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1 VIRGINIA: IN THE CIRCUIT COURT FOR THE CITY OF NEWPORT
2 NEWS
3 : At Law No.: CL99-2000
4 IN RE: ALL ASBESTOS CASES : DEPOSITION OF:
5 CARLO F. MARTINO :
(Volume II)

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8
9
10 TRANSCRIPT of the stenographic notes of
11 the proceedings in the above-entitled matter, as
12 taken by and before JUDY A. BLACK, a Certified
13 Shorthand Reporter, Registered Professional Reporter,
14 and Notary Public of the State of New Jersey, held at
15 the offices of WILENTZ, GOLDMAN & SPITZER, PA,
16 90 Woodbridge Center Drive, Woodbridge, New Jersey,
17 on Thursday, July 11, 2002, commencing at 10:00 in
18 the morning.
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22
23
24
25

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1 A P P E A R A N C E S:
2 THE LAW OFFICES OF PETER T. NICHOLL 36 South Charles Street
3 Suite 1700 Baltimore, Maryland 21201
4 BY: MICHAEL T. WARD, ESQ. Attorneys for Plaintiff
5 PIERCE, HERNS, SLOAN & MCLEOD, ESQS.
6 321 East Bay Street Charleston, South Carolina 29401
7 BY: DAVID YARBOROUGH, ESQ. Attorneys for Defendant Union Carbide
8 Corporation
9 MAYER, BROWN, ROWE & MAW, ESQS. 190 South LaSalle Street
10 Chicago, Illinois 60603-3441 BY: GEORGE J. TZANETOPOULOS, ESQ.
11 Attorneys for Defendant Union Carbide Corporation
12 GOLDFEIN & HOSMER, PC
13 1600 Market Street 33rd Floor
14 Philadelphia, Pennsylvania 19103-7288 BY: DAVID C. WEINBERG, ESQ.
15 Attorneys for Defendant Garlock, Inc.
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2 WITNESS DIRECT CROSS REDIRECT RECROSS
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1 C A R L O F. M A R T I N O, residing at 125 River
2 Road, Somerville, New Jersey, having been previously
3 sworn by the Notary, testified as follows:
4 DIRECT EXAMINATION BY MR. WARD:
5 Q. Good morning, Mr. Martino.
6 A. Good morning.
7 Q. Before I resume the review of
8 asbestos-containing phenolic molding compounds, I
9 have some matters from yesterday that I want to clear
10 up with you.
11 Towards the beginning of the deposition
12 yesterday, you mentioned the number 40 percent, and I
13 either cut you off, or for whatever reason we didn't
14 follow up on it at that time, and I assume you were
15 referring to the statement made by Union Carbide in
16 their submission under the Asbestos Information Act.
17 A. No, I -- sorry.
18 MR. YARBOROUGH: Let him finish his
19 question.
20 Q. Well, there's a statement in there that
21 says, "Most Bakelite --" I'm reading from Exhibit 2,
22 third page. It says, "Most Bakelite did not contain
23 asbestos. At its peak, asbestos-containing Bakelite
24 comprised 40 percent of the Bakelite produced by
25 Union Carbide." That was not the 40 percent you were
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1 referring to?
2 A. No. I arrived at 40 percent from -- by
3 using the phenolic molding material manual from 1973
4 and counting the products. It comes out roughly
5 40 percent. I think you have a copy of that.
6 Q. Of the phenolic molding compound manual?
7 That just lists the products that were being sold.
8 Correct?

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9 A. well, it has more information than that.
10 The products, what the designations mean. That's it.

11 Q. You're referring to that document?

12 A. Yes, yes. And I had lost it and found
13 it about a year ago, and this is the only document
14 I've been referring to. The rest of it has been
15 memory.

16 MR. WARD: All right. Just for the
17 record, it's a document entitled "Bakelite Phenolic
18 Molding Materials Guide," and Mr. Martino's name
19 appears on the cover of that document. The first
20 page bears the Bates No. UCASB 00945127.

21 Q. So what you did is you looked through
22 that guide, counted the products that contained
23 asbestos, and the ones that did not contain asbestos,
24 you did your math, and came up to the 40 percent
25 estimate?

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1 A. Yes. Initially I didn't have
2 formulations to work from and had to do some guessing
3 from the specific gravities. Then I found a couple
4 formulation sheets which enabled me to make some
5 adjustments in my estimates.

6 Q. Now, yesterday, and I assume later on
7 today, you recognized that there were some
8 asbestos-containing products that you did not
9 remember as being asbestos-containing. Is that
10 correct?

11 A. Yes.

12 Q. And would that have an impact on the
13 calculation that you made of 40 percent?

14 A. I don't think so. The products that
15 were referred to were, as I recall, in the '60s, and
16 that's '73, and that was after we did a lot of
17 product elimination and consolidation.

18 Unfortunately, I don't have another
19 manual for 19 -- for the other years that I could do
20 the same thing for those periods of time.

21 Q. Did your calculation take into account
22 the volume of sales for each respective product?

23 A. No. No, it did not.

24 Q. All products were given equal weight, in
25 other words?

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1 A. That's right. That's right. That
2 information is not in there.

3 Q. Do you have any information regarding
4 the calculation made by Union Carbide Corporation
5 that I just quoted you from the letter marked as
6 Exhibit 2? Do you know how they calculated that
7 40 percent figure?

8 A. No, I don't.

9 Q. Were you asked to provide information
10 relative to that calculation?

11 A. I don't recall having been called on
12 that. Is that 1988?

13 Q. Yes. This is the document that was
14 made -- written in 1989, and it's signed by one of
15 the in-house lawyers for Union Carbide, Mr. Robert A.

16 Butler.
17 A. And was I on the distribution?
18 Q. No, I don't believe so.
19 A. Then I don't think I was consulted.
20 Otherwise, they would have sent me a copy.
21 Q. Now, when you testified in the
22 deposition on May 9th, 2001, I believe you said that
23 the peak of asbestos-containing phenolic molding
24 compounds relative to the total product mix was in
25 around 1972. Is that correct?
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1 A. Yes.
2 Q. And how did that peak come about in '72?
3 A. We were losing a lot of applications to
4 thermoplastics, high-melting-point thermoplastics
5 that could be colored, and a lot of those were the
6 wood-filled -- wood flour-filled products, and so
7 that -- as we lost that business, we ended up with
8 those applications where the high-melting-point
9 thermoplastics didn't work, and it turned out that
10 many of those in the electrical applications were you
11 must have -- they want material that won't melt at
12 all, and so that moved -- as you eliminated products,
13 the ratio changed, and then when we consolidated
14 products, we -- the ratios were affected. So I have
15 no data on the -- in the '60s, what the ratio is. I
16 might be able to get it from what's available now.
17 Q. During this period in the late '60s, was
18 the use of asbestos in phenolic molding compounds
19 increasing, decreasing, or remaining essentially the
20 same? And I'm talking in terms of volume.
21 MR. YARBOROUGH: By Union Carbide?
22 Q. By Union Carbide, for phenolic molding
23 compounds.
24 A. I really don't have the figures to
25 answer that. I might be able to do it after I go
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1 through these boxes.
2 Q. At this time you're not sure?
3 A. No, I'm not sure.
4 MR. WARD: I want to have this document
5 marked as an exhibit. It's internal correspondence
6 from Union Carbide Corporation, dated November 22nd,
7 1972. It's written by Mr. D.R. Albright to a
8 Mr. R.E. Nicolson, multiple carbon copies, including
9 one to Mr. Martino. I'd like to mark that as Martino
10 No. 7.
11 (Martino-7, Union Carbide internal
12 correspondence dated 11/22/72, is received and marked
13 for identification.)
14 Q. Mr. Martino, I have a copy so you can
15 read along as we go.
16 First, Mr. Albright, what was his
17 position at Union Carbide at this time period?
18 A. He was department head in charge of the
19 phenolic molding material department.
20 Q. He was responsible for, then, all phases
21 of the operations?
22 A. Of the manufacturing operation.

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23 Q. Of the manufacturing operation.
24 A. Yes.
25 Q. And the letter is directed to Mr. R.E.
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1 Nicolson. Could you tell me who he is, or was?
2 A. He was the general manager of the
3 thermoset resins and molding business.
4 Q. Was he in Bound Brook, or is he up in
5 New York, or elsewhere?
6 A. He was in Bound Brook.
7 Q. I'm not going to ask you all the other
8 gentlemen there. I am interested in Mr. DeCoudres.
9 A. DeCoudres.
10 Q. Excuse me. That's spelled D-E capital
11 C-O-U-D-R-E-S.
12 A. Yes.
13 Q. What was his position?
14 A. I think he was plant manager.
15 Q. And Mr. Ducca, or Ducca, D-U-C-C-A, what
16 was his position?
17 A. He was a technical -- he was an engineer
18 who worked in the manufacturing area. He previously
19 had worked in R&D, because you'll see him on R&D
20 correspondence, as well.
21 Q. I have seen that, yes.
22 The last name on the list, Mr. J.P.
23 Zuccarelli, Z-U-C-C-A-R-E-L-L-I.
24 A. Right.
25 Q. What was his position?
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1 A. I think he was involved in the safety
2 organization.
3 Q. And Mr. Swalm, the name right above it,
4 S-W-A-L-M, was he in safety, as well?
5 A. I don't remember him.
6 Q. In the first sentence of that letter, it
7 says, "Messrs. Albright, Madestau, Martino, Moked and
8 Potter met on November 17, 1972, to develop
9 strategies and programs for the future regarding the
10 use of asbestos in phenolic molding compounds."
11 And then the letter goes on to recount
12 certain plans that you made at that meeting, and I'll
13 be coming back to that later in the deposition.
14 Right now, I'd like to direct your
15 attention to the third page under the heading "Some
16 Alternatives." The second entry says, "Discontinue
17 manufacture of all products containing asbestos (60
18 percent of current product mix)."
19 Do you know how Mr. Albright made the
20 calculation of 60 percent of the current product mix?
21 A. No, I don't.
22 Q. Mr. Albright was in charge of the plant?
23 A. Yes. This is -- well, it's dated a year
24 earlier than that book, so there's a year difference
25 between -- there may have been some eliminations.
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1 Again, I'm --

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2 Q. I'm more interested in the statement
3 that Union Carbide made to the United States
4 Government in their submission under the Asbestos
5 Information Act. There's a big difference between
6 60 percent and 40 percent.
7 Do you have any information as to which
8 is more accurate of those two?
9 A. I can justify mine. I think -- I can't
10 help you on how he arrived at it. I can only
11 speculate on that.
12 Q. All right. I don't want you to
13 speculate, and neither does David. I'll come back to
14 this document later because there's a lot of stuff in
15 there to talk about.
16 We had quite a bit of conversation
17 yesterday about the types of asbestos that were used,
18 and I spent a little time last night pulling
19 documents about that. I'd like to mark two exhibits.
20 The first is a letter written by you to
21 a Mr. -- a Dr. T.T. Szabo, S-Z-A-B-O, dated
22 July 24th, 1968. And that would be Martino No. 8. I
23 handwrote the Bates number on the bottom because I
24 didn't have an extra copy of the original one. The
25 last six digits are 916548.
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1 (Martino-8, Letter dated 7/24/68, is
2 received and marked for identification.)
3 (Martino-9, Handwritten chart, undated,
4 is received and marked for identification.)
5 Q. The other document that we've marked as
6 Martino Exhibit No. 9 is a handwritten chart which
7 doesn't bear a date. It says, "Types of asbestos now
8 used."
9 In the middle column, it says, "Volume
10 purchased in 1969," so presumably this document was
11 written in 1970, but -- that Bates number is -- last
12 six digits is 916516.
13 We have been trying to -- this lists
14 five different -- by "this," I'm referring to Exhibit
15 No. 8 -- lists five different types of asbestos that
16 were purchased in 1967. Is that correct?
17 A. That's what it shows, yes.
18 Q. And, again, you wrote this letter.
19 A. I know. I know.
20 Q. The first fiber that's listed, it says
21 "Carbide Code 18026." It notes, "Grade 7 RF from
22 Asbestos Fibers Distributors, costing 2.8 cents a
23 pound," and there's a large amount of consumption of
24 that material.
25 Do you know which RM that represents?
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1 We were talking about RM-18-B and all those other --
2 those other five codes.
3 A. Yes. I don't. I'm trying to remember
4 where this came from.
5 Q. The second fiber listed there, 18156, is
6 designated as fiber KB 653-8D from Asbestos
7 Corporation Limited.
8 A. Um-hum.

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9 MR. YARBOROUGH: Dash 6D, I believe.
10 Q. 6D.
11 MR. YARBOROUGH: Did you say 8D?
12 THE WITNESS: Yeah, you did. It's 6D.
13 Q. I'm sorry. And you'll note that the
14 cost of that material is, oh, more than twice as
15 much. It's 6.2 cents a pound.
16 Do you know what type of asbestos that
17 is?
18 A. No. No.
19 Q. Did the African blue asbestos cost more
20 than the Canadian chrysotile?
21 A. Yes, it did.
22 Q. Did it cost, like, twice as much?
23 A. Yes.
24 Q. Asbestos Corporation Limited, they sell
25 African blue asbestos, do they not?
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1 A. That, I don't know. That's the only
2 company listed, foreign company listed, is that
3 company. Sorry. Again, I'm speculating. I don't
4 know.
5 Q. Well, maybe when we go through another
6 document or two, we'll be able to piece it together.
7 A. I'm not -- well --
8 MR. YARBOROUGH: Just wait for a
9 question. Answer what you know.
10 Q. I believe that's probably RM-18-O.
11 would you agree with that?
12 MR. YARBOROUGH: Objection. Does he
13 agree with you, or does he agree with --
14 Q. I'm saying that Carbide Code 18156,
15 based on the documents I reviewed, I believe it's
16 RM-18-O. Do you agree or disagree with that, or do
17 you have no opinion?
18 A. I don't know.
19 Q. Okay. The next Carbide code is 18166,
20 and there's a letter "P" handwritten in next to it.
21 Do you believe that that represents the RM-18-P
22 fiber?
23 A. I don't know.
24 Q. I'll skip to the last one, 18196, fiber
25 grade 7D-4 from Lake Asbestos Company, and, again,
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1 the price on that is 6.4 cents a pound, about twice
2 as much as the asbestos fiber that there's more
3 consumption of.
4 Do you believe that that is a long
5 fiber, an African long fiber?
6 A. I don't know.
7 Q. Do you know any reason why a chrysotile
8 fiber from Canada would be twice as much as other
9 grades?
10 A. Again, I would have to make an
11 assumption. I don't know.
12 Q. Let me just -- well, before I go on to
13 that question, I totalled the far right-hand column
14 on consumption, and you can check my math. I'm
15 talking about Exhibit 8. On Exhibit 8, on the far
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16 right-hand column, it says, "consumption in pounds."
17 If you total those five numbers, it comes out to be
18 2,000,574 pounds -- excuse me, 2,574,000 pounds.
19 Now, in the letter that we marked
20 earlier as Martino No. 5, in 1970, the consumption
21 was 2,874,395. Correct?
22 MR. YARBOROUGH: Again, Mike, you're
23 allowing me a continuing objection to form and lack
24 of foundation to all your questions --
25 MR. WARD: Sure.
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1 MR. YARBOROUGH: -- without having to
2 renew them at each question. Correct?
3 MR. WARD: That's fine.
4 A. The figure you gave on this was what?
5 Q. You could check my math. 2,574,000.
6 A. Okay.
7 Q. And my question, and, again, feel free
8 to check my math, is -- that would indicate that from
9 1974 to 19 --
10 MR. YARBOROUGH: 1968.
11 Q. Well, this is referring to consumption
12 in 1967. Correct?
13 A. Yes.
14 Q. And this is referring to consumption in
15 1969. Correct?
16 A. That's right.
17 Q. So from '67 to '79, the consumption of
18 asbestos was increasing at Union Carbide for phenolic
19 molding materials. Is that correct?
20 MR. YARBOROUGH: According to these
21 documents?
22 MR. WARD: According to their internal
23 documents. Just a mathematical question.
24 A. Yes, but a 300,000-pound variation of
25 one year to another --
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1 MR. YARBOROUGH: Just answer his
2 question. It's a yes or no question, or "I don't
3 know."
4 A. Well, based on these documents, there's
5 a 300,000-pound increase.
6 MR. YARBOROUGH: Assuming his math is
7 correct.
8 MR. WARD: I gave you a continuing
9 objection.
10 A. Now, the only point I'm trying to make
11 is you need to have more data, because you get
12 variation from year to year. And 300,000 pounds from
13 year to year doesn't seem to be, you know, a -- I
14 wouldn't consider a trend until I saw more data.
15 Q. Well, I'll try to find that.
16 A. I'm sure you will, if it's there.
17 Q. Martino No. 9 is a document that says,
18 "Types of asbestos now used." Do you recognize that
19 handwriting?
20 A. No, I don't.
21 Q. Now, that, again -- this one has a
22 number of columns. On the far left, it says,

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23 "product code," and it's the various numbers we've
24 been using throughout this deposition, 18-B, 18-P,
25 18-Q, 18-S, 18-O.
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1 I would like you to compare Martino
2 No. 9 with Martino No. 8 and see if you can now tell
3 me which RM code matches the Carbide code number on
4 Exhibit 8.
5 A. I don't see any match for 18-B, which is
6 marked GAF.
7 Q. It looks like what used to be materials
8 purchased -- well, strike that.
9 I'm just really interested in two of
10 them.
11 A. Here, JM matches up with 18166, P.
12 Q. Right.
13 A. So there's a match.
14 Q. So 18-P --
15 A. Would be --
16 Q. -- is 18166. Is that correct?
17 A. That's what it appears to be to me, yes.
18 Q. All right.
19 A. Carey --
20 Q. Were Carey materials distributed by
21 Asbestos Fiber Distributors?
22 A. Asbestos floats. I never remember them
23 supplying fibers. I don't see them on this list, and
24 the volume implies that they took over one of these
25 suppliers' business, had quite a bit of it, and
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1 that's the company I had most experience with.
2 Q. Carey Fibers?
3 A. Yes.
4 Q. Let me jump down to the last entry,
5 18-O, RM-18-O, which we have concluded was African
6 long asbestos fiber.
7 On Martino-9 it shows it was sold by
8 Asbestos Corp. Do you see a match for that on
9 Martino No. 8?
10 A. There's an Asbestos Corp. Limited; which
11 would be the same.
12 MR. YARBOROUGH: Is there a match?
13 Listen to his questions.
14 A. There's a match except for "Limited."
15 Q. All right. Well, I guess these are not
16 entirely conclusive in and of themselves. I'll have
17 to go back and find more documents on that.
18 I did have one question -- these last
19 two fibers listed on Martino No. 9 are, again, about
20 twice the price of the three listed above it. In
21 other words, 18-S and 18-O are about twice the price.
22 Do you believe that 18-S and 18-O are both African
23 long fiber asbestos?
24 MR. YARBOROUGH: If you know. Don't
25 speculate.
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1 A. I don't know.

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2 Q. Do you know what 18-S is?
3 A. No, I don't. That is, I don't remember
4 now.
5 Q. In any event, the document marked as
6 Martino No. 9 is referring to volume purchased in
7 1969. Correct?
8 A. Yes. Yes, that's correct.
9 Q. Now, if you total those numbers in that
10 column, volume purchased in 1969, my total for that
11 is 4,770,000 pounds -- and, again, you can check my
12 math, if you'd like -- which is significantly more
13 than what's referred to in Martino No. 5, that being
14 2,874,395. It's almost two million pounds more in
15 Martino-9 versus Martino No. 5. Do you know why that
16 is?
17 A. No, I don't.
18 Could I read this more carefully?
19 Q. Take your time, sure.
20 A. I don't see a reason for it at all.
21 This is based on 1969 sales scrolls, and I don't
22 know -- and that should be accurate. I don't know
23 what this is based on.
24 Q. Let me ask you a question. Up to this
25 point, we've been just talking about phenolic molding
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1 compounds containing asbestos that were made at Bound
2 Brook. Were there other asbestos-containing products
3 made at Bound Brook besides the phenolic molding
4 compounds?
5 A. No. Well, let me take it back. None
6 that I'm aware of.
7 Q. Asbestos is used as a filler or a
8 reinforcing agent in thermoplastics, as well. Is
9 that correct?
10 A. Some -- I don't know of anybody who was
11 using it except for some experimental work in
12 polysulphone. What happened there, I don't know. I
13 was not in that area. And that would have been a
14 very small volume, nothing -- you know, the main use,
15 and I think the only -- the prime use was in phenolic
16 molding materials.
17 Q. When Mr. Kipp made his calculations that
18 appear in Martino Exhibit 5, he was assuming there
19 were, by my count, 52 asbestos-containing molding
20 materials. That's what's on the list that's
21 attached. And then he looked for the sales records
22 for those products and calculated asbestos
23 consumption based on that information. Correct?
24 A. Yes.
25 Q. So if there were more than 52
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1 asbestos-containing molding materials being made in
2 1969, his calculations would be low. Correct?
3 A. If there were more --
4 Q. Let's say instead of 52
5 asbestos-containing molding materials, there was a
6 hundred. His calculation that he made in this
7 document would be too low. Correct?
8 A. I don't understand. If there were more,
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9 where would they be produced?
10 Q. Well, maybe Mr. Kipp didn't know some of
11 the products were asbestos-containing that were being
12 made there.
13 In other words, I'm trying to explain
14 the apparent discrepancy between Martino-5 and
15 Martino-9.
16 MR. YARBOROUGH: Well, I'm just going to
17 object because the letter states forth the
18 discrepancy, but the letter states forth -- the
19 numbers set forth in this paragraph are sales, and
20 they don't necessarily include products purchased but
21 not sold, and this just reflects products purchased.
22 Q. Do you think you would carry almost two
23 million pounds of inventory of phenolic molding
24 compounds? No, that's just asbestos.
25 A. This is volume of asbestos purchased.
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1 Q. I'm trying to figure out what happened
2 to the other two million pounds.
3 A. Yeah, and I can't believe we had two
4 million pounds of asbestos in inventory.
5 MR. YARBOROUGH: Don't make assumptions.
6 Only answer what you know.
7 A. I can't account for the difference.
8 Certainly Herve was a very competent individual. He
9 would know if any -- there is no other place where
10 the material would be made except here.
11 Q. There's a lot of products we reviewed
12 yesterday that appeared to have been made in the late
13 '60s that do not appear on this list that is attached
14 to Martino-5.
15 A. They can be on the books, but not
16 necessarily manufactured. If there are no orders for
17 them, they don't get made.
18 Q. All right. Well, I guess we're not
19 going to solve this dilemma today.
20 A. It's certainly --
21 MR. YARBOROUGH: Just wait for a
22 question, Carlo.
23 A. Yeah. Again, the curiosity of an
24 engineer.
25 Q. I'm going to just go back to looking at
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1 some of these products. Let me take a second to do a
2 little housekeeping.
3 (A recess is taken.)
4 Q. I'm going back, Mr. Martino, to going
5 over the asbestos-containing phenolic molding
6 compounds that I have documents for.
7 The next one that I would like to cover
8 is BMZ-5250 Brown 35. Are you familiar with that
9 product?
10 A. 5250?
11 Q. 5250, BMZ.
12 A. No, I don't remember it.
13 Q. In the Union Carbide submission to the
14 government, they refer to a high-impact
15 heat-resistant product, they say consisting of 50

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16 percent long fiber African blue asbestos, and they
17 say the designation is BMMZ-5250. The documents seem
18 to just have one "M" rather than two.
19 Does that refresh your memory as to this
20 product?
21 A. What was the number you originally gave
22 me?
23 Q. BMZ-5250 Brown 135.
24 A. I'm familiar with -- somewhat familiar
25 with BMZ-5250.
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1 Q. And do you recall that that's a product
2 containing long fiber African asbestos?
3 A. Yes, I do.
4 Q. Do you recall what percentage of
5 asbestos that product contained?
6 A. I think it was about 65 percent.
7 Q. I think you're correct. One of the very
8 first products we discussed yesterday was
9 BM-250 Brown. Does this document that I'm showing
10 you -- and this is UCASB 01734009. Looking at that
11 document, would that indicate that BMZ-5250 was a
12 successor to BM-250?
13 A. Not -- well, it's the cross-over number.
14 When the method of designating products was changed,
15 this became this.
16 Q. All right.
17 A. The product didn't change.
18 MR. YARBOROUGH: When you say "this
19 became --" say it out loud.
20 A. In other words, the nomenclature system
21 was changed somewhere around -- I think in the '50s.
22 The old numbers were designated this way. The new
23 numbers under the new system, in this case, became
24 this.
25 Q. All right. So BM-250 and BMZ-5250 are
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1 essentially the same product, just made during
2 different time periods?
3 A. That's right.
4 Q. And --
5 A. Now, that may have been what you were
6 saying. I wasn't sure --
7 Q. It's better to have it clear.
8 And yesterday when we were talking about
9 BM-5250 Brown, if you remember, that was a document
10 you looked at, and it indicated on a thousand-pound
11 formula it was 65 percent asbestos plus or minus
12 2 percent.
13 A. Yes.
14 Q. And so you believe that the product that
15 we're now discussing would be approximately
16 65 percent asbestos. Correct?
17 A. Yes.
18 Q. Now, in the disclosure that Union
19 Carbide made to the United States Government that
20 we've been referring to throughout this deposition,
21 they indicate that that product consisted of
22 50 percent asbestos. Would you agree with me that
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23 that is inaccurate?

24 A. Yes.

25 Q. It also says that that product was only
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1 manufactured until the mid-'60s. That's not correct,
2 either. Would you agree with me?

3 A. What is the date on this?

4 Q. Let me give you --

5 A. I have no dates to refer to.

6 Q. I'll give you my entire file, as long as
7 you give it back.

8 A. Well, this is dated 1970. Okay. This
9 document shows that that product was deleted from our
10 product list in 1970. It says, "Made for Selindeh
11 machine only." I don't know what that meant.

12 Q. I didn't hear your last --

13 A. It says, "Make for Selindeh machine
14 only." I don't know what that means, but the -- this
15 is a deletion of the product.

16 Q. So we're talking about a document dated
17 July 27, 1970?

18 A. Right.

19 Q. Its Bates number is UCASB 01734107, and
20 this document shows that product was deleted at that
21 time. Is that correct?

22 A. That's correct.

23 Q. But it was still being made for
24 Selindeh, S-E-L-I-N-D-E-H, machine. So the product
25 was still being made --

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1 A. Yes.

2 Q. -- in 1970?

3 A. According to that document.

4 Q. And according to the documents we looked
5 at this morning, at least in 1969 they were still
6 buying African blue asbestos. Correct?

7 A. That's correct.

8 Q. So would you agree with me that the
9 statement made by Union Carbide to the government to
10 the effect that this product was only manufactured
11 until the mid-'60s is incorrect?

12 A. Yes.

13 Q. Do you know what this product was used
14 for?

15 A. No. No, I don't.

16 Q. In the Union Carbide submission, they
17 indicate that it was for a high-impact and
18 heat-resistant application. Would that be your
19 understanding?

20 A. For the black -- or for the natural,
21 yes. The brown, I don't know.

22 Q. Is this a product that would be
23 appropriate to use in electrical switch gear?

24 A. The brown, I don't know.

25 Q. Why does the brown trouble you?

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1 A. Normally the switch gear is black.

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2 Q. Is there a reason for that?

3 A. The only place I see brown is, you know,

4 like, over there. There may be brown switch gear,

5 but I've never seen it.

6 MR. YARBOROUGH: By "switch gear," Mike,

7 could you be more specific on that, because it seems

8 like he was thinking of different things than maybe

9 you are.

10 Q. Well, why don't you tell me what you're

11 thinking of, because when I get in the field of

12 electronics, I'm not very articulate.

13 A. Switch gear, to me, means these boxes

14 with -- that you have in your control panel in the

15 basement, or in the house, and it's where you put --

16 slide your circuit breakers into. So it's a complex

17 shape with ribs in it, and they're industrial sizes

18 or bigger.

19 Q. Have you ever talked to customers about

20 making switch gear, switchboards for industrial use?

21 A. Switch gear for industrial use?

22 Normally, whether it was industrial or residential, I

23 can't recall whether it ever really came up.

24 Q. Let me change my question a little bit.

25 We represent a number of people who were

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1 electricians at the Newport News Ship Building and

2 Dry-Dock Company. At that company, they built their

3 own switchboards.

4 My understanding is that other shipyards

5 would buy them from General Electric or Westinghouse,

6 and we've had a number of clients down there, some

7 who have been deposed, some of who will be deposed,

8 indicate they used Bakelite in building switchboards.

9 would Bakelite be an appropriate product to use in

10 building switchboards for marine use?

11 MR. YARBOROUGH: Now, I'm going to

12 object because of the use of the term "Bakelite" in

13 that --

14 Q. I'm talking about phenolic molding

15 compounds, or molded phenolic compounds.

16 MR. YARBOROUGH: Made by Union Carbide?

17 Q. Made by Union Carbide.

18 A. When you say "switchboard," that implies

19 to me a panel, and what I described is what goes on

20 the panel, so if it's a complicated shape with ribs

21 and so forth -- and I didn't bring pictures of it

22 with me today. It's molded. If it's something that

23 can be cut out of a piece -- like a piece of plywood,

24 then it's a laminate, and that's made by a different

25 process.

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1 Q. Well, phenolic molding compounds can be

2 made in the shapes of bars, for example. Correct?

3 A. A --

4 Q. A bar, like a half-inch-by-half-inch bar

5 of some length?

6 A. Yes.

7 Q. A molded bar?

8 A. Yes.

9 Q. As a matter of fact, you molded bars for
10 the purpose of doing tests all the time, didn't you?

11 A. Yes.

12 Q. And you could mold Bakelite -- I'm
13 talking about phenolic molding compound -- in the
14 shape of a tube, could you not?

15 A. A solid tube, not a hollow tube. Or, it
16 can be done, but it's not being done commercially.

17 Q. I'm talking about in the '50s and '60s.

18 A. The hollow tubes are made with
19 laminates. You wrapped around the tube, and then you
20 cure the -- you wrap around a rod, and then you cure
21 the material in an oven, just like you make the flat
22 panels. You cure those in a flat press.

23 To take a molding material and extrude
24 it is -- we've done it, but it's a very slow process,
25 and it's not been commercialized.

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1 Q. Now, you can take a phenolic molding
2 compound and make it into a sheet, can you not, a
3 flat, square or rectangular piece of material?

4 A. We did it for 12-by-12 plaques. I have
5 never seen anybody do it commercially for a
6 36-by-36-inch sheet, for example.

7 Q. Why not?

8 A. First of all, the product
9 specifications, which I've never seen one for a sheet
10 that calls for a molding material. I've only seen
11 laminate specifications. Secondly --

12 Q. Now, whose specifications are you
13 speaking of right now?

14 A. Military and NEMA's specifications,
15 National Electrical Manufacturing Association.

16 Q. What military specification are you
17 referring to?

18 A. There are military specifications for a
19 variety of laminates.

20 Q. There are for molding compounds, as
21 well?

22 A. Yes, but the molding compounds are for
23 the complex shapes. I've never seen a -- I can't
24 think of how to put it. I've just never seen it
25 done.

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1 The other problem, too, is how do you
2 get a uniform distribution of material for a
3 three-foot-by-three-foot panel? You can do it, but
4 it's much simpler to go the laminate route. The
5 laminates can be punched. The molding material that
6 would be in a sheet form would not be -- would be too
7 brittle to be punched. You could --

8 Q. Well, I've read quite a bit of -- well,
9 the documents I've read indicate that one of the
10 virtues of a molded phenolic material was its
11 machinability. Is that correct?

12 A. Relative to what type of product? Steel
13 or --

14 Q. A molded phenolic material in its final
15 form can be drilled. Correct?

16 A. Yes.
17 Q. Without doing damage to the rest of the
18 product. Is that correct?
19 A. That's correct.
20 Q. As a matter of fact, part of your
21 testing was to drill molded material. Correct?
22 A. To drill --
23 Q. Yes.
24 A. -- molded material? Only if we wanted
25 to measure tool wear, which is -- you know, where we
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1 normally got some complaints.
2 Q. Well, we'll be coming to that document.
3 You would cut bars of Bakelite -- again,
4 I'm talking about molded phenolic material -- as part
5 of tests you did for things like Izod strength.
6 Correct?
7 A. Yes.
8 Q. You cut it with a bandsaw?
9 A. We had two ways of doing it. One was to
10 mold the parts directly so they did not have to be
11 cut, and that was in a family mold, which we'd make a
12 tensile bar, a flexural bar, disk, all in one shot.
13 That took, let's say for purpose of discussion, five
14 pounds material, because you had to throw away
15 whatever connected all these different parts. If we
16 only had one pound of material, then we couldn't do
17 that. It would be too much -- and we may not have
18 needed all those other parts, so you only mold the
19 plaque, and then you have the laboratory cut the
20 piece out that you want, and so it was done either
21 way, depending on the situation.
22 Q. Let me think which of those avenues I
23 want to follow up on here.
24 MR. YARBOROUGH: Can I ask him to
25 clarify one thing, Mike?
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1 You said 12-by-12 earlier. You're
2 referring to the phenolic molding compounds. Are you
3 referring to 12-inch-by-12-inch?
4 THE WITNESS: Yes.
5 MR. YARBOROUGH: Or 12-feet-by-12-feet?
6 THE WITNESS: No, no, 12-inch. I'm glad
7 you pointed that out.
8 MR. YARBOROUGH: And --
9 MR. WARD: You can have your turn later.
10 I'll give you one, but not more. You'll have your
11 chance.
12 Q. So one of the things you could probably
13 testify at trial is if one of our clients has
14 identified a flat sheet, let's say a three-by-three
15 sheet, and they've identified it as Bakelite, I
16 assume your testimony is going to be, then, that it's
17 not a molded material. Is that correct?
18 A. That's correct.
19 Q. And your testimony would be that it's
20 most likely a laminated product. Is that correct?
21 A. That's correct.
22 Q. If we have a client who identifies using
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23 Bakelite in the form of bar stock, let's say a
24 quarter-inch square, half-inch square -- I don't
25 remember what the testimony is, and I don't know what
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1 it will be -- is it going to be your testimony that
2 that would not be a molded material?
3 A. I would say it would be most likely a
4 laminate, because there's a military specification
5 for laminates, lists also rods and tubes, the same
6 specification.
7 Q. Do you know the number on that
8 specification?
9 A. No, I don't. I happened to see it on
10 the Internet when I was looking up some information.
11 Q. Let me see if I can dig that one out. I
12 don't know if I have that in my box. Let me come
13 back to that. I don't want to interrupt right now.
14 A. So I've never seen it done with the
15 rods, but it's listed there.
16 Q. You have never seen it done?
17 A. I've never seen the rods manufactured.
18 Q. By one of your customers?
19 A. Right.
20 Q. But you routinely did that for testing
21 purposes. Correct?
22 A. Not a round rod, no.
23 Q. I'm just talking about a square rod.
24 A. Oh, square rods. I'm sorry.
25 Q. I was calling it a bar. I don't know
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1 what the appropriate terminology is.
2 A. All right. Well, I was thinking of a
3 round shape.
4 A square piece, we would cut out of a
5 plaque, if necessary, yes.
6 Q. Now, I may have asked this, again,
7 before, but let me be clear what your testimony is
8 going to be.
9 If there's testimony that a product was,
10 let's say, a half-inch-by-a-half-inch square bar of
11 unknown length, a foot, two feet -- I don't know
12 what -- I can't remember what the testimony is on
13 that -- can you rule out that that is a molded
14 phenolic material?
15 A. I'd have to think about that.
16 Q. You'll probably have a week or so to do
17 that, so --
18 A. Yeah, I would like to think about it.
19 Q. I should have waited until the last day.
20 A. Yeah, I want to think about that.
21 Q. The bottom line is, I'm interested in
22 getting to the truth of the matter. These are new
23 products, for me, at least, and I want to understand
24 what your testimony is going to be at trial.
25 MR. YARBOROUGH: There's not a question
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1 pending.

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2 Q. Can we agree to come back to that
3 question when we meet again?
4 A. Yes.
5 Q. And there may be some more testimony to
6 talk about at that point.
7 Let me get back on my trail here.
8 Actually, there are just a couple other
9 questions I want to ask you before I get back to our
10 review of the asbestos-containing Bakelite materials.
11 You say that sheets, if there are
12 anything larger than a square foot, would most likely
13 be a laminate. Is that correct?
14 A. Yes.
15 Q. Now, Union Carbide sold Bakelite resins,
16 phenolic resins, to companies that made laminates.
17 Is that correct?
18 A. That's correct.
19 Q. Would you sell to Westinghouse, for
20 example?
21 A. Westinghouse made its own resin and
22 manufactured Micarta laminates for a while, and then
23 they went out of business. Whether we -- and I
24 assume, since they made Micarta, they also made
25 industrial laminates, because they were in the
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1 electrical parts business.
2 When they went out of business, I don't
3 know if we started selling them resin or not. It's
4 possible.
5 Q. One thing I can tell by looking at Union
6 Carbide documents is you guys kept a close eye on
7 your competitors. Correct?
8 A. Yes.
9 Q. You were watching what products they had
10 out there. You were always trying to get customers
11 from them, et cetera.
12 Who were the primary competitors in the
13 phenolic molding compound business? And I'll limit
14 that to the time you were working in that field.
15 A. Durez was number one. They had the
16 dominant market position from 1954 on, and they're
17 still in the business.
18 Q. So when you say from 1954 on, are you
19 using that date because that's when you all had that
20 explosion and fire?
21 A. Yes, yes. Prior to 1952, we had the
22 major share.
23 Q. So from the time Bakelite was first
24 patented in 1909, until 1952, Bakelite, and
25 subsequently Union Carbide, were the leaders in the
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1 field of molded phenolic compounds. Correct?
2 A. In many of -- yes, in many of the
3 so-called Bakelite product applications, up until
4 1927, we had it all, and then the patents ran out.
5 But they maintained a dominant position, if gradually
6 losing business, but dominant position until -- in
7 molding material until 1952.
8 Q. And then you said Durez became the

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9 leader at that point. Who was number two?
 10 A. We became number two.
 11 Q. And, again, all these questions, I'm
 12 just talking about phenolic molding compounds.
 13 A. Okay, yeah. We became number two.
 14 Number three was Plastic Engineering.
 15 Q. Otherwise known as PLENCO?
 16 A. Yes.
 17 Q. Sheboygan, Wisconsin. Right?
 18 A. Yes.
 19 Q. I grew up in Koehler, Wisconsin.
 20 A. Yeah. And they're still in the
 21 business.
 22 Q. Yes. I know the Bratzes.
 23 A. You know --
 24 Q. The person who owned that company,
 25 Mr. Ralph Bratz. Do you know him?
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1 A. I know the name.
 2 Q. Who was number four?
 3 A. I think it was Reichold. And General
 4 Electric, and I'm not sure whether -- they could be
 5 reversed there, but I think Reichold was better
 6 than GE.
 7 Then you had companies that made the
 8 high-impact materials. Fiber-Rite was one of the
 9 leaders. They made glass-reinforced -- you know, the
 10 very fibrous type, sisal reinforced.
 11 And Rogers Corporation, also, made some
 12 of those products. Those two had a different process
 13 than the other four -- five, rather.
 14 For a while, Westinghouse also made
 15 molding materials.
 16 Q. Theirs was called Moldarta?
 17 A. I think so. I'm not certain of that.
 18 Q. At some point they dropped out of that
 19 business?
 20 A. Yes, they did. I'm not sure Moldarta
 21 was -- I saw the Durephene name somewhere in the
 22 literature. It could have been Durephene, also. I
 23 don't know.
 24 Q. And these companies that you discussed,
 25 they would carry a comparable line of products to
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1 what Union Carbide had?
 2 A. The top -- the top five.
 3 Q. The top five?
 4 A. Right, and also Westinghouse, when it
 5 made product, would have been similar to the others.
 6 Q. And you would often look at a Durez
 7 product and say, we're going to make a product that
 8 beats that one. Correct?
 9 A. Yes, yes.
 10 Q. And they'd do the same to you?
 11 A. Yes.
 12 Q. It was a very competitive industry?
 13 A. Very. That was the reason it was
 14 difficult to make money.
 15 Q. Do you know what the relative market

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16 shares were in, let's say, 1965, just -- you know,
17 mid-'60s, what sort of market share did Union Carbide
18 have in the phenolic molding materials?
19 A. I happened to see something for the
20 years '68, '69, and at that time it was 17 percent
21 for Union Carbide and close to 50 percent -- I mean,
22 just a shade under 50 percent for Durez, maybe 48,
23 49. I think PLENCO was 12. Reichold or GE were
24 eight. I think it was Reichold, eight, and GE --
25 well, no, GE --
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1 MR. YARBOROUGH: He just asked you about
2 Union Carbide.
3 Q. I would have stopped you if I wanted to.
4 Saves me from having to talk too much.
5 All right. Well, that gives me an idea.
6 All right. I'm going back to the review
7 of products. The next product that's on my list is
8 BMG-5261. Are you familiar with that product?
9 A. The number is familiar. I don't recall.
10 Q. Well, we talked about it to some extent
11 yesterday. I think this is another situation where
12 there's a cross-over number.
13 I'd like you to look at a document that
14 is marked, or Bates numbered, 906273, last six
15 digits, and tell me what the asbestos content of that
16 product is.
17 A. 49.8.
18 Q. And the type of fiber, is that listed?
19 A. It doesn't show. It says 18-B.
20 Q. And, again, I'm just going to show you a
21 document that's Bates numbered 906233, and from
22 looking at that, can you tell what this product was
23 previously called?
24 A. BM-261 Black.
25 Q. Now, when you testified previously about
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1 the number of asbestos-containing products you
2 remembered, is this a product you did not recall at
3 that time?
4 A. Yes.
5 Q. And is it also true that this product is
6 not on Union Carbide's submission that they made to
7 the United States Government?
8 A. No, it's not.
9 Q. And you don't have any personal
10 knowledge about what this product was used for?
11 A. No, I do not.
12 Q. I'm trying to find a document to prove
13 this, but let me just ask you to accept -- maybe I
14 shouldn't ask you to do that. Strike that.
15 The documents that I have for this
16 product indicate who some of the customers were, at
17 least gives a half a dozen or so on the document
18 that's Bates numbered 906301 and the number after
19 that.
20 One of the companies listed is Kellogg
21 Switchboard and Supply Company. Are you familiar
22 with that company?

23 A. No.
24 Q. One of the customers for this product is
25 listed as being Carborundum Company. Are you
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1 familiar with that company?
2 A. Carborundum? I think they're a grinding
3 wheel manufacturer. I don't know why they would use
4 that.
5 Q. Another customer is Eclipse Pioneer
6 Division of Bendix Aviation Corporation. Do you have
7 any knowledge about what they would use this type of
8 material for?
9 A. No. This document is dated 1954, so I
10 don't -- I was in a different business at that time.
11 Q. The next product is BMMA-5280 Black 25.
12 Are you familiar with that product?
13 A. That number sounds familiar. That's
14 about it.
15 Q. I have a document, it's dated May 20th,
16 1963. It's a request for transfer of the material I
17 just mentioned to final manufacturing status, and
18 you're the group leader on the document. Could you
19 take a look at this document and let me know what the
20 asbestos content is of the product?
21 A. I don't see a formulation.
22 Q. Let me give you a separate document,
23 then.
24 A. Oh, here it is.
25 Q. Is that another one where you have to do
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1 math?
2 A. Yeah. Oh, 2000-pound mixes. So
3 roughly -- let's see, plasticity Grade 9.
4 MR. YARBOROUGH: If you need a
5 calculator or something, we'll get you one. I don't
6 want you guessing.
7 A. Well, say, Grade 12, 400 over 2000.
8 Q. About 20 percent?
9 A. Right.
10 Q. I have a document, Bates No. 937290,
11 which they did the math for us, and it seems to
12 indicate that the product --
13 A. 16 and a half.
14 Q. No, 21 percent.
15 A. 21.
16 Q. RM-18-Q. Does that appear to be
17 correct?
18 A. Yes.
19 Q. Is this a product that you remembered
20 when you testified previously?
21 A. No, I did not.
22 Q. Is this product on any of the
23 disclosures from Union Carbide to the government?
24 A. No, it's not.
25 Q. The next product I have are a series of
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1 the same number product. The top one is BMMA-5303
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2 Black 25. My notes show that is a product that Union
3 Carbide mentioned in their disclosure.
4 A. Yes, it is.
5 Q. Is that one you had mentioned in your
6 prior testimony?
7 A. In my third deposition, I think I did.
8 I mean -- yeah, third deposition, I think I did. It
9 was also on the list that we went over yesterday.
10 Q. On Martino Exhibit 5, that letter that
11 was done by Mr. Kipp, this product is listed as
12 containing 37.3 percent asbestos. Could you
13 determine if that's correct?
14 A. There's also a 33.1.
15 Q. There's a number of different
16 formulations that all have the number 5303, and they
17 have different asbestos contents. Is that correct?
18 A. Here, there are two, and there's a
19 difference shown of 4 percent.
20 MR. YARBOROUGH: Is that right?
21 A. Yeah, 37 and 33.
22 MR. YARBOROUGH: No, you're reading that
23 wrong. The one beneath that is a different product
24 number. Right?
25 THE WITNESS: That's D.
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1 MR. YARBOROUGH: I don't think that's
2 lined up accurately.
3 THE WITNESS: And that's A. So A is
4 37.3 and D is 33.1.
5 Q. This is a heat-resistant material?
6 A. Yes.
7 Q. And would you agree that both of those
8 numbers are in excess of 30 percent? Is that
9 correct? Asbestos content-wise. Both products
10 contain more than 30 percent asbestos. Correct?
11 A. That's correct.
12 MR. YARBOROUGH: According to the
13 documents.
14 MR. WARD: According to the documents.
15 A. Do you have a formulation sheet other
16 than this?
17 MR. WARD: I have a whole file.
18 MR. YARBOROUGH: Just let him ask the
19 questions.
20 THE WITNESS: I just want to cross-check
21 that number. This shows 32.
22 Q. For which formulation of the product?
23 What are the four letters?
24 A. 18 --
25 MR. YARBOROUGH: He's asking about that.
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1 A. BMMA-5303, and it shows 32 percent.
2 This is BMMA, and it shows 37 percent. So there is a
3 discrepancy there. So it's a question of which you
4 want to take.
5 Q. I'm not going to quibble over that. I
6 don't have any other questions about 5303, since
7 those were disclosed.
8 The product BMRS-5306 Black 25 -- Black
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9 15, is that a product that you recall?
10 A. No.
11 Q. Is this a product that's on Union
12 Carbide's disclosure?
13 A. 5306? Could I look at that, please?
14 Q. Sure.
15 I'll withdraw my last question and ask
16 you a different question instead.
17 Based on your review of the documents
18 that are part of my file on this product, did that
19 product contain asbestos?
20 A. Yes, it did.
21 Q. And what percent of asbestos did it
22 contain?
23 A. 12 and a half percent.
24 Q. Does it give the fiber type, or the raw
25 material code, at least?
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1 A. It's 18 -- I think it's either O or Q.
2 It's asbestos floats.
3 Q. And is the customer indicated?
4 A. It's for transmission rings. I recall
5 that now.
6 MR. YARBOROUGH: Let's identify this.
7 MR. WARD: Why don't you go ahead and do
8 it. I'm tired of reading those numbers.
9 MR. YARBOROUGH: The document being
10 referred to is 937338 through 937425.
11 A. I don't know if that was ever
12 commercialized.
13 Q. You're not sure if it was sold?
14 A. It was tested, I believe, in that
15 application. I don't remember whether we got any
16 orders for it.
17 Q. This is not listed -- this is a product
18 formulation and condensed manufacturing instruction,
19 as opposed to a tentative product formulation. This
20 went into manufacturing status. Correct?
21 A. We may have made some. We would have
22 had to fill that out to make some in manufacturing,
23 and tested it. What I don't know is whether we ever
24 got the business, and that's why I -- I would have to
25 see whether it shows up in any other documents as a
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1 sale. But that is a possibility, that we never got
2 the business. It took a long time to get approval.
3 Q. Approval from whom?
4 A. Automotive industry. I don't remember
5 whether it was GM or Ford that we were working with.
6 I think it was GM.
7 Q. On the first page, it also lists
8 Lundstrom Plastics and various other customers. So
9 would that indicate to you that that product was sold
10 commercially?
11 A. That would indicate to me that those
12 were the customers we were dealing with. I don't
13 know where that went.
14 Q. Let me try to summarize it. This is a
15 product that was accepted by Manufacturing?

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16 A. No, the acceptance would be a letter
17 from Manufacturing saying this product is accepted,
18 and they would then take over the responsibility for
19 it.

20 Q. But this would be -- if it hadn't been
21 accepted for transfer, you wouldn't have a product
22 formulation, would you? You would have something
23 called a tentative product formulation?

24 A. No, we had to make out those sheets
25 to -- for anything we made in the manufacturing

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1 operation, even if we were responsible for
2 supervising the production run. Once we made enough
3 runs to satisfy Manufacturing that the product could
4 be run in their facilities and meet their standards,
5 they then would write a letter of acceptance that
6 they would take over, and it's thereby transferred to
7 the Manufacturing Department.

8 Q. I've seen many of those documents.

9 A. I don't -- you know, if you run across
10 one, that would indicate it didn't go commercial.

11 Q. In any event, this is not a product that
12 you recalled when you testified previously. Is that
13 correct?

14 A. That's correct.

15 Q. And this is also a product that's not
16 listed on Union Carbide's disclosure. Is that
17 correct?

18 A. That's correct.

19 MR. WARD: Off the record.

20 (A discussion takes place off the
21 record.)

22 (A recess is taken for lunch.)

23 Q. Good afternoon, Mr. Martino. Had a good
24 lunch?

25 A. Yes, very good.

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1 Q. I want to revisit some of the things we
2 were talking about in the morning. I found a few
3 documents I wanted to ask you about.

4 Let me mark this first document as an
5 exhibit. This will be Martino No. 10.

6 (Martino-10, Purchase Order dated
7 11/23/70, is received and marked for identification.)

8 Q. Mr. Martino, this is a purchase order
9 from Newport News Ship Building and Dry-Dock Company.
10 It's dated November 23rd, 1970.

11 I'll let you take a look at it and then
12 I'm going to ask you a few questions about it. I
13 don't have an extra copy of this, so I'm going to
14 have to share this with you.

15 The purchase order is directed to Reed
16 Plastics Material Corporation in Norfolk, Virginia.
17 Do you have any familiarity with that company?

18 A. No.

19 Q. Do you know whether they're a molder of
20 products, or simply a distributor?

21 A. Let me just take a look.

22 MR. YARBOROUGH: I know I have
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23 continuing objections, but I just want to continually
24 renew my objections to these questions based on form
25 and lack of foundation.
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1 A. I never had anything to do with them
2 before.
3 Q. The purchase order refers to a rod,
4 comma, Bakelite, colon, for shorting probes, and then
5 it refers to as being one and three-quarter-inch
6 diameter by four-foot long molded. There's several
7 questions I have with regard to this.
8 First of all, does this satisfy you that
9 a molded rod can be made out of Bakelite?
10 MR. YARBOROUGH: Again, I'll object just
11 to the use of the term "Bakelite" because it is a
12 generic term, and can be used to describe both
13 laminates and molding compounds, some of which
14 contain asbestos and some of which don't.
15 Q. Well, first of all, this does indicate
16 that Newport News is purchasing a product in a molded
17 form. Is that correct?
18 A. That's correct.
19 Q. And the rod is one and three-quarters
20 inch in diameter. Correct?
21 A. That's correct.
22 Q. And it's indicated as being four feet
23 long. Is that correct?
24 A. That's correct.
25 Q. And they are using the word "Bakelite."
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1 Isn't it true that Bakelite is a registered trade
2 name by Union Carbide?
3 A. That surprises me.
4 Q. Why does it surprise you?
5 A. Because I'm not aware of anybody who has
6 been licensed to use the name, the trade name
7 Bakelite, and it surprises me that they are.
8 MR. YARBOROUGH: Just answer his
9 questions.
10 Q. Well, if a company buys your product and
11 molds it, they're entitled to refer to it as
12 Bakelite, are they not?
13 A. Not officially, no. Not at all. None
14 of our customers -- this is the first time I've seen
15 that. None of our customers were authorized to use
16 the name Bakelite on their packaging.
17 Q. What would they call the plastic?
18 A. Their own product. You know, a
19 laminate, or like Formica would have Formica.
20 Q. Let's talk about molding compounds.
21 A. Molding compounds, Square D is Square D
22 on its parts, either molded in or a label on them.
23 And this could be a laminate material.
24 Q. Does it not say "molded" there?
25 A. Yes, but rods are made from laminate
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1 stock and molded. It says canvas base, and we don't
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2 make any material with canvas. That's my tip-off --

3 Q. The use here is for a shorting probe.

4 Correct?

5 A. "For a shorting probe." I don't know
6 what that is.

7 Q. All right. So you believe that this
8 represents a laminated product rather than a molded
9 product?

10 A. It's a laminated product to begin with,
11 which has been cut in strips and molded into this
12 rod. That's one of the processes that you use to
13 make -- it's been used for many years.

14 Q. Can you describe that for me again? You
15 say a laminate that you cut in strips and then mold?

16 A. Mold it, yeah, you shape it to a round
17 rod. I've never seen it done, so I have difficulty
18 describing it, but I have seen it mentioned in the
19 literature. I've seen laminates that you do mold
20 from laminate stock into this shape.

21 Q. I thought once a thermosetting plastic
22 was formed, it could not be reshaped.

23 A. After it's fully cured, but with a -- in
24 this particular case, and, here again, I'm getting
25 into an area that I have not seen personally. I'd

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1 have to do some searching to get the whole process.
2 If you don't cure it completely, just like our
3 molding material, you still have some flow left to
4 make a shape, and then when that is cured, you cannot
5 melt it.

6 Q. I'm just trying to play that back in my
7 head.

8 A. But that's the tip-off, canvas base. We
9 don't make canvas molding material. I don't know
10 anybody else who does.

11 Q. I was assuming the canvas base was
12 something that you hold the probing rod with.

13 A. No, canvas base is the reinforcement
14 that is used to form the laminate.

15 Q. I understand.

16 A. And it could be paper base, canvas base,
17 linen base.

18 Q. Asbestos paper, asbestos cloth. It
19 could be any of those?

20 A. Anything.

21 Q. But that's not something Union Carbide
22 provided?

23 A. No, no. Now, I --

24 Q. You're curious, I take it, by the use of
25 the name Bakelite?

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1 A. Yes.

2 Q. I hate to tell you, we got a whole bunch
3 of documents where they did that.

4 A. I can understand why. It's become a
5 generic name.

6 Q. Well, it's generic to one sense, but
7 it's also a registered trade name which has a very
8 specific meaning.

9 A. That's correct.
10 Q. Proprietary to Union Carbide. Correct?
11 A. Yes.
12 Q. While we're on the subject of things we
13 found having to do with Newport News in documents, we
14 found some documents relating to a product called
15 microballoons. Are you familiar with those?
16 A. Yes.
17 Q. I have no idea what a microballoon is.
18 Can you tell me what that is?
19 A. It's a very small phenolic resin sphere,
20 almost looks like sand, but it's very uniform in
21 diameter and it's sort of like little ball bearings.
22 We didn't invent it. I think an oil company did, but
23 we got a license to make it, and it is -- the primary
24 use that I'm aware of is the use in storage tanks for
25 oil and gas facilities, and what it does is reduce
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1 the evaporation rate, the evaporation of whatever is
2 being --
3 Q. Because it's lying on top of the
4 surface?
5 A. That's right. Now, there may be other
6 uses, but I don't know what they are.
7 Q. I'm sorry, I can't put my hand on the
8 purchase order I saw that on. You say it was
9 phenolic material. Correct?
10 A. Just phenolic resin.
11 Q. No fillers?
12 A. No fillers.
13 Q. Another thing I saw, I was curious about
14 in documents, was a machine sold by Union Carbide
15 called a union melt machine. Do you have any idea
16 what a union melt machine is?
17 A. May I see that?
18 This is the Lindy Division, which had
19 nothing to do with plastics.
20 Q. What did the Lindy Division --
21 A. Compressed gas. It's now Praxair,
22 P-R-A-X-A-I-R. It's -- their primary products are
23 compressed gases of all kinds.
24 Q. Did Union Carbide make equipment for
25 molding plastics?
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1 A. No.
2 Q. Who made that sort of equipment that
3 molders would use to mold phenolic compounds?
4 A. HPM. I don't remember what the HPM
5 stands for, but those were the initials on the
6 equipment. That's terrible. I lived with molding
7 machines 48 years.
8 Q. Well, you didn't know someone was going
9 to ask you about it 48 years later.
10 A. And there's some famous ones out there.
11 Q. That's okay.
12 As far as you know, Union Carbide never
13 made that sort of equipment?
14 A. No, never. Never.
15 Q. Okay.

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16 A. Five minutes from now, I may think of
17 it.
18 Q. Well, let me know if you do.
19 I want to go back and talk a little bit
20 more about sheets of plastic. You indicated that
21 with a molded phenolic material, if you were making a
22 flat sheet, about 12-inch square was about the
23 limits.
24 A. You could make it bigger if you wanted
25 to. Technically it's possible. Whether it's
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1 commercially -- it can compete with what's done by
2 some other process, and I've never seen it
3 commercialized.
4 Q. I think the dimensions either you
5 mentioned or I mentioned, I can't remember who
6 brought it up first, was a three-foot-by-three-foot
7 sheet.
8 A. Yes.
9 Q. Could, technically, putting aside
10 whether you think it's feasible or cost-effective,
11 but technically speaking, can you make a
12 three-foot-by-three-foot sheet out of molded phenolic
13 compounds?
14 A. You can, yes. With difficulty, but you
15 can.
16 Q. What would the difficulties be?
17 A. Getting a uniform distribution of all
18 that granular material over that surface so that when
19 you compress on it, you don't end up with more
20 material in one place than another. You don't get a
21 wavy sheet. You'll get a little flow from the
22 material, but not a lot; whereas with a laminate, you
23 can control your thickness very easily. The
24 pre-distribution of material is already done for you
25 when you put your fabric or paper base down through
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1 the liquid resin and dried it. You just cut the
2 sheet in size, stack up the sheets, slide it into the
3 press, close it, out comes your molded piece.
4 Q. If you were going to make a
5 three-by-three -- three-foot-by-three-foot sheet out
6 of a molded product, you could use a compression
7 molding process? Again, I know you said --
8 A. That is the only way, I think, you could
9 do it. And you'd have to have a press that size, you
10 know, a little bigger than that size. And that means
11 you have to have molds that you can slide in and
12 slide out, whereas a laminate, you don't need to
13 contain the size. You just have to have a plate on
14 the top and plate on the bottom. The material
15 doesn't -- you know, it oozes out a little bit on the
16 side.
17 But with a molded part, you have to keep
18 all that granular material from spilling over. So
19 you have technical difficulties to overcome. You'd
20 have to make a recessed mold where you put the
21 material in and put the plate on top of it, which is
22 how we make the 12-by-12.

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23 So you're dealing with a heavy piece of
24 metal that you're sliding into the press. This is
25 what makes it costly, and probably why I haven't seen
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1 any -- anything like that done commercially.
2 Q. I want to talk a little bit about
3 appearances of these sort of products that we're
4 talking about.
5 First of all, if you had a laminated
6 sheet, and I don't care what the dimensions are --
7 we'll use a foot-by-foot for both examples. If you
8 had a laminated product, what would it look like?
9 And by laminated, I'm talking about one with phenolic
10 resin and one that was perhaps intended for
11 electrical use.
12 A. Have you ever -- I don't know if this is
13 a laminate here or not. I think this is wood. The
14 top of your kitchen counter, or a vanity, if you have
15 what the trade calls Formica, turn it over on the
16 back, or you go into a lumberyard or Home Depot, ask
17 for a Formica laminate, and look on the back, and
18 that's the paper base phenolic impregnated paper
19 that's built up to make an industrial laminate, and
20 just -- it will be that color.
21 Now, the color will vary with, you know,
22 manufacturer and the resin they use, but it will
23 generally be sort of a brownish shade, various --
24 reddish brown. I've seen more of some chocolate
25 brown, but most of them are reddish brown. That's
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1 exactly the same product, with the exception of the
2 resin content, that you'll find in an industrial
3 laminate. The industrial laminate won't have the
4 decorative surface.
5 Q. I'm thinking if you were using a
6 phenolic sheet, laminated sheet in the shipyard for
7 electrical application. What color would you expect
8 that to be?
9 A. Brown.
10 Q. A dark brown, a honey brown? What kind
11 of brown?
12 A. It will depend on the manufacturer and
13 the resin they use, but it will be various shades of
14 dark brown, from reddish to chocolate brown, maybe
15 even -- mostly a reddish brown, I'd say.
16 Q. Did it also come in black?
17 A. It can be made that way, and I think
18 I've seen some -- a distributor list black in his
19 literature.
20 Q. But that was not the norm? The norm was
21 this reddish brown, you're speaking of?
22 A. Most of it was -- and that will be
23 called natural. There's no color whatsoever.
24 Now, if the base is different than
25 paper, like linen or cotton or canvas, then the shade
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1 you get is going to be a little different, and I
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2 don't recall -- I've seen paper base, but I don't
3 remember seeing any of the others.

4 Q. How about a canvas base?

5 A. That's probably going to be a brown. I
6 haven't seen one. I haven't -- you know, I stopped
7 at an electrical parts store a week ago to see if I
8 can get some samples of industrial laminates to show
9 them what they looked like, and I couldn't get any.
10 It's a product that's sold just to the industry and
11 service. So I haven't been able to get a series of
12 samples to look at the various colors.

13 That is another reason why you'd go to a
14 laminate over a molded product. You can use the
15 canvas and the glass mat, give you very high impacts.
16 The molding material we make can't go that high, so
17 you couldn't -- you know, even if you could make the
18 sheet, you're not going to get the impact strength
19 range to work with that you can in the laminate.

20 Q. Why is that?

21 A. The reinforcement, plus the
22 manufacturing process, you're grinding the particles
23 up into -- in molding into little, you know,
24 sand-like particles, coarse sand. So your fibers are
25 very short. In a laminate process, you -- you put in

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1 a canvas sheet. You don't chop it up. It's there.
2 It doesn't get cut until you decide you want to form
3 something out of it.

4 Q. Now, these products that we've come
5 across, like BMZ-5250, that material wasn't
6 pulverized in a manufacturing process, was it?

7 A. That's correct.

8 Q. That was a raw mix?

9 A. Raw mix, yes.

10 Q. And what would -- if you made that into
11 a sheet form, you know, like, say,
12 three-foot-by-three-foot, and half-inch thick, what
13 would that look like? Or if you can't conceive of
14 it, you can do a square foot for me.

15 A. Well, with that, if it's in natural, you
16 can see the fibers.

17 MR. YARBOROUGH: And if you know. I
18 mean, don't guess. He's asking if you know. I don't
19 want you to speculate or guess.

20 A. No, no, I'm just trying to -- again, I
21 think that the line of thought here is important to,
22 you know, show where the laminate is important.

23 Let me put it this way. If you have
24 trouble spreading out a molding -- granular molding
25 material in a three-foot-by-three-foot -- spreading

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1 material out is like taking, say, insulation of your
2 attic and trying to spread it out over a three-foot
3 area and then compressing it, and since that has so
4 much asbestos in it, it's going to be -- and it's
5 all, you know, like feathers. It's going to be very
6 difficult to uniformly spread that out and make a
7 compression plaque. 12-by-12, you could manage to --
8 you know, you do it by hand.

9 Q. well, whatever size it was, what did it
10 look like when it was molded?
11 A. That, I don't remember. I'd have to
12 guess.
13 Q. Let's take your -- when you make a piece
14 of Bakelite, phenolic molding material -- and let's
15 start with the Black 25. Can you tell me what that
16 is going to look like when it's a finished product?
17 A. Black 25?
18 Q. Yes.
19 A. Is that black there or not?
20 Q. I have a hard time telling black from
21 brown. That's dark brown.
22 A. Well, it's going to look a lot like
23 that. The material will take on the surface of the
24 mold, whatever the -- if it's a glossy mold, you'll
25 get a glossy surface. If it's a matte-finish mold,
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1 you'll get a matte finish.
2 Q. what do you mean by that?
3 A. Satin, you know, like dull paint versus
4 glossy paint. If you have sort of a mold surface
5 that is dull, that's what you'll get when you take
6 your piece out of the mold.
7 Q. So what you're saying, it did have a
8 variety of finishes to it.
9 A. Yes. You mold the finish on that you
10 want. You can even mold a pebble finish. I had a
11 toaster panel that had a pebble finish in the center
12 and the rest was glossy on the side. That's all done
13 in the mold, and then every piece comes out looking
14 exactly like that.
15 Q. Let's say you're going for a smooth
16 finish with a phenolic molded material. Is it shiny
17 or is it dull in appearance? Do you know what I'm
18 looking for? well, is it shiny?
19 A. If the mold is highly polished and
20 shiny, the part that comes out of it will be shiny
21 just like the mold.
22 Q. Okay. You said that asbestos was added
23 to products in certain instances to improve its
24 appearance, I believe. How did that change the
25 appearance by adding asbestos to the material?
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1 A. You'd have to put the pieces side by
2 side to see the difference. If you put them like
3 this, they'll both look very highly -- high gloss.
4 They'll look the same. You put them side by side and
5 get the light just right, the wood flour filled will
6 look just a little bit wavy, whereas this, you know,
7 high sheen, and doesn't take too much to get that.
8 Q. If you have a product that's like a lot
9 of them we've been talking about, that's 30, 40, 50
10 percent asbestos, is it really shiny then?
11 A. Once you got over a threshold value, you
12 know, a certain amount of it in there, the
13 difference -- and I'm talking with colorant, too, in
14 there. The differences you see between, say,
15 4 percent asbestos and 5 percent -- I mean, 15

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16 percent asbestos is -- you can't tell the difference
17 by eye. You'll get a high smooth gloss all the way
18 up to a hundred percent asbestos.

19 Q. Now, if I take a piece of --

20 A. I mean, 50 percent asbestos.

21 Q. If I take a piece of molded phenolic
22 compound that has any amount of asbestos in it and I
23 cut it in half with a saw, and then I look at the
24 part that's been exposed by it being cut, what does
25 that surface look like?

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1 A. Well, first of all, it will be dull,
2 depending how -- it may even have rough edges, you
3 know, just like sawing a piece of lumber. You'll get
4 a rough surface. And if you want it smooth, you're
5 going to have to sand it. So that it would be -- and
6 if the product has been well made, you'll see a sort
7 of -- let's say it's grayish black. You should not
8 see any particles. If you have long fiber and you
9 have a lot of it in there, you might see some fiber.
10 That, I can't comment on because I haven't that
11 experience with the long-fiber-type material.

12 Q. So the surface that's exposed when you
13 cut it will be a duller shade than the finished part.

14 A. Yes.

15 Q. And instead of being a dark black, would
16 it be more of a gray on the side then?

17 A. It would be a grayish black, yes, or
18 dull black.

19 Q. And in terms of --

20 A. Say, like -- that's shinier -- I mean,
21 duller than that.

22 Q. We won't -- it's hard to describe colors
23 for the record.

24 And the texture of that cut edge would
25 be what?

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1 A. That would depend on the saw you used.
2 If you used a fine-tooth saw and it was sharp, you
3 could get a very nice smooth surface.

4 Q. Would it be uniform in appearance, or
5 would it be some sort of a pattern, or can you help
6 me on that?

7 A. If it's black, it will be uniform. If
8 it's brown, it will be uniform. If it's any colored
9 product, it will be uniform.

10 Q. Jump back to the laminated material, a
11 phenolic laminate. When you cut that in half, or
12 when you cut it, what does the exposed surface look
13 like on the cut edge? Do you actually see the layers
14 of the laminate?

15 A. No, you don't. Not at all. It looks
16 like one solid piece, at least with paper.

17 Q. How about glass mat? If I had a glass
18 mat that was laminated with a phenolic resin and I
19 cut it, what would the exposed surface look like?

20 MR. YARBOROUGH: Don't guess. If you
21 know and you've seen it --

22 A. No, I'm just trying to -- I don't know.

23 I've never done it.

24 Q. When you were group leader for 15 years,
25 you were in charge of laminated material, as well.

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1 Correct? Laminating materials?

2 A. Yes.

3 Q. That's correct?

4 A. Yes, of the resins.

5 Q. Of the resins, but you had gone out to

6 do calls on customers and you've seen finished

7 product. Correct?

8 A. Um-hum.

9 Q. And you've never seen an exposed surface

10 on the laminate?

11 A. I have not looked that carefully at

12 glass laminate. You know, I -- the bulk of my

13 experience has been with the paper laminates, and I'm

14 not trying to evade your question. I'm trying to

15 think of another example that you could relate to.

16 Q. Well, what I'm trying to get at is in

17 visual terms, if I -- how you distinguish a laminate

18 from a molded product.

19 A. Well, of course, the sheet, sheet form,

20 that's the first thing you look at. It's going to

21 look like a piece of plywood, different thicknesses.

22 Q. Other than the form.

23 A. You mean whether it had glass in it

24 or --

25 Q. Well, I think we've done a little bit

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1 with the color. Again, if I have two square plaques,
2 or whatever you were calling them, and one is a
3 molded product and one is a laminated product, how am
4 going to tell the difference between the two
5 visually?

6 A. You're going to be looking at the
7 finished product?

8 Q. The finished product, yes.

9 A. The finished product made for the
10 molding material is going to be an intricate shape.

11 Q. I'm asking you to assume that they're

12 both flat 12-by-12, 12-inch-by-12-inch plaques, same

13 shape. You're not going to be able to tell the

14 difference by shape in this scenario I'm setting up.

15 The shape is identical.

16 Is there any other way that you can
17 visually determine which one is the molded material
18 and which one is the laminated material? And you can
19 cut it if you want.

20 A. The laminate will most often be made in
21 a natural color. It is available in black, but most
22 of the laminates I've seen do not have color. That
23 will be the number-one difference.

24 Q. How about number two?

25 A. The reverse of that. We made very few

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1 molding materials that didn't have any color in it.

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2 There's just, I think, a couple in the mix. So now
3 you're left with if it has color, which is it.
4 Q. Someone brings me -- well, let me keep
5 the scenario the same. Other than color, is there
6 anything about the appearance of the product which
7 you could -- products so that you can visually
8 distinguish them?
9 A. Most of the laminates I've seen are not
10 high-gloss surfaces. That doesn't mean they can't be
11 made that way, but you take a look -- look at the
12 back of Formica laminate. That's not high gloss.
13 It's dull. The easiest way would be for you and me
14 to go to Newport News and pick up some samples, and
15 then I could show you.
16 Q. I've been trying. I want to know how to
17 find it.
18 A. I'll pick it out for you.
19 Q. So we'll go down to an old oil tanker.
20 MR. YARBOROUGH: Just answer his
21 questions.
22 A. I'm serious about that.
23 MR. YARBOROUGH: Carlo, just wait and
24 answer his questions. All right?
25 THE WITNESS: Okay.
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1 MR. YARBOROUGH: Thanks.
2 Q. Let me see if I can get this straight.
3 If I have a piece of molded phenolic material that
4 has asbestos in it and I have a piece of laminated
5 phenolic laminate, and they're identical in shape,
6 and I cut both of them in half to look at the exposed
7 surfaces, I won't be able to tell much from doing
8 that in terms of determining which is which?
9 A. Paper-based versus -- paper-based
10 laminate versus --
11 Q. Let me take that whole question off the
12 table and try to get it a little bit more specific.
13 My focus is primarily on electrical applications in a
14 marine environment, particularly in the building of
15 switchboards. So what type of lam -- if a laminated
16 material is going to be used in that application,
17 what would you expect it to be?
18 A. Most often paper-based.
19 Q. And what type of resin would you expect
20 it to be? would it be phenolic or would it be a
21 melamine, or what?
22 A. You have a choice of five, actually,
23 different resins: Phenolic, melamine, polyester,
24 epoxy, and that's it. Four. I don't remember any
25 others.
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1 Q. And that's true in the 1960s, or are you
2 talking about currently?
3 A. I think it is true in the 1960s -- well,
4 let me think back.
5 Yes, they were all available in the
6 '60s.
7 Q. And some of the ships that we're talking
8 about are large vessels, aircraft carriers, oil

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9 tankers. They built big ships down at Newport News.
10 Do you have any knowledge on what type
11 of laminated material they would use to build
12 switchboards in that environment in the 1960s?
13 A. They would choose from that list I gave
14 you.
15 Q. What properties would they be looking
16 for?
17 A. It's going to vary depending on the
18 application. You've got different grades, different
19 electrical grades just in the paper-based laminates.
20 Q. Well, if you're making a breaker
21 barrier, for example, in a switchboard that handles,
22 I don't know, 4,000 volts, I think I've heard it
23 referred to, what type of material would you use in a
24 breaker barrier in that sort of set-up?
25 A. There should be specifications that
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1 state what grade should be used.
2 Q. When you say specifications, are you
3 talking about military specifications, or are you
4 speaking about specifications made by the designers,
5 electrical designers in the shipyard, or something
6 else?
7 A. I'm talking -- well, there are two
8 specifications, NEMA, National Electrical
9 Manufacturers Association, and there are
10 specifications that the military supplies, and they
11 mesh together.
12 In other words, there's a cross-over.
13 The designer should -- not should -- somewhere has to
14 state this is the grade of material to use;
15 otherwise, they're going to have a problem, and he
16 has to decide, does it have to be paper-based, does
17 it have to be a melamine glass laminate, which is --
18 Q. Type, GME, right? That's the
19 designation for glass cloth melamine?
20 A. I don't know. I'd have to look it up.
21 Q. Now, if I get a drawing of a switchboard
22 or switch gear -- I don't understand. They seem to
23 use those terms interchangeably -- and I see it's
24 type MFH, for example, that's going to mean it's a
25 molded phenolic with asbestos in it. Correct?
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1 A. If you see a laminate, it will not
2 have --
3 Q. If I got a drawing and there's something
4 that says "breaker barrier," let's say, under the
5 list of materials, and in the other column it says
6 "Type MFH," would you agree that that would be
7 referring to a molded phenolic material?
8 A. Yes. But that specification would be
9 for the molder of that part. The designer says it
10 has to conform with MFH such and such. That means
11 that whoever molds this intricate piece that goes
12 into the box, like, you know, where you slide your
13 breakers in, has to have a molding material that
14 meets that requirement and molds -- the MFH -- I've
15 never seen the MFH 14 something stamped on that

16 piece.
17 Q. No, I'm not saying that. I'm saying if
18 I'm looking at a drawing of -- by the electrical
19 designers at the shipyard, and it says "Type MFH,"
20 that's -- just an example, that would be referring to
21 a molded phenolic material?
22 A. Yes.
23 Q. With mineral filler. Correct?
24 A. Yes.
25 Q. Are you familiar with -- on the other
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1 hand, if I saw something that said "Type GME," that
2 would be referring to a laminate. Is that correct?
3 Or don't you know?
4 A. I did know.
5 Q. I know we're going back a lot of years.
6 A. Yeah. I know how to find out, but I
7 don't remember what the exact nomenclature meant. I
8 still remember some of the NEMA regs, and even there,
9 I don't remember glass. I know XX, that's all paper
10 and different electrical grades. There will be
11 similar designations that cross over for military
12 spec. G should be -- is glass. I know that. M is
13 melamine. The third letter, I don't recall what that
14 is. E, I think it means electrical grade. And that
15 should be stamped on the panel.
16 Q. Stamped on the panel?
17 A. That the electrician cuts his pieces out
18 of, so he knows that that's what he's using.
19 Q. Is there any stamp placed on molded
20 phenolic compound?
21 A. All of the molded parts I've seen has
22 the manufacturer's name either molded into the piece,
23 or somehow on the piece, so you know who made it.
24 Square D has "Square D" on all its
25 parts. GE has "GE" on all its parts. I've never
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1 seen "Bakelite" on those parts.
2 Q. I'm sorry. I'm having trouble keeping
3 track of what I asked you and what I haven't. I
4 think I'm going to go off this subject for a while.
5 I'm going to switch gears a little bit,
6 back to strictly talking about molded phenolic
7 materials.
8 We were talking earlier about cutting
9 bars of a molded phenolic, and I understand that's
10 something that your department would do in order to
11 test the materials that you were making, or
12 developing. Is that true?
13 A. The physical testing department, in our
14 department, would do that.
15 Q. And where was that located in the 1960s?
16 A. Building 95, third floor.
17 Q. And were you in charge of that
18 department?
19 A. No.
20 Q. But that was part of research and
21 development?
22 A. Yes.

23 Q. Did you have occasion to go into
24 Building 95, the third floor?

25 A. Yes.

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1 Q. How frequently would you do that? And
2 I'm talking specifically about the late '60s, early
3 '70s right now.

4 A. Oh, it would vary. Sometimes I wouldn't
5 be there for a month, and other times I might go up
6 there every week. It depends on what -- whether I
7 had some questions about results or not.

8 Q. And on that third floor, they had a
9 variety of equipment that could be used to machine
10 molded samples. Is that correct?

11 A. They had equipment to prepare samples as
12 well as test samples. They were all in that area.

13 Q. They had a router?

14 A. Yes.

15 Q. They had a notching machine?

16 A. Yes.

17 Q. They had a milling machine?

18 A. Yes.

19 Q. They had a bandsaw?

20 A. Yes.

21 Q. They had a portable grinder?

22 A. That, I don't remember.

23 Q. Drill press?

24 A. Drill press? That, I don't remember,
25 either.

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1 Q. A sander?

2 A. Yes.

3 Q. And a grinder?

4 A. Yes.

5 Q. And am I correct in stating that pieces
6 of molded phenolic materials would be machined on
7 these pieces of equipment that we just identified?

8 A. When the need arose. They -- at that
9 point, they processed requests from all over R&D,
10 plus, you know, the two buildings, they'd get
11 samples, and they handled not just phenolic molding
12 materials. They handled anything people were working
13 on.

14 So they got plaques, Bakelite molding
15 material that were not already shaped, with a
16 request, "I want five tensile bars," and then they
17 would form that. They also might do the same thing
18 with a rigid thermoplastic. They get a plaque, say,
19 "I want five tensile bars." That got put through the
20 same equipment. So from day to day, from hour to
21 hour, whatever came in is what they worked on.

22 Q. Now, I believe earlier today, you
23 indicated that the only product made at Bound Brook
24 in the time period we're talking about, the '60s and
25 '70s, that had asbestos in it were the phenolic

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1 molding materials. Is that correct?

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2 A. That's correct. Unless somebody was
3 doing some experimental work, new plastic and, you
4 know, was curing -- looking into fillers for that
5 plastic. But it would have been strictly
6 experimental.
7 Q. Do you recall a time in 1969 when you
8 became aware of the fact that when they cut samples
9 of molded phenolic that had asbestos in it, that it
10 released fibers into the air and caused the air to be
11 contaminated with asbestos?
12 A. I was not aware of it, no. I've seen
13 that letter, so I --
14 Q. The letter you and I are both referring
15 to is dated April 17, 1969. Is that correct?
16 A. Not this letter, no, I didn't see.
17 Q. Oh. Well, let's look at this one.
18 A. It was the short one that I saw.
19 Q. I'll probably be getting to that. If
20 you haven't seen that before, why don't you take a
21 few moments to read it over, and then I'm going to
22 ask you some questions about it.
23 I'd like to mark this as Exhibit 11.
24 MR. YARBOROUGH: Just for the record,
25 I'll identify this, since it doesn't appear to have a
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1 Bates number. It is an internal correspondence from
2 Mr. L.L. Carpenter to T. Hagensli, H-A-G-E-N-S-L-I.
3 MR. WARD: Here's a version with a Bates
4 number.
5 MR. YARBOROUGH: I'm sorry. It appears
6 to be Bates No. UCASB 00945424 through 5432.
7 (Martino-11, Internal correspondence
8 dated April 17, 1969, is received and marked for
9 identification.)
10 Q. Have you had a chance to review this
11 document?
12 A. Yes.
13 Q. Would you agree with me that this
14 document shows that when you cut asbestos-containing
15 molding compound with a bandsaw, it releases asbestos
16 into the atmosphere?
17 A. I'd like to see the air testing that was
18 done to --
19 Q. So would I.
20 A. Because this doesn't tell me how they
21 arrive at that conclusion.
22 Q. I've been asking Union Carbide for that
23 information, but I haven't gotten it yet.
24 well, let's just see what they say.
25 They say the tensile samples preparation area in
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1 Building 95 in Bound Brook is at times contaminated
2 with asbestos dust. The dust is produced by a
3 bandsaw and two milling machines used to shape
4 tensile samples from plastic materials containing
5 asbestos.
6 Now, you would agree that the plastic
7 material, they're talking about the phenolic molding
8 compound. Correct?

9 A. Yes, yes.
10 Q. The bandsaw is located in Room 365, and
11 the milling machine is located in Room 351. And
12 those are the areas we were discussing in
13 Building 95. Correct? It says so in the caption, at
14 least.
15 A. Where are you reading? Building 95,
16 yes. Room numbers, I don't remember.
17 Q. But you said third floor. Right?
18 A. Third floor, yes. That would be the
19 three, yes.
20 Q. It says that currently personnel are
21 wearing respirators to prevent inhalation of
22 asbestos-laden dust. So at least the author of this
23 document felt that the workers were being exposed to
24 asbestos by cutting this material. Correct?
25 A. That's the way it appeared, yes.
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1 Q. And it goes on from there. The document
2 speaks for itself, I guess, after that.
3 Were you aware of this in 1969?
4 A. No, I wasn't contacted at all.
5 Q. The author of this document,
6 Mr. Hagensli, H-A-G-E-N-S-L-I, do you know who he is?
7 A. Hagensli. I don't know him, no.
8 Q. Do you know --
9 A. Oh, yeah. Well, he's from Engineering,
10 so he must be an engineer in Engineering.
11 Q. But you don't personally know him?
12 A. No.
13 Q. Do you know the recipient of this
14 letter?
15 A. Carpenter.
16 Q. Who is he?
17 A. He was the associate director in charge
18 of that area and other areas of responsibilities.
19 Q. What was his area of expertise? Was he
20 an administrator or scientist or an engineer?
21 A. In this position, he was administrator.
22 Q. Can you identify any of the people who
23 received copies?
24 A. Lund was from the Safety Department.
25 McKinley was the plant physician.
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1 Q. And the other names, you're not familiar
2 with?
3 A. Schwartz, I don't remember what he was
4 doing. Bates, I don't recognize. I remember the
5 name Ferry, but I don't know what he was -- what his
6 responsibilities were.
7 Q. Is Dr. McKinley still alive, to your
8 knowledge?
9 A. I don't know.
10 Q. Is Mr. Lund still alive, to your
11 knowledge?
12 A. No, I don't know.
13 Q. Now, in this letter, it's suggested that
14 they put an exhaust system on these pieces of
15 equipment. Correct?

16 A. That's correct.
17 Q. And the attachments include diagrams of
18 the exhaust system. Correct?
19 A. Yes.
20 Q. And on the second to the last page, they
21 have a diagram for the exhaust system for the milling
22 machine. Correct?
23 A. Yes.
24 Q. And specifically it states that it's a
25 milling machine hood for high-toxicity materials. Is
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1 that correct?
2 A. That's correct.
3 Q. Do you agree that asbestos is a
4 high-toxicity material?
5 MR. YARBOROUGH: I'll object. He's not
6 qualified to answer that question.
7 Q. You can answer to the best of your
8 ability.
9 MR. YARBOROUGH: Lacks foundation.
10 MR. WARD: He's previously testified --
11 A. I would say it has potential hazards,
12 and if it's a hazard, it should be treated as such.
13 I wouldn't go that far of calling it high toxicity.
14 Q. Have you ever met anyone who contracted
15 mesothelioma?
16 A. Well, that's why I say, you can die from
17 inhaling carbon monoxide, too. When I say potential
18 hazard, you take, you know, whatever measures it is
19 that you can take to protect yourself. If that's not
20 possible, then you don't use it.
21 Q. Do you think it was wise to put exhaust
22 equipment on the milling machine and on the bandsaw?
23 MR. YARBOROUGH: Same objections.
24 A. I think it was -- I think it was a
25 prudent safety recommendation, and certainly
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1 apparently would have offered protection for any dust
2 that was toxic.
3 Q. Was there any other toxic dust in
4 phenolic molding compounds?
5 A. No, not that I'm aware of.
6 Q. Wood, for example, you wouldn't consider
7 toxic?
8 A. No. Not yet. Nobody's come up with a
9 connection yet.
10 Q. I'm going to show you two other
11 documents that relate to these events. I guess I
12 might as well mark them as exhibits. One is -- they
13 both precede that one we were looking at. One is
14 February 6, 1969. It's written by Dr. McKinley. And
15 that would be Martino No. 12; and the second is a
16 memorandum dated February 17, 1969 from
17 Mr. Carpenter, the subject being asbestos-filled
18 samples. And we'll make that one No. 13.
19 (Martino-12, Document dated 2/6/69, is
20 received and marked for identification.)
21 (Martino-13, Memorandum dated 2/17/69,
22 is received and marked for identification.)

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23 Q. Just take a look at both of those and
24 let me know when you've had a chance to read through
25 them or familiarize yourself with them.
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1 A. February 6, and this is April 17, '69.
2 Now, as I remember --
3 MR. YARBOROUGH: Hold on. Just wait for
4 a question.
5 Q. Well, tell me what you remember.
6 A. The OSHA test for measurement of
7 asbestos in the air was not issued until later this
8 year.
9 Q. No, I believe that didn't come into
10 effect until '71.
11 A. '71.
12 Q. So this precedes OSHA?
13 A. That's why I'm questioning the
14 conclusion.
15 MR. YARBOROUGH: Have you read this?
16 THE WITNESS: Yes, I did. That's why
17 I'm questioning their conclusion, how did they arrive
18 at it.
19 Q. Well, these all relate to asbestos
20 exposure from cutting or shaping asbestos-containing
21 phenolic compounds. Correct?
22 A. Yes.
23 Q. And in each one of the documents, they
24 suggest various industrial hygiene methods to protect
25 the occupants of that building. Correct?
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1 A. Yes.
2 Q. And in the first instance, they
3 recommend -- and by "first instance," I mean in the
4 February 6th letter, they recommend respirators,
5 although they acknowledge that won't prevent
6 contamination in the room. Is that correct?
7 A. Yes.
8 Q. And they recommend that they get exhaust
9 ventilation and dust collection. Is that correct?
10 A. That's correct.
11 Q. In the February 17, 1969 letter,
12 handwritten note, they talk about doing a wet cut on
13 the saw.
14 A. Yes.
15 Q. And the purpose of that is to prevent
16 dust from spreading?
17 A. Yes. I'm not quarrelling --
18 MR. YARBOROUGH: Just wait for a
19 question. Okay?
20 Q. Now, let me show you a couple more
21 documents before I ask you any more questions.
22 Strike that.
23 Do you remember seeing any exhaust
24 equipment in 1969 or 1970 on any of these pieces of
25 equipment?
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1 A. I never looked. I don't recall, no.
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2 Q. Do you recall any air samplings being
3 done in 1969 and 1970 in Building 95, third floor?
4 A. I don't recall, no.
5 Q. Who would have been responsible for
6 doing those air samplings?
7 A. My experience with air sampling had been
8 through Doug Neal.
9 Q. I'll be seeing him next week.
10 A. So he would be in the best position to
11 really comment on this. I'm not really qualified in
12 this area.
13 Q. Well, the reason I was asking about it
14 is because I knew that this was -- this building was
15 part of research and development.
16 A. Yes.
17 Q. Would you agree with me that Union
18 Carbide would not spend the money for an exhaust
19 system if they didn't feel it was necessary?
20 A. Yes.
21 Q. They watched costs very carefully, did
22 they not?
23 A. Yes.
24 Q. The next document I'd like you to look
25 at, and this is going to be Martino No. 14, is a
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1 diagram of an air flow dust collection system for
2 Building 95, Room 341, same floor. It's dated
3 September 17, 1973.
4 (Martino-14, Diagram dated 9/17/73, is
5 received and marked for identification.)
6 Q. Take a look at that. Have you ever seen
7 that document previously?
8 MR. YARBOROUGH: I want to add, if I
9 may, relevance to my list of continuing objections,
10 just based on the fact that these are taken from the
11 manufacturing facility as opposed to a facility at
12 issue -- based on the fact that the facility at issue
13 in Phase I of our trial is a much different setting
14 than the manufacturing facility.
15 MR. WARD: Your objection is noted.
16 Q. Just briefly, these tensile samples,
17 these samples that are being cut, these are molded
18 products, the same way as products are molded when
19 they reach end-users, say, in the shipyard. Is that
20 correct? They're finished products. Correct?
21 A. The molded specimens?
22 Q. Yes.
23 A. If it was made in your family mold, it
24 would be. It would be completely finished. There
25 would have been no need to do any more machining on
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1 them and they would just test them. If they were cut
2 from the plaque, they would require going through all
3 this. The molded samples from the family mold would
4 be like what the customer is supplying to the Newport
5 News.
6 Q. Have you had a chance to look at that
7 diagram?
8 A. I'm trying to see where it's -- oh, 95,
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9 Room 341.
10 Q. So that's the same building and the same
11 floor. Correct?
12 A. Yes. That's '73.
13 Q. Do you know if that system was ever put
14 into place?
15 A. I don't know.
16 MR. WARD: I'm not going to mark this
17 exhibit because I do not have an extra copy. This is
18 a document that was just produced to us on July 3rd.
19 It's dated May 20th, 1974. It's from the State of
20 New Jersey.
21 MR. YARBOROUGH: What are the numbers on
22 it?
23 MR. WARD: The Bates number is UCASB
24 00983753, and the following number. This transmits a
25 certificate from the State permitting them to
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1 operate, and I quote, a Toret self-contained
2 high-efficiency cyclone separator. The process --
3 the equipment that it's being used on is sample
4 preparation for testing, notching machine, table saw,
5 bandsaw, drill press, router, sander, milling
6 machine, surface grinder. Its location on the
7 premises is identified as Building 95, Research and
8 Development Department.
9 Q. Take a look at that.
10 Have you looked at the second page --
11 A. Oh, no.
12 Q. -- which is the certificate?
13 A. Okay.
14 Q. In light of that document, would you
15 agree with me that this exhaust and dust collection
16 system was, indeed, put in place at Union Carbide?
17 A. Yes.
18 Q. And it's a fairly elaborate exhaust
19 system, is it not?
20 MR. YARBOROUGH: Objection, use of the
21 term "elaborate."
22 A. I'm not qualified to answer that.
23 Q. Well, let me put it this way.
24 A. It doesn't look that complicated to me.
25 Q. Would Union Carbide spend the money to
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1 put that system in place if they did not think it was
2 necessary?
3 MR. YARBOROUGH: I'm just going to
4 object as to the form of the question. It calls for
5 speculation.
6 Q. Did Union Carbide spend money
7 frivolously?
8 A. No, it did not.
9 Q. Would they do air samplings before they
10 took this measure?
11 A. That, I -- I don't know. I think you're
12 going to have to ask Doug. I wouldn't think so.
13 They would test.
14 MR. YARBOROUGH: Only answer what you
15 know.

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16 Q. When I started this line of questioning,
17 you said you had seen a letter regarding this same
18 subject. Is that correct?
19 A. I saw this one just recently.
20 Q. Which letter is it that you previously
21 saw?
22 A. This one.
23 Q. The one that's marked as Martino No. 12?
24 A. Yeah.
25 Q. And how did you come to see that?
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1 A. Some paperwork one of the attorneys had.
2 Q. Mr. Martino, would you agree with me
3 that when you cut a piece of molded phenolic that has
4 asbestos as one of its fillers, that if you cut that
5 in a bandsaw, it's going to release asbestos fiber
6 into the air?
7 MR. YARBOROUGH: I'm going to object.
8 He's not in a position to answer that question
9 because he's never performed that test himself.
10 Q. Are you able to make a statement on that
11 issue?
12 A. No, I'm not.
13 Q. So, at trial, you're not going to give
14 any testimony on any industrial hygiene matter?
15 MR. YARBOROUGH: He's already -- I'm
16 going to further object that he's already answered
17 that question and said that he does not know the full
18 breadth of his trial testimony at this point in time,
19 and --
20 MR. WARD: Well, if you're going to take
21 the position that you can't -- I'm entitled to an
22 answer on this line of questions if you're going to
23 give any testimony at trial on industrial hygiene
24 methods, on the friability of molded phenolics,
25 they're capable of releasing fiber. So if you say "I
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1 don't know," I'm assuming you're not going to offer
2 any testimony in that area.
3 MR. YARBOROUGH: Just because you assume
4 that, though, if he comes into some further
5 information between now and then that allows him
6 to --
7 MR. WARD: I'm going to be screaming
8 bloody murder if he does.
9 Q. You have no training in industrial
10 hygiene. Is that correct?
11 A. No, I do not.
12 Q. Do you have any training in toxicology?
13 A. No, I do not.
14 Q. Do you have any medical training?
15 A. Not formal medical training, no.
16 Q. Have you ever conducted any air
17 samplings?
18 A. No.
19 Q. Have you received results of air
20 samplings?
21 A. Yes.
22 Q. Do you know how to read the results of

23 air samplings?

24 A. Yes.

25 Q. Have you ever seen any air samplings

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1 that were done when a phenolic molding material with
2 asbestos was cut or drilled, or in any other way
3 machined?

4 A. No.

5 Q. Never?

6 A. No.

7 You said "never," and I said "no."

8 Q. I understood what you were saying.

9 For the record, you have not seen any
10 such air samplings?

11 A. Right.

12 Q. In Union Carbide's submission under the
13 Asbestos Information Act that's been marked as
14 Martino No. 2, or 3, for that matter, it says any
15 asbestos and Bakelite -- and he's using "Bakelite" to
16 mean phenolic molding compounds -- found in buildings
17 is fully -- is encapsulated, and that's not
18 respirable.

19 My question to you is, if you would cut
20 a piece of Bakelite, wouldn't that release asbestos
21 fiber?

22 A. I don't know.

23 Q. You don't know?

24 A. I don't know. Is this a new document
25 that you're reading?

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1 Q. No, this is the same one we've been
2 going over.

3 A. Then let's take a look at that.

4 Oh, this is the submission to the
5 Federal Services.

6 Q. I probably should have been referring
7 instead to the interrogatory answers, which are a
8 little bit more specific.

9 A. Okay.

10 MR. YARBOROUGH: There's no question
11 pending.

12 Q. I'm just going to try to wrap this area
13 up with one last question. And if it's repetitive, I
14 apologize. I just want to make sure I'm clear.

15 You do not have any personal knowledge
16 or any expertise on the issue of whether molded
17 phenolic material which contains asbestos releases
18 respirable fiber if it's cut, drilled, or otherwise
19 machined. Is that correct?

20 A. Yes.

21 MR. WARD: We'll leave it at that. Take
22 a break.

23 (A recess is taken.)

24 Q. As much as I hate to do this, I'm going
25 to go back to the products. I think the next product

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1 that I wanted to discuss with you is BMRS-5310

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2 Black 25. Are you familiar with that product?
3 A. The number is familiar. You'll have to
4 refresh my memory.
5 Q. Let me give you my file on this. It is
6 Bates number, last six digits 937460. There are
7 documents thereafter. I don't know if they're
8 consecutive or not. I'm going to be asking you the
9 same types of questions.
10 Do you need a chance to look at it, or
11 should I just begin with the questions and -- can you
12 tell from looking at those documents what the
13 asbestos content of that product was?
14 A. Yes, 19.5 percent.
15 Q. And which document are you referring to,
16 the tentative product formulation?
17 A. This is the --
18 Q. That's RM-18-Q.
19 A. Let's see.
20 Q. Is that product included in Union
21 Carbide's submission to the government?
22 A. Yes, it is. It says "Cross-over number
23 for BMRS-5303 Black 15," which means to me that the
24 two were the same, just the number has been changed.
25 Q. There seems to be a difference in the
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1 asbestos content, though.
2 A. Yes, that's the thing I was looking at,
3 because when we looked at 5303 earlier, we were --
4 you know, we saw 31 to 37 percent. Now it's 19 and a
5 half.
6 Q. What year is this document that you're
7 referring to?
8 A. '68.
9 Q. Now, again, when you say "cross-over
10 number," does that mean that the prior number is
11 phased out and the product becomes -- just takes on
12 the new number, or is it an actual change in
13 formulation?
14 A. It's the same formulation, but two
15 different numbers. That was usually done when you
16 wanted to sell to two different markets at two
17 different prices. In other words, if you wanted to
18 sell to one market at 30 cents a pound and you
19 thought you could get 35 cents a pound in another
20 market, you gave it two different numbers and charged
21 accordingly.
22 Q. So what you're saying is that BMRS-5310
23 and -- what was the cross-over?
24 A. BMRS-5303.
25 Q. -- may have been sold at the same time,
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1 just with different numbers?
2 A. Yes. Now, another reason for doing that
3 is you may run special tests on one versus the other,
4 and I want to make sure that that gets done when it
5 goes through the manufacturing process. I just want
6 to refer to Herve's -- see what he has on BMRS-5303.
7 I don't even see BMRS. I'll look on the other page.
8 He shows 21 point -- 20.1 and then 24.5.

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9 Q. For which product?
10 A. BMRS-5303. He has two different
11 entries. This is 19 and a half. And 53 -- oh, okay.
12 5310 is 20 and a half, 20.1. That jibes. But here,
13 it's 24.5. That's different.
14 Q. So they are two separate products, in
15 other words, two separate formulations?
16 A. It appears that way, yes. I don't know
17 why -- it had to be a different product, yes.
18 Q. So, in other words, this is a separate
19 product that is not included in the Union Carbide
20 submission under the Asbestos Information Act?
21 A. Yes.
22 Q. And is this a product that you did not
23 recall when you testified previously?
24 A. Yes.
25 Q. And there is a final transfer to
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1 manufacturing for that product. Correct?
2 A. Yes. Now, this is thrust washer. The
3 one we were dealing with before was a thrust washer.
4 Q. What is a thrust washer?
5 A. It's a piece in a transmission. It's
6 about this size and it's a part that -- you know, in
7 an automatic transmission. I don't know exactly the
8 function, but it replaces -- it's a cast metal piece
9 inside the transmission.
10 Q. This was -- the customer for this
11 product was Kurz Kasch Company?
12 A. Yes.
13 Q. K-U-R-Z K-A-S-C-H.
14 A. Yes.
15 Q. And they were making it for Ford Motor
16 Company. Is that correct?
17 A. That's right. So I -- the other one, I
18 was questioning whether it became commercial. I
19 don't know whether there's a tie-in with that one and
20 this one or not.
21 Q. The next number on my list I have is
22 BMRS-5314, and I believe that is a product that Union
23 Carbide included on their submission to the
24 government. Is that correct?
25 A. Yes. That's the 12 percent asbestos.
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1 Q. The only question I had on this one is
2 there's a letter in the file I have from Mr. Fishberg
3 to you and others concerning the phenolic compound
4 reformulation program, which we'll probably be
5 talking about next time we get together, and the
6 letter is dated March 9, 1973, and in that letter, it
7 indicates, does it not, that Square D was one of the
8 major consumers of this product?
9 MR. YARBOROUGH: While you're reading
10 it, for the record, this is Bates No. UCASB 00939686
11 through 689.
12 A. You were asking about names of injection
13 machines. New Britain.
14 Q. Is that one of them?
15 A. Yes.

16 Q. Okay.
17 A. You'll have to refresh my memory on the
18 question.
19 Q. My question was, this document indicates
20 that Square D was one of the purchasers of this
21 product.
22 A. Yes.
23 Q. And in one of your prior depositions,
24 you could not recall any sales to Square D, and that
25 testimony was not accurate. Is that correct?
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1 A. That's correct.
2 Q. Now, this is one of the products that
3 ultimately you got an asbestos-free formulation for.
4 Is that correct? I'll give you the rest of my file.
5 A. Yeah, let me refresh my memory on the
6 formulation.
7 Q. Okay.
8 Q. My question was, isn't it true that this
9 is one of the products that you reformulated to
10 remove the asbestos from the material?
11 A. Yes.
12 Q. And the asbestos was replaced with talc
13 and lime. Is that correct?
14 A. That's correct.
15 Q. And are there any disadvantages to using
16 talc and lime as a filler instead of asbestos?
17 A. If it is a direct substitute, the impact
18 strength would be lower, and if this had some fiber
19 in it, like a sisal fiber, I can't tell whether it
20 did or not. That's one we were selling to Square D,
21 but contained an organic fiber. You then compensated
22 for it by raising the organic content. In other
23 words, say it's cotton flock or sisal. You put in 50
24 percent more.
25 Q. We talked a little bit about different
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1 fillers. I think we focused solely on asbestos, and
2 I want to learn a little bit about the other fillers.
3 Q. What were the properties that asbestos
4 would impart to a product that it was used in, or
5 what were the advantages of using asbestos?
6 A. Until glass fibers came along, it was
7 the only fibrous mineral or large volume mineral
8 available for applications where you need -- you
9 couldn't put any, or very little, organic material in
10 that would be heat resistant, lower water absorption;
11 and those, of course, tie in with electrical
12 properties. You absorb less water, you have better
13 electrical properties.
14 Q. Any other reasons for using asbestos in
15 a material? You mentioned heat resistance, water
16 absorption. I assume the fact it was a fibrous
17 mineral meant that it lent some impact strength.
18 A. Yes, and that is a reason for going to
19 long fiber. It gives you better impact strength.
20 The flow material that we used was short fiber. It
21 was better than this, but not as good as the long
22 fiber in terms of impact strength.

23 Q. Another reason you mentioned earlier in
24 the deposition is to improve the cure speed of a
25 material. Is that correct?
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1 A. Yes.
2 Q. And the flow properties of a material?
3 A. By that, I'm not quite sure what you
4 mean by flow --
5 Q. I don't, either. I just read it.
6 A. Just -- with flow, would be plasticity,
7 how easily it moved or --
8 Q. From the documents I was reading, it
9 seemed to indicate that it would flow into the mold
10 better with asbestos in it, as opposed to calcium
11 carbonate or some other fillers.
12 A. I've never seen evidence of that, but --
13 Q. All right. Well, if we come across the
14 document -- let me get my checklist.
15 I got asbestos is good for improved heat
16 resistance, lower water absorption, improved impact
17 strength, improved cure speed.
18 A. When I say improved impact, that's over
19 the --
20 Q. Better than wood?
21 A. Oh, no, no, no. Better than the other
22 minerals, the calcium carbonate, the talc, in terms
23 of impact strength, because they're not fibrous.
24 Q. But wood or cotton give more impact
25 strength?

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1 A. Wood is equal to or better than the
2 asbestos float. Cotton is -- gives you a higher
3 impact than either one.
4 Q. The disadvantage of cotton -- well,
5 before I go to cotton, I better finish asbestos.
6 Were there any other reasons that
7 asbestos was used in products other than what we've
8 mentioned? I saw some old documents talking about
9 fungi resistance.
10 A. I don't see why that would be any better
11 than any of the other minerals.
12 Q. But it would be better than wood?
13 A. Oh, yes.
14 Q. It would be better than cotton in the
15 area of fungi resistance?
16 A. You're talking mineral versus organic,
17 and it's a function of the water that is absorbed.
18 You absorb less water, you get less mold.
19 Dimensional stability is also another
20 one, and that applied to any mineral. You don't get
21 as much expansion and contraction because of less
22 water absorption.
23 Q. Is one of the factors flame resistance?
24 In choosing your filler, is flame resistance a
25 consideration?

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1 A. No, phenolic resin doesn't burn. It
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2 will char, but it won't support combustion.
3 Q. I'm thinking, for example, in -- my
4 focus is on switchboards used on marine vessels, be
5 they military or be they commercial. Is flame
6 resistance a factor in deciding what filler to use in
7 that environment?
8 A. The definition of flame resistance may
9 be different, you know, in some -- the definition of
10 flame resistance may be different in what I'm
11 picturing here. To me, flame resistance meaning it
12 won't support combustion. You put a flame on it or
13 you have an electrical arc, you'll get some
14 carbonization, but as soon as that stops, the flame
15 goes out. It doesn't make any difference whether
16 it's mineral or wood.
17 Q. Well, let me ask a counterpart to that.
18 would the type of filler have an impact
19 on how much smoke was created if there was a fire?
20 In other words, if you have a wood filler, would that
21 give off more smoke if there was a fire than --
22 MR. YARBOROUGH: If you know. If you
23 can answer.
24 Q. -- than if you had asbestos as the
25 filler?
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1 MR. YARBOROUGH: Don't guess or
2 speculate.
3 A. I don't know.
4 Q. Now, I noticed that in a lot of the
5 products we have reviewed and that we will review,
6 asbestos-containing phenolic materials were used for
7 electrical applications. Is that correct?
8 A. Yes.
9 Q. And particularly with regard to
10 electrical switch gear, it appears that
11 asbestos-containing material was generally used. Is
12 that correct?
13 A. Yes.
14 Q. Is it fair to say that if you are using
15 a phenolic molding material in an electrical
16 application, more likely than not it's going to
17 contain asbestos?
18 A. No, no, because a lot of wood
19 flour-filled material is also used there. One of our
20 products recommended for switch gear is 7021, which
21 is a cotton flock-filled material, no asbestos. I've
22 seen general purpose wood flour-filled material being
23 used by Cutler Hammer and Alan Bradley.
24 Q. And they also used asbestos-filled
25 material?
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1 A. And also used asbestos. It's just,
2 again, what does that application -- what does the
3 company who is buying the part specify they want, and
4 then they have to mold the material that conforms to
5 those requirements. It may be dimensional stability
6 specification, it may be an electrical specification,
7 or it may be --
8 Q. Have you seen wood filled with no
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9 asbestos as a filler used in switch gear?
10 A. In the residential switch gear, yes.
11 Q. How about in industrial or maritime?
12 A. In industrial, it would be the gamut,
13 you know, depending on voltage, the environment it's
14 put in. You would expect that -- that's why you have
15 the different MFH -- MF grades.
16 Q. Now, I want to talk about the cost of
17 the different fillers. Is it true that cotton is
18 quite a bit more expensive than asbestos?
19 A. Yes.
20 Q. And asbestos is less expensive than
21 minerals such as mica?
22 A. That, I don't know. I don't recall
23 those cost figures.
24 Q. How does asbestos compare to talc in
25 cost? During the time -- I'm not worried about now.
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1 I'm talking about in the '60s.
2 A. That, I don't remember, either.
3 Q. Lime?
4 A. Lime, that's less expensive.
5 Q. Calcium carbonate?
6 MR. YARBOROUGH: which is less
7 expensive?
8 THE WITNESS: Lime is less expensive.
9 A. Calcium carbonate, I don't know.
10 Q. And I understand that there are all
11 sorts of grades of wood flour. Is that correct?
12 A. We used a fir wood flour. I don't
13 recall a lot of different grades. Maybe in the early
14 days, but not now. I mean, you know, in the '60s and
15 '70s.
16 Q. How did the cost of wood flour compare
17 to the cost of asbestos?
18 A. Asbestos was more costly, for two
19 reasons. It was more per pound, and you also
20 increased the gravity of the material, so you get --
21 you know, it's heavier, so that you get less parts
22 per pound.
23 Q. Is it significant --
24 A. And it's more -- also, the price of the
25 final product is higher. Herve did have something on
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1 cost someplace.
2 Q. Going back to your Deposition Exhibit
3 No. 8, the top, most commonly used grades of
4 asbestos, one is 2.8 cents per pound and the other is
5 \$3.12 a pound -- no, 3 --
6 A. 3.12.
7 Q. Three cents. Sorry, 3.12 cents per
8 pound.
9 A. That's the grit-free versus this.
10 Q. And, again, the year on this is 19 --
11 well, 1968, referring to 1967.
12 A. Yeah. Now, this is just asbestos.
13 Q. Right. That gives me a baseline to work
14 from a little bit.
15 In that same time period, what would you
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16 estimate the cost of the wood flour to be per pound?
17 A. I don't remember.
18 Q. The cotton was significantly more
19 expensive. Correct?
20 A. Oh, yes. That, I know, was high.
21 Q. That might have been 10 cents a pound?
22 A. Yes, or more. It was just rags chopped
23 up, but it's still expensive.
24 Q. That's why I couldn't understand.
25 A. It's a controlled chopping.
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1 I thought one of the previous documents
2 you showed me did have some raw material cost
3 comparisons.
4 Q. I think there is, too, but I can't
5 remember right now where it was. Maybe when we get
6 together next time, I'll remember where it was. I
7 think I'm going to leave the cost issue for the time
8 being.
9 A. Some wise guy in the lab one time --
10 MR. YARBOROUGH: Just wait for a
11 question. Okay?
12 A. I know, but this is not technical.
13 MR. YARBOROUGH: I know, but --
14 A. I'll tell you at the break.
15 Q. I'm just trying to get back to where I
16 was. I keep going on these tangents.
17 I'm returning back to the products. The
18 next product I have is BMGC-5315 Black 25. I have a
19 formulation. I only have one page on that product.
20 It's a formulation dated 4/10/61.
21 Mr. Martino, you're signed off on it as
22 group leader, and I'd like you to just look at that
23 and tell me what the asbestos content of that product
24 is.
25 A. Six percent.
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1 Q. Do you know what the purpose of adding
2 asbestos to this product is, or was?
3 A. Washing machine agitators.
4 No, I don't.
5 Q. Fair enough.
6 A. And this is one I question, whether it
7 became commercial or not.
8 Q. I can't tell you. That's the only
9 document I have.
10 A. I can't read it.
11 MR. YARBOROUGH: For the record, it's
12 document 906362.
13 Q. I'm sorry, that's the only document I
14 have on that one. You don't recall whether that
15 actually went into production?
16 A. That's right.
17 Q. How would I find that out?
18 A. Well, the best way is the letter saying
19 they accepted transfer of the product.
20 Q. In any event, that's not a product that
21 you recalled when you gave your prior testimony, is
22 it?

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23 A. No.
24 Q. Next I have a series of products that
25 all have the number 5333. I have nine different
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1 formulations of that product -- products with that
2 numerical designation, and I see that Union Carbide
3 did list one of those in its EPA submission,
4 BMMC-5333 Black 25. Is that correct?
5 A. There must be two of them, BMMC-5333 and
6 BMMS-5333.
7 Q. BMMS-5333?
8 A. Right.
9 Q. That didn't make it on my list.
10 A. Is there a BMRS-5333?
11 Q. I have to add that one.
12 A. I'm just questioning, were you asking
13 about the BMMS?
14 Q. Well, in any event, you're saying in the
15 submission of Union Carbide, that there's two
16 different products listed there that have 5333 as
17 their numerical designation?
18 A. Yes. But on your list, you know, we're
19 getting back to what is a new formulation, so you'll
20 have to take a look at that. I mean, what is a
21 different formulation? It could be granular
22 differences you're counting or --
23 Q. Well, there's difference in color,
24 there's differences in the third digit -- third
25 number. There's differences in the fourth number.
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1 A. The third number would be granulation
2 differences.
3 Q. And fourth number is different --
4 A. Sequence of changes that were made that
5 supposedly would obsolete the previous letters. In
6 other words, B would replace A; C would replace B.
7 Q. I'm not going to ask about every one of
8 them. There's just a couple I want to ask about.
9 The BMMC-5333 Black 25 that is on Union
10 Carbide's disclosure, do you know what the asbestos
11 content of that product was?
12 A. According to this, it's less than
13 12 percent. I don't remember the exact number.
14 Q. I'll give you my file on that and see if
15 you can locate the asbestos content on that. I seem
16 to be missing it.
17 A. Let's see. 8.4 percent.
18 Q. What fiber type?
19 A. Its grit grade is asbestos.
20 Q. RM-18 --
21 A. Q.
22 Q. Now, you're looking right now on the
23 request for transfer to manufacturing. Correct?
24 A. The table that's attached.
25 Q. Bates number, last six digits is 913740.
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1 Correct?

2 A. Yes.
3 You were asking prices?
4 Q. Does it have prices in there?
5 A. Yeah.
6 Q. Good. Let's take a look. That gives me
7 something else to study for a while.
8 One thing I noticed on a lot of products
9 is the addition of external additive. Are you
10 familiar with that?
11 A. Yes.
12 Q. And the purpose of the external additive
13 was to reduce the dustiness of the product. Is that
14 correct?
15 A. Yes, it's a liquid, yes. If it's a
16 liquid, it was added. Dibutyl phthalate. Is that on
17 there?
18 Q. I'm not going to try to pronounce that.
19 Is that what it is?
20 A. Yes. Dibutyl phthalate.
21 Q. We'll give that later to the court
22 reporter.
23 A. It's -- yeah, that's to reduce the dust.
24 Q. The phenolic molding compounds were very
25 dusty. Is that correct?
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1 A. I wouldn't say very dusty.
2 Q. I think Mr. Fishberg, in some letter to
3 you, said it was extremely dusty, but I was going to
4 be less dramatic.
5 A. Again, it's a relative term when you're
6 comparing it and how you're handling the material.
7 If you handle it properly, it's not like handling
8 carbon black. It can be handled and you're not going
9 to get all dirty, and the room is going to -- you
10 know, you look through it and -- very dusty is when
11 you see dust in the air. It's like a cloud. Now,
12 you -- you can do that --
13 Q. Now, the plant blew up because of dust,
14 didn't it?
15 A. That's right, because they didn't clean
16 it. It was up in the rafters. But, you know, in --
17 when you handle it through air vent equipment, it is
18 not real dusty.
19 Now, you also have a balance between --
20 you know, if you take all the dust out, then the
21 customer can't get a good preform. They make pills,
22 so they don't want all the dust out, and you have to
23 come up with a compromise. And there's one of the
24 processes where they make a big pill just like a
25 pill -- you know, aspirin tablet, only big size. You
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1 take too many fines out, that pill doesn't hold
2 together.
3 Q. The term "fines," which I've seen
4 throughout, those are essentially -- that's the dust,
5 the --
6 A. That contributes to it. The material
7 goes through two screens, one that takes out the
8 coarse and one that takes out the fines, and there's

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9 a very small fraction of fine particles that are left
10 in there.

11 Q. Maybe I should have you describe the
12 manufacturing process of phenolic molding compounds.
13 That might help me better understand this. I don't
14 need every detail, but generally how the phenolic
15 molding compounds are manufactured.

16 A. It's a lot like making bread. You dump
17 your ingredients into a big blender, and you take
18 these -- add them in certain sequence, blend that
19 material up, and you end up pretty much like your
20 flour with all your ingredients blended up. It then
21 goes down through a chute. That was up on the third
22 floor. It goes down through a chute to a set of hot
23 rolls. The rolls are about this big in diameter.

24 Q. About two, three feet, is what you're
25 indicating?

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1 A. Yeah, three feet. Three feet in
2 diameter, heated. Heat can be changed. One roll
3 goes around faster than the other and gives you
4 shearing and mixing, and the material gets down in
5 between the bite of the rolls, and that's where it
6 melts and then goes -- sticks to it, rolls around,
7 and that's where it gets mixed in.

8 Then after a certain period of time, the
9 operator takes all that sheet off and it goes onto a
10 conveyor belt, so you end up with a black sheet maybe
11 this wide, that thick.

12 Q. You're indicating about three feet by
13 three feet and an inch or so thick?

14 A. Maybe not quite that, maybe two feet --
15 maybe three feet long -- three feet wide and maybe
16 two feet long.

17 Q. Okay.

18 A. It went through another set of rolls,
19 what they call the finishing rolls. Then it goes up
20 to a conveyor, up into a granulator. It's
21 granulated, and then the material goes down and goes
22 through a sifter, which takes off -- it's an
23 automatic piece of equipment about the size of this
24 table. It comes in and goes into the top screen
25 which gets the coarse, down to a finer screen which

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1 takes out the real fine material, and works its way
2 out the other end, and then it goes down a chute into
3 the packaging equipment.

4 Q. So it's the granulation process that
5 creates the dust. Is that correct?

6 A. The grinding, yes. Well, that's what
7 creates the fine particles, yes.

8 Q. Excuse my ignorance on this, but why do
9 you heat it and form it into a sheet, and then you
10 grind it up again?

11 A. So that the customer can feed it
12 automatically in his equipment. He'll put it into a
13 hopper in his machine. There are various processes.
14 The one most common is to put it in the hopper of a
15 preformer, which is where he makes his pills, you

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16 know, make a round pill or square pill, depending on
17 what mold he's going to put it in. That pill is then
18 put in a high-frequency oven just like our microwave,
19 and heat it up, and then that's taken and put into a
20 mold. That's the way they made washing machine
21 agitators. They had a big pill, heat it up, put it
22 in a washing machine agitator, and then close it, and
23 then the temperature is high enough so now the
24 material will flow for a certain period of time and
25 then cure. So you have to get that material

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1 distributed before it cures. Otherwise, you end up
2 with a short piece, and then when it comes out,
3 that's it. You can't melt it, you can't put it back
4 in and form another part.

5 Q. So when you're heating this material up
6 in the rollers, it's not at a very high temperature.

7 A. That's right.

8 Q. What temperature would you do that at?

9 A. It would be on one of those
10 manufacturing sheets.

11 Q. I'll look through it later.

12 A. I'd have to guess. I don't know the
13 exact temperature, but it's low enough so that the
14 material will melt, but not cure. The molds are
15 around 325 up to 400 degrees Fahrenheit.

16 Q. And that's the temperature the material
17 has to be heated to in order for it to become a
18 thermoset -- for it to be finely set, in other words?

19 A. Yes. The higher the temperature, the
20 faster it will cure.

21 Now, there are other processes for
22 molding that are more sophisticated. That was the
23 most common I described.

24 Q. I don't even want to learn about
25 injection molding and all that stuff.

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1 Besides adding external additives to
2 reduce the dustiness of the product, what other steps
3 did you take while you were the group leader to
4 reduce the dustiness of the product?

5 A. You'll see in the manual that there is
6 the BMMDC version, which was -- which took out more
7 fines. That's the dust control version. So
8 customers who wanted less dusty material would order
9 that. The ones making preforms didn't like it
10 because then the preforms were weak.

11 Q. So you have -- you can add an external
12 additive, you can remove more of the fines?

13 A. Right.

14 Q. Are there any other steps you can take
15 to reduce the dustiness of the product?

16 A. You have to go to a different process.
17 The dibutyl phthalate did interfere with
18 preform strength. The customer didn't like that,
19 either.

20 Q. Sometimes you can't satisfy anyone, can
21 you?

22 A. That's why we had so many formulations.

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23 Q. Page two of the document you were
24 looking at, the request for transfer for the product
25 we were discussing, it indicates that this product is
□Martino, Carlo--Vol. II, Newport News
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1 being designed with Westinghouse in mind. Is that
2 correct?
3 MR. YARBOROUGH: That's document 913717.
4 A. No.
5 Q. And this is an asbestos-containing
6 product. Correct? I think we established that
7 earlier.
8 A. Yeah, this is the same document. Yes,
9 8.4 percent.
10 Q. And in your prior testimony when you
11 could not recall any sales of asbestos-containing
12 phenolic materials to Westinghouse, you obviously did
13 not remember this product. Is that correct?
14 A. My prior testimony, I didn't remember we
15 sold to Westinghouse at all.
16 Q. I think that's all I have for this
17 product.
18 what's the difference between a one-step
19 and a two-step phenolic molding compound?
20 A. One step, the cross-linking agent is
21 built into the resin.
22 Two step, you make the resin and then
23 you add the cross-linking agent afterwards.
24 Q. Is there any difference in the finished
25 product or is it more of a difference --
□Martino, Carlo--Vol. II, Newport News
page 264

1 A. Yes.
2 Q. Okay. Can you explain that to me?
3 A. I'm sorry. I didn't wait for you to
4 finish your question.
5 Q. No, I was going to make it another
6 compound question.
7 A. Yes, for wet/dry application like a
8 washing machine agitator or an automotive pump
9 housing, the two steps are better. They don't crack
10 under that, you know, condition as quickly as -- they
11 last longer without cracking than the two-step
12 versions do.
13 Q. I've seen references to a substance
14 called -- I assume it's an abbreviation -- Hexa,
15 H-E-X-A. Is that a --
16 A. That's the cross-linking agent, yes.
17 Q. One thing I noticed in these various
18 products that are 5333 in number is that some of the
19 variations are used for piano keys and organ keys.
20 What's the purpose of adding asbestos to a plastic
21 that you're using for a piano key?
22 A. Appearance, the high -- the high gloss.
23 Q. Next product I'd like to talk about is
24 BMMA-5353 Black 25, which is on Union Carbide's
25 submission to the United States Government. Is that
□Martino, Carlo--Vol. II, Newport News
page 265

1 correct? I think that's the last --

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2 A. The BMMA --
3 Q. 5353 Black 25.
4 A. Yes.
5 Q. They don't make that designation?
6 A. Yes, just 5353, yes.
7 Q. And after the product name, in
8 parentheses, it says only 10 percent asbestos.
9 Correct?
10 A. Yes.
11 Q. Let me show you --
12 MR. YARBOROUGH: For the record, you're
13 referring to Martino-2.
14 MR. WARD: Well, it also says the same
15 thing in Martino-3, and I think also in your
16 interrogatory answers.
17 Q. I'll show you the file I have on this
18 product and ask you to tell me what the asbestos
19 content of the product is according to the
20 formulations in the file.
21 MR. YARBOROUGH: It's document 924527.
22 A. This shows 34.05 percent.
23 Q. Do you have any knowledge about --
24 strike that.
25 Do you know why they would have put in
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1 their submission that it was only 10 percent
2 asbestos?
3 A. No. That 10 percent asbestos should
4 have been up here.
5 Q. Will you agree that this product had far
6 more than 10 percent asbestos? It was really 34.05
7 percent asbestos. Is that correct?
8 MR. YARBOROUGH: According to the
9 formulation sheet.
10 MR. WARD: According to their documents.
11 A. Yes.
12 Q. Next product is BMGA-5383 Black 25. Do
13 you recall that product?
14 A. No.
15 Q. Can you tell from looking at the file
16 what the asbestos content of that product is?
17 A. I don't see any asbestos. What is TRM?
18 Q. 5563?
19 A. Yeah.
20 Q. Well, that's my question to you. I'm
21 thinking it's asbestos. What do you think?
22 A. Are there any properties on this?
23 Q. You have my whole file.
24 A. It says 5 percent less asbestos, 5
25 percent coal, on the second page. Where's our base
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1 document?
2 MR. YARBOROUGH: He's asking you to look
3 at these two documents, and if you can tell from
4 looking at these two, answer the question. If not,
5 tell him you don't know.
6 A. I can't tell from this.
7 MR. YARBOROUGH: We're referring to
8 documents 943617 and 943618.

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9 Q. So you do not know if TRM-5563 is
10 asbestos?
11 A. That's correct. Also, I don't know
12 whether this became commercial. There's nothing else
13 here.
14 Q. Next I have a product of BMMA-5393
15 Black 25. I have two documents -- actually, it's one
16 document, two pages. Bates number is 907504. I'll
17 ask you to look at the file and see if you can tell
18 if that product had asbestos in it.
19 A. Yes, it did.
20 Q. What was the percentage of asbestos?
21 A. 15.7 percent. Again, I don't know
22 whether that became commercial.
23 Q. The documents you have there are
24 indicated as being product formulations and
25 manufacturing instructions.
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1 A. Yes.
2 Q. And not indicated as being tentative,
3 are they?
4 A. Tentative, yes. What's that?
5 Q. It doesn't say "tentative" on the
6 documents, does it?
7 A. No, but this is the first step in making
8 some material for evaluation in a customer's plant.
9 You make a short run and use it, you know, try it.
10 Then if he likes it, you come back and make more, and
11 you go through that process and ask for transfer.
12 Q. Do you remember selling products to West
13 Bend, phenolic molding compounds to West Bend?
14 A. I don't remember. I see we tried to
15 sell West Bend.
16 Q. They're listed as the customer for the
17 product. Correct?
18 A. Yes.
19 Q. In any event, this product is not on the
20 list of products that Union Carbide gave to the
21 United States Government in its submission.
22 A. No, it's not.
23 Q. Next product I have is BMGA-5398
24 Black 25. I have quite a few documents on this
25 product. First Bates number is 924450. Are you
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1 familiar with this product, 5398?
2 A. I'll have to refresh my memory on that.
3 I'm not familiar with this. I wasn't
4 even on the distribution on this.
5 Q. So Research and Development wouldn't --
6 they would not originate all the products?
7 A. The organization changed periodically.
8 There are those who felt tech service could best be
9 done in Manufacturing, and there were those that felt
10 it should be done in Research and Development.
11 Q. Are those political battles within the
12 corporation?
13 A. Yes. And this, in '62, Ducca was in
14 Manufacturing, and prior to that, he was working for
15 me in R&D, and they were given some limited latitude

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16 in making some formulation changes. They had to stay
17 within certain guidelines.
18 Q. Is this an asbestos-containing product?
19 A. Yes, it is.
20 Q. The amount of asbestos is
21 30 percent RM-18-B. Is that correct?
22 A. Right.
23 MR. YARBOROUGH: According to the
24 document.
25 THE WITNESS: Yes.
□Martino, Carlo--Vol. II, Newport News
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1 Q. And this product was sold commercially.
2 Correct?
3 A. Yes, it was.
4 Q. And this product is not on the
5 submission that EPA made to the government, is it?
6 A. No.
7 Q. I mean, that Union Carbide made to the
8 government.
9 A. No, it is not.
10 Q. One question I had that I'm not -- I
11 want to know the answer today, but I haven't had a
12 chance to go through the file.
13 I see some of our molding compounds
14 further down the list were used to make toilet seats,
15 and they had asbestos in them. Do you know why you
16 put asbestos in a molding compound to make toilet
17 seats?
18 A. I didn't know we made toilet seats out
19 of phenolic compound.
20 Q. That gives you something to look forward
21 to next time we get together.
22 A. We made toilet seats out of a -- we
23 didn't do it. We sold a resin to the customers, who
24 blended it with wood flour and made toilet seats.
25 Q. I want to go back to Martino Exhibit
□Martino, Carlo--Vol. II, Newport News
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1 No. 6.
2 A. I take -- go ahead.
3 Q. There's a product on that list, BMG-5418
4 Black 45 and BMGB-5418 Black 45. And it indicates
5 that the product -- I guess 25.67 percent 18-P, plus
6 12 percent 18-O. Is that how the document reads?
7 MR. YARBOROUGH: That could be a Q.
8 A. I don't know.
9 Q. Are you familiar with this product?
10 A. I think we covered 5418 earlier. You
11 were checking them off.
12 Q. 5418? No, I'm just going in
13 chronological order.
14 A. No, I'm not familiar with it.
15 Q. Well, I have a huge file on it. Why
16 don't we just take a look at this file, and after
17 this one, we'll call it a day.
18 I'd like you to just look through that
19 and see if you can find information -- there's a lot
20 of product formulations on the asbestos content of
21 that product.
22 A. 1938?

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23 MR. YARBOROUGH: Just go through and
24 answer any questions he has.
25 A. I was trying to get the date, you know,
□Martino, Carlo--Vol. II, Newport News
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1 so that I understand where we're coming from here.
2 Q. It looks like it was made for a long
3 time.
4 A. Yes. Okay. All right. It's a graphite
5 pill resin -- molding material.
6 Q. Can you tell what the asbestos content
7 of this product is? I have documents from 1966 that
8 you can direct your attention to, if you wish. I
9 realize it may have changed over time.
10 A. Well, that's why I wanted to get the
11 latest document. It would be 50 -- 62, 63, a little
12 over 63 percent. I didn't add it exactly, but it's
13 close to -- a little over 63 percent.
14 Q. And that consists of RM-18-P, and that's
15 25.67 percent. Is that correct?
16 A. Yes.
17 Q. RM-18-B, which is 25.67 percent.
18 Correct?
19 A. Right.
20 Q. And RM-18-O, which is 12 percent.
21 Correct?
22 A. Yes.
23 Q. And that adds up to a little bit over
24 62 percent?
25 A. Yes.
□Martino, Carlo--Vol. II, Newport News
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1 Q. Is that --
2 A. A little over -- yeah,
3 63 percent.
4 Q. And the RM-18-O, we have determined, is
5 African long fiber asbestos. Correct?
6 A. I have to look at the document again.
7 (Mr. Weinberg enters the deposition
8 room.)
9 Q. I don't know if it's on that one. The
10 product may have -- I can't tell. It may have been
11 discontinued by that time.
12 A. I don't know whether 18-O corresponds to
13 long fiber asbestos or not.
14 Q. Well, I'll go with your prior testimony
15 on that.
16 MR. YARBOROUGH: And for the record, the
17 document we're referring to does not appear to have a
18 Bates number.
19 MR. WARD: And those are from our first
20 production.
21 MR. YARBOROUGH: Right, but it is a
22 product identification sheet for product BMG-5418
23 Black 45, dated January 17, 1967.
24 Q. All right. There's also a letter in the
25 file dated November 22nd, 1966 which gives the same
□Martino, Carlo--Vol. II, Newport News
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1 asbestos content, and also gives the codes. Is that
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2 correct?

3 A. Yes.

4 Q. Let me just finish up by asking, this is
5 a product that you did not recall in your prior
6 testimony.

7 MR. YARBOROUGH: Answer audibly so she
8 can get it.

9 A. No. I mean, sorry. Yes.

10 Q. Yes, you did not recall it?

11 A. I did not recall it.

12 Q. And this product is not listed on Union
13 Carbide's submission to the United States Government,
14 is it?

15 A. That's right.

16 MR. WARD: I'm going to stop my
17 questioning here for today. We can arrange for a
18 date to conclude your deposition, and I think one
19 more day will be more than adequate to do that. So
20 why don't we go off the record and see what we can
21 set up.

22 (The proceedings concluded at 4:10 p.m.)
23
24
25

□Martino, Carlo--Vol. II, Newport News
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1 CERTIFICATE

2 I, JUDY A. BLACK, a Notary Public,
3 Certified Shorthand Reporter, and Registered
4 Professional Reporter of the State of New Jersey, do
5 hereby certify that prior to the commencement of the
6 examination, CARL MARTINO was duly sworn by me to
7 testify the truth, the whole truth and nothing but
8 the truth.

9 I DO FURTHER CERTIFY that the foregoing
10 is a true and accurate transcript of the testimony as
11 taken stenographically by and before me at the time,
12 place and on the date hereinbefore set forth.

13 I DO FURTHER CERTIFY that I am neither a
14 relative nor employee nor attorney nor counsel of any
15 of the parties to this action, and that I am neither
16 a relative nor employee of such attorney or counsel,
17 and that I am not financially interested in the
18 action.
19

20 Notary Public of the State of New Jersey

21 License No. XI01401

My Commission expires: November 6, 2005

22 Dated: August 1, 2002
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Attorneys at Law

Baton Rouge
Birmingham
Houston
Jackson
Memphis
Mobile
Nashville
New Orleans
Washington, DC

Leslie M. Henry

Admitted in Texas, Louisiana,
and Arkansas
Direct (713) 308-0186
E-Fax (713) 308-4051
leslie.henry@arlaw.com

May 14, 2010

Via FedEx Tracking 793542692118

Mr. Cody Favilla
Simmons, Browder, Gianaris, Angelides & Barnerd, LLC
707 Berkshire Boulevard
East Alton, Illinois 62024

Re: Cause No. 09c-07-130; *Floyd Pilcher and Spouse Juanita Pilcher v. Baker Hughes Incorporated, et al.*; In the Superior Court of the State of Delaware in and for New Castle County

Dear Mr. Favilla:

Enclosed please find a compact disk containing ConocoPhillips Company's document production PIL0001-PIL8739 pertaining to the above referenced matter.

Please contact us if you have any questions.

Sincerely yours,

ADAMS AND REESE, LLP

Leslie M. Henry

bep/LMH

858447-1

One Houston Center • 1221 McKinney, Suite 4400 • Houston, Texas 77010 • (713) 652.5151 • Fax (713) 652.5152 • www.adamsandreeselaw.com