.

13 Q. In -- let me just check real quick.
14 I think it was in Request for Admissions. I
15 want to make sure I'm correct. It might have
16 been Interrogatory Answers. I'm not sure.

17 But at any rate, there was some
18 reference in the materials that we received
19 from your attorneys that talked about, for lack
20 of a better way to put it, what I would call
21 different categories -- maybe that's a bad term
22 -- for Bakelite products. They told us about
23 general purpose Bakelite, high heat resistant
24 Bakelite and sort of a high impact heat
25 resistant Bakelite.

C. MARTINO - MR. BOITER

1 Can you explain to me what the
2 difference -- if these are correct, what the
3 differences in those are?

4 A. General purpose was the wood flour
5 filled material with no other reinforcement. If
6 you wanted high impact material, you would add
7 a reinforcement like cotton flock. The highest
8 I remember we used was up to 15 percent. That
9 was used in the washing machine agitators.

10 If you wanted high impact heat
11 resistance, you would replace some of the wood
12 flour, or say plastic filler, with a mineral
13 filler. It did not have to be asbestos.

14 MR. GLASSER: Can I interrupt. I'm
15 not sure he understands the question
16 completely.

17 MR. BOITER: Actually, I think he's
18 answering it beautifully. I understand what
19 he's talking about.

20 MR. GLASSER: But I do believe that
21 those categories were the three categories of
22 asbestos-containing products.

23 Q. I will ask you what do you think,
24 Dr. Martino. Did general purpose Bakelite have
25 asbestos in it or did it not?

C. MARTINO - MR. BOITER

1 A. It did not. Let me clarify that.
2 Until we developed the BMM 5020 where we put
3 five percent in. And that was intended to be
4 general purpose. By general purpose, it's
5 multiuse. Up to that point it was all wood
6 flour filled.

7 Q. To your knowledge, when did -- when
8 did -- when were the terminologies like general
9 purpose, heat resistant and high impact heat
10 resistant first used in regard to Bakelite
11 products?

12 A. They were -- they are in the '50s.
13 Even though I wasn't in that area I heard the
14 terms used. There were also ASTM
15 classifications that read like -- that had
16 those descriptions in them.

17 Q. Did you say ASTM?

18 A. Yes, ASTM.

19 Q. What does that stand for?

20 A. It's an organization that maintains
21 standards for various plastic materials. I
22 don't recall what ASTM stands for. I think it's
23 the American Standard Test Methods. I'm not
24 certain. But I think it's still around, so you
25 probably could get that information easily on

C. MARTINO - MR. BOITER

1 the internet.

2 But it classified not only the
3 Bakelite products, but even the thermoplastic
4 materials, into various categories. For
5 Bakelite products they had the general purpose,
6 the heat resistant, the impact resistant, and
7 not by content, but by performance. By
8 performance, I mean physical properties and
9 other physical measurements.

10 Q. Was there a period of time when --
11 strike that question. Was there a period of
12 time when the general purpose Bakelite
13 contained asbestos?

14 MR. BERGIN: Excuse me. I'm going to
15 object to the form of the question because it
16 suggests that there was only one general
17 purpose Bakelite at the given time.

18 Q. Was there a point in time when
19 there was a general purpose Bakelite -- strike
20 that question. Understanding you had a number
21 of different types of Bakelite compounds, was
22 there a period of time when any of the
23 compounds that you would describe as general
24 purpose Bakelite were asbestos-containing?

25 A. Well, in the late '60s, as I

C. MARTINO - MR. BOITER

1 mentioned before, the 5020 contained five
2 percent asbestos. That was a new development.
3 And it was intended for the same applications
4 as had been previously using the all wood flour
5 filled products.

6 Q. Was there -- understanding there
7 were a number of different Bakelite compounds,
8 was there ever a period of time when any of the
9 heat resistant Bakelite compounds were
10 asbestos-containing?

11 A. There probably was one, but I don't
12 remember the number.

13 Q. If you know, based on what you can
14 recall, what was the asbestos content by volume
15 of that product? Do you recall?

16 A. Well, when we say heat resistant,
17 that means mineral filled, and it doesn't all
18 have to be asbestos. So, the one that I am
19 trying to remember was a mixture of minerals
20 and probably five to eight percent asbestos. I
21 don't remember the exact amount. Five was the
22 usual concentration. Rarely did we go over
23 that.

24 Q. Do you recall -- from '60 to '74,
25 do you recall how many different types of heat

C. MARTINO - MR. BOITER

1 the form of the question, partly because it's
2 compound and partly because it refers to the
3 200 Union Carbide products as the whole
4 universe of the industry, which I don't think
5 is a fair characterization.

6 MR. BOITER: I don't think I said
7 that, but I would be happy to withdraw the
8 question or repeat it.

9 Q. You indicated in your testimony
10 earlier that there were some 200, give or take,
11 Bakelite compounds that you believe Union
12 Carbide was producing. My question to you was
13 would all 200 of those compounds have fit into
14 the categories of either general purpose, heat
15 resistant or high impact heat resistant.

16 A. There were a couple specialties,
17 like a mica filled, that didn't fit that
18 category. And there was a graphite material
19 which didn't fit.

20 Everything else -- then there was
21 color molding materials, which for practical
22 purposes were similar to the general purpose
23 compounds. They are wood flour filled. The only
24 difference was the colorant.

25 Q. During the period from 1960 to

C. MARTINO - MR. BOITER

1 1974, did asbestos-containing Bakelite ever
2 reach 40 percent of the total Bakelite produced
3 by Union Carbide?

4 A. Probably in 1972, I believe it was,
5 when we were trying to improve the
6 profitability of the business. We had cut back
7 to 14 formulations. It is possible at that time
8 we had reached that point because naturally as
9 you cut back -- the majority when I started
10 were all wood flour filled. Only five to ten
11 percent had the asbestos in them.

12 In cutting, we were cutting the
13 others, the specialties that generally did not
14 contain asbestos, but were very small volume
15 products.

16 Q. So, by percent of sales or percent
17 of production of Bakelite by Union Carbide, it
18 actually went up after the 1968 time period you
19 were talking about?

20 A. The percentage of sales went up.
21 Our total -- one point to remember, our total
22 sales of phenolic compounds was going down
23 because a lot of the Bakelite applications were
24 being replaced by thermoplastics.

25 So, I don't have the volume

C. MARTINO - MR. BOITER

1 figures, but in percentage terms that probably
2 is -- although I can't confirm that actual
3 figure, it isn't way out. It's possible.

4 Q. But generally speaking, and I don't
5 want to tie you to any specific figure. But
6 generally speaking, in terms of the percentage
7 produced, it was going up rather than going
8 down?

9 A. Could you repeat that again,
10 please. I didn't hear it.

11 Q. You mentioned that you didn't want
12 to be held to a specific figure, and I'm not
13 trying to. Generally speaking, it sounds like
14 what you are saying is that towards the end
15 before Bakelite found out about the dangers of
16 asbestos -- not talking volume of sales, but at
17 least percentage of sales -- the
18 asbestos-containing Bakelite sales were
19 bordering a higher percentage than they had in
20 the past?

21 MR. GLASSER: Objection as to form.
22 You can answer.

23 A. As I say, the percentage -- the
24 ratio of the material containing five percent
25 asbestos, the ratio of the number of products

C. MARTINO - MR. BOITER

1 that contain five percent asbestos to the total
2 went up. The actual number, you take 40 percent
3 of 14, you still end up with not too many
4 products.

5 Q. Was there ever -- I apologize for
6 this question. I picked it up reading a
7 deposition of somebody somewhere, something
8 about 50-gallon drums. Are those the drums we
9 talked about earlier when we were talking about
10 the product being shipped in drums? Would they
11 sort have been similar to a 50-gallon drum? Do
12 you know what I'm talking about?

13 A. About the same size, yes.

14 Q. I think I'm about to wrap it up
15 here. I know that will make you happy. I do
16 have a couple more.

17 There were some sales -- I guess
18 sales records or sales chart that we've been
19 furnished by Mr. Bergin. In it it had some
20 product codes, like ZZLA. Any idea what that
21 would stand for?

22 A. No. I don't remember what the Z's
23 were.

24 MR. BERGIN: For clarification, I
25 take it you are now referring to sale to

C. MARTINO - MR. BOITER

1 somebody other than Delco, which would have
2 covered a whole broad range of kinds of
3 chemicals that may have been sold by Union
4 Carbide that would have been on year-end sales
5 reports, which I think is what you are
6 referring to. Can you give us some specifics so
7 we have a record as to what you are referring
8 to.

9 MR. BOITER: I will try to find one.

10 MR. BERGIN: You can tell us by the
11 years in the upper right-hand corner.

12 MR. BOITER: I'm looking at December
13 31, 1967. Will that tell you?

14 MR. BERGIN: Which page now?

15 MR. BOITER: I don't know. Where is
16 the page number?

17 MR. BERGIN: We sent them over
18 clipped together with years.

19 MR. BOITER: I would guess December
20 31, 1967, is one of the last pages.

21 MR. BERGIN: Could you tell us what
22 the customer was?

23 MR. BOITER: Sure, Delco Remy. I
24 don't think there is one that says December 31
25 of 1967. I may be wrong, though. I see three

C. MARTINO - MR. BOITER

1 pages of December 31, 1967.

2 MR. BERGIN: You are looking at
3 where that says ZZLA 0334?

4 MR. BOITER: Down at the bottom.
5 ZZLA, yes. It looks like Delco Remy to me.

6 MR. BERGIN: Yes.

7 Q. Getting back to you, Mr. Martino,
8 we apologize for our little side bar. ZZLA,
9 does that mean anything to you that you can
10 recall?

11 A. Would you repeat that.

12 Q. ZZLA, you don't recall what it
13 stands for?

14 A. No. The L in the third letter
15 implies liquid. But I don't know what category
16 material Z was used for.

17 Q. Would a ZZP mean anything to you?

18 A. P implies powdered.

19 Q. Backing up to talk about -- not
20 really backing up. Talking about the compounds
21 that were being shipped to customers, the
22 compounds that contained the African blue
23 fibers, would that have actually -- that
24 product as it was shipped to a customer have
25 had a bluish look to it?

C. MARTINO - MR. BOITER

1 A. I don't recall what it looked like.
2 I would guess more of a brownish look than
3 bluish because that's the color of the resin.
4 If it was fully coated with resin, it would
5 have that resin, yellowish, brownish cast.

6 Q. Maybe I misunderstood. Maybe I need
7 to back up again. I thought I understood that
8 the African blue was a dry mix.

9 A. It was, but it was ball milled, so
10 that you got the resin on the surface of all
11 the fibers, so that you had a coating of
12 powdered resin, if you did it right, over the
13 asbestos.

14 I never remember looking at it that
15 closely. It was a very low volume product and
16 not made in the departments that we normally
17 did our work. So, I think it would be more of a
18 yellowish brown color, but that was a long time
19 ago.

20 Q. Do you recall ever actually seeing
21 the product in its final form before it was
22 shipped?

23 A. Pardon?

24 Q. Do you have any recollection of
25 actually yourself personally having seen the

C. MARTINO - MR. BOITER

1 product in its final form before it was
2 shipped, the African blue?

3 A. I happened to see them putting it
4 in a drum when I walked down the aisle where it
5 was being made, which wasn't very frequently,
6 but I never went over there and took a look at
7 it to examine it closely.

8 I don't think any of our molding
9 customers were using it once the Fiberite glass
10 filled products became available. It was really
11 difficult to make, high in cost and very
12 difficult to mold.

13 MR. BOITER: If you will give me
14 about two minutes, through the magic of the
15 telephone I am going to walk outside to ask my
16 counsel if there are any other questions he
17 wants to ask.

18 MR. BERGIN: Do we have anybody else
19 on this?

20 MR. BOITER: Mike Schultz.

21 (Whereupon, there was a brief
22 recess.)

23 Q. A couple more quick ones, Mr.
24 Martino, and I will be done. We have some sales
25 records from '66 forward. Do you know -- do you

C. MARTINO - MR. BOITER

1 have any information, direct information, about
2 sales to Delco Remy in the '40s?

3 A. No, I don't.

4 Q. Do you know who, if anyone, at
5 least who is still alive, in connection with
6 Union Carbide would have that information?

7 A. I don't know if these people are
8 alive. Dick Bruce was a sales manager for the
9 area that could have gone back that far. I
10 don't think he's alive. Another person was Eddy
11 Vale. And I don't think he's around any more.
12 I can't think of anybody in that time period
13 that was in sales that would have been familiar
14 with Delco Remy purchases.

15 Q. Do you have any direct information
16 about Delco Remy purchases in the '50s?

17 MR. GLASSER: Objection as to form.
18 You can answer it, if you understand it.

19 A. No, I didn't see anything on their
20 sales in the '60s -- in the '50s.

21 Q. Would Mr. Bruce and Mr. Vale be two
22 people who might, if they are still around?

23 A. Well, I don't think they are. I
24 think they both died.

25 Q. I guess what I'm trying to do is

C. MARTINO - MR. BOITER

1 find out if there is anybody else you can think
2 of who might have that information that would
3 be alive.

4 A. If a name comes to me, I will break
5 in and give it to you. Another is Fred Ducca,
6 D-U-C-C-A, used to work for me and was an
7 old-timer in the phenolic molding material
8 area. He would go back that far. I don't know
9 whether he's alive or not and I don't know
10 where he is living.

11 Q. I'm going to ask you a question.
12 You may pause a second and give your counsel a
13 chance to interject. He may say you don't know
14 anything about it and then you won't have to
15 answer the question.

16 Do you know anything at all -- let
17 me scratch that. Are you familiar from a
18 technical standpoint of a product sold by Union
19 Carbide called Calidria?

20 A. Calidria asbestos?

21 Q. Yes.

22 A. Yes.

23 Q. I guess that means I should ask
24 some questions. Was Calidria the type of
25 asbestos that was used in Bakelite products?

E. MARTINO - MR. BOITER

1 A. No, it wasn't. We were using Carey
2 Mines asbestos. We were approached by them to
3 use their product and we did run some tests on
4 it, but never used it.

5 MR. BERGIN: Is that just as good as
6 saying he doesn't know anything about it, as
7 saying it wasn't used in Bakelite?

8 MR. BOITER: It's close, but I do
9 have some questions about it based on the fact
10 that he does have some knowledge about it.

11 Q. What connection, if any, did you
12 have with the Calidria operation at Union
13 Carbide?

14 A. I never saw their operation. I only
15 talked to their sales manager.

16 Q. Did you ever get any information
17 from their sales manager about any types of
18 warnings they might have put on a Calidria
19 product?

20 A. No.

21 Q. Did anyone involved in the Calidria
22 operation ever prior to -- well, at least prior
23 to 1974, did anyone from the Calidria operation
24 ever provide you with any information regarding
25 the hazards of asbestos?

C. MARTINO - MR. BOITER

1 MR. BERGIN: I'm going to object on
2 the grounds that there has been absolutely no
3 identification by anyone of the use of
4 Calidria. The only Union Carbide products that
5 have been identified are not Calidria products.
6 This is way beyond anything this witness is
7 being offered for.

8 Q. You can answer the question. Do you
9 remember the question, Mr. Martino?

10 A. What was the question again?

11 MR. BERGIN: Have the court reporter
12 read it back, please.

13 MR. BOITER: I would be glad to ask
14 again. He can object again.

15 Q. Did anyone from the Calidria
16 operation at Union Carbide prior to 1974 ever
17 provide you any information regarding the
18 hazards of asbestos?

19 MR. BERGIN: I'm going to object on
20 the grounds that it's irrelevant to any issues
21 in this case, as Calidria has not been
22 identified by anybody as a product used by
23 anybody, and this witness said he did not use
24 Calidria in the Bakelite.

25 Q. Now you can answer the question.

C. MARTINO - MR. BOITER

1 A. Are you saying I can answer the
2 question?

3 Q. Yes, sir, you can.

4 A. Well, since I never used it, I was
5 never given any data sheets on it.

6 Q. Besides data sheets, did they ever
7 give you any other information warning you of
8 the hazards of asbestos?

9 MR. BERGIN: Same objection. This is
10 getting way far afield.

11 Q. You can still answer the question.

12 A. Since my contacts with them were so
13 limited, I would prefer not to answer that.

14 Q. Understanding that you prefer not
15 to answer that.

16 MR. BERGIN: I'm going to instruct
17 him not to answer at this point because there
18 is no Calidria issue in this case. The
19 testimony of the plaintiff himself reputed the
20 content of an affidavit and Mr. Frye's
21 testimony yesterday's. There is no witness on
22 anybody's witness list to identify any Calidria
23 used in this case.

24 This witness has already said he's
25 never seen the operation. He had no control or

C. MARTINO - MR. BERGIN

1 connection with it. This is a fishing
2 expedition and it's way beyond any permissible
3 scope. We've been going for hours, and I'm
4 going to instruct him not to answer.

5 MR. BOITER: At this point I have no
6 further questions. Regarding my right, assuming
7 the judge agrees with me that that is a fair
8 area of questioning to get into, I reserve my
9 right to reexamine this testimony at a minimum
10 of what he's testified to. That's all the
11 questions I have.

12 MR. BOITER: Jim, do you have any
13 questions?

14 MR. SNYDER: No.

15 MR. BERGIN: I have some.

16 BY MR. BERGIN:

17 Q. Mr. Martino, did Union Carbide
18 manufacture and sell Bakelite from its Bound
19 Brook facility in 1952 through 1954?

20 A. No. The plant was destroyed by a
21 fire and had to be completely rebuilt. At that
22 time in order to keep our customers supplied,
23 formulations were given to our competitors and
24 our competitors supplied them.

25 Q. Are you familiar with a company

C. MARTINO - MR. BERGIN

1 Durez, D-U-R-E-Z?

2 A. Yes, I am.

3 Q. Were they one of the companies that

4 you competed with for sales to General Motors

5 and to Delco particularly?

6 A. They and Plenco.

7 Q. What is Plenco?

8 A. A plastic engineering company.

9 Q. That's P-L-E-N-C-O?

10 A. Right.

11 Q. Were they also -- was Plenco's

12 product 523 the competitor's products with BMG

13 5276?

14 MR. BOITER: I'm going to object to

15 that question as leading.

16 MR. BERGIN: That's on

17 cross-examination.

18 MR. BOITER: It's not

19 cross-examination. It's your witness. I object

20 to that whole series of questions as leading.

21 MR. BERGIN: You object to the form.

22 That's your right.

23 MR. BOITER: I'm objecting as

24 leading, correct.

25 Q. Did you understand the question?

C. MARTINO - MR. BERGIN

1 A. Yes. Am I allowed to answer it?

2 Q. Yes.

3 A. Yes. Those two products are
4 equivalent in performance.

5 Q. Was BMG 5276, BMR 5276, BMS 5276
6 and BMW 5276 a Bakelite molding compound or
7 resin that contained the same chemical
8 constituents?

9 MR. BOITER: Again I'm going to
10 object to the form of the question as leading.
11 This is your own witness. Assuming this is the
12 case you intend to use at trial, it will be
13 your witness on direct, and I object to it as
14 leading in that context, for sure.

15 Q. Go ahead and answer the question,
16 please.

17 A. The third letter is a change in
18 granulation, so that's the difference between
19 those products. The composition is the same.

20 Q. So, 5276 is a product that
21 regardless of which of those four captions it
22 would have had, or introductory letters, it
23 would have had the same chemical constituents?

24 A. You said BM and you changed the
25 third letter, and the third letter is granular

C. MARTINO - MR. BERGIN

1 form and not composition.

2 Q. And then two of them had either --
3 one had an S; one had a W?

4 MR. BOITER: I object to the
5 question as leading and move to strike his
6 answer as nonresponsive. He is your witness. If
7 you ask him a bunch of leading questions, can I
8 just have an objection to leading for all these
9 questions that are leading or do you want me to
10 do it every time?

11 MR. BERGIN: I'm happy to agree to
12 you having a standing objection.

13 Q. Do you understand the question?

14 A. No, I'm lost. Would you please
15 rephrase that.

16 Q. The product numbers that I asked
17 you were BMG 5276, BMR 5276, BMS 5276 and BMW
18 5276. My question really is are they all
19 basically the same chemical constituent
20 products?

21 A. Yes.

22 Q. Was that product a wood flour
23 filler product?

24 A. Yes, it was.

25 Q. Did it contain any asbestos of any

C. MARTINO - MR. BERGIN

1 kind?

2 A. No, it did not.

3 Q. Was that a product that was in
4 production before you took over as the group
5 manager?

6 A. Yes, it was.

7 Q. Has that been a long-standing
8 product that was produced by Union Carbide
9 during the entire period that you were an
10 employee there, beginning in the late 1940s?

11 A. I know it was produced before I
12 took over the group. I don't know how far back
13 it went.

14 Q. So, it went back at least to some
15 period of time before you were there?

16 A. Yes. It went back to the mid-'50s,
17 because it was in our new nomenclature. What I
18 don't know was whether there was a prior number
19 that was crossed over to BMG 5276 when the new
20 nomenclature system was introduced.

21 Q. Now, calling your attention to the
22 procedure at Union Carbide, was there a
23 procedure for getting a product into the
24 production stage? Was there some procedure by
25 which somebody would request transfer of a

C. MARTINO - MR. BERGIN

1 product to a final manufacturing status?

2 A. Yes.

3 Q. One of the products that you were
4 asked about was BMMA 5020.

5 A. Right.

6 Q. Isn't it a fact that that is a
7 product in which you made the request to have
8 it transferred to manufacturing in January of
9 1967?

10 A. It probably was.

11 Q. If that, in fact, is the date in
12 which the report requesting final manufacturing
13 status dates from, could that product have been
14 made or sold to Delco Remy before 1967?

15 A. No, it would not. It's possible
16 that they got a sample before that.

17 Q. It would not have been something
18 that could have been purchased for production
19 purposes by any customer?

20 A. Only if Delco Remy had requested a
21 -- if after the sample they had asked for more
22 material and it was still experimental status.
23 Let's say they ordered 10,000 pounds. We would
24 have requested an experimental run and made it
25 and sent it to them for further tests. But I

C. MARTINO - MR. BERGIN

1 don't think that occurred. I think they got the
2 sample and we never heard what they did with
3 it.

4 Q. And is that a product that was
5 designed to be competitive with the Durez 265
6 product?

7 A. I'm not that familiar with the
8 Durez 265. We were offering it as, I think, an
9 improved version of 5276 or the 5507, I
10 believe, hoping that the improved performance
11 would get us more business.

12 Q. Was Bakelite molding compounds or
13 Bakelite resin sold to the man-on-the-street
14 type consumers or was it sold only to
15 commercial purchasers?

16 A. Only commercial purchasers. The man
17 on the street wouldn't know what to do with it.

18 Q. Now, with regards to Bakelite
19 resins and Bakelite molding compounds, to your
20 knowledge, was it ever sold for use to be added
21 with plaster type products for insulating pipe
22 covering or other type of thermal insulation
23 products?

24 A. No.

25 Q. Was it ever made or sold for use as

C. MARTINO - MR. BERGIN

1 a -- strike that. You were asked some questions
2 about some tests that you performed or had the
3 safety department perform in your laboratory
4 with regard to the use of Bakelite material to
5 make ash trays. Do you recall that testimony?

6 A. Yes.

7 Q. When you called the safety
8 department, did they have to go outside the
9 plant in order to locate the equipment or to
10 perform the procedures to test the air?

11 A. No.

12 Q. So, were they able to simply send
13 somebody up that was knowledgeable in air
14 testing and had the equipment and was able to
15 do it and give you an answer as to whether or
16 not you were within OSHA requirements?

17 A. That is correct. He had been doing
18 this for any other department that requested
19 assistance.

20 Q. You were asked a number of
21 questions about microscopic tests. Am I
22 correct that if a product in the first initial
23 visual inspection suggested that there had not
24 been complete encapsulation of components so
25 that you had a homogenous product that would be

C. MARTINO - MR. BERGIN

1 a production issue that would have to be
2 resolved before the product could be shipped to
3 a customer?

4 A. Yes.

5 Q. Were there then a number of tests
6 that could be run, depending upon the nature of
7 what the observation was, to find out whether
8 there was a manufacturing problem, and if so,
9 what the solution would be so that the customer
10 would get a homogenous coated product?

11 A. Most likely the product would
12 either be rejected -- most likely it would be
13 rejected if it didn't pass the test. That meant
14 it would be blended back into the next
15 production run and recompounded.

16 Now, if it was a contaminant that
17 got into it that would not -- didn't belong
18 there, then the material would be sent to the
19 dump.

20 Q. Are you generally familiar with the
21 use of Bakelite for use in molded Bakelite
22 automobile components, like distributor caps
23 and -- as part of ignition switches and that
24 sort of thing?

25 A. Yes, I am.

C. MARTINO - MR. BERGIN

1 Q. What kinds of Bakelite would be
2 perfectly suitable for any such application?

3 A. Wood flour filled.

4 Q. Would there be any heat or other
5 reason for that kind of application to require
6 asbestos in Bakelite?

7 A. Not in those applications.

8 Q. Was the Bakelite that did contain
9 asbestos more expensive, cheaper or the same
10 price as the wood filled?

11 A. In some cases it was a higher price
12 was charged. The exception to that was the BMM,
13 the 5020. That would have been sold for the
14 same price as the general purpose compound, but
15 it still would be slightly more expensive to
16 the molder because the specific gravity would
17 have been higher and he would have gotten fewer
18 parts.

19 Q. To your knowledge, during the
20 entire period you were associated with Bakelite
21 products, did Delco Remy have more than one
22 supplier of Bakelite resins?

23 A. They sure did. After our plant was
24 shut down, anybody who had bought 100 percent
25 of their product from us made sure they had

1 another source of supply, and automotive
2 companies in particular did that and played one
3 supplier against the other to get the lowest
4 price.

5 Q. And after the plant was rebuilt in
6 1954, did Union Carbide have to go back to
7 customers like Delco Remy and fight to
8 recapture any of their market share from our
9 competitors that had been filling that need for
10 the past two years?

11 A. Yes. In fact, before the '50s,
12 Bakelite was number one in the industry by far.
13 After that plant shut down it slipped to number
14 two. Durez became number one. Plenco was
15 almost equal to us. They never recovered from
16 it.

17 Q. To your knowledge, was Bakelite
18 molding compounds or resin ever offered on the
19 market as a refractory product suitable for
20 lining furnaces or ovens that would hold molten
21 metal?

22 A. No, no.

23 Q. Were those temperatures sufficient
24 to, I guess, destroy or consume phenolic
25 resins?

125

C. MARTINO - MR. BERGIN

1 A. They would lose their integrity.

2 Two reasons I say no, that it wasn't used
3 there. One is to mold phenolic compounds you
4 need temperatures of about 350 degrees
5 Fahrenheit and high pressures over 1,000 pounds
6 per square inch. That requires a sizable
7 machine to accomplish. It can't be used in any
8 operation where you are trying to coat
9 something in the plant. It just doesn't work.

10 The foundry business that I was
11 familiar with blended phenolic resin with sand,
12 and I don't know what other ingredients they
13 put in there because I wasn't that close to
14 what was going on, but then they would use that
15 sand mixture to make molds and then they would
16 pour the molten metal into those molds and cast
17 parts.

18 So, you had to have ingredients
19 there that would hold up to those temperatures.
20 The phenolic resin that is used as a binder
21 held its integrity long enough under those
22 temperatures to keep the mold together until
23 the metal cooled down.

24 Q. Did those phenolic resins that were
25 used for the purpose of making molds in

C. MARTINO - MR. BOITER

1 foundries contain any asbestos?

2 A. Not at all, no.

3 Q. I believe that's all I have.

4 MR. BOITER: I have a few
5 follow-ups.

6 BY MR. BOITER:

7 Q. It sounded like from your answers
8 to some of Mr. Bergin's questions when you talk
9 about the Durez and the Plenco companies that
10 you at least have some reasonable familiarity
11 with the type of product that was being
12 manufactured by your competitors; would that be
13 correct?

14 A. Where they were competitors of ours
15 and we were trying to get their business, we
16 would try to learn as much as we could about
17 the product.

18 We kept -- we monitored their data
19 sheets on a regular basis to see what they were
20 doing; and if we had a report from the
21 salespeople that there was a new product out
22 there, we would try to get a sample and analyze
23 it as quickly as we could. So, we had a pretty
24 good idea of what their product line was.

25 Q. Was there another company that sold

127

C. MARTINO - MR. BOITER

1 or marketed a phenolic resin compound
2 containing African blue asbestos under the name

3 Bakelite?

4 A. I don't know of any, no. That was a
5 real oddball product. I don't know who would
6 want to make it.

7 Q. To your knowledge, Union Carbide
8 was the only one making that product?

9 A. Yes, and that was, as I said,
10 eliminated as soon as we -- management could.

11 Q. You mentioned the fire in '55. It
12 sounded like what you were trying to indicate
13 was it made your customers kind of nervous that
14 they were depending on you guys and found they
15 could get their supply interrupted. Is that
16 what you were suggesting?

17 A. Prior to that plant fire we had
18 some customers that bought 100 percent of their
19 requirements from us.

20 Q. What percentage was Delco Remy
21 buying from you?

22 A. At that time I don't know if they
23 were. Now, the automotive industry had as its
24 policy to never depend on one supplier, and if
25 they did, to be sure that that supplier had

128

C. MARTINO - MR. BOITER

1 more than one plant. And sometimes even that
2 wasn't sufficient. So, I don't know if Delco

3 Remy was one of our 100 percent customers prior
4 to the fire.

5 Q. When did that become the operating
6 policy for the automotive industry?

7 A. I can't give you a date how far
8 back that went. Of course, in the 1940s when
9 Bakelite was the only product they could get,
10 they had no choice.

11 Q. How many other competitors were
12 there to Bakelite in the '40s?

13 A. In the '40s there were quite a few.
14 That was when Bakelite, the patent expired in
15 1927, and people and companies that were
16 waiting on the sidelines for that to happen
17 jumped in. Durez, Plastic Engineering Company,
18 who was -- in the industry they were called
19 Plenco, Right Gold, General Electric,
20 Westinghouse, Westinghouse made the material
21 primarily for its internal use.

22 Ford. Now, Ford had a policy, and I
23 don't know when that started, of on major
24 materials that they purchased they would go
25 into the business themselves of making it for

129

C. MARTINO - MR. BOITER

1 50 percent of the product, if they could, so
2 that they could get a good idea of what the
3 cost should be. Then they used that information

4 to get the best price out of their suppliers.
5 For a while they were making their
6 own phenolic compounds. Then there were a lot
7 of specialty people who were not -- in a way
8 were our customers, like Fiberite. They would
9 buy the resin from us and add their own
10 fillers, like fiberglass and so forth. And they
11 had special processes for making high impact
12 and, in fact, high impact heat resistant
13 materials. Those were sold at much higher
14 prices because of the specialty nature.
15 Q. Any others you can think of?
16 A. There were other thermoset
17 manufacturing producers, but they were other
18 thermosetting resins. No others that I can
19 remember that were phenolic molding material
20 producers.
21 Q. Do you have any specific knowledge
22 that any of the companies you just mentioned
23 were selling phenolic resins to Delco Remy in
24 the '40s and '50s?
25 A. Durez and Plastic Engineering

130

C. MARTINO - MR. BOITER

1 Company would be the two that would be most
2 likely to.
3 Q. Do you have any specific

4 information that they did?

5 A. In the '40s and '50s.

6 MR. BERGIN: Are you including the
7 time after the fire?

8 MR. BOITER: I'm talking the '40s
9 and '50s.

10 A. I did not have any reports in that
11 period of time because I was not working in
12 that area, so I don't know exactly what they
13 were buying. In the '40s the products they were
14 buying would be different than the designations
15 that we were talking about. There was an
16 entirely different nomenclature system. So,
17 even if we had those numbers, it would be
18 difficult to tell whether it was same thing
19 they are buying now or not.

20 Q. By way of example, you were talking
21 about earlier -- you and Mr. Bergin were
22 talking about a product that had a designation
23 BMMA 5020. Do you have knowledge whether that
24 product or a product like it -- let me back up.
25 The BMM 5020 product, you don't have any

131

C. MARTINO - MR. BOITER

1 knowledge as to whether that product was or
2 wasn't being sold to Delco Remy in the '40s and
3 '50s, a product of that designation coming
4 on-line?

5 A. It was not because it was not
6 available then. There would not have been an
7 equivalent.

8 Q. Over those years there have been a
9 lot of refinements in the fillers technology
10 and resin technology and the purity of the
11 different ingredients, so that all of those
12 improvements would have been incorporated into
13 the newer products?

14 A. I have no -- there would not be a
15 5020 equivalent in the '40s and '50s.

16 Q. That's sort of my point exactly.
17 When the two of you all were discussing -- you
18 and Bergin were discussing the BMMA 5020 you
19 indicated it was January of 1967 when that
20 product came on-line.

21 A. January of 1967 did you say?

22 Q. Right.

23 A. That is when it was considered to
24 be a commercial product and could be sampled to
25 any customers.

132

C. MARTINO - MR. BOITER

1 Q. Is it a fair statement that to say
2 January of 1967 when BMMA 5020 came on-line,
3 that doesn't mean that Delco Remy had never
4 used an asbestos-containing Bakelite compound

5 from Union Carbide?

6 MR. BERGIN: Read that back, please.

7 Q. Simply because the BMMA 5020 came
8 on-line in January of 1967 doesn't mean that
9 you can draw the conclusion that Delco Remy
10 never had an asbestos-containing Bakelite
11 compound they purchased from Union Carbide that
12 they used?

13 MR. GLASSER: Objection as to form.
14 You can answer it if you understand.

15 A. To answer that--

16 Q. If you don't understand, say so and
17 I will rephrase it.

18 A. There is no reason for me to
19 believe they would, unless they had some
20 special applications different than those we
21 were familiar with. I'm assuming that they were
22 making distributor caps then, just as they were
23 in the -- when I was involved. They didn't
24 change in design that much.

25 Q. Do you know that to be a fact in

133

C. MARTINO - MR. BOITER

1 the '40s and '50s?

2 A. Well, the distributor cap on my
3 1948 Chevy didn't change much until they
4 started making electronic ignitions.

5 Q. That wasn't my question.

6 MR. BERGIN: I think it was
7 responsive, though.

8 Q. Tell me all the things you know
9 were going on at the Delco Remy plant in the
10 1940s. The reason for my asking that question
11 is simple. I want to know what you knew about
12 their operations in the '40s.

13 A. I was going to Carnegie-Mellon
14 University. I didn't know anything about what
15 they were doing. You can get that from my
16 history.

17 Q. I understood that. I thought you
18 were trying to indicate a while ago what they
19 were doing in the '40s at Delco Remy. I
20 understand you don't know.

21 MR. BERGIN: I'm going to object.
22 The questions are becoming very argumentative,
23 and to ask him the general question is
24 completely different from his earlier statement
25 where he said the product he knew was on a car

134

C. MARTINO - MR. BOITER

1 he had in 1948 made by General Motors was the
2 same kind that they had during the period of
3 time he was selling product for General Motors.
4 That is a different proposition and you are
5 getting quarrelsome and argumentative when you

6 say, tell me everything you know about Delco
7 Remy.

8 MR. BOITER: I'm moving on. I'm
9 sorry if you think I'm being quarrelsome and
10 argumentative.

11 Q. When air sampling was done, the air
12 sampling that you requested that one time, was
13 actually done by the safety department.

14 A. Yes.

15 Q. What type of equipment did they
16 use?

17 A. It was the standard equipment used
18 to sample air in the industry at that time, but
19 I don't remember the details of exactly how --
20 what it looked like and how it operated. That
21 was in -- that's over 35 years ago.

22 Q. Did I understand your testimony to
23 be that you felt they were quite capable of
24 doing the testing?

25 A. Yes. I thought quite highly of our

135

C. MARTINO - MR. BOITER

1 safety department. We were very conscious about
2 not only the health hazards of our chemicals,
3 but also of the potential explosion hazards. We
4 had to be very careful with dust. A combination
5 of dust and oxygen can cause an explosion and
6 was the cause of that fire that destroyed our

7 plant. That made not only Union Carbide very
8 conscious of the consequences of too much dust,
9 but also our customers, and probably the reason
10 they put the label on the back in the first
11 place.

12 Q. Is it your opinion that Union
13 Carbide could have done that same kind of
14 testing in the '50s if they wanted to?

15 MR. BERGIN: I'm going to object.
16 You are asking somebody for whom there is no
17 basis in competence laid. He's not being
18 offered as an industrial hygienist.

19 MR. BOITER: I do differ, because he
20 just described to me what the safety department
21 was and he was the person who asked for the
22 testing to be done, and I'm asking him if that
23 could have been done in the '50s.

24 MR. BERGIN: You haven't shown he
25 had that position or that knowledge or any

136

C. MARTINO - MR. BOITER

1 position so he would be in a position to make
2 that statement about their capabilities.

3 MR. BOITER: Is that another
4 question you are instructing him not to answer?

5 MR. BERGIN: I'm objecting on the
6 grounds that you are going way beyond what

7 there has been a foundation of competence.

8 Q. Do you recall my question, Mr.
9 Martino? Because it's okay for you to answer
10 it.

11 A. Let me put it this way. The
12 technology was not rocket science, so if it was
13 needed, I see no reason why it couldn't have
14 been used. It didn't require the development
15 of new technology.

16 Q. Would it have also been important
17 for the safety department to do that same type
18 of test in a control environment where the
19 worker would have been protected without the
20 hood or ventilation being on to determine
21 whether there was significant fiber release or
22 not?

23 MR. BERGIN: I'm going to object.
24 There's no showing he's competent to testify as
25 an industrial hygienist. It's an unfair

137

C. MARTINO - MR. BOITER

1 imposition on this person to suggest that he
2 has that competence, and I will instruct him
3 not to answer because it is an attempt to
4 elicit technical expert opinions from somebody
5 who has not got the credentials to make that
6 kind of testimony.

7 MR. BOITER: Just to make the note?

8 MR. BERGIN: That's right. I'm
9 instructing him not to answer that question.
10 MR. BOITER: He's the one who
11 ordered the original test, so I am assuming he
12 had the knowledge and expertise.
13 MR. BERGIN: Different kinds of
14 tests.
15 Q. I want to talk to you a little bit
16 about your knowledge of the use of the phenolic
17 resins in the foundries. I guess I want to
18 start off by asking you what foundries did you
19 actually visit.
20 A. None. I was not responsible for
21 that area of the business. My only familiarity
22 with it is through conversations with a friend
23 who did work in that area. I never saw -- I
24 was never in a foundry and never saw them do
25 what I described. Of course, there's a lot of

138

C. MARTINO - MR. BOITER
1 literature, and our own literature went into
2 detail about the foundry industry, so anybody
3 who wanted to get it could just read about it.
4 Q. Who is this friend you talked to?
5 A. Bill Coygen, but he's dead.
6 Q. What did he do?
7 A. He was responsible for servicing

8 the phenolic -- the foundry industry and
9 providing whatever resins and technical
10 assistance they needed to use our resins.

11 Q. Any idea who his customers were?

12 A. I know Ford had a foundry. I don't
13 know if Delco Remy had one or not. But I would
14 imagine that in the General Motors organization
15 there was one.

16 And then there were small companies
17 that provided that service, would actually cast
18 the parts and would make their own molds, but I
19 don't remember what the names of those
20 companies were.

21 Q. Do you feel competent to talk to me
22 about the various uses of phenolic resins in
23 foundries?

24 A. No, I don't. All I can say is that
25 I remember hearing they were selling powdered

139

C. MARTINO - MR. BOITER

1 resins to them. They might have also sold
2 liquid resin to them. What I can say is that
3 any resin that we sold to customers did not
4 contain asbestos. That I can say with
5 certainty.

6 Q. Was there any difference in the
7 strength of a product -- we're talking about a
8 phenolic resin molding product, depending on

9 whether the filler was a wood or asbestos
10 filler?
11 A. Oh, yes. Strength is how you define
12 it.
13 Q. Define it how you would define it
14 by you just responding, "oh, yes."
15 A. The modulus, the rigidity -- that's
16 why I said, "oh, yes." It's a more rigid
17 product. Any mineral will increase the rigidity
18 of the phenolic composition, and there isn't
19 much difference between asbestos, talc and any
20 other mineral filler in that regard. They all
21 have the same effect. And the specific gravity
22 goes up roughly the same when you use it. So,
23 in that regard you do get a difference. But in
24 terms of impact strength, we're talking small
25 differences.

140

C. MARTINO - MR. BOITER

1 Q. I am sorry. Did you say no
2 differences?
3 A. Small differences. The asbestos
4 fiber might give you maybe 10, 15 percent
5 improvement in impact strength, if that.
6 Q. If I were looking to have a little
7 bit better product, might I not consider using
8 the asbestos fiber to strengthen my product?

9 A. If you were looking for what?

10 Q. If you are looking to have a

11 product which is just a little bit better than

12 the next guy?

13 MR. BERGIN: I object on the grounds

14 that you are calling on him to speculate what

15 somebody else might do, and he's not competent

16 to do it and he's not qualified to do it. It's

17 far afield. It's beyond anything I opened up by

18 my questions.

19 MR. BOITER: I'm asking it in

20 regards to whether or not asbestos would have

21 been used in products at Delco Remy. I

22 appreciate your indicating you instruct him not

23 to answer.

24 MR. BERGIN: If you want to rephrase

25 it so you include it to have a competent

141

 C. MARTINO - MR. BOITER

1 question that's relevant.

2 MR. BOITER: You're instructed him

3 not to answer. I understand.

4 MR. BERGIN: I'm instructing him not

5 to answer the question. If you want to ask a

6 different question.

7 A. Could I make a comment that's not

8 directly related? Delco--

9 MR. BERGIN: The witness wants to be

10 heard.

11 MR. BOITER: If you objected to my
12 question, then it's not his turn to talk.

13 Q. But I do have another question for
14 you. Maybe that will give you an opportunity to
15 bring it in.

16 What basis do you have as you sit
17 here today to candidly say or to say as a fact
18 that Delco Remy would never have used asbestos
19 in their Bakelite automotive products if one of
20 the considerations -- and it's just an if --
21 was potentially they wanted a product that
22 would be slightly better than the other guy's
23 product.

24 MR. BERGIN: Objection to form. It's
25 quarrelsome and argumentative.

142

C. MARTINO - MR. BOITER

1 Q. You can answer the question if you
2 understood it.

3 MR. BERGIN: And compound.

4 A. Delco Remy did buy an improved
5 impact material that contained some cotton
6 flock in it. I think it was 5507. It didn't
7 have to be asbestos.

8 Q. Well, but how do you completely
9 rule out -- how do you completely rule out as a

10 factual statement that Delco Remy would never
11 had used an asbestos-containing Bakelite
12 product in their automotive parts?

13 THE WITNESS: Mike, is that part of
14 your previous objection?

15 MR. BERGIN: You can answer that
16 question. We are objecting to the general form
17 of the question. But your question is how can
18 he rule it out.

19 A. I can't say with certainty that
20 they never used an asbestos material. For all I
21 know they could have bought it from Durez and
22 Plenco and used it for some specialty
23 application.

24 I had a problem keeping up with all
25 we were doing in our company, let alone Delco

143

C. MARTINO - MR. BERGIN

1 Remy.

2 MR. BOITER: That's all I have.

3 MR. BERGIN: I have just one last.

4 BY MR. BERGIN:

5 Q. You've been asked several times
6 about apparently a low production specialty
7 product that at one time had some -- was made
8 at Union Carbide that had some blue asbestos in
9 it. Is that the kind of product that would have
10 had any application in the manufacture of

11 domestic automobile parts?
12 A. No.
13 MR. BOITER: Object as leading.
14 A. Well.
15 Q. I am sorry. Is there any question
16 in your mind that that would not have been an
17 appropriate product to use for the manufacture
18 of automobile parts?
19 MR. BOITER: Again, object as
20 leading.
21 A. I don't know why they would use it,
22 frankly. It's difficult to mold. It costs -- I
23 think it was one of our highest priced
24 products.
25 Q. Would it have been suitable to use

144

C. MARTINO - MR. BOITER

1 in the same kinds of equipment that would have
2 used, for instance, your standard molding
3 compounds that have the wood, such as 5276?
4 A. No, I would never use it there. Why
5 should I?
6 Q. It wouldn't have been used in the
7 same kind of equipment?
8 A. They would have a hell of a time
9 feeding it. They would have a lot of plugged up
10 tubes.
11 BY MR. BOITER:

12 Q. As we sit here today, could you
13 tell this jury as a factual matter that you
14 know that Delco Remy did not use African blue
15 or a Bakelite compound containing African blue
16 asbestos-containing fibers?

17 MR. BERGIN: I'm going to object
18 unless you put a relevant time frame on it.
19 It's way beyond any discovery scope.

20 MR. BOITER: Ever.

21 Q. You can answer the question.

22 A. Are you putting a time frame on
23 this?

24 Q. I'm asking for any time frame that
25 you have any knowledge of, and I'm actually

145

C. MARTINO - MR. BOITER

1 talking about going back into the '40s. Let's
2 back up and do it that way.

3 MR. BERGIN: It's asking him a
4 negative question. It's an improper form.

5 MR. BOITER: I'm going to rephrase
6 the question.

7 Q. Can you sit here today and tell
8 this jury that, in fact, in the 1940s Bakelite
9 compounds containing African blue asbestos
10 fibers from Union Carbide were not used by
11 Delco Remy?

12 MR. BERGIN: Which Delco Remy?
13 MR. BOITER: Any Delco Remy he knows
14 of.
15 MR. BERGIN: I'm going to object and
16 instruct him not to answer and limit it to the
17 Anderson, Indiana, and they were limited by Mr.
18 Frye to 1951 to 1958, according to his
19 testimony yesterday.
20 MR. BOITER: I will rephrase, but
21 I'm not going to make it as limited as you
22 suggested.
23 Q. As we sit here today can you tell
24 the jury for a fact that in the 1940s at the
25 Delco Remy plant in Anderson, Indiana, that

146

C. MARTINO - MR. BOITER

1 Bakelite compounds containing asbestos blue --
2 African blue asbestos fibers sold by Union
3 Carbide were not used at that plant?
4 MR. BERGIN: I'm going to again
5 object. I will instruct him not to answer
6 unless you are willing to limit it to questions
7 relevant to this case.
8 MR. BOITER: I do not in this case
9 -- in this case I do not have to limit it to
10 that. I'm asking if he has any knowledge.
11 MR. BERGIN: I'm going to instruct
12 him not to answer because you're refusing to

13 limit it to a relevant time, place or location.
14 MR. BOITER: That's fine. He
15 testified he gained knowledge when he got there
16 from before 1960 and 1958 and 1948 when he
17 started working there. As long as you are
18 instructing him not to answer.

19 MR. BERGIN: I'm willing to limit it
20 to any relevant period of time in this case.
21 Your client talked about 1951 to 1958 at Delco
22 Remy in Anderson, Indiana. The much broader
23 question he is not being offered as a witness
24 in our case on.

25 Q. My next question, Mr. Martino. As

147

C. MARTINO - MR. BOITER

1 you sit here today, can you tell this jury as a
2 fact that you know that in the 1950s Bakelite
3 compounds containing African blue asbestos
4 fibers sold by Union Carbide were not used at
5 the Delco Remy plant in Anderson, Indiana?

6 A. I'm not an expert on all that Delco
7 Remy was doing at that plant. I only know what
8 is likely to be used in the molding of phenolic
9 compounds, so I can't say that they didn't use
10 it someplace.

11 I'm saying that it is not the type
12 of product that is commonly used for the type

13 of parts that I am familiar with that they were
14 making for the automotive industry by the
15 molding process for phenolic compounds. They
16 could have been doing a lot of other things
17 that might have required this product. I'm not
18 familiar with those.

19 Q. That was my point. I think you and
20 I are on the same wavelength.

21 A. I'm a molding expert, not a Delco
22 Remy expert.

23 Q. Is it fair to say you have some
24 ideas about what you think was going on at
25 Delco Remy, but as you sit here today to say

148

C. MARTINO - MR. BOITER

1 factually it was never used, you just can't do
2 that?

3 A. No. You might say used in the
4 foundry industry. Why didn't they buy the
5 asbestos directly and add it themselves? But I
6 don't know enough about their operation to know
7 how they might use that product if they did buy
8 it.

9 One other point I want to make is
10 the customers loved our drums and used them in
11 their own plant for their own use, so just
12 because something in the drum marked phenolic
13 -- the drum is marked phenolic or Bakelite

14 doesn't mean that that product was necessarily
15 ours.

16 Q. How often did you see that happen
17 at Delco Remy?

18 A. I didn't see it at Delco Remy. I
19 saw it at all the other customers' plants and
20 it was common practice, because the drums were
21 so handy to use. The customers loved them. So,
22 I don't see why Delco Remy would be any
23 different than anybody else.

24 MR. BOITER: Mike Schultz, you have
25 anything else? I'm done.

149

C. MARTINO - MR. BOITER

1 MR. SCHULTZ: Nothing here.

2 MR. SNYDER: Nothing on this part by
3 Jim Snyder either.

4 MR. BOITER: Do we need to do the
5 read and sign thing on the record?

6 MR. BERGIN: We do read and sign.

7 (Whereupon, the deposition was
8 adjourned at 7:05 p.m.)

9

10

11

12

13

14
15
16
17
18
19
20
21
22
23
24
25

150

1 C E R T I F I C A T E

2

3 I, PHYLLIS SEMANCHIK, a Certified
4 Shorthand Reporter and Notary Public of the
5 State of New Jersey, do hereby certify that
6 prior to the commencement of the examination,
7 the witness was duly sworn by me to testify to
8 the truth, the whole truth and nothing but the
9 truth.

10 I DO FURTHER CERTIFY that the foregoing is
11 a true and accurate transcript of the testimony
12 as taken stenographically by and before me at
13 the time, place and on the date hereinbefore
14 set forth, to the best of my ability.

15 I DO FURTHER CERTIFY that I am neither

16 a relative nor employee nor attorney nor
17 counsel of any of the parties to this action,
18 and that I am neither a relative nor employee
19 of such attorney or counsel, and that I am not
20 financially interested in the action.

21

22

23

24 PHYLLIS SEMANCHIK, CSR NO. 1200

25

151

1 J U R A T

2

3

4 I have read my testimony in the foregoing
5 transcript and believe it to be true and
6 correct to the best of my knowledge and belief.

7

8

9

10

11 CARLO MARTINO

12

13

14

15 Sworn and subscribed to before me this

16 day of , 2001.

17
18
19
20
21
22
23
24
25

Notary Public of the
State of

152

1 E R R A T A
2 Case Name: FRYE V. ACandS, INC.
3 Deposition of: CARLO MARTINO
4 Date Taken: WEDNESDAY, MAY 9, 2001
5 Reporter: PHYLLIS A. SEMANCHIK
6 PAGE LINE CHANGE
7
8
9
10
11
12
13
14
15
16
17
18

19

20

21

22

23

24

25