

In The Matter Of:

*Tolbert, et al. v.
Monsanto Company, et al.*

*James G. Bryant
June 30, 2003*

*V A R A L L O Incorporated
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Word Index included with this Min-U-Script®

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[1]
[2] UNITED STATES DISTRICT COURT
[3] NORTHERN DISTRICT OF ALABAMA
[4] SOUTHERN DIVISION
[5]
[6] ANTONIA TOLBERT, et al : CIVIL ACTION
[7] vs. :
[8] MONSANTO COMPANY, :
PHARMACIA COMPANY, INC., and :
[9] SOLUTIA INC. : NO. CV-01-C-1407-S
[10]
[11]
[12] Newark, Delaware
Monday, June 30, 2003
[13]
[14]
[15] Deposition of JAMES G. BRYANT held at the
[16] Hilton Wilmington/Christiana, 100 Continental Drive,
[17] on the above date, beginning at approximately 9:12
[18] a.m., before Madalene Foster Rohde, a Registered
[19] Professional Reporter and Notary Public.
[20]
[21]
[22]
[23] VARALLO Incorporated
Litigation Support Specialists
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[1]
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[15]
PRESENT:
[16]
Gerard Alfe,
[17] Videotape Specialist
[18]
[19]
[20]
[21]
[22]
[23]
[24]
[25] (Index at end of transcript.)

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[1]
[2] **THE VIDEOTAPE SPECIALIST:** This
[3] videotape deposition is now beginning. The date,
[4] June 30, 2003; the time, 9:12.
[5] Counsel will now introduce
[6] themselves.
[7] **MR. BYRNE:** David Byrne for the
[8] plaintiffs.
[9] **MR. SHARMAN:** I'm Jack Sharman with
[10] Lightfoot, Franklin & White in Birmingham for
[11] Solutia.
[12] **MR. KELLY:** I'm Michael Kelly, with
[13] Smith Moore in Greensboro, North Carolina, for
[14] Solutia.
[15]
[16] ...JAMES GILMORE BRYANT, after
[17] having been duly sworn, was examined and testified
[18] as follows:
[19] **DIRECT EXAMINATION**
[20] **BY MR. BYRNE:**
[21] **Q:** Mr. Bryant, good morning again. I'm David
[22] Byrne. It's a pleasure to meet you here.
[23] **A:** Good morning.
[24] **Q:** Thank you for coming out today. I
[25] understand that you have given a deposition in the

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[1]
[2] past, so I'll keep my opening instructions very
[3] brief.
[4] I'll be asking you questions today,
[5] of course, while you're under oath, and if at any
[6] time I pose a question to you that you don't
[7] understand or you need me to repeat, please don't
[8] hesitate to ask me to do that. I'll be glad to.
[9] From time to time I may have to ask you to repeat an
[10] answer that I don't understand, so I hope you'll
[11] bear with me if I have to do that.
[12] **A:** No problem.
[13] **Q:** Mr. Bryant, where do you currently live?
[14] **A:** 104 Savannah Drive in Bear, Delaware.
[15] **Q:** How long have you been a resident of Bear,
[16] Delaware?
[17] **A:** Oh, I've been here about 23 years.
[18] **Q:** Mr. Bryant, are you currently employed?
[19] **A:** I'm retired.
[20] **Q:** Okay. When did you retire?
[21] **A:** 1996.
[22] **Q:** What kind of work — I'm sorry.
[23] **A:** Let me correct that residence. I've been
[24] here at this time 24 years. I was here for Monsanto
[25] three years prior to that, not consecutive years but

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[1] **Bryant - direct**
[2] three years back in like 1970 to '74, in that era.
[3] **Q:** Yes, sir. Now, at the time that you retired
[4] in 1996, what company had you been working for?
[5] **A:** I'd been working directly for Standard
[6] Chlorine.
[7] **Q:** Is that a company that's based here in
[8] Delaware?
[9] **A:** That's a company that's defunct, but it was
[10] here in Delaware.
[11] **Q:** Since you retired from Standard Chlorine in
[12] 1996, have you taken on any other kind of work?
[13] **A:** Just consulting for different aspects, but
[14] not necessarily — not at all in the PCBs except for
[15] one project. I formed a joint venture called Unison
[16] Transformer Services in conjunction with Union
[17] Carbide, McGraw-Edison, and Standard Chlorine. What
[18] we did, we were after retrofitting PCB transformers
[19] in buildings, hospitals, and general places where
[20] PCBs transformers were used. And also the entire
[21] mass transit fleet on the East Coast.
[22] **Q:** I see. And when you did that work, were you
[23] coming in and removing hazardous PCBs —
[24] **A:** Right.
[25] **Q:** — from transformers and then replacing it

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[1] **Bryant - direct**
[2] with some other —
[3] **A:** Correct.
[4] **Q:** — heat transfer fluids?
[5] **A:** We had a proprietary blend that we were
[6] supplying, and we also supplied proprietary blend
[7] for Carbide or Unison Transformer Services Division.
[8] And we retrofitted with those fluids.
[9] **Q:** Did this particular transfer fluid or heat
[10] transferring fluid, did it have a name or a trade
[11] name?
[12] **A:** Yes. The carbide — well, yes, the as
[13] Standard Chlorine name was FR-15, FR-15 low temp,
[14] and Unison fluid was TF-1 and TF-2.
[15] **Q:** Have you done any other kind of consulting
[16] work since 1996 other than that?
[17] **A:** Yes. I've been consulting on — it's not
[18] related to PCBs directly but to chlorinated
[19] hydrocarbons in general, here in Delaware City
[20] because they have got major pollution problems with
[21] elemental mercury chlorobenzenes, PCBs, dioxins and
[22] furans. But essentially none of them other than
[23] incidental are related to — none of them are
[24] related to PCB manufacture direct. They are all, if
[25] PCBs are involved are incidental PCBs formed.

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Bryant - direct

[1] Q: Okay. In other words, customers who may
[2] have purchased PCBs at some point in the past may
[3] have used those PCBs in the manufacturing of other
[4] goods which may in turn have created some pollution
[5] issues?
[6] A: In the sense of the retrofit, yes. In the
[7] sense that what I've been working on since
[8] retirement, no. Because these are incidentally
[9] manufactured during the production of the concerned
[10] chemical, or the major product chemical, or what we
[11] call incidental by-product.
[12] Q: Okay. Tell me a little bit about your
[13] educational background, starting in high school?
[14] A: Starting where?
[15] Q: Starting with your high school years.
[16] A: High school was Country School High School
[17] in Virginia, central Virginia, in the mountains,
[18] where I grew up and was my home for probably some 25
[19] years. I went from there to Virginia Military,
[20] received a bachelor's in chemistry. And then from
[21] there I went directly worked for American Cyanamid
[22] and was liaised with Johns Hopkins on special
[23] combustion projects. And although I didn't receive
[24] the degree, they gave me credit in their management
[25]

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Bryant - direct

[1] system equivalent of a Master's degree because I was
[2] working with the head of the department on joint Air
[3] Force combustion projects which were confidential.
[4] Q: Okay. And American Cyanamid was your first
[5] job out of college?
[6] A: Right.
[7] Q: And tell me a little bit more about what you
[8] did at American Cyanamid?
[9] A: It was titanium dioxide produced there by a
[10] totally different process. They normally used
[11] sulfuric acid type digestion of rutile ore, and this
[12] was used in chlorination technology.
[13] Q: I hate to interrupt your flow, but if you
[14] could, I know our court reporter today is hearing
[15] some technical terms that neither she nor I have
[16] ever heard before in our lives, so from time to
[17] time, I may ask you to spell a technical term or
[18] two, just so we're sure that our court reporter has
[19] a clear understanding of what you said.
[20] A: Okay.
[21] Q: Because these are unusual terms that you're
[22] using, that the nonscientific community is not
[23] familiar with.
[24] A: Well, I may blow that because spelling is
[25]

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Bryant - direct

[1] not my forte, but we'll try it.
[2] Q: Well, we'll treat it like a golf match: If
[3] you get it close, we'll just pick up and move on to
[4] the next hole.
[5] But you mentioned that you were
[6] working with titanium oxide?
[7] A: Well, it's titanium dioxide, TiO₂,
[8] manufactured, Paint Pigment is a trade name.
[9] Q: Paint Pigment?
[10] A: Paint Pigment, right.
[11] Q: And what department at Johns Hopkins were
[12] you working with? Was this the polymer science
[13] department or something like that?
[14] A: No. It was — actually I was directly
[15] working for Professor Holsher, who was the head of
[16] the chemical engineering department. And it was
[17] basically just on high-temperature combustion.
[18] Q: And what were your specific contributions to
[19] the project with American Cyanamid? What did you
[20] bring to that project?
[21] A: Actual design of the combustion units.
[22] Q: And what were the combustion units designed
[23] to do besides combust things?
[24] A: Designed to control the particle size of
[25]

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Bryant - direct

[1] this pigment and convert it from a liquid to a
[2] solid.
[3] Q: Do you remember some of the major — I mean,
[4] every project has obstacles, I'm sure. What were
[5] some of the big obstacles involved in that project
[6] that you faced?
[7] A: Oh, that project — at that time, because in
[8] later life I realized there were other problems that
[9] I wasn't aware of at that time. But at that time
[10] the major obstacle was getting the proper combustion
[11] to control the particle size. And nucleating
[12] agents, what chemicals could be added to produce the
[13] desired properties in terms of catalysts and this
[14] type of thing.
[15] Q: Did the project end successfully?
[16] A: The project, to my knowledge, is operating
[17] in Savannah, Georgia, currently.
[18] Q: Can you give me some sort of time frame when
[19] this work would have been going on?
[20] A: 1958 to 1964.
[21] Q: And were you employed by American Cyanamid
[22] during that entire time period that you just
[23] mentioned?
[24] A: Correct.
[25]

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Bryant - direct

- [1]
[2] Q: And did you perform work for any other
[3] company during that time period?
[4] A: No.
[5] Q: In 1964, I assume you left Cyanamid and
[6] moved to —
[7] A: Correct.
[8] Q: — a new job?
[9] A: To Anniston.
[10] Q: Okay. And when you say you moved to
[11] Anniston, I'm assuming —
[12] A: Monsanto.
[13] Q: — you were employed by Monsanto —
[14] A: Correct.
[15] Q: — and they dispatched you to Anniston at
[16] some point?
[17] A: Correct.
[18] Q: Now, I'm assuming you were hired out of the
[19] St. Louis office, the home office of Monsanto at the
[20] time?
[21] A: Actually, to my knowledge I was hired out of
[22] Anniston. I'm sure, you know, St. Louis gave
[23] approval but actually the interviews and everything
[24] was conducted right at the plant site itself.
[25] Q: Who interviewed you in Anniston?

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Bryant - direct

- [1] A: Jim Larkin.
[2] Q: Who was Jim Larkin?
[3] A: He was the technical service director. And
[4] John McClain, the plant manager.
[5] Q: And were you interviewed at all in St. Louis
[6] with any of the home office —
[7] A: No.
[8] Q: What position — and I'm assuming you took a
[9] position with the Anniston —
[10] A: Correct.
[11] Q: — Monsanto plant?
[12] A: Correct.
[13] Q: And what was the first position that you
[14] held with Monsanto?
[15] A: Research and development.
[16] Q: Did you have some sort of an official title
[17] that came with the job?
[18] A: Research chemist.
[19] Q: When you were interviewed for the job in
[20] Anniston, did Mr — you said Landwehr —
[21] A: No; Larkin.
[22] Q: Larkin?
[23] A: Correct.
[24] Q: And then the other gentleman you mentioned

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Bryant - direct

- [1] was a Mr. — was the plant manager, McClain?
[2] A: McClain.
[3] Q: Did Mr. Larkin and Mr. McClain give you any
[4] background about the plant? Did they talk to you
[5] about some of the products that were manufactured at
[6] the plant?
[7] A: Yes.
[8] Q: And what products did they say were being
[9] produced in Anniston back in 1964?
[10] A: Well, the thing they were excited about was
[11] the parathion process, which was a new process,
[12] which was an insecticide. And that was right
[13] towards when cotton was king and the boll weevil was
[14] tearing the cotton crop all to pieces, so there were
[15] sales of this stuff just through the roof. And all
[16] the efforts, the major efforts, were going at trying
[17] to get this plant on stream and going — that plant
[18] had blown up in Nitro, West Virginia, and killed
[19] five or six people, and the city fathers would not
[20] let it be rebuilt in Nitro.
[21] Q: Nitro, West Virginia?
[22] A: Nitro, West Virginia. And there were a lot
[23] of Virginia Nitro and West Virginia people down
[24] there. In fact, McClain was from West Virginia.
[25]

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Bryant - direct

- [1] Q: And so when operations wrapped up in Nitro,
[2] West Virginia, did Mr. McClain transfer to Anniston
[3] and built or developed a parathion production
[4] facility in Anniston?
[5] A: I'm not aware exactly when he was
[6] transferred down, but I know he was there. I know
[7] the chief chemist, a guy by the name of Owen Dolan,
[8] was brought down from Nitro because of familiarity
[9] with the process. They also explained to me that
[10] they had this aroclor production facility. There
[11] had been an old stable product and they were
[12] converting benzene to biphenyl by a new technique
[13] which was a Selas furnace rather than the old lead
[14] box that they had used I think back in the early
[15] '60s. I was never aware of the lead pots, other
[16] than just seeing the residual equipment that was
[17] left in the building.
[18] Q: What type of equipment was left in the
[19] building from the lead pot manufacturing —
[20] A: There were just some —
[21] Q: Let me finish, that way it will look clean
[22] on the record.
[23] A: Okay.
[24] Q: What equipment was still remaining in the
[25]

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Bryant - direct

[1]
[2] plant from the lead pot production process for
[3] aroclors?
[4] A: All as I recall were the pots themselves,
[5] and the building was sort of charred or burned
[6] inside, which from tales that I got from old timers
[7] were they would have fires in these things. But
[8] when I observed what was going on in that plant,
[9] they used these natural gas torches to heat the
[10] pipelines, which scared me to death because I had
[11] come from where you couldn't smoke within 25 feet of
[12] the building, and these guys walking around with a
[13] pipe with a fire on the end of it. And I don't know
[14] how much of that char affecting that building come
[15] from that type of thing more than from the pots.
[16] But there's no reason to ever investigate it because
[17] they were inoperative.
[18] Q: As you understood it, the lead pot process
[19] involved heating pots of lead to very high
[20] temperatures?
[21] A: To my knowledge it was molten lead, and
[22] benzene was bubbled under this as an atmospheric
[23] seal, and the temperature gave you the conversion to
[24] the biphenyl or split the hydrogen off. How they
[25] separated that and what they did with it and what

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Bryant - direct

[1]
[2] was coming off of it, I don't have any direct
[3] knowledge.
[4] Q: So the molten lead that was used in the
[5] pots, did you understand that it was just an
[6] efficient heating system for the benzene?
[7] A: Technically it was the only production
[8] process that I know of for converting to biphenyl at
[9] that time. Well, now, it was not operative and I
[10] never saw it operate.
[11] Q: Did anyone ever describe the process that
[12] the plant went through to convert from that old lead
[13] pot system to the newer system that was in place
[14] when you arrived in 1964?
[15] A: There was never any interest to even review
[16] the old process because they were so excited about
[17] this new Selas furnace, and from all appearances it
[18] was doing a very efficient job and very neat
[19] operation or closed operation versus the pots. And
[20] I never questioned how they operate because, to be
[21] honest with you, I really wasn't interested.
[22] Q: Was it your understanding that the new
[23] process for creating aroclors that was in place at
[24] least as of 1964 was a better and safer way of
[25] producing aroclor than what had been in place prior

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Bryant - direct

[1]
[2] to the mid to early 1960s?
[3] A: Now, you jumped ahead of me because I didn't
[4] discuss producing aroclor. We were talking about
[5] biphenyl in the Selas furnace.
[6] Q: Yes, sir, I'm sorry, I meant — I'm talking
[7] about the biphenyl, biphenyl component of aroclor
[8] manufacture.
[9] A: Right. Only that biphenyl was a starting
[10] material.
[11] Q: Yes.
[12] A: Yes. Oh, yes, it was a much more efficient
[13] system, more efficient and safer all around, a
[14] tremendous process improvement.
[15] Q: The system that was in place for creating
[16] biphenyl at the Anniston plant in 1964, did it
[17] create less waste than the previous system as you
[18] understood it?
[19] A: No comparison. Yes.
[20] Q: What were some of the design features of the
[21] new biphenyl production process as of 1964 that
[22] caused it to produce less waste, less emissions
[23] perhaps, if that's the case, than the old system
[24] with the lead pot process?
[25] A: The furnace was a completely sealed unit,

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Bryant - direct

[1]
[2] high temperature, and recovery of off-gases, namely
[3] hydrogen, was much more efficient, purification was
[4] much better. In fact, that hydrogen was used for
[5] hydrogenation of biphenyl and terphenyl further down
[6] the stream. And it was just an entirely different
[7] process. It was the state of the art technology at
[8] that time.
[9] Q: Was it your understanding that the old lead
[10] pot process created more leaks and spills inside the
[11] plant facility?
[12] A: It was my impression that the operators per
[13] se were afraid of the old lead pot process, and I
[14] think it was a physical danger they were afraid of.
[15] I don't think they knew enough about chemical or
[16] residual toxicology and this type of thing, I know
[17] they didn't. But they were just physically afraid,
[18] like I was, of fire and stuff like this.
[19] Q: Was there a danger of hazardous air
[20] emissions being created in this old lead pot
[21] process?
[22] A: I don't think anyone would have known if it
[23] was or wasn't other than maybe some of the medical
[24] people. I honestly don't think they knew.
[25] Q: Okay.

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Bryant - direct

[1] A: The only person would have known would have
[2] been Dr. Jack Francis, who was the company doctor on
[3] the premises, and he was an old — oh, what do you
[4] call the baby doctor, I can't think of the name.
[5] Q: Pediatrician?
[6] A: Pediatrician, right. And he had gone into
[7] general practice, and he was the company doctor.
[8] And I don't think he recognized any of the health
[9] dangers. He knew about parathion and stuff like
[10] that because obviously St. Louis had educated him on
[11] that.
[12] Q: Was the old lead pot process facility, was
[13] there, did it include ventilation of some sort to
[14] protect workers?
[15] A: As I recall, those old buildings had vent
[16] shafts in the top of them, but my recollection is
[17] not really clear on that. I'd say nothing other
[18] than natural ventilation.
[19] Q: And ventilation from that building would
[20] just be to the outside air?
[21] A: Correct.
[22] Q: What type of vapors would be emitted to the
[23] outside atmosphere from that particular building,
[24] the old lead pot process building?
[25]

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Bryant - direct

[1] A: I never got in to examine that because we
[2] had so many other problems that were more important
[3] in their eyes in those days. But any type of air
[4] emissions that you would normally expect off of
[5] molten lead, I would expect in that system. But as
[6] far as investigating, I never investigated anything.
[7] And anything that I would say would be speculation
[8] because I never saw anything.
[9] Q: I see. To your knowledge did the new
[10] manufacturing process for aroclors, did it produce,
[11] at least as of 1964, less in the way of wastewater
[12] emissions?
[13] A: Let me correct you again.
[14] MR. SHARMAN: Just object to the
[15] form. I think you said aroclor again, David, and I
[16] just wanted to —
[17] THE WITNESS: Right.
[18] MR. BYRNE: I apologize.
[19] BY MR. BYRNE:
[20] Q: The old lead pot process was a part of the
[21] overall aroclor production process at the plant; is
[22] that correct?
[23] A: Well, yes and no. We didn't consider —
[24] because biphenyl can be used for other purposes.
[25]

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Bryant - direct

[1] Q: Sure.
[2] A: If it's hydrogenated, it makes a product
[3] called — I think they call it HB-40, which was a
[4] plasticizer, which is totally different
[5] characteristics. So biphenyl was no more of the
[6] aroclor process than benzene would be of the aroclor
[7] process.
[8] Q: I see. So the lead pot process for creating
[9] biphenyl may have been part of the overall aroclor
[10] production process and perhaps the production
[11] process for other products that were produced at the
[12] plant?
[13] A: Oh, yes.
[14] Q: Okay. How many products that were being
[15] used or being created at the plant in 1964 required
[16] biphenyl as a component element?
[17] A: It would have — again, if you say aroclor,
[18] if you say aroclor, it could be plasticizer or it
[19] could be electrical.
[20] Q: I see.
[21] A: And if you want a list of all the products,
[22] I couldn't give them to you. But the electrical
[23] ones were pretty easily identified, although most of
[24] the plasticizer grade I was familiar with, too. But
[25]

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Bryant - direct

[1] the difference is in the plasticizer grade, you
[2] could have hydrogenation, which was totally a
[3] different product. But in the electrical, there was
[4] no hydrogenation in those days, and later on, years,
[5] there was hydrogenation, because I bought the
[6] material from Monsanto in this retrofit program that
[7] we were doing after I left General Electric in the
[8] mid '80s. But that wasn't true '64 to '68 in the
[9] plant.
[10] Q: Okay. Well, I've taken us a little far
[11] afield. I'll get back to the original series of
[12] questions I was talking with you about, and that was
[13] the types of products manufactured at the plant
[14] overall. And I think you mentioned parathion was a
[15] new operation that had moved from the Nitro plant in
[16] West Virginia to Anniston; is that correct?
[17] A: That's correct.
[18] Q: Do you know when Monsanto shut down
[19] parathion production at the Nitro, West Virginia,
[20] plant?
[21] A: No. I really don't know the date they shut
[22] it down, but it was shut down with an explosion. So
[23] I'd say it was in the late '50s.
[24] Q: What did you hear or learn about the
[25]

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Bryant - direct

[1] explosion? What had happened?
[2] A: Oh, we knew what had happened in the
[3] explosion. They had a chlorine leak in the chlorine
[4] feed line and it overchlorinated the intermediate to
[5] the point of instability. And that set of series of
[6] tests for us in the plant that we ran in the
[7] laboratory to check the stability of these different
[8] batches, because we did not at that time understand
[9] the technology, but we knew the conditions that
[10] created it, and we were purposely trying to avoid
[11] those conditions.

[12] Q: Okay.

[13] A: And basically the rule of the game was, you
[14] know, if we tried this in the laboratory and we had
[15] a test where we'd check the temperature increase
[16] with a sealed ampule of aroclor, we would add heat
[17] at a constant rate, and if that heat all of a sudden
[18] started going up, then obviously that was a heat of
[19] reaction. And instructions were to sewer that to
[20] the bug pit to let the bugs biodegrade it and not
[21] use it for the intended purpose.

[22] Q: I see. What other products other than
[23] parathion and aroclor were being made or produced at
[24] the Anniston plant when you interviewed in 1964?
[25]

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Bryant - direct

[1] A: Well, they sold intermediates of those
[2] processes. You had thioacid, which was sold to some
[3] of the people for other purposes from parathion
[4] process. You had sales of caustic, hydrochloric
[5] acid. And I don't think they ever sold any
[6] chlorine; that was an intermediate product. I don't
[7] think they had facilities to compress it and load
[8] it, to be honest with you.

[9] Q: But they did produce chlorine?

[10] A: They produced chlorine, yes, for internal
[11] use.

[12] Q: And that was for use in the creation of
[13] parathion, aroclor, that sort of thing?

[14] A: That's correct.

[15] Q: Was paranitrophenol a product that was being
[16] made at the plant as of 1964?

[17] A: Not as of 1964, but shortly thereafter,
[18] probably '65.

[19] Q: When you interviewed at the Anniston plant,
[20] what research and development tasks did the plant
[21] managers want you to look at and take on?

[22] A: Basically what I had to do was work with the
[23] process engineers and manufacturing engineers, the
[24] problems they brought to me. And the problems were
[25]

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Bryant - direct

[1] numerous. Just a matter of setting a priority of
[2] what I wanted to work on. I pretty much had
[3] flexibility to work on what I wanted to, but my
[4] criteria was that whatever would return the most
[5] investment for correcting, that was a major concern
[6] that I worked on. That's pretty much a premise I
[7] went on the whole time I was there.

[8] Q: What were the major problems or concerns
[9] that they brought to your attention when you first
[10] started?

[11] A: Oh, their problems were numerous. You had
[12] two separate categories: you had the agricultural
[13] chemical, which was the parathion; and you had the
[14] organic chemical, which was the aroclor. And both
[15] processes had very unique problems. As I said, the
[16] main concern was trying to, for the process
[17] engineers, to justify their cost savings because
[18] that determined their pay and also their job
[19] responsibility. And I pretty much supported them in
[20] whatever they wanted to do. And I never questioned
[21] too much their economics. If they made some
[22] sense — I mean, if they were wild guesses, yes,
[23] then I did question that. But most of the engineers
[24] were well trained from reputable schools, and you
[25]

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Bryant - direct

[1] didn't get wild guesses.

[2] Q: I may be making too much of an assumption
[3] here, but let me see if I can float this assumption
[4] by you to see if it will save some time. Were most
[5] of the concerns that were brought to your attention
[6] and that you were asked to work on, did those
[7] concerns involve the loss of product in various
[8] plant waste streams and the desire on the part of
[9] management to recover as much of that product or raw
[10] material in some cases as possible to save money?

[11] A: Yes.

[12] Q: And let's take the two products that you
[13] mentioned a moment ago and try to break down
[14] individual problems like that with each one.

[15] With parathion, were there waste or
[16] pollution or loss issues associated with that
[17] product at the plant that you can tell us about?

[18] A: Parathion wasn't as concerned with loss of
[19] revenue because it was a very profitable product.
[20] The major concern with parathion was toxicity. It
[21] was extremely toxic and there was every effort to
[22] try to control any discharge of parathion, even to
[23] small bits in the laboratory.

[24] Q: And what problems then had the plant been
[25]

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Bryant - direct

[1] experiencing with lost parathion or waste or
[2] emissions of parathion?
[3] A: Well, what I mentioned previously, we had
[4] the stability test and you had batches that would go
[5] bad. And we didn't understand why. Then that would
[6] have to be destroyed, and it in itself was very
[7] toxic. And we had a big bug pit, we called it,
[8] biodegradation pit, one of the first of a few in the
[9] country at that time. And we aerated the stuff with
[10] air and had bugs in there that would chew up the
[11] residue. And there was a lot of effort that went
[12] into keeping that system going, the conditions which
[13] made it necessary to operate — conditions which
[14] facilitated operating the thing.
[15] Q: When you came to the plant in 1964, the bug
[16] pit, as you have described it, was that already in
[17] place?
[18] A: It was already in place.
[19] Q: Where was it located? Was it outside the
[20] plant?
[21] A: No.
[22] Q: By itself?
[23] A: It was in the back of the parathion plant,
[24] which was a fairly new section in the — gosh, I

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Bryant - direct

[1] don't know what my directions were. It was in the
[2] corner where the parathion production unit was,
[3] which at that time was the main gate area. I would
[4] guess it's probably north corner, but there I'm
[5] guessing on the direction.
[6] Q: Okay. Using downtown Anniston as sort of a
[7] reference guide, would the bug pit have been on the
[8] side of the plant farthest away from downtown or
[9] closest?
[10] A: No. About medium away, I'd say, directly —
[11] I thought it almost faced the railroad tracks,
[12] because the Southern Railroad tracks went through
[13] there. I guess it was Southern, or some railroad
[14] track went up along the Old Birmingham Highway
[15] there, and a couple of founders and things in the
[16] junk yard down there.
[17] Q: What did the plant management tell you about
[18] their experiences with the bug pit and the parathion
[19] waste that was put in there?
[20] A: They were getting a lot of odors off of that
[21] bug pit and complaints of odors. And they told me, ,
[22] you know, that this was the type of generally PR
[23] relationship that we had.
[24] Q: Who was complaining about the odors from the

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Bryant - direct

[1] parathion waste bug pit?
[2] A: People over in west Anniston.
[3] Q: Are you talking about people in the
[4] community?
[5] A: Yes. We had a monitoring system, telephone
[6] system, where they would call in, I don't know
[7] whether it was an 800 number, probably just a local
[8] number. But they would call in and as the shift
[9] supervisor, which we would occasionally fill in that
[10] position, we'd listen to the conversation and tell
[11] the chief operator who spoke in the same local
[12] accent and all that the people did, you know, what
[13] he thought the problem was.
[14] Q: What kind of complaints would you hear of
[15] from the local residents?
[16] A: Just the odor.
[17] Q: And I'm assuming they were smelling I guess
[18] vaporous emissions from the bug pit; is that
[19] correct?
[20] A: Yes, the smell of discharges — basically in
[21] retrospect, I think it was dead bugs, that they
[22] weren't getting enough oxygen, and I think that's
[23] what was creating the major odor problem.
[24] Q: I see. Now, the bug pit would operate

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Bryant - direct

[1] winter and summer, I assume?
[2] A: Uh-huh.
[3] Q: And in the summer months would it give off a
[4] stronger odor?
[5] A: I won't say it was weather related. Yes, in
[6] hot weather, the air is denser, it would tend to
[7] hold closer to the ground, I'd say. But the major
[8] problem was when they would get the lack of air flow
[9] for support of the bug life.
[10] Q: I see.
[11] A: I think we later corrected that problem. By
[12] the time I left, I don't know whether they stopped
[13] all the community complaints or not.
[14] Q: Were there chemicals in the waste pit and in
[15] the parathion waste that were volatile?
[16] A: Oh, yes.
[17] Q: What kinds of chemicals in the parathion
[18] waste were volatile in nature?
[19] A: Breakdown products of parathion which could
[20] vary from alcohols to ketones to esters, phosphorous
[21] compounds.
[22] Q: And when those volatile compounds would warm
[23] up or mix with other chemicals, would it move into
[24] some sort of vaporous phase that could off-gas from

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Bryant - direct

[1] the waste pit?
[2] A: Oh, yes. I think you certainly had some of
[3] that. I don't even know whether we had the
[4] analytical capability at that time of tracing it.
[5] Apparently they had done enough work where they felt
[6] that this was a reasonable safety system. In fact,
[7] to my knowledge there was a state of the art
[8] treatment system at that time and a lot of
[9] municipalities have since adopted that same system.
[10] But we never did any strict analytical work of what
[11] was the off-flow of that thing.
[12] Q: Now, municipal waste systems don't accept
[13] parathion type products into them, do they? Open
[14] air systems now, do they?
[15] A: No, I don't think that one down there did
[16] either because, as I understand the practice was, if
[17] we had a failure in that system, that they would
[18] open the gates and let it go. And I don't think
[19] Anniston even had the capability at that time of
[20] doing anything with it.
[21] Q: Tell me what you mean by that, if there was
[22] a failure in the bug pit system, there would be
[23] just, you just what, release the stuff —
[24] A: No. We had, I know one incident, maybe two,

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Bryant - direct

[1] where the retainer wall on the pit collapsed, the
[2] concrete, and released a fair liquid volume, and the
[3] stuff went down in a slug.
[4] Q: Okay. Where did it go from there?
[5] A: Eventually wound up in Choccolocco Creek.
[6] Q: And this was parathion product?
[7] A: Uh-huh.
[8] Q: Waste?
[9] A: Parathion waste.
[10] Q: Do you remember approximately how many — I
[11] guess we're talking hundreds of gallons?
[12] A: Oh, yes, it was a fairly sizable amount.
[13] Q: Were there any recovery efforts made by the
[14] plant to try to —
[15] A: No.
[16] Q: — reclaim some of it?
[17] A: No recovery of that stuff. The only
[18] secondary catch would be the waste treatment plant,
[19] and as I say, my understanding was their
[20] instructions were to open the door and let it go.
[21] Q: Do you know if there was some communication
[22] between the plant and the municipal waste treatment
[23] facility managers for the city over that?
[24] A: Oh, yes.

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Bryant - direct

[1] Q: Did they just open up and let it pass
[2] through so as not to overload the system at the
[3] municipal waste system?
[4] A: What I would say would be hearsay. I don't
[5] physically know that they did. All I know is what
[6] was fed back to me from the guy that was running the
[7] whole system, that was Gene Coley.
[8] Q: But to even get to the municipal waste
[9] system, that parathion release would have traveled
[10] through an awful lot of the west Anniston area,
[11] wouldn't it, to have gotten to that municipal
[12] treatment center?
[13] A: I guess it would have had to have gone
[14] through Snow Creek.
[15] Q: Yes, before it ever reached the waste
[16] treatment plant?
[17] A: Yes.
[18] Q: Did the plant managers, to your knowledge,
[19] ever make some effort to notify local residents of
[20] the release of the parathion waste that you know of?
[21] A: No.
[22] Q: You said there was another incident you
[23] recall. What was the other incident involving the
[24] parathion waste pit that you recall?
[25]

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Bryant - direct

[1] A: It was a collapse of something. I don't
[2] know whether it was another retainer wall or pump
[3] failure or something. But the worst one was the
[4] wall collapsing that I remember. The second one I
[5] don't know whether the instructions were to open the
[6] gates and let her go.
[7] Q: How large was the bug pit in terms of the
[8] volume of product or waste product that it could
[9] hold?
[10] A: That thing was probably 100 by probably 75,
[11] maybe 100 by 200, maybe, as I recall. Pretty good
[12] size pit.
[13] Q: Do you have a judgment as to how many
[14] gallons of fluids it could hold?
[15] A: No. My guess was it was probably 3 or 4
[16] feet deep, but, again, I'm just guessing. No, I
[17] don't have any direct idea what volume it had.
[18] Q: When you were interviewed at the plant in
[19] 1964, or perhaps even shortly thereafter, were you
[20] asked by any of the plant managers to address
[21] problems related to the bug pit?
[22] A: Yes, probably from the manager or I guess he
[23] was environmental chemist, Gene Coley. We talked
[24] about it quite a bit, and I personally had a
[25]

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Bryant - direct

[1]
[2] friendship with Gene, and I would go with him —
[3] that's where I reviewed the bug pit, the only time I
[4] ever really spent any time looking at it. And we
[5] just talked in general terms of trying to, like I
[6] say, increase air flow to it and different things we
[7] could do. To be honest with you, I didn't
[8] understand too much about a bug pit in those days
[9] myself.
[10] Q: You've mentioned a couple times the idea of
[11] air flow. Why was air flow important to the —
[12] A: Air flow was critical.
[13] Q: — to the bug pit?
[14] A: Uh-huh.
[15] Q: Why is that?
[16] A: Because just like a human, you don't get
[17] enough air, you die. Bugs were the same way.
[18] Q: What kind of bugs, I mean, are we talking
[19] about literally insects that lived in —
[20] A: No. We're talking about microorganisms.
[21] Q: I see. That needed air to live and react
[22] with the waste product that was poured into it?
[23] A: Correct. And you also had to condition them
[24] to feed them, they had to be conditioned to the feed
[25] system after you were feeding them.

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Bryant - direct

[1]
[2] Q: Was the bug pit a fairly safe distance from
[3] the plant in terms of being a safe distance from the
[4] workers, I mean?
[5] A: Yes, it was isolated to itself.
[6] Q: Were there any concerns that you knew of
[7] about keeping workers I guess downwind of that bug
[8] pit?
[9] A: No, not to my knowledge.
[10] Q: Workers who did their jobs, if in fact their
[11] jobs involved being around the bug pit, were they
[12] given any kind of protective gear back in the 1964
[13] time frame?
[14] A: Not that I was aware of.
[15] Q: Well, I mean, did they need to have
[16] protective gear on or wear gloves to work around
[17] that pit?
[18] A: They wore gloves, I'd say, most of the time,
[19] not all the time.
[20] Q: What kind of toxic effects could the waste
[21] in the parathion bug pit have on a person?
[22] MR. SHARMAN: Object to the form.
[23] BY MR. BYRNE:
[24] Q: If indeed, I mean, let's just start with
[25] this question. I think this will cure the issue

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Bryant - direct

[1]
[2] that Mr. Sharman may be concerned about.
[3] The stuff that was in the pit, the
[4] bug pit, I mean, it was toxic, wasn't it?
[5] A: Correct.
[6] Q: And toxic to humans, I assume?
[7] A: Correct.
[8] Q: And what kinds of problems could the waste
[9] in the bug pit cause a human, as you understood it?
[10] A: Causes death.
[11] Q: Does it kill aquatic organisms, I assume?
[12] A: Oh, yes. Kills everything.
[13] Q: Now, parathion was banned at some point by
[14] the federal government for that very reason, wasn't
[15] it?
[16] A: Not to my knowledge, but I think it was.
[17] You guys would have a better input on that. I think
[18] malathion replaced it, which was less toxic. But
[19] parathion in the '64-'68 era was a known
[20] insecticide, deadly. But you got to realize that
[21] we're replacing DDT, which had residual effects.
[22] Parathion did not have residual effects; it
[23] biodegraded. But it also killed on contact.
[24] Q: So the need to persist in the environment
[25] really wasn't an issue with parathion because it did

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Bryant - direct

[1]
[2] its job and then —
[3] A: That's right.
[4] Q: — there was no other need for it to hang
[5] around?
[6] A: That's right. And it did it — in fact, we
[7] would not purposely advise customers of the short
[8] life of it because it was only like three or four
[9] hours, and if you advise them they would say,
[10] "What's the use of spraying something if it's not
[11] going to be effective any longer than that?"
[12] But the thing about it is it killed
[13] everything it came in contact within that period of
[14] time. So there was no reason to have residual. But
[15] that's hard to sell that to somebody that's paying
[16] the price they were paying for parathion.
[17] Q: Were there other features of the parathion
[18] production process that you were — well, strike
[19] that. Let me go back.
[20] And you may have already answered
[21] this for me and if you have, please forgive me.
[22] Were there any specific things that you did to
[23] address any problems that existed with the bug pit?
[24] A: No.
[25] Q: Okay. Were there any other waste or

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Bryant - direct

[1]
[2] production-related issues with the parathion
[3] manufacturing process at the plant that you were
[4] asked to examine and try to correct or fix?
[5] A: Yes. The most major problem that they had
[6] that I was working on — and you've probably picked
[7] this up in other depositions from Ishmael Ransaw —
[8] I was assigned to work on sulfur recovery, which was
[9] a nasty problem for that process, because in '64
[10] when I went there, they were operating on the old
[11] philosophy that the solution to pollution is
[12] dilution. So they just kept building the stack
[13] taller and taller and burning the stuff in an
[14] incinerator and kicking the SO2 into the
[15] environment. And I was very opposed to this because
[16] SO2 is very detrimental to the environment.
[17] Q: You mentioned a phrase, that the solution to
[18] pollution is dilution?
[19] A: Oh, that he was the old textbook philosophy
[20] back in the old days, when I went to school.
[21] Q: And was that philosophy still in practice
[22] from what you could see at the Monsanto plant in
[23] Anniston in 1964?
[24] A: Well, the fact that they built the stack up
[25] to like 200 feet, yes, it was.

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Bryant - direct

[1] Q: Was the idea that the area emissions
[2] released at that height would just simply dilute
[3] into a larger body of air?
[4] A: Correct. That was the theory. That's what
[5] I meant by the solution is dilution, that the
[6] pollution at that elevation would dilute by the time
[7] it got to ground level.
[8] Q: And what observations did you make about
[9] that back in 1964, when you saw the stack and you
[10] looked it over, what was your reaction to that?
[11] A: Oh, I immediately started to work on the
[12] sulfur trying to recover it from the process and
[13] come up with some technique to eliminate that
[14] system.
[15] Q: Did you advise plant management back in the
[16] '60s that that was a bad idea they had there at the
[17] plant?
[18] A: They advised me it was a bad idea. They
[19] wanted to get rid of it. The problem we had was
[20] inversionally, as atmospheric changes, that dilution
[21] was a bad idea because it would come down and puffs
[22] to the ground and concentrate. And it was very
[23] objectionable. It would choke you.
[24] Q: And would emissions from that stack come

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Bryant - direct

[1] down in the community around the plant?
[2] A: Oh, no question about it.
[3] Q: The area outside of the plant, that was a
[4] residential area, was it not?
[5] A: Right.
[6] Q: And it was pretty heavily populated even
[7] back in the time that you were there; is that
[8] correct?
[9] A: Correct.
[10] Q: Let me ask you something. The Nitro plant
[11] in West Virginia, I've never seen it and I don't
[12] know anything about the community that it was
[13] located in, but was it near a populated area?
[14] A: No. I was only there one time myself. It
[15] was a big industrial complex along the Kanawha
[16] River, and I'd say it wasn't a heavy populated area.
[17] It was mostly industrial down that river.
[18] Q: You mentioned, though, that the city fathers
[19] in Nitro, West Virginia, had some issues with the
[20] plant and asked them to move their parathion
[21] production somewhere else?
[22] A: It was my knowledge they would not allow it
[23] to be rebuilt there. But, see, you had Union
[24] Carbide stacked up there with them right on the
[25]

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Bryant - direct

[1] river; in fact, part of that explosion went into the
[2] Union Carbide plant and shut down different
[3] facilities. And it was a pretty dramatic experience
[4] for those people. Alcor had a big reduction mill
[5] there. There was just industries lined up all the
[6] way down that river. In those days that river was a
[7] sewer line.
[8] Q: Did anyone in St. Louis ever tell you why
[9] the decision was made to move parathion
[10] manufacturing operations from Nitro, West Virginia,
[11] which would have been a less populated area, to a
[12] more populated area in Anniston?
[13] A: Nobody from St. Louis told me anything about
[14] that process. The only people that told me about
[15] the explosion were the people that were there when
[16] it exploded.
[17] Q: Some of whom had moved to Anniston?
[18] A: Yes. I think they knew why they moved it
[19] out of there.
[20] Q: Did they say? Other than what you have told
[21] me?
[22] A: Their feeling was that Anniston was more lax
[23] than West Virginia would be in their environmental
[24] regulations. I assumed — I didn't know this, but I
[25]

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[1] *Bryant - direct*
[2] assumed that's the reason it was there.
[3] Q: You visited — well, you have worked in a
[4] number of different places over the years, I assume.
[5] And I would just ask you as an aside to tell me what
[6] your impressions were of overall environmental
[7] regulation in Alabama when you were at the Monsanto
[8] plant? Did you find it to be lax or extremely
[9] tight?
[10] MR. SHARMAN: Object to form.
[11] A: Well, it was lax all over the country at
[12] that time. And I don't say it was any worse than
[13] anywhere else or any better. In fact, the EPA had
[14] not even been formed when I was there.
[15] Q: I see.
[16] A: And it was only towards my latter year
[17] there, say '67, that I even heard of an Alabama
[18] Environmental Department or whatever it was called.
[19] And they got into it with the fish kills and this
[20] type of thing. And that was the only part of it I
[21] was aware of. I never remember any other stringent
[22] state controls on it. And I think they felt like
[23] the difference between Nitro and Anniston was
[24] Anniston was more of a kind of a rural area, and it
[25] was from a standpoint of industrialization. Except

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[1] *Bryant - direct*
[2] once I got to Anniston, I realized it had all those
[3] pipe foundries and things all over the town. I
[4] don't know, it's got to have been something in the
[5] lax environmental control or something for them to
[6] move that plant down there, because it wasn't all
[7] that different from West Virginia.
[8] Q: The sulfur dioxide issue that you worked on,
[9] did you ever implement some new system there that
[10] replaced the 200-foot stacks?
[11] A: I had worked on the system and then I
[12] assigned it to Ish about the time I was leaving,
[13] because I got involved in market service problems
[14] and things progressively more than I was in plant
[15] activity. And that was the reason I transferred to
[16] St. Louis, because I was spending more time on the
[17] road than I was spending in the plant. But he did,
[18] to my knowledge, work out a system that was
[19] satisfactory.
[20] Q: When do you recall plant management in
[21] Anniston first bringing the sulfur dioxide problem
[22] to your attention?
[23] A: Oh, that was brought to my attention as soon
[24] as I got there.
[25] Q: Did plant management decide that they would

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[1] *Bryant - direct*
[2] simply discontinue the production operations that
[3] created these SO2 emissions until it could be solved
[4] or did they just keep right on producing while you
[5] worked behind the scenes to try to solve it?
[6] A: Keep on producing.
[7] Q: And so from the time that you were first
[8] told by plant management that they recognized that
[9] it was an emission problem and might be creating
[10] issues for the community, how many years elapsed
[11] from then until the time when you left the plant?
[12] MR. SHARMAN: Object to the form.
[13] BY MR. BYRNE:
[14] Q: If you arrived in 1964 —
[15] A: Four years, '68.
[16] Q: Four years?
[17] A: Yes.
[18] Q: And at the end of your four years in
[19] Anniston, was anything done to the 200-foot stacks
[20] or were they still there just as they were when you
[21] arrived in 1964?
[22] A: To my knowledge, the groundwork had been
[23] done in the laboratory to correct that situation.
[24] But how much of the actual field engineering had
[25] been done, I don't know. St. Louis had their own

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[1] *Bryant - direct*
[2] corporate engineering would take those projects.
[3] And to what stage that was when I left, to be quite
[4] candid, I had no way of knowing nor I had any
[5] interest in it because my primary concentration was
[6] in the electrical area on the aroclors at that time
[7] and not the parathion.
[8] Q: Were SO2 emissions measured back then?
[9] A: Oh, I'm sure they were. I didn't measure
[10] them, but Gene Coley would have.
[11] Q: He did measure them?
[12] A: Yes. And they should have been recorded in
[13] the laboratory because they had a pretty good
[14] recordkeeping on that type of thing.
[15] Q: And did plant management, did they publish
[16] those air emission readings to, I guess to the
[17] community or to the city of Anniston?
[18] A: No.
[19] Q: The parathion process, were there any other
[20] issues that you were asked specifically to address
[21] other than those that you have mentioned so far?
[22] A: Oh, I addressed periodically some of the
[23] intermediate compounds and this type of thing of the
[24] parathion that they were selling to other
[25] manufacturers, but they were the hot issues that

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Bryant - direct

[1] I've mentioned, and the major concern.
[2] Q: Any other parathion pollution issues that
[3] you were asked to look at or address?
[4] A: Oh, every time they had a problem on the
[5] road — not every time, but the majority of the
[6] time, I was asked to physically go there. And we
[7] had things varying from train wrecks, truck wrecks,
[8] to overheated trucks and this type of thing, you
[9] know, trailer tractors sitting in the sunshine, this
[10] type of thing. And whenever they had a problem that
[11] did involve, I'd say liability, or potential
[12] liability, I was fired in there on it to try to
[13] squelch it and get it cleaned up as quickly and
[14] silently as possible.
[15] Q: And did there come a time when there was a
[16] spill or two or truck wreck that you went and
[17] handled for the company?
[18] A: Oh, yes.
[19] Q: And did plant management ask you as part of
[20] that process to speak with residents that may have
[21] lived near the spill site and give them any
[22] instructions about what they should do?
[23] A: No. Most of the problems I had were related
[24] in out of state and other locations, in particular

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Bryant - direct

[1] train wrecks and truck wrecks. There were never any
[2] around the immediate area of the plant.
[3] Q: Did St. Louis or the Anniston plant have any
[4] procedure in place whereby at a train wreck or a
[5] spill site you would visit local residents and talk
[6] to them about the type of chemical that had spilled?
[7] A: Towards the end of my stay there, I'd say
[8] '67, early '68, yes. We developed a team that we
[9] would send out, and particularly on wrecks. And
[10] this stemmed out of a wreck, I believe it was in
[11] Magee, Mississippi, that a train derailed and burst
[12] a carload of these pellets that were impregnated
[13] with parathion and spilled it all over the Curtis
[14] Candy car, loaded with Baby Ruth, Butterfingers and
[15] this type of thing. By the time we got there,
[16] scavengers had gone in there and pilfered the candy,
[17] of course, taken them. We did get on local radio
[18] and newspapers and warned people. And they were
[19] pretty attentive in correcting and bringing the
[20] stuff and piling up. We gave them instructions
[21] where to pile it, and basically took a bulldozer and
[22] buried the stuff.
[23] Q: I see.
[24] A: I had the same problem down in Mexico with

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Bryant - direct

[1] some problems there. I stopped them from taking it
[2] to the landfill to dump, because it's a different
[3] system in Mexico. And you had people in there
[4] pilfering the dumps for food. And that upset,
[5] bothered me. And we took precautions there and
[6] instructed not so much the local people — because
[7] one thing, we didn't speak the language — but the
[8] other thing, the people, the management people we
[9] alerted them that, you know, they should not just
[10] put the stuff in the municipal waste. It should be
[11] buried.
[12] Q: And the local residents that may have been
[13] digging around in the dump, did you visit them and
[14] talk to them?
[15] A: No. As I said, we couldn't speak their
[16] language, anyway.
[17] Q: Did St. Louis give you any specific
[18] instructions about whether or not to go and try to
[19] visit or talk to individuals about the dangers of
[20] rummaging around in that spill area or in the waste
[21] area?
[22] A: No. Nothing that I'm aware of. I don't
[23] think St. Louis would have had any control over
[24] that. And I don't think they would have even

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Bryant - direct

[1] entertained doing that type of thing, because it was
[2] a different culture we were dealing with there. And
[3] it's just like in this country where you tip after a
[4] meal. Down there, if you're going to do business,
[5] you tip before the meal. And it's a cultural —
[6] Q: Or you don't eat?
[7] A: That's right. It's a cultural difference in
[8] the two countries.
[9] Q: Did liability concerns — I think you may
[10] have already answered this — did liability concerns
[11] drive the work you did in handling the various
[12] spills and —
[13] A: No question. Absolutely.
[14] Q: Were you directed by St. Louis when a
[15] particular spill would happen or were you directed
[16] by the Anniston plant?
[17] A: No. I was directed by the manager of
[18] manufacturing, a guy by the name of Art Lizey, who
[19] ran that operation. You had basically two main
[20] managers: one for the aroclor, the organic type
[21] products; and one for the ag products underneath the
[22] plant manager. And I'd say 95%, 98% of the
[23] instructions I got were from that manager of that
[24] department. He had complete control of that

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[1] department. And Lizzy, who had the ag department,
[2] was extremely sensitive to liability, for obvious
[3] reasons, he had the most toxic product to our
[4] knowledge at that time.
[5] Q: Do you ever remember that particular manager
[6] telling you to visit or not visit individuals that
[7] may have been affected by a spill area? What
[8] instructions were you given by him as far as
[9] addressing people that might have been in the
[10] immediate vicinity of a spill?
[11] A: Every time implicit instructions, don't get
[12] us in a liability and don't talk to anybody.
[13] Q: Just get in, clean it up —
[14] A: And get out.
[15] Q: Did those instructions ever vary or change
[16] much over time?
[17] A: In West Palm Beach, Florida, carrying out
[18] those instructions changed a little bit because I
[19] had a truck where the drum had been punctured inside
[20] and the truck driver had driven right down a beach
[21] road with it. In fact, when I came in from the
[22] airport, I followed his tire tracks in the highway
[23] right to the place where he told me he was sitting,
[24] and I walked right up to the truck. It was leaking;

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[1] that's how bad it was. It was all over the street.
[2] And people had been walking in and out of it during
[3] the day. And I had a — I hired a city crew
[4] after — yes, it was before midnight, but it was
[5] dark. And I took a street sweeper and had a pickup
[6] truck in the front and throwing down soda ash on the
[7] street and had the street sweeper scrubbing behind
[8] it to try to neutralize it. And the city cops
[9] stopped me, wanted to know why I was throwing this
[10] stuff down on the street. So it got a little
[11] publicity.
[12] But I did keep it out of the
[13] newspapers and held it down to a minimum, because I
[14] told them how toxic this material was. And I said,
[15] "You guys got to forego the fact that I'm throwing
[16] stuff down on the street and believe me that I'm
[17] trying to neutralize this." And they said, okay,
[18] they gave me a patrol car in front with the flashing
[19] lights, which I didn't want because that was giving
[20] the publicity I didn't need. But we scrubbed the
[21] street, and to my knowledge they never had any
[22] problem with it.
[23] Q: Where were you scrubbing this — this was
[24] parathion waste?

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[1] A: Yes.
[2] Q: Where was it being scrubbed to, just to the
[3] sewers on the side —
[4] A: Well, we were neutralizing with soda ash.
[5] Once you put the soda ash on lye, if we couldn't get
[6] ahold of soda ash from a chemical supply place, I'd
[7] go to the grocery store and buy lye. But you had to
[8] be careful on that because if you put down too much
[9] lye, it was dangerous to people, it would burn their
[10] skin and stuff like that. It wouldn't kill them,
[11] but it would give them some physical damage.
[12] So I was very cautious about using
[13] just store-bought lye. And then whatever was swept
[14] up or washed up would just go in the vents, the
[15] sewer vents on the side. It was water soluble. It
[16] would go down the storm drains. To my knowledge in
[17] those days it didn't cause any harm. The main thing
[18] was to get proper mixing to get the sodium to react
[19] with the parathion. Once you broke the parathion
[20] apart, it was like when you applied it. It only had
[21] a half life of a few hours. And within an
[22] environment of caustic, you didn't have a half life
[23] a matter of a few seconds.
[24] Q: You mentioned earlier a subject that I want

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[1] to go back to, you mentioned a complaint hotline of
[2] sorts that was set up by the plant. Was that
[3] compliant hotline in place when you first came to
[4] Anniston in 1964?
[5] A: I can't say for sure whether it was or
[6] wasn't. It was in place there very shortly after if
[7] it wasn't. I think it was in place at that time.
[8] Q: What was the purpose of the hotline?
[9] A: Pick up complaints from the neighborhood on
[10] the west side of the plant. How had the plant
[11] dealt — well, let me ask you this: Were complaints
[12] from local residents new thing or is that something
[13] that had gone on a while and it was just a matter of
[14] coming up with a new system to deal with it?
[15] A: I assume that it was installed when they
[16] came there.
[17] Q: Okay.
[18] A: I never had any reason to really question
[19] it.
[20] Q: What were the complaints about?
[21] A: Odor.
[22] Q: Did they follow a pattern?
[23] A: Odor. I'd say 99% odor.
[24] Q: And did anyone know where the odor was

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Bryant - direct

[1] coming from or did you know where it was coming
[2] from?
[3]
[4] A: Well, the two sources of odor, one would be
[5] the — yeah, I knew where it was coming from. The
[6] bug pit was the major source. But another source
[7] was if they had to drop a batch because of
[8] instability. These batch reactors were in
[9] three-sided cubicles, and one side was intentionally
[10] left open so if you had an explosion, it would
[11] direct it away from the operator in the area.
[12] Q: And vent it to the atmosphere?
[13] A: Yes, wide open.
[14] Q: Okay.
[15] A: And fortunately we never had that occasion,
[16] but also unfortunately we sewered them, when we saw
[17] there was instability in them, where I think we
[18] would have that problem.
[19] Q: And did that somehow create an odor that —
[20] A: Oh, that stuff had an odor to it.
[21] Q: And would the sewerage of those bad batches,
[22] would that create an odor throughout the
[23] neighborhoods down from the plant?
[24] A: Yes. The neighborhood would get more of an
[25] odor than the operating people, because the

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[1] operating people were behind that retainer wall and
[2] the wind direction would have deflected it from
[3] them, but the neighborhood would have got more of
[4] that odor.
[5]
[6] Q: At the time that you were at the Anniston
[7] plant, as far as air emissions went, was the chief
[8] aim to get hazardous air emissions away from
[9] workers?
[10] A: Yes.
[11] Q: And to the outside atmosphere?
[12] A: Yes. Almost exclusively, with the exception
[13] of parathion process, and, as I said, that was so
[14] dangerous that there were concerns.
[15] Q: Other than trying to get potentially
[16] hazardous air emissions away from workers, do you
[17] know of any steps that were taken to try to prevent
[18] those air emissions from releasing into the
[19] neighborhoods at that time or at any time that you
[20] were connected to the Anniston plant?
[21] A: I'd say the rule for all industry in those
[22] days was ventilation for the workers, and Anniston
[23] was no exclusion. And the release, to me, to the
[24] environment, which was a problem when you get into,
[25] say, a powdered material, that would go up the vent

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[1] and be blown out to the atmosphere and that was
[2] allowed to just settle. And one thing that used to
[3] concern me in that area was Aroclor 1268, because it
[4] was a powder. And I don't know what the analysis
[5] have shown around that plant, but I wouldn't be
[6] surprised if it showed a high concentration of 1268
[7] versus the other aroclors, because the other aroclor
[8] is not water soluble.
[9]
[10] They would have been emitted to the
[11] atmosphere and carried by the trade winds. That was
[12] the problem with transformer electrical material.
[13] And I don't think Anniston would have been any
[14] exception, because it's the same product. But I
[15] would not be surprised if you didn't see higher
[16] concentrations of 1268 around the neighborhood than
[17] you do of the other aroclors.
[18] Q: And air emissions of that kind at Anniston
[19] could have caused those, I guess, PCB materials to
[20] have settled —
[21] A: No question.
[22] MR. SHARMAN: Object to the form.
[23] Q: — all over the city? You may answer. Is
[24] that true?
[25] A: No question. Air emissions going up a stack

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[1] would have settled in the surrounding areas.
[2] Different elevations in relation to the plant, some
[3] places lower than the plant, some higher, really
[4] wouldn't have mattered at the release heights we're
[5] talking about. Totally dependent on the wind
[6] direction and velocity. But that was an accepted
[7] standard in those days. Not today.
[8] Q: Well, were any particular precautions made
[9] by the plant to reduce air emissions of aroclors or
[10] PCBs because of the nature of the surrounding area
[11] being a populated area?
[12] A: Not as long as I was there. That's not to
[13] say that they didn't start taking some actions after
[14] '68 because I was screaming in the marketplace to
[15] customers all over the world that we needed carbon
[16] filtration and this type of thing on the
[17] ventilation. But at that time there was, to my
[18] knowledge, there was no carbon filtration, this type
[19] of thing, because it wasn't required.
[20] Q: Well, at the time that you were talking to
[21] customers about those air emission issues, had
[22] Anniston, to your knowledge, gotten PCB or aroclor
[23] air emissions under control at their plant, or was
[24] that still an issue at Anniston?
[25]

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Bryant - direct

- [1] *Bryant - direct*
[2] A: Really, I have no direct knowledge of what
[3] they were doing. The knowledge was available to
[4] them, I'll say that. But the corporate structure
[5] was such that I didn't have any direct dealings
[6] after I'd say '69.
[7] Q: During the time that you were in Anniston,
[8] did you observe any efforts by the plant management
[9] to notify the local community about possible air
[10] contamination?
[11] A: No.
[12] Q: Did plant management measure air emissions
[13] at the Anniston plant, to your knowledge?
[14] A: I would guess there was some measurement.
[15] It wasn't very sophisticated. Let me expand that
[16] statement. Did they notify? Yes. When they
[17] brought the PNP in, PNP contamination would be
[18] yellow orange type, and I do remember one incident
[19] in an ice house there right down Birmingham Highway
[20] from the plant, the guy's ice came up orange. And
[21] they asked about the toxicity, and I told the guy, I
[22] said, "I don't really know," but I said, "I don't
[23] think you're going to have very easy time selling
[24] orange ice, not with their flavor."
[25] Q: What year would this have been?

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- [1] *Bryant - direct*
[2] A: This would have been around '65, '66, along
[3] in that area.
[4] Q: And parnitrophenol, I'm assuming, is toxic;
[5] is that right?
[6] A: To my knowledge it is. They had blown a
[7] rupture disk on a reactor. I don't know exactly
[8] what chemical it was, but it was a yellow chemical,
[9] might have been sodium phenate or something like
[10] that.
[11] Q: How did the ice house operator know to call
[12] the plant, do you know?
[13] A: Because he saw the orange ice.
[14] Q: And had there been some press release to the
[15] public about the —
[16] A: No. We went in there and saw what he was
[17] talking about, and to my knowledge they destroyed
[18] the ice. Although to my knowledge Monsanto bought
[19] the ice.
[20] Q: I'm assuming the parnitrophenol leak or
[21] blast or whatever would have caused air emission
[22] issues for other parts of Anniston, not just where
[23] this guy's ice house was located; correct?
[24] MR. SHARMAN: Object to the form.
[25] BY MR. BYRNE:

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- [1] *Bryant - direct*
[2] Q: Or would you assume that some places in
[3] Anniston other than this guy's ice house store were
[4] affected by that spill?
[5] A: Yes. I'd say the guy was more affected
[6] because of wind direction. But there's certainly no
[7] reason to think that somebody else wouldn't have had
[8] the same exposure.
[9] Q: Did plant management speak with any other
[10] people around the area where the ice house may have
[11] been located?
[12] A: Not to my knowledge.
[13] Q: The folks that would call in on the hotline
[14] and complain of odors, what information was the
[15] plant giving out to those callers that you know?
[16] A: We tried to answer the complaint to the best
[17] of our ability, what we thought the problem and what
[18] we were doing to correct it, and thank them for
[19] calling in.
[20] Q: Did the plant managers have a position one
[21] way or another on whether toxicity could be
[22] discussed with local residents or was that discussed
[23] with local residents?
[24] A: No. I think the major concern in those
[25] days, I'm guessing what somebody else thought, but

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Bryant - direct

- [1] *Bryant - direct*
[2] my major concern was on the parathion intermediate,
[3] because if you got too much exposure on this stuff
[4] not only did you have an odor problem, but it tended
[5] to blister the eyeball, and you had a medical
[6] problem that somebody needed to address. And we had
[7] a number of workers who had this exposure. And that
[8] would come from when we would leak or drop one of
[9] these batches until it got to the bug pit. Once it
[10] got to the bug pit and got chewed around with the
[11] bugs, it was no problem. But down that sewer from
[12] the reactor to that bug pit was a real problem.
[13] Q: What would the plant managers do with
[14] workers who were exposed?
[15] A: Put them in first aid and treat the eyes.
[16] Actually, I think they had to peel a layer of skin
[17] off the eyeball. I don't know medically exactly
[18] what they did. I know one thing, it was just
[19] something you tried to avoid.
[20] Q: Were there any tests that were run, I mean,
[21] were blood tests taken from the workers?
[22] A: Yes. That was mainly for parathion or
[23] cholinesterate level.
[24] Q: What is cholinesterate?
[25] A: It's for blood level. You get the same

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Bryant - direct

[1] adverse effect if somebody drinks too much. Test
[2] wasn't that useful because the majority of the
[3] people drink. You had to establish a baseline and
[4] then you could measure the deviation from this
[5] baseline.
[6] Q: Would checking cholinesterase levels, would
[7] that give the plant managers or plant doctors some
[8] insight into the effect of a leak on a worker's
[9] liver? I'm saying that because of the reference to
[10] drinking. I didn't know if that was what you were
[11] looking for, was the liver effects?
[12] A: I would assume the same thing. But I don't
[13] know that for a fact.
[14] Q: Okay.
[15] A: I carried the atropine injections for
[16] exposure to parathion with me on these spills,
[17] because we had instructions on how to use that. No
[18] different from military, you just jab the needle in
[19] your leg and then you get to the hospital as fast as
[20] you can because overexposure to lead is as dangerous
[21] as parathion. But I don't know of many people that
[22] had to use that. In fact, I don't know of any that
[23] had to use that that, including myself.
[24] Q: Atropine injections, I guess, are still used
[25]

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Bryant - direct

[1] by the military today to deal with exposures to
[2] chemical nerve agents?
[3] A: Nerve gas, uh-huh. That's all parathion
[4] was, truthfully.
[5] Q: Okay. And so I guess atropine would have
[6] been given out to the soldiers that just went over
[7] to Iraq; is that correct?
[8] A: Uh-huh.
[9] Q: And some of the nerve agents that military
[10] leaders in our country may have been fearful of over
[11] in Iraq may have had some similar properties to
[12] parathion?
[13] MR. SHARMAN: Object to the form.
[14] BY MR. BYRNE:
[15] Q: Is that accurate? The chemical structure of
[16] what the general —
[17] A: I don't remember the exact agent that they
[18] used for the annihilation of the Jews, was the same
[19] gas. The only difference is was the alcohol. They
[20] use isonathal alcohol, where we use ethanol.
[21] Q: You're referring to Zyklon B? I believe
[22] that's the chemical they used —
[23] A: Is that the one?
[24] Q: — that was used by the Nazi government.
[25]

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[1] A: Because I'm not saying that Monsanto had —
[2] Q: No, no.
[3] A: — hired Nazis.
[4] Q: I didn't mean to infer that there was any
[5] connection between the two. But chemically
[6] speaking, Zyklon B, you're saying would have had
[7] similar chemical makeup to parathion?
[8] MR. SHARMAN: Object to the form.
[9] That is what he's inferring.
[10] You can answer.
[11] A: Major research people were Germans. That's
[12] all, as far as I know, about it. They were well
[13] versed on the chemistry. And I relied heavily on
[14] them, on the technical knowledge.
[15] Q: The supervisors and the managers that would
[16] talk to the customers that would call the hotline,
[17] what would they tell them? I mean, how would they
[18] explain the odors, or did they explain the odors?
[19] A: Yes. We would just wing it, really,
[20] depending on what the complaint, how the complaint
[21] was. I mean, how can you satisfy somebody who is
[22] complaining about a terrible, you know, stench
[23] because obviously they smell it or they wouldn't be
[24] complaining. And trying to explain to them that
[25]

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Bryant - direct

[1] it's a mishap or, you know, it's not an ordinary
[2] thing, we're doing thus and so and it should
[3] diminish. And sometimes it would, sometimes it
[4] wouldn't.
[5] Q: Did St. Louis know about the hotline or was
[6] it —
[7] A: Oh, I don't know how they could have
[8] avoided, to be honest with you.
[9] Q: Do you know if there were any subjects or
[10] issues that St. Louis ruled was off limits for the
[11] hotline staffers?
[12] A: No. I don't know of any St. Louis
[13] participation other than if they participated
[14] through the manager of that department. See, I
[15] wouldn't have been privileged to that conversation.
[16] They had meetings, constant meetings with him. But
[17] the personality of this guy was he only would tell
[18] you what he wanted you to know.
[19] Q: Who is this?
[20] A: Art Lizy. And nice guy, good guy to work
[21] with. And very concerned with liability and worker
[22] safety. But on his own terms.
[23] Q: Did he ever impose any rules or restrictions
[24] relating to information dispensed to the public via
[25]

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Bryant - direct

[1] the hotline?
[2] A: Oh, I don't think he wanted any information
[3] given out to the public, if it was in any way
[4] incriminating.
[5] Q: And did that attitude change at all with
[6] plant management during the time period you were
[7] there, or did you see some change in that stance?
[8] A: No, I didn't see any change in that.
[9] Q: We've talked really about parathion and some
[10] of the issues you were asked to address with respect
[11] to that process. Were you asked to examine any
[12] issues or particularly waste pollution issues with
[13] the aroclor production facility?
[14] A: Oh, yes. In fact, that's a division that I
[15] actually worked for. Anything on the ag division
[16] was liaison, but, unfortunately, it took up a good
[17] portion of my time because of the crucial problems
[18] that they had and the economic aspects of that to
[19] the overall business plan.
[20] Q: Did you understand when you came to the
[21] plant in 1964 that the plant had and was still
[22] experiencing significant aroclor waste issues?
[23] MR. SHARMAN: Object to the form.
[24] A: I wouldn't say major aroclor waste issues

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[1] other than from the standpoint they probably didn't
[2] understand what the aroclor waste issues were. I
[3] mean, it wasn't slopping aroclor on the floor and
[4] this type of thing, because, in the first place, the
[5] stuff is so slick you can't stand up in it. So they
[6] were pretty good at putting down particulate matter
[7] and stuff like that just for mechanical safety.
[8] Q: You're talking about sand?
[9] A: Sand, and in some cases Speedy Dry, if it
[10] was available.
[11] Q: I know we're kind of moving into a
[12] housekeeping subject here, but when sand or other
[13] absorbants were put down on spills of PCB in the
[14] plant, what would be done with the sand? Would it
[15] be swept somewhere?
[16] A: They would shovel it up, and as far as I
[17] know put it in the trash, in the municipal dump. I
[18] guess is where the stuff went. Sometimes up on the
[19] hill, mountain, to that thing, which I thought it
[20] was just a plant dump. But it may have been
[21] municipal stuff dumped in there. It was just a
[22] known dump site.
[23] Q: And the stuff that went to the trash would
[24] have just gone out with the rest of the paper and

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Bryant - direct

[1] cans —
[2] MR. SHARMAN: Object to the form.
[3] BY MR. BYRNE:
[4] Q: Go ahead, sir.
[5] A: As far as I know. The only one that
[6] bothered me from that standpoint, and I got to be
[7] candid with you on this, is the solid aroclor
[8] powder, the 1268, that stuff was a powder and it
[9] went up the exhaust stack, and that was different
[10] from the other aroclor. There was no shoveling
[11] this. If that was spilled on the floor, it
[12] solidified, made it hard, you could walk on it. But
[13] it wasn't that much of it spilled on the floor, but
[14] as far as the dust and this type of thing from it,
[15] yeah, if that stuff had liver problems, it bothered
[16] me, because there was mechanical ventilation for the
[17] operator. But, like you say, once it gets outside,
[18] where does it go. I don't know. It was free to go
[19] anywhere it wanted to.
[20] Q: 1268, that name for that type of aroclor is
[21] descriptive of its chlorine content; is that
[22] correct?
[23] A: Yes, 68% chlorine and chlorinated biphenyl.
[24] Q: Was that the most highly chlorinated product

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Bryant - direct

[1] manufactured at the plant?
[2] A: Routinely. They had a 1272, which was a
[3] decachlorobiphenyl, but to my knowledge that wasn't
[4] routinely manufactured. Now, they had some other
[5] higher molecular weight things mixed with Santo Wax
[6] called 4465 and this type of thing, I didn't think
[7] any of those were higher chlorinated, but they were
[8] different blend of raw materials and they had
[9] different characteristics. But the physical form of
[10] those were more of a resin than the powder. The
[11] only one was a solid powder in any production scale
[12] was 1268.
[13] Q: Were any efforts made by plant management to
[14] measure the level of PCB air emissions that left the
[15] plant, air emissions like from 1268?
[16] A: Nobody thought of it ever being a problem.
[17] I'd say the answer is no.
[18] MR. BYRNE: Let's take a quick break.
[19] THE WITNESS: Okay.
[20] THE VIDEOTAPE SPECIALIST: Now going
[21] off the videotape record; the time, 10:38.
[22] (Short recess.)
[23] THE VIDEOTAPE SPECIALIST: We are now
[24] back on the videotape record. This commences

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[1] *Bryant - direct*
[2] Videotape No. 2. The time, 11:02.
[3] You may continue.
[4] **BY MR. BYRNE:**
[5] **Q:** Mr. Bryant, when we left off before the
[6] break, we were talking about various PCB waste and
[7] pollution issues that the Anniston managers wanted
[8] you to focus on. And with respect to air emissions,
[9] which is one of the things we touched on, were you
[10] asked by the management at the Anniston plant to
[11] address any specific air pollution issues that
[12] touched on PCBs?
[13] **A:** No.
[14] **Q:** Do you know if anyone else connected to the
[15] Anniston plant was investigating or looking into PCB
[16] wastes created through air emissions?
[17] **A:** Not to my knowledge.
[18] **Q:** The plant was experiencing air emissions of
[19] PCBs but there were just other issues that the plant
[20] was focusing on; is that the idea?
[21] **A:** Yes. And I'd say the emphasis in this time
[22] frame was not so much on air emission other than to
[23] get it out of the workers' presence.
[24] **Q:** Were you asked to look into any PCB
[25] pollution issues created through discharges of PCB

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[1] *Bryant - direct*
[2] into or through the plant waste streams?
[3] **A:** No.
[4] **Q:** When you interviewed with the plant in 1964
[5] shortly before coming on board, were you briefed on
[6] Anniston waste discharges —
[7] **A:** No.
[8] **Q:** — into Snow Creek?
[9] **A:** No.
[10] **Q:** During the time that you worked in the
[11] Anniston plant, did you make any observations of
[12] waste discharges of PCBs to Snow Creek?
[13] **A:** Oh, yes.
[14] **Q:** Tell me a little bit about what you observed
[15] or what you learned with respect to PCB discharges
[16] to Snow Creek?
[17] **A:** Well, as I've said previously, I was
[18] personal friends with Gene Coley; in fact, we
[19] operated right out of the same office. And, yes, on
[20] occasion I would go with him and check fish traps
[21] and this type of thing that he had. And we'd talk
[22] about streams coming out of the plant, like the
[23] ditch that they put the limestone in was going to
[24] Snow Creek and this type of thing. And, yes, I
[25] asked him, you know, these acids are coming off the

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[1] *Bryant - direct*
[2] process, how about entrainment, this type of thing,
[3] where the products were being entrained in the acid.
[4] And there was a lot of concern about this.
[5] **Q:** You mentioned about fish studies or fish
[6] traps. Do you know when the process of fish
[7] sampling began at the plant?
[8] **A:** I think it started around '65, '66.
[9] **Q:** And —
[10] **A:** That's when Ferguson was brought on board.
[11] That's really the start of it, when they hired the
[12] consultant from Mississippi State.
[13] **Q:** This was a scientist out of Mississippi
[14] State University?
[15] **A:** Right.
[16] **Q:** What was his name?
[17] **A:** Denzel Ferguson.
[18] **Q:** And how was it that he came to work in
[19] Anniston? I mean, I don't mean how is it that he
[20] came, meaning how did he drive from Mississippi
[21] State University to Anniston; but I mean, did
[22] Monsanto hire him to come to Anniston to do some
[23] studies or did he just come to Anniston and do some
[24] studies on his own?
[25] **A:** Gerald Miller was taking over as chief

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[1] *Bryant - direct*
[2] chemist at that time from Owen Dolan, and Gerald was
[3] acquainted with Dr. Ferguson at Mississippi State.
[4] Gerald was a graduate of Mississippi State. And I
[5] had always assumed it was through that personal
[6] relationship that he was hired by Monsanto. But I
[7] don't have any knowledge and direct contract, this
[8] type of thing. I know he wasn't in there on his
[9] own.
[10] **Q:** And did Mr. Coley work with Dr. Ferguson or
[11] did Mr. Coley's fish study work operate independent
[12] of Mr. Ferguson or Dr. Ferguson?
[13] **A:** I think Coley was independent of Ferguson,
[14] although he certainly was appraised of the
[15] information that Ferguson generated and they
[16] mutually exchanged information, to my knowledge.
[17] **Q:** Where was Ferguson doing his tests? Do you
[18] know where he was putting out fish?
[19] **A:** I thought it was along Choccolocco Creek,
[20] but he could have been upstream of that.
[21] **Q:** Just so it will be clear to the members of
[22] the jury, where is Choccolocco Creek in relation to
[23] the plant?
[24] **A:** Well, stuff flowed down a ditch, most of it,
[25] to Snow Creek, and then from Snow Creek to

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Bryant - direct

- [1]
[2] Choccolocco and from Choccolocco to the Coosa River,
[3] along with Mountain Lake, to my knowledge.
[4] Q: Snow Creek was a ditch network that ran
[5] throughout the western portion of Anniston; is
[6] that —
[7] A: Snow Creek went on down through town.
[8] Q: And then it eventually emptied into
[9] Choccolocco Creek; is that correct?
[10] A: Right. I thought it was down somewhere
[11] around Oxford, but I could be wrong on that.
[12] Q: And then the Choccolocco Creek eventually
[13] merged with what body of water?
[14] A: Logan Martin, Coosa River, Alabama Project,
[15] I guess that is all Logan Martin Lake.
[16] Q: And from the plant wastewater outfalls to
[17] the confluence of Choccolocco Creek and the Coosa
[18] River and Lake Logan Martin, what kind of distance
[19] are we talking about from the waste outfall to the
[20] confluence of those two bodies of water?
[21] A: I'd say down Snow Creek was probably a
[22] couple of miles, and Choccolocco Creek was probably,
[23] I'd say what, 15 miles.
[24] Q: That sounds accurate to me.
[25] A: It was a pretty good ways down. South of

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Bryant - direct

- [1] Lincoln down on Interstate 20 on the Birmingham
[2] Highway.
[3] Q: How far downstream from the plant wastewater
[4] outfalls did Dr. Ferguson carry out his fish tests,
[5] to your knowledge?
[6] A: To my knowledge I don't know.
[7] Q: Okay.
[8] A: I have reason to believe his tests were
[9] fairly close to the plant, because the way the
[10] conversation came up, he put a cage of fish in the
[11] river and fried them in a matter of seconds — not
[12] the river, but he put it in, I assumed it was Snow
[13] Creek.
[14] Q: And did he report that result to plant
[15] managers in Anniston?
[16] A: Oh, yes, he reported it.
[17] Q: And what reaction if any did you observe
[18] from plant management after that report was made?
[19] A: As I said, that came up in personal
[20] conversation with Gene Coley, and I don't know what
[21] the plant reaction was. It certainly indicated to
[22] us that what was flowing there was pretty bad as far
[23] as aquatic life. But that could have been acid and
[24] not toxicity from other things.
[25]

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Bryant - direct

- [1] Q: Acid would leave the plant —
[2] A: Hydrochloric acid.
[3] Q: And acid would leave the plant and discharge
[4] into Snow Creek; is that correct?
[5] A: Yes.
[6] Q: Hydrochloric acid was toxic, was and is
[7] toxic to humans; is that correct?
[8] MR. SHARMAN: Object to the form.
[9] A: That's correct.
[10] Q: What else would leave through the waste
[11] outfalls besides acid? Would PCBs go through the
[12] waste outfalls?
[13] A: From a standpoint it's pretty difficult, but
[14] the answer is yes, they could. The quantity would
[15] be restricted for two reasons: one is PCBs are not
[16] soluble in water; and two is they tend to accumulate
[17] on particulate matter. And both of those
[18] characteristics are true in a ditch stream.
[19] Q: As I understand it, during the time frame of
[20] the mid-'60s when you came to the Anniston plant,
[21] plant management knew it was having PCB losses to
[22] Snow Creek; is that a fair statement?
[23] MR. SHARMAN: Object to the form.
[24] A: I can't honestly say — well, I don't know
[25]

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Bryant - direct

- [1] how they could have not known there were losses to
[2] the creek.
[3] Q: Okay.
[4] A: As I said, the two conditions as far as
[5] losses, I don't know how much they realized that the
[6] particulate matter trapping the material was a
[7] factor. But they used to scoop sand out of that
[8] neutralization pit, which was obviously the
[9] limestone decomposing from the acid. And I don't
[10] think there were any precautions as to what they did
[11] with that sand, and therefore I don't think they
[12] recognized the fact that there could be other things
[13] other than hydrochloric acid.
[14] Q: What would be done with the sand when it was
[15] taken out of the limestone pit? Would it be used
[16] for other purposes —
[17] A: I don't know what they did with that stuff.
[18] Q: Do you know if they gave it away?
[19] A: No reason it couldn't have been.
[20] Q: Do you know if they gave it away or did
[21] they —
[22] A: I don't know.
[23] Q: They didn't landfill the sand, did they?
[24] A: No, to my knowledge, they didn't.
[25]

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Bryant - direct

[1] Q: Was it just sent out with the waste trash,
[2] as far as you know?
[3] A: No. I don't think they carried it to the
[4] same trash setup. But as far as what they did with
[5] it, I don't know. They had a place out there on the
[6] Coosa River called the Circle M Ranch owned by
[7] employees, and stuff like that would have probably
[8] found its way to that operation. I don't know how
[9] many acres that was. It was a fairly good size kind
[10] of a club they had.
[11] Q: What's the Circle M Ranch?
[12] A: It was owned by employees. It was kind of
[13] a — not a country club, it was just a place that
[14] they could go for recreation.
[15] Q: Was it a social club that the plant
[16] employees had access to?
[17] A: Yes.
[18] Q: Was it near the creeks or anything like
[19] that?
[20] A: Oh, it was right on the Coosa River.
[21] Q: So sand, for instance, may have been hauled
[22] to that, to the Circle M Ranch?
[23] A: It may have been. I can't say it was or
[24] wasn't. I never physically saw it there, but it was
[25]

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Bryant - direct

[1] a kind of thing where they do community projects and
[2] certainly they could have used the sand for
[3] formulation of concrete, for pouring a patio or
[4] pouring a floor, driveway, or something like that.
[5] That I don't know.
[6] Q: Well, do you know if employees ever did any
[7] community projects that involved using the sand
[8] to —
[9] A: No.
[10] Q: — do anything? No. Do you recall a time
[11] when you were associated with the Anniston plant
[12] when waste outfalls were monitored for PCB losses?
[13] A: Not while I was there.
[14] Q: Do you ever recall hearing reports that at
[15] least say in 1968 or '69 that the plant was losing
[16] 250 pounds of aroclor products through the waste
[17] outfall systems daily?
[18] A: A report like that would have come out of
[19] the tech service department or the manufacturing
[20] department. And they were all graduate engineers
[21] from local — well, not all of them local, but from
[22] schools from Auburn, Alabama, LSU, and places like
[23] that. And I always relied and had a lot of
[24] confidence in their work. And if they said they
[25]

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Bryant - direct

[1] were losing 250 pounds, then they could back it up.
[2] Q: Were you — I mean, that kind of figure
[3] doesn't surprise you, does it? I mean is that —
[4] MR. SHARMAN: Object to form.
[5] A: No. I had no feeling on those numbers other
[6] than the fact that I felt that the engineers were
[7] being candid. Because his pay was based on that.
[8] Q: Yes. The hydrochloric acid releases through
[9] the waste outfalls, those were monitored, I'm
[10] assuming?
[11] A: Probably in the sense of pH, I think would
[12] have been about the only thing.
[13] Q: Would PCB losses — well, let's put it this
[14] way. Prior to the advent of some of the higher end
[15] gas chromatography work that came in in the mid to
[16] late '60s, what types of tests were in place to
[17] measure, say, gross losses of PCB or acid or such
[18] from plant outfalls?
[19] A: Acid would have been pH. PCB would have
[20] just been physical observation of those two layers,
[21] one crawling along the bottom, heavy layer, and to
[22] my knowledge they never had any observation, any
[23] kind of thing.
[24] Q: Were you aware that the plant was carrying
[25]

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Bryant - direct

[1] out a thing called an extraction, using an
[2] extraction technique to measure gross losses of PCBs
[3] in the late '50s and early '60s? Were you aware of
[4] that?
[5] A: That's possible. That would have been done
[6] in the control laboratory. I never was specifically
[7] asked to do work in that area.
[8] Q: I guess what I'm getting at is this: If the
[9] plant wanted to measure gross losses of PCB back in
[10] the '50s, it could have done so through some sort of
[11] extraction analysis in the lab, couldn't it? It had
[12] that technology, didn't it?
[13] A: Yes, it would have been —
[14] MR. SHARMAN: Object to the form.
[15] A: — gross, though. They would have probably
[16] seen something to move them in that direction.
[17] Q: But if you were losing, say, hundreds of
[18] pounds of PCBs in waste outfall every day, wouldn't
[19] that be something that the extraction analysis would
[20] have picked up?
[21] MR. SHARMAN: Object to the form.
[22] BY MR. BYRNE:
[23] Q: That kind of gross loss?
[24] A: That would have been done in a control
[25]

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[1] *Bryant - direct*
[2] laboratory. And I don't know any tests of that
[3] type. But certainly it would have been possible.
[4] Q: If one had had a mind to test PCB losses,
[5] gross losses, to the plant, waste discharges into
[6] Snow Creek back in the '50s, there were techniques
[7] available to measure those gross losses; am I
[8] correct?
[9] MR. SHARMAN: Object to the form.
[10] You can answer.
[11] A: Well, you could have done it the way that
[12] you're talking about, but they would have had to
[13] have been pretty gross, and you would have to make
[14] some type of physical observation to even question
[15] that type of thing. I mean, the insolubility is so
[16] great, I don't think anyone would have posed that as
[17] a risk.
[18] Q: Could you have taken a gallon jar and filled
[19] it up with water from the waste outfall and measured
[20] that for the presence of PCBs via the extraction
[21] technique in the '50s?
[22] A: It would have been pretty difficult.
[23] Q: Could it have been done?
[24] A: Possible.
[25] Q: Do you know if Monsanto tried to do that?

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[1] *Bryant - direct*
[2] A: They probably took samples and looked at it.
[3] Q: What type of gross loss would it take to
[4] have shown the presence of PCBs through extraction
[5] techniques back in the '50s?
[6] A: You'd have to have two-phase observation.
[7] Q: One, you would have to know you had lost
[8] some PCBs?
[9] A: You would have to have some reason or
[10] suspicion, and, of course, then you can do a
[11] physical, you know, centrifuge or something like
[12] that, because there is a tremendous difference in
[13] the gravity between PCBs and water; the higher
[14] chlorinated, the more.
[15] Q: I see.
[16] A: But it would have been a pretty crude test.
[17] Everything was crude in those days.
[18] Q: There were PCB spills, though, at the plant
[19] that made their way to Snow Creek when you were in
[20] Anniston, were there not?
[21] MR. SHARMAN: Object to the form.
[22] A: I can't recall any actual spills that were
[23] noteworthy to the creek. You say, you know, you
[24] asked me if there were spills. The only thing, as
[25] far as the drainage system, how that would fit in

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[1] *Bryant - direct*
[2] with this approach, was that a lot of the tanks and
[3] lines were over gravel, and I'd say in those days,
[4] if it leaked or if you broke a pipeline that ran
[5] down in the gravel chat, then it went to the sewer
[6] eventually. Because that would catch the spill.
[7] But where the spills presented a problem were on
[8] concrete or steel because they were slick. And I'd
[9] say in those areas they did put down stuff to absorb
[10] it. But I'd say if it fell in the gravel, I don't
[11] recall any collection of the material.
[12] Q: Well, were PCB spills that occurred in the
[13] drumming areas and the collection stations, were
[14] those, those were swept to the sewers, too, weren't
[15] they?
[16] MR. SHARMAN: Object to the form.
[17] A: The drumming area, I'd say you didn't have
[18] that much spillage. I mean, if you had a guy that
[19] was drumming and he spilled a lot of material, he
[20] didn't stay on the drumming station very long.
[21] Q: Because he was losing profit?
[22] A: Uh-huh.
[23] (Memo, 11/14/69, to Papageorge from
[24] Wright marked Plaintiff's Exhibit 1.)
[25]

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[1] *Bryant - direct*
[2] BY MR. BYRNE:
[3] Q: I'm going to show you a number of documents,
[4] Mr. Bryant, just to see if this brings to mind any
[5] issues that were going on at the plant in the late
[6] '60s with respect to measurements of PCB losses to
[7] the Snow Creek ditch network.
[8] I'm going to hand you first what I'm
[9] marking as Plaintiff's Exhibit 1.
[10] MR. SHARMAN: David, may I take a
[11] look — thank you.
[12] BY MR. BYRNE:
[13] Q: This appears to be a memo dated March 6,
[14] 1969, authored by E. G. Wright to a Mr. Papageorge.
[15] And this may have been after the time that you were
[16] with the plant, but there is a reference in
[17] Plaintiff's Exhibit 1 to a loss of approximately
[18] 1,500 gallons of Aroclor 1242 to the acid sewer. Do
[19] you remember that particular incident that's
[20] described in this memo?
[21] A: No. I had no knowledge of this whatsoever.
[22] In fact, I think I was probably in South America
[23] when this happened.
[24] Q: Okay. Did you ever hear about this
[25] particular incident?

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Bryant - direct

[1] A: No. I hired Wright, and he just took over
[2] this responsibility when I left. So I don't dispute
[3] that what he's saying here is probably true.
[4] Q: Okay.
[5] A: But I have no knowledge one way or the
[6] other.
[7] Q: Okay.
[8] A: Other than I know where he's talking about.
[9] That is the neutralization pit with the limestone
[10] that he's talking about.
[11] Q: When was the limestone pit brought into the
[12] Anniston plant?
[13] A: As far as I know, it was there when I got
[14] there in '64.
[15] Q: Do you know how long it had been in place?
[16] A: No, I don't.
[17] Q: The limestone pit hadn't been there since
[18] the beginning of aroclor production by Monsanto at
[19] the plant, had it?
[20] MR. SHARMAN: Object to the form.
[21] A: I assumed it had. But I have no knowledge
[22] whether it was or wasn't. They had to neutralize
[23] the acid coming out of there some kind of way, or I
[24] assume they did. But to my knowledge, I don't know

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Bryant - direct

[1] whether they did or didn't.
[2] (Memo, 8/18/70, to Bell from Hodges
[3] marked Plaintiff's Exhibit 2.)
[4] BY MR. BYRNE:
[5] Q: Let me show you what I'm going to mark as
[6] Plaintiff's Exhibit 2. This appears to be a
[7] September 18, 1970, memo from Mr. Paul Hodges to
[8] Toby Bell, and I'm showing you this for two reasons:
[9] one, I need to ask you questions about the people
[10] who were writing and receiving this e-mail — excuse
[11] me, this memo. Who is Mr. Paul Hodges? Do you know
[12] who that is?
[13] A: Yes. He was in St. Louis. I don't know
[14] exactly what his title was, but he had been involved
[15] as a superintendent of something in that Anniston
[16] plant years before.
[17] Q: And what would he have been doing in
[18] St. Louis for the company as of 1970?
[19] A: I think he would have been looking at it
[20] from a legal aspect. I don't know whether he was in
[21] the legal department or not at that time.
[22] Q: Who is Toby Bell? He's the one this memo
[23] was sent to.
[24] A: Toby Bell, I'm not aware who he was.

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Bryant - direct

[1] Q: Okay.
[2] A: It kind of reads like he was a process
[3] engineer from the distribution you got on this
[4] thing. I'd say that's what it was.
[5] Q: In about the third sentence of this memo
[6] there's a reference to the plant having —
[7] THE VIDEOTAPE SPECIALIST: Going off
[8] the video record, 11:27.
[9] (Discussion off the record.)
[10] THE VIDEOTAPE SPECIALIST: Back on,
[11] 11:27.
[12] BY MR. BYRNE:
[13] Q: Turning back to Plaintiff's Exhibit 2,
[14] there's a reference in the third sentence to a loss
[15] of about 80 pounds of PCB into Snow Creek on a
[16] particular day in September?
[17] MR. SHARMAN: Object to the form.
[18] BY MR. BYRNE:
[19] Q: There's a reference to 80 pounds of PCB
[20] being lost somewhere in September of 1970. Were you
[21] ever briefed on this kind of information once you
[22] moved to St. Louis?
[23] A: No. At this time I was running up and down
[24] the East Coast here — in fact, my family was still

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Bryant - direct

[1] in St. Louis — trying to get a handle on the market
[2] situation and losses. And I would not have been
[3] appraised that they had problems there for any
[4] reason.
[5] Q: Okay.
[6] A: My recollection doesn't tell me exactly, but
[7] Hodges I think was with the legal department.
[8] (Memo, 8/7/70, to Bergen from St.
[9] Louis General Offices marked Plaintiff's Exhibit 3.)
[10] BY MR. BYRNE:
[11] Q: Let me show you another memo that I'm going
[12] to mark as Plaintiff's Exhibit 3 to this deposition.
[13] This appears to be an August 1970 memo to a
[14] Mr. Bergen. Who was Mr. Bergen?
[15] A: He was the head of the whole group, I forget
[16] what his title, director of functional fluids.
[17] Q: Was he based in St. Louis?
[18] A: St. Louis.
[19] Q: And I guess was he the president or
[20] executive vice-president for that division of
[21] Monsanto?
[22] A: Yes. He ran that whole division.
[23] Q: This memo was also authored apparently by
[24] Paul Hodges, who signed at the last page, and the

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Bryant - direct

- [1]
[2] only reason I hand this to you is because of the
[3] reference in the first numbered paragraph to the
[4] Anniston plant discharging to Snow Creek about 16
[5] pounds a day of PCB, and then there's a
[6] parenthetical next to that that says, "Down from 250
[7] pounds per day in 1969." Do you see that reference?
[8] A: No. What page?
[9] Q: I'm on Page 1 of Exhibit 3, and under the
[10] heading or subheading called "Status."
[11] A: Okay.
[12] Q: You'll see there's a numbered paragraph.
[13] A: Okay.
[14] Q: And that sentence reads, "We are presently
[15] discharging to Snow Creek about 16 pounds per day of
[16] PCB (down from 250 pounds per day in 1969.)" Did I
[17] read that sentence correctly?
[18] A: I have no knowledge of those numbers. But
[19] this does bring back my recollection of who Paul
[20] Hodges is. Paul Hodges was the environmental guy in
[21] charge of it in St. Louis. I don't know whether all
[22] Monsanto or just the division.
[23] Q: Were you in Anniston in 1969?
[24] A: Only on short trips.
[25] Q: Okay. Well, were you ever alerted to the

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Bryant - direct

- [1] fact that the plant was apparently losing 250 pounds
[2] of PCB into Snow Creek on a daily basis that year?
[3] MR. SHARMAN: Object to the form.
[4] A: No. My only interest would have been in
[5] Alabama in '69 was obtaining, getting that mercury
[6] out of there from dismantling that chlorine plant
[7] and getting it to St. Louis, into the operation
[8] there.
[9] Q: We'll talk about that in just a moment.
[10] 250 pounds a day, assuming that's
[11] correct, as of 1969, what would that roughly
[12] translate into on a yearly basis? You're probably
[13] better at math than I am. Would that translate into
[14] a large loss of PCB into Snow Creek for that year?
[15] A: 250 times 365, I'm not being sarcastic, but
[16] that's a fairly good number of pounds.
[17] Q: Those would be gross losses on almost a
[18] daily basis, would it not?
[19] A: Well, that equates to about 20 gallons.
[20] Q: And even in the — well, let me ask you
[21] this: Do you have any reason to suspect that the
[22] Anniston plant was doing a better job in the '30s,
[23] '40s, or '50s of controlling PCB discharges into
[24] Snow Creek than it was, say, in the late 1960s?
[25]

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Bryant - direct

- [1] MR. SHARMAN: Object to the form.
[2] BY MR. BYRNE:
[3] Q: You may answer.
[4] A: I have no knowledge, but I think it would
[5] have been worse. I don't think they even realized
[6] the problem. I think in 1969, I know they were
[7] aware of some of the problems, major problems. And
[8] I think they were trying to take what action they
[9] could at that time to at least minimize if not
[10] eliminate the problem.
[11] Q: As of 1969 was there any question that
[12] losses in the range of 250 pounds a day directly
[13] into Snow Creek, those are heavy losses?
[14] MR. SHARMAN: Object to the form.
[15] BY MR. BYRNE:
[16] Q: Even in 1969 terms; would that be fair to
[17] say?
[18] A: Oh, yes. I can only speak to that from the
[19] standpoint of the customers. And we had customers
[20] that were losing this quantity, but we were putting
[21] every effort we could to restrict it. And I'd say
[22] the plant should have been doing it, and according
[23] to this memo they probably were doing the best they
[24] could to try to eliminate that.
[25]

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Bryant - direct

- [1] Q: In 1969 was Monsanto telling its customers
[2] that if they had gross losses of 250 pounds a day
[3] into some wastewater stream leaving their plant,
[4] that they needed to stop it?
[5] A: Oh, yes, no question.
[6] Q: In fact, even in 1969, wasn't Monsanto
[7] telling its customers if they were even losing a few
[8] pounds of PCB into wastewater leaving their plant,
[9] they needed to stop it?
[10] A: That's correct.
[11] Q: Did you ever have any interaction with Joe
[12] Crockett, who was the secretary of the Alabama Water
[13] Improvement Commission?
[14] A: No.
[15] Q: Do you know if Mr. Coley ever had any
[16] interaction with Mr. Crockett?
[17] A: He probably did. The name somewhat rings a
[18] bell with Gene Coley, but I don't know to what
[19] extent.
[20] Q: There's a reference in the paragraph or
[21] subparagraph that has a number 3 designation next to
[22] it, still on the first page of Exhibit 3, to Joe
[23] Crockett, secretary of the Alabama Water Improvement
[24] Commission trying to handle the problem quietly
[25]

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[1] *Bryant - direct*
[2] without release of the information to the public at
[3] this time. Was that in your experience a real
[4] concern for the management at the Monsanto Anniston
[5] plant, this idea that information about PCB losses
[6] to Snow Creek, releases of other waste materials
[7] into Snow Creek getting to the public, was that
[8] something that the plant was concerned about?
[9] MR. SHARMAN: Object to the form.
[10] A: Like I say, my responsibility was the other
[11] side of the plant at that time. The attitude in the
[12] plant had been to try to eliminate informing the
[13] local people of these kind of problems because it
[14] would raise concern they felt unnecessarily, because
[15] I don't think the people even doing it quite
[16] understood the impact or total impact of the
[17] problem. But I wouldn't be surprised that this
[18] attitude didn't exist at that time.
[19] Q: Having worked in both St. Louis and Anniston
[20] in the late 1960s and early '70s, did you ever get
[21] the sense that St. Louis had a better handle on the
[22] effect of PCB pollution on the environment and on
[23] human beings back in that time frame than the local
[24] plants did?
[25] A: Oh, yes, no question about it. Because I

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[1] *Bryant - direct*
[2] got exposure firsthand to the information pretty
[3] much when Monsanto really developed a program into
[4] it, and this would have been in late '68. In fact,
[5] I moved to St. Louis in the spring of '68, and the
[6] expression we used, I hit the ground running,
[7] because we had major problems. I didn't realize in
[8] the plant that the problems were as extensive as
[9] they are, or were.
[10] And I'd say the knowledge in
[11] St. Louis is much greater than the plants. We were
[12] trying to carry on a two-front program. We were
[13] trying to inform the customers to contain this thing
[14] and also trying to do housekeeping in the
[15] manufacturing operations. And as far as what those
[16] manufacturing operations did, I had no
[17] responsibility other than to relate the problems to
[18] them, which I did. And if the management structure
[19] did not inform the plants, I'm not aware of it.
[20] Q: You returned to St. Louis in 1968, is that
[21] correct, or 1969?
[22] A: '68.
[23] Q: Then briefly you returned —
[24] A: I was briefly back just like one week to get
[25] the chlorine — get the mercury out of that facility

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[1] *Bryant - direct*
[2] and oversee. We were sending a bunch of junk up to
[3] St. Louis.
[4] Q: When you returned to St. Louis and worked
[5] with various departments on PCB-related issues, did
[6] you have any interaction with the medical
[7] department?
[8] A: Yes.
[9] Q: Who did you interact with in the medical
[10] department that you can remember by name?
[11] A: Dr. Kelly, Dr. Wheeler, and Dr. Garrett.
[12] Q: Did you ever talk to Dr. Kelly, Mr. Wheeler,
[13] or Mr. Garrett about the effects of PCBs on the
[14] environment and on humans?
[15] A: Yes, quite a bit.
[16] Q: What did those gentlemen tell you about the
[17] effects of PCBs on humans, at least as they
[18] understood it, back in that time frame?
[19] A: Well, they were pretty certain on liver
[20] effects, like any chlorinated hydrocarbon, they were
[21] aware of kidney, thyroid. And as far as cancer and
[22] areas like this, it was quasi-knowledge. It was
[23] something to be concerned about and be alerted to,
[24] but I'd say it wasn't a major concern. But the
[25] liver was a concern.

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[1] *Bryant - direct*
[2] Q: And during the time that you were in
[3] St. Louis, did you ever observe any efforts by the
[4] medical department to reach out and brief the local
[5] community around the Anniston plant about those
[6] health concerns relating to PCB exposure?
[7] MR. SHARMAN: Object to the form.
[8] A: No. The medical department operated I'd say
[9] similar to what I did. They informed the management
[10] of the problems and depended on them to disperse
[11] this information to where they saw fit. And I got
[12] it from the medical department because I happened to
[13] be there in St. Louis. I'd say they did an
[14] informative job of informing the people there in
[15] St. Louis to try to disperse it, to get it to the
[16] customers and the manufacturing operation. But the
[17] customer standpoint is the only one I can answer
[18] from because that's the only responsibility I had.
[19] Q: Well, did you ever observe any effort,
[20] either in the home office or locally in Anniston,
[21] management trying to alert community residents about
[22] these health effects that you described that are
[23] associated with PCB exposure?
[24] A: I had no knowledge of it. They certainly
[25] came to St. Louis, and I had different friends who

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Bryant - direct

[1] were there in the Anniston that were in the
[2] St. Louis home office on visits, as far as I know
[3] were informative visits on the effects, the toxicity
[4] of these products. But, you know, they could have
[5] had something entirely different. I wasn't
[6] privileged to be in the meetings, so I don't know.
[7] Q: And whether those discussions about the
[8] various human health effects of PCBs ever filtered
[9] down to the community outside the Anniston plant or
[10] not, you don't know?
[11] A: No. I have no way of knowing that.
[12] Q: Do you remember Dr. Kelly or Mr. Garrett or
[13] Mr. Wheeler ever expressing the view that people in
[14] these communities, in Anniston, these neighborhoods,
[15] needed to know about potential health effects of PCB
[16] exposure?
[17] A: Yes — not so much Dr. Kelly, but
[18] Dr. Wheeler and Garrett, because they sat in on a
[19] lot of the test reviews that we had on biotests for
[20] toxicity in animal exposure. Kelly was a very high
[21] level medical department guy. He sat in on
[22] top-level technical discussions. But just the
[23] routine laboratory testing or contractor testing, I
[24] don't think he was in many of those meetings. He
[25]

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Bryant - direct

[1] delegated most of it to Kelly and Wheeler.
[2] Q: What did you understand Monsanto's
[3] objectives to be with respect to the Industrial
[4] Biotest lab studies?
[5] A: The ones out in Chicago?
[6] Q: Yes, sir.
[7] A: They were terrible.
[8] Q: Do you know what Monsanto's objectives were?
[9] Was it to try to —
[10] A: They weren't reliable. The data basically
[11] was fudged, and they tended to try to look like give
[12] Monsanto data that they wanted rather than the data
[13] that they got. It just wasn't reliable.
[14] Q: Do you remember feeling whether that was
[15] something that Monsanto was looking for, was data
[16] that would disprove some growing medical evidence of
[17] PCB health effects in humans?
[18] MR. SHARMAN: Object to form.
[19] A: No. That was done by the medical
[20] department. And I think they physically wanted to
[21] know the effects, because they could control whether
[22] or not the information got out. But they wanted to
[23] know technically. And I think they were upset
[24] because they didn't get the true technical answer.
[25]

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Bryant - direct

[1] I know they were upset.
[2] Q: What do you understand happened to people
[3] involved with Industrial Biotest as a result of some
[4] of these studies? What became of some of those
[5] people?
[6] A: I think some of those people lost their
[7] jobs.
[8] Q: Were you ever aware that the federal
[9] government prosecuted certain people connected with
[10] Industrial Biotest as a result of fraudulent data
[11] submissions to the government?
[12] MR. SHARMAN: Object to the form.
[13] A: There was a lot of controversy at the time.
[14] See, that was about the time the EPA was being
[15] organized. And they gave all kinds of motivation to
[16] have an Environmental Protection Agency. And I
[17] think Monsanto was supportive of that program as
[18] much as anybody else.
[19] Q: Well, were you aware that Industrial Biotest
[20] scientists were prosecuted over some of their
[21] fraudulent data? Did you ever become aware of that?
[22] A: I just heard rumors. I was never exposed.
[23] Monsanto never made an issue out of that. The only
[24] issue I got out of that, the instructions I were
[25]

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Bryant - direct

[1] given was disregard the Biotest data. And basically
[2] I did. I never mentioned it to a customer.
[3] Q: The folks at Industrial Biotest were asked
[4] to review data submitted by other scientists not
[5] hired by Monsanto who were working on the PCB health
[6] effect issue at the time; is that true? And the
[7] time period I'm talking about is the late '60s,
[8] early '70s.
[9] A: Yes. I think the origin of the PCB problem
[10] came from out of overseas and also Reisboro in
[11] California on the Paragon Fountain. I think Sweden
[12] was the first fish studies that became aware there
[13] was a problem.
[14] Q: As I understand it, when those studies came
[15] out, there was a lot of concern in upper management
[16] about the effect those studies might have on sales
[17] or continued sales of PCB; is that correct?
[18] MR. SHARMAN: Object to the form.
[19] A: Hurt?
[20] Q: Yes, sir.
[21] A: Yes, that's correct.
[22] Q: That it would in fact hurt sales?
[23] A: In fact it would ruin the market. We were
[24] the only manufacturer — Monsanto was sole
[25]

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[1] *Bryant - direct*
[2] manufacturer in the United States. That wasn't true
[3] for the world, because there were two other
[4] manufacturers in the world. But for the United
[5] States Monsanto was sole manufacturer.
[6] Q: But even before the Reisboro studies came
[7] out, before the studies came out of Sweden, isn't it
[8] fair to say that at least the medical department for
[9] Monsanto was aware that PCBs could damage the human
[10] liver?
[11] MR. SHARMAN: Object to the form.
[12] BY MR. BYRNE:
[13] Q: Is that a fair statement?
[14] A: That was the information back in the
[15] archives of Monsanto research and development, that
[16] there were liver problems. I think that ties back
[17] to even Red Ellenberg and those guys, who were much
[18] ahead of me at Anniston.
[19] Q: Dr. Simone —
[20] A: Yes.
[21] Q: — do you remember Dr. Simone?
[22] A: I don't remember him, but I remember his
[23] articles.
[24] Q: Do you remember a Dr. Von Weddle and a
[25] Dr. William Hola?

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[1] *Bryant - direct*
[2] A: No.
[3] Q: Dr. James Denton?
[4] A: No.
[5] Q: Do you remember the Dr. J. W. Barrett, I
[6] think he may have been based out of London?
[7] A: Yes.
[8] Q: Do you recall ever hearing that he was
[9] carrying out some studies on the maximum allowable
[10] toxic concentrations of PCBs in the workplace back
[11] in the '50s?
[12] A: Yes. He would have been actually a separate
[13] operation out of Monsanto, Limited, out of Robin
[14] Wales, or he could have been out of London.
[15] (Memo, 9/20/55, to Barrett from Kelly
[16] marked Plaintiff's Exhibit 4.)
[17] BY MR. BYRNE:
[18] Q: I'm going to hand you a document that I'm
[19] going to mark as Plaintiff's Exhibit 4. This is in
[20] fact a memorandum that was submitted to Dr. Barrett
[21] in September of 1955 from Dr. Kelly and —
[22] MR. SHARMAN: David, do you have a
[23] copy, please?
[24] MR. BYRNE: Yes.
[25] MR. SHARMAN: Thank you.

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[1] *Bryant - direct*
[2] BY MR. BYRNE:
[3] Q: And in this memo, Dr. Kelly states the
[4] following in the final paragraph on Page 1 of this
[5] memo. He says "MCC's position can be summarized in
[6] this fashion. We know aroclors are toxic but the
[7] actual limit has not been precisely defined. It
[8] does not make too much difference, it seems to me,
[9] because our main worry is what will happen if an
[10] individual develops any type of liver disease and
[11] gives a history of aroclor exposure. I am sure the
[12] juries would not pay a great deal of attention to
[13] maximum allowable concentrations."
[14] I read that to you for this reason:
[15] The medical department clearly understood, did it
[16] not, prior to the publication of the Jenson and
[17] Reisboro studies, that PCBs affected the human
[18] liver, did it not?
[19] MR. SHARMAN: Object to the form.
[20] A: Emmett Kelly, Dr. Kelly, was firmly
[21] convinced of it, no doubt in my mind on that.
[22] Q: And hadn't the medical department folks from
[23] Monsanto been talking about PCB exposures leading to
[24] systemic toxic effects as far back as the 1930s?
[25] A: Obviously, since I was born in 1936, I can

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[1] *Bryant - direct*
[2] only recollect from that time on.
[3] Q: Okay.
[4] A: But I'd say there was information in the
[5] archives, something to this effect. Dr. Kelly got
[6] his belief from somewhere.
[7] Q: Okay.
[8] A: And I also respected him because he was
[9] older than I, and I assumed I could learn something
[10] from what he had been exposed to. I never did know
[11] exactly why he was so strong on liver, but I
[12] accepted the fact that it was a liver toxin because
[13] I don't think he would have been as outspoken as he
[14] was had it not been.
[15] Q: Well, sitting here today, do you feel like
[16] it's pretty well established even today that one of
[17] the health effects involved in being exposed to PCBs
[18] is possible liver damage?
[19] MR. SHARMAN: Objection to form.
[20] A: No doubt in my mind on that or any
[21] chlorinated hydrocarbon. And I think he's on track
[22] in this memo where he says the increased
[23] chlorination level, because I think that is true.
[24] Q: In other words, the higher the chlorine
[25] content in the aroclor product, the more toxic it is

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Bryant - direct

[1] to the human liver?
[2] **A:** Right, right. Because we found in later
[3] work that some of the lower chlorinated materials,
[4] particularly the mono, di, and tri, were
[5] biodegradable, where the higher chlorinated, the 5
[6] and 6 chlorine rings, are definitely not degradabel.
[7] **Q:** Do you ever recall during the time that you
[8] were in St. Louis, or in Anniston, whether any
[9] effort was made by management to inform — well,
[10] strike that. We've talked about that, so let's move
[11] on from there.
[12] When you interviewed with the plant
[13] in 1964, did management discuss their chlorine
[14] operation with you to any extent?
[15] **A:** Only from the standpoint of the process
[16] engineer and probably the supervisor of that
[17] department, which would have been a guy, the tech
[18] service guy would have been an engineer by the name
[19] of Bill Voss, and the process engineer would have
[20] been Lamar Faulkner, and the actual operation was
[21] under Robert Moodis, production manager's control.
[22] **Q:** How long had chlorine been manufactured on
[23] site at the Anniston plant?
[24] **A:** I have no idea. It was manufactured there
[25]

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Bryant - direct

[1] when I came there in '64, so presumably would have
[2] been much longer than that. The plant looked pretty
[3] old.
[4] **Q:** Okay. It was an older facility, was it not?
[5] **A:** Yes, it was.
[6] **Q:** Did you find during your time at Anniston
[7] that the fact that it was an older facility
[8] contributed in some ways to some of the waste
[9] discharges occurring around the plant?
[10] **MR. SHARMAN:** Object to the form.
[11] **A:** Manufacturing chlorine by that old — that
[12] technology, the neurocell, was the leading
[13] technology in that day. But it was pretty sloppy
[14] operation, mercury anode, had a lot of problems with
[15] emulsion, particularly on a caustic by-product, and
[16] this stuff led to mercury emissions from a process
[17] which eventually changed the technology to membrane
[18] type cells in most cases. Still some mercury that's
[19] running around the country.
[20] **Q:** Were you asked to address mercury pollution
[21] issues at the plant during the time you were in
[22] Anniston?
[23] **A:** Yes.
[24] **Q:** And who first spoke with you about mercury
[25]

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Bryant - direct

[1] pollution issues?
[2] **A:** The process engineer, Lamar Faulkner.
[3] **Q:** And what did he tell you about mercury
[4] pollution at the plant?
[5] **A:** He had an amalgam, which I believe came off
[6] of the filter gate for caustic recovery from that
[7] process. And there was question if we could somehow
[8] by adjusting the pH get this emulsion to settle or
[9] get it out where it would cut down on his mercury
[10] losses. And I'm not sure if those losses were lost
[11] so much to the sewer as they were to the waste. I
[12] don't know where this filter media went. I assumed
[13] it was some kind of control on it, but physically I
[14] don't know where it went.
[15] **Q:** Well, you understood that mercury was
[16] discharged into Snow Creek from time to time, wasn't
[17] it?
[18] **MR. SHARMAN:** Object to the form.
[19] **A:** Yes. In the sense that the drain went
[20] through the same system that the waste acid drain
[21] went. In fact, the plants were side by side. Yes,
[22] mercury would have gone, entrained in the liquid or
[23] spillover from the plant into the drain and would
[24] have gone into Snow Creek.
[25]

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Bryant - direct

[1] **Q:** And that would be the same area where acid
[2] and PCBs would discharge into Snow Creek; correct?
[3] **MR. SHARMAN:** Object to the form.
[4] **A:** That's correct.
[5] **Q:** So to the extent that there were losses of
[6] PCB and acid into Snow Creek, the same potential at
[7] that waste outfall point existed for mercury losses?
[8] **MR. SHARMAN:** Object to the form.
[9] **A:** That's correct.
[10] **Q:** At the time when you were first asked to
[11] take a look at this matter, I mean, it was clear,
[12] was it not, that mercury was not a healthy thing for
[13] human beings to be exposed to; correct?
[14] **A:** Correct.
[15] **Q:** Are you familiar with the effects of mercury
[16] on humans?
[17] **MR. SHARMAN:** Object to the form.
[18] **A:** Yes.
[19] **Q:** What types of problems do mercury exposure
[20] situations present for humans?
[21] **A:** I can't list them right off, but major
[22] concern I got is neurological, but it's pretty
[23] widespread and well known that it's a bad exposure.
[24] **Q:** Okay.
[25]

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Bryant - direct

[1] *Bryant - direct*
[2] A: In fact, to the point where the City of
[3] Philadelphia is even collecting household personal
[4] thermometers. That's not to say it's still not a
[5] fair amount of — in fact, that's an old neurocell
[6] plant operating in Delaware City. But those things
[7] in Europe are on five-year phase out plan, I think
[8] by 2006 they will be gone there.
[9] Q: Part of the fish studies that Monsanto
[10] carried out in the '60s along the Choccolocco Creek,
[11] in that area, were designed to determine the amount
[12] of mercury —
[13] A: Uh-huh.
[14] Q: — that was making its way from the Monsanto
[15] plant into the area where fish feed; is that
[16] correct?
[17] MR. SHARMAN: Object to the form.
[18] A: So far as I know.
[19] Q: Did you ever observe any efforts by plant
[20] management in Anniston to alert the local community
[21] about some of their findings in these fish studies
[22] or —
[23] A: No. To my knowledge there was no effort
[24] to — in fact, quite to the contrary.
[25] Q: Well, do you think there should have been,

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Bryant - direct

[1] *Bryant - direct*
[2] given what you know about mercury toxicity and acids
[3] and PCBs and the like?
[4] MR. SHARMAN: Object to the form.
[5] A: Well, I have mixed emotions because a lot of
[6] times you can create a problem by doing that because
[7] of lack of knowledge of the public. You got to be
[8] very careful when you inform the public and you got
[9] to make sure what you inform them is true.
[10] Certainly in the sense that it's going to be
[11] detrimental to your product line, you better be darn
[12] careful. But even from the standpoint —
[13] Q: Or you will end up in a situation like this
[14] lawsuit here?
[15] MR. SHARMAN: Object to the form.
[16] A: Yes.
[17] Q: Okay. And that was a concern in the time
[18] that you were in Anniston; is that true?
[19] MR. SHARMAN: Object to the form.
[20] A: That's true.
[21] Q: But sitting here today, do you think that
[22] the plant, in all fairness, should have had more
[23] interaction with the community about not only what
[24] was being discharged from the plant into their
[25] environment, but also the potential health effects

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Bryant - direct

[1] *Bryant - direct*
[2] related to some of those chemicals?
[3] MR. SHARMAN: Object to the form, and
[4] asked and answered.
[5] BY MR. BYRNE:
[6] Q: You may answer.
[7] A: Up to the time that I left, I'd say — I was
[8] part of that same movement, not to inform people any
[9] more than they had to know. But as the public has
[10] got more sophisticated and more knowledgeable and
[11] more understanding of problems, knowledge doesn't
[12] hurt. You got that under the Freedom of
[13] Information; otherwise we wouldn't have the Freedom
[14] of Information Act.
[15] Q: Do you think if Dr. Kelly had made a visit
[16] along with other medical staffers from St. Louis
[17] to — if they had made a visit to Anniston back in
[18] the '50s and '60s and talked with community members
[19] about some of the health effects that they felt were
[20] associated with PCB wastes and mercury and whatnot,
[21] do you think that it would have caused local
[22] residents to have altered the way they consumed fish
[23] or grew gardens or did any number of things?
[24] MR. SHARMAN: Object to the form.
[25] A: Yes, I think it would. And I think an

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Bryant - direct

[1] *Bryant - direct*
[2] example I would give you is, that on the parathion
[3] process we had a problems with exposure and how fast
[4] we could get medical attention. And I had them one
[5] day, I said, we don't have to say anything, keep
[6] arguing about this, just run an ambulance from the
[7] plant to the hospital and let's time it.
[8] And the next day the union struck
[9] because they wanted hazardous duty pay. And their
[10] approach was that if this process is so dangerous
[11] you got to make dry runs to the hospital, it's
[12] obvious we need more pay for it.
[13] And I think in a sense that if Kelly
[14] come in there and talking a lot about these things,
[15] it would have made that more of a problem. It's a
[16] very delicate operation. I mean, you want to inform
[17] people, but you can't inform them too much. And you
[18] certainly don't want to give them misinformation,
[19] either way.
[20] But I don't think the plant was aware
[21] of this information, like Barrett and people like
[22] that, I know I wasn't aware of it from '64 until I
[23] got to St. Louis. Now, that information I did
[24] realize was available back in the '50s and even
[25] earlier. And knew of data back in the '30s. And

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Bryant - direct

[1] Benignus, the guy I worked for, he was aware of
[2] problems with military operations in World War II.
[3] But he always led me to believe he thought it was
[4] chlorinated naphthalene, including problems with
[5] anthrax, which he felt, you know, that the
[6] chlorinated naphthalene was the culprit and not
[7] PCBs. But Kelly didn't share that enthusiasm on
[8] aroclor.
[9] Q: Do you ever remember a discussion in the
[10] medical department about data being developed that
[11] indicated the presence of chlorinated naphthalene in
[12] things like the Santo Wax that was manufactured at
[13] the Anniston plant?
[14] A: No, not in the sense that — you mean in the
[15] manufacture of the Santo Wax itself?
[16] Q: Yes, sir.
[17] A: No. I don't think — I'm not aware of any
[18] major concern on that.
[19] Q: Do you remember a Mr. J. R. Savage?
[20] A: Yes.
[21] Q: Who was Mr. Savage?
[22] A: Savage was a process engineer, and then he
[23] was a manufacturing manager when I came there. And
[24] he left about the same time I came in.
[25]

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Bryant - direct

[1] Q: And who was Mr. R. E. Keller? Do you
[2] remember who that was?
[3] A: Keller was in corporate research, I believe.
[4] Analytical?
[5] Q: How about J. P. Mieure?
[6] A: He was definitely in research and
[7] development, Dr. Mieure.
[8] (Memo, 10/20/70, to Keller from
[9] Mieure marked Plaintiff's Exhibit 5.)
[10] BY MR. BYRNE:
[11] Q: Let me hand you an exhibit that I'm going to
[12] mark Plaintiff's Exhibit 5 to your deposition. This
[13] appears to be an October 20, 1970, memo from Dr. or
[14] Mr. J. P. Mieure to R. E. Keller, and I want to turn
[15] your attention first of all to the second full
[16] paragraph, and in particular beginning with the
[17] first sentence. It reads "Low levels (about 25
[18] parts per million) of polychlorinated dibenzofurans
[19] were confirmed in Phenoclor D.P. 6, a competitor to
[20] Aroclor 1260 from Prodelec, France. Aroclor 5442
[21] appears to contain about two parts per million
[22] polychlorinated dibenzofurans; none were detected in
[23] any other aroclor study."
[24] I read that to you because I want to
[25]

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Bryant - direct

[1] ask you some questions. Do you recall there being
[2] some study out of the St. Louis office into whether
[3] polychlorinated dibenzofurans were mixed up in one
[4] or more of the aroclor products that were being
[5] produced by Monsanto?
[6] A: Yes. That came, originated out of the Yosha
[7] incident in Japan on rice oil, I believe. And at
[8] the time, I'm not quite sure on my timing on this,
[9] we were concerned with the stability in electrical
[10] 1242 aroclor, and it turns out that Konica Fuji in
[11] Japan had a better stability, and later it was
[12] revealed that the stability was attributable to
[13] dibenzofurans, which is something we were trying to
[14] obtain and probably to our advantage we didn't
[15] obtain it because we had a more unstable product but
[16] we had a safer product. I don't want to say it was
[17] by design; it was by accident.
[18] Q: Do you know what St. Louis eventually
[19] concluded about the presence of polychlorinated
[20] dibenzofurans in their various products?
[21] A: So far as I know, the manufacturing process,
[22] they didn't have any problem with it. It was the
[23] heating of these things under extreme conditions and
[24] with oxygen, and I was concerned from a customer
[25]

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Bryant - direct

[1] standpoint in making sure that, for example, in the
[2] electronic devices when they solder, to seal the
[3] unit up, to make sure that those burn materials on
[4] top of the units were safe to handle because of
[5] possibility of dioxin furans.
[6] Q: Well, did you ever observe or conclude that
[7] the production of aroclors at the Monsanto plant in
[8] Anniston generated polychlorinated dibenzofuran
[9] releases into the environment?
[10] A: To my knowledge, the only ones that would
[11] have been producing furans would have been in the
[12] Santo Wax combination because they were distilled at
[13] a much higher temperature. And because of the
[14] nature of these chlorinated materials, they have to
[15] be at an elevated temperature with oxygen for the
[16] formation of furans. I'm not surprised that, as he
[17] says in here, 5442 appears to contain, that's
[18] exactly where I would have expected from the
[19] physical characteristics.
[20] Q: Is there Aroclor 5442 Santo Wax?
[21] A: Yes.
[22] Q: And Santo Wax was produced at the Anniston
[23] plant?
[24] A: Right. On the same unit as biphenyl. It
[25]

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[1] *Bryant - direct*
[2] was just a higher molecular weight material,
[3] terphenyl.
[4] Q: And were wastes from the Santo Wax
[5] production process, were they, did they leave the
[6] plant, either through the air or through waste
[7] streams, to your knowledge?
[8] MR. SHARMAN: Object to the form.
[9] A: Oh, they could have left through the air.
[10] But they weren't very volatile. They were very low
[11] volatility. And they would have the same effect as
[12] aroclors — well, they are aroclors, they have the
[13] same effect as chlorinated biphenyls but they would
[14] elute in a gas chromatographic column at a higher
[15] temperature, so they elute in an entirely different
[16] region. But physically they would have pretty much
[17] the same effects as the chlorinated biphenyl.
[18] Q: Now, I'm reading on in Plaintiff's Exhibit
[19] 5, I'm now in the middle of the second paragraph.
[20] That sentence reads, "However, each of the Aroclor
[21] 1200 series contains polychlorinated naphthalenes at
[22] varying levels." Did I read that correctly?
[23] A: Well, wait a minute, I'm not with you on
[24] that.
[25] Q: I'm in the, I think the third sentence in

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[1] *Bryant - direct*
[2] the second paragraph of Plaintiff's Exhibit 5, it
[3] reads, "However, each of the Aroclor 1200 series
[4] contains polychlorinated naphthalenes at varying
[5] levels." Do you see that sentence?
[6] A: Yes.
[7] Q: And first off, the Aroclor 1200 series was
[8] produced, of course, in Anniston; correct?
[9] A: Right.
[10] Q: And what do you recall being discussed in
[11] St. Louis over this subject of polychlorinated
[12] naphthalenes being in the entire Aroclor 1200
[13] series?
[14] MR. SHARMAN: Object to the form.
[15] A: I didn't realize, I never realized that they
[16] were contained to any degree in that. I don't know
[17] here what degree he's talking about here. But in a
[18] sense that, were they possible, yes, because of the
[19] very nature which we've discussed earlier, the way
[20] they produce naphtha — biphenyl, certainly you've
[21] got some free radicals and cracking in that biphenyl
[22] production to make naphthalenes and anthracene and
[23] other derivatives of benzene, which would chlorinate
[24] at the same time that the PCBs, but it should have
[25] been a very minimal amount.

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[1] *Bryant - direct*
[2] Q: Okay. Are polychlorinated naphthalenes
[3] toxic, to your knowledge?
[4] MR. SHARMAN: Object to the form.
[5] A: They've been reactor as far as chloracne,
[6] yes. I'd say they're equally as bad, just not that
[7] many of them.
[8] Q: What is anthracene and phenanthrene?
[9] A: Different molecular weight benzene
[10] derivatives.
[11] Q: Are they toxic?
[12] MR. SHARMAN: Object to the form.
[13] A: No. Those guys, like biphenyl and
[14] terphenyl, until you put a chlorine on them.
[15] Q: Okay. All right.
[16] A: It's not something you would eat, but I mean
[17] it depended on the degree of toxicity.
[18] Q: Did mercury pose an air contamination threat
[19] or was the main route of discharge through the waste
[20] streams?
[21] A: Only for the operators.
[22] Q: How would the use of mercury and chlorine
[23] production at the plant have created a potential air
[24] hazard for operators?
[25] A: You would have a certain amount in the

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[1] *Bryant - direct*
[2] arcing of the anodes and this type of thing that
[3] would release probably some mercury vapor. I'd say
[4] chlorine and hydrogen were more of a concern. And
[5] chlorine obviously being the product, hydrogen being
[6] the by-product, which was extremely dangerous and
[7] flammable. But it's possible.
[8] Q: Everybody understood during the time you
[9] were in Anniston that chlorine was a hazardous
[10] chemical; correct?
[11] A: Yes. Because if you got any kind of
[12] ignition it would blow the top off the cell and blow
[13] the top off and release all the chlorine.
[14] Q: How was chlorine gas vented from the plant?
[15] I'm assuming it was vented to get it away from the
[16] workers, wasn't it?
[17] MR. SHARMAN: Object to the form.
[18] A: Just normal ventilation system.
[19] Q: To the outside air?
[20] A: Yes. In all those plants it's always a
[21] faint odor of chlorine around.
[22] Q: Now, did that chlorine odor ever spark
[23] complaints or questions from the community on this
[24] hot line that you know of?
[25] A: No. I don't think it was that strong in the

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[1] *Bryant - direct*
[2] community.
[3] Q: How much in the way of chlorine air
[4] emissions would it take to cause somebody some
[5] pretty serious harm?
[6] MR. SHARMAN: Object to the form.
[7] BY MR. BYRNE:
[8] Q: Wouldn't take much, would it?
[9] MR. SHARMAN: Same objection.
[10] A: Yes, it takes a fair amount, a heavy
[11] concentration, because the amount doesn't make any
[12] difference if you got enough dispersion.
[13] Q: Do you ever remember any chlorine, serious
[14] chlorine gas releases?
[15] A: No, I never remember any chlorine problem at
[16] all.
[17] Q: Do you remember any of the workers ever
[18] relating incidents involving chlorine releases?
[19] A: Unh-unh.
[20] Q: Okay. What did you try to do to correct the
[21] mercury waste issues at the plant?
[22] A: I tried playing around with the pH, the
[23] emulsion, and trying to see if we can get the
[24] mercury to precipitate out of the — kind of a froth
[25] like it formed on the filter gate, but I never could

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[1] *Bryant - direct*
[2] do anything with it.
[3] Q: Okay.
[4] A: I don't know whether that's where their
[5] losses were. That was a source of loss. But they
[6] could have been losing it in liquid as well. I
[7] wouldn't have known it. Other than they did have
[8] traps on the system trying to camp it physically.
[9] Q: When were the traps put in place?
[10] A: Oh, they were I'd say from a design on the
[11] plant.
[12] Q: Okay. How long did you work on the mercury
[13] waste issues at the plant? the entire time you were
[14] there?
[15] A: No. I'd say maybe a month or so. Very
[16] little.
[17] Q: And did you present any recommendations to
[18] the plant management or management in St. Louis
[19] about how to deal with mercury waste?
[20] A: The only time was right before the shutdown
[21] they were talking about ground contamination being
[22] so bad. And I said this stuff was just spillage
[23] from a process, because the bottom of the chlorine
[24] plant was kind of slat floors, and that was
[25] obviously that way to let the spillage go through to

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[1] *Bryant - direct*
[2] the ground.
[3] Q: What kind of problems would that sort of
[4] spillage cause once it entered the ground?
[5] A: Well, mercury pollution would just continue
[6] to go down till it hit the water table. And what
[7] they were trying to do was contain it in the top
[8] layer of ground and try to recover it. In fact, we
[9] would try to clean it up and send it to St. Louis.
[10] Q: Mercury that might have been lost to Snow
[11] Creek back in the 1950s and '60s, where would it
[12] have gone? Would it have just gotten into sediment
[13] and gravitated downward?
[14] MR. SHARMAN: Object to the form.
[15] A: It would have been in the sediment.
[16] Q: If one wanted to try to conduct a sampling
[17] program to try to determine the amount of mercury
[18] that's an issue around the Snow Creek and
[19] Choccolocco Creek area today, what would you have to
[20] do to get a handle on the past exposures? Would you
[21] have to dig deep cores? Would you have to check the
[22] water table? What would you have to do?
[23] MR. SHARMAN: Object to the form.
[24] A: No, I don't think you'd have to do a deep
[25] core. I'd say a reasonable core into sediment

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[1] *Bryant - direct*
[2] representing the time that you're concerned with.
[3] Q: Would a one-foot core or two-foot core
[4] sample give you an accurate view of mercury or would
[5] you have to go a little deeper?
[6] A: I would think it would. But it depends on
[7] how silty the water is and how much sediment you
[8] would get out of it. Something like the
[9] Mississippi, it would be probably, would not be
[10] acceptable. But —
[11] Q: Because of its ability to move downward?
[12] A: Suspended matter. I know in New York with
[13] GE, the problem I had with wood pulp in the stream
[14] would absorb the PCBs, which was good because it was
[15] trapped in that area. But from a standpoint of
[16] somebody came along and wanted to dig it all up,
[17] that was bad, and it was even worse when they had
[18] nowhere to go with it. So for that reason you got
[19] to be careful in — what they were trying to do
[20] there was pinpoint what caused it, and what happened
[21] is, it settled on the particulate, which was the
[22] wood chips, and I would expect in Choccolocco Creek
[23] it would be particulate which would be basically
[24] soil.
[25] Q: Okay. How deep would you sample there to

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[1] *Bryant - direct*
[2] try to figure out historical impacts of mercury
[3] waste?
[4] A: I think in a foot or so would be reasonable.
[5] Q: Okay.
[6] A: But I'd take a couple deeper just to make
[7] sure.
[8] MR. BYRNE: We'll take a break after
[9] this exhibit, we've been going a little while, we'll
[10] take a brief break because we're trying to get
[11] everybody to their planes.
[12] (Solutia Inc./Anniston report marked
[13] Plaintiff's Exhibit 6.)
[14] BY MR. BYRNE:
[15] Q: I want to hand you a report that I'm going
[16] to mark Exhibit 6. This is a filing that Solutia
[17] made with the Alabama Department of Environmental
[18] Management — I don't think I have a copy of this
[19] for defense counsel, but I can show it to him —
[20] back in February of 1999. And I want to read a
[21] statement to you that Solutia made to ADEM in that
[22] filing and get your response to it.
[23] Turn, if you would, to Page 1 of
[24] Exhibit 6, and if you look a little more than
[25] halfway down the page, you will see a section that

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[1] *Bryant - direct*
[2] begins "Response." Do you see that?
[3] A: Uh-huh.
[4] Q: Let me read this statement to you. It says,
[5] "During the RCRA facility assessment and the
[6] preparation of the on-site work plan, we reviewed
[7] our records on mercury usage at the Anniston
[8] facility and were able to determine that mercury was
[9] used in the manufacture of chlorine at the facility.
[10] While the records are not clear, it appears that
[11] chlorine was manufactured between 1952 and 1969
[12] using a mercury cell process. No records could be
[13] located describing the consumption of mercury,
[14] although it is noted that the process is a closed
[15] one in which mercury is recycled and reused."
[16] My question to you, after having read
[17] that, is this, based on your experiences at
[18] Anniston, what do you make of that statement that
[19] Solutia made to the department just a few years ago?
[20] MR. SHARMAN: Object to the form.
[21] A: No records, I find that hard to accept,
[22] because I think there are some records in the '60s
[23] range. But as far as the closed process, it depends
[24] on your definition of closed process. In the sense
[25] that they recycled the mercury, they didn't have

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[1] *Bryant - direct*
[2] just one pass for the anode, it's true. And it's
[3] reused, it's got to, for the economics of the
[4] process. But in the sense that there was no loss of
[5] mercury from the process, I don't think it's true.
[6] Q: And isn't that how you read that particular
[7] statement that Solutia makes, that they're
[8] suggesting to this environmental agency that mercury
[9] was not a contaminant of concern that was leaving
[10] that plant?
[11] MR. SHARMAN: Object to the form.
[12] The statement speaks for itself.
[13] A: Well, again, I don't know in what sense they
[14] meant — that statement is true from a common sense
[15] standpoint, because nobody can afford to run a
[16] process and not recycle the mercury. But from the
[17] standpoint that that means that there were no
[18] losses, no, the statement is not true.
[19] Q: There were significant losses that the
[20] company wanted you to address when you came to
[21] Anniston, wasn't there?
[22] MR. SHARMAN: Object to the form.
[23] A: The engineers recorded considerable losses.
[24] Q: And certainly in that respect mercury was
[25] not recycled or reused, it was gone?

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[1] *Bryant - direct*
[2] MR. SHARMAN: Object to the form.
[3] BY MR. BYRNE:
[4] Q: True?
[5] A: True.
[6] Q: So whether or not the system was designed on
[7] paper to be a closed one or not, it would not have
[8] been closed in the sense that losses of mercury were
[9] occurring at the plant; is that correct?
[10] A: That's correct.
[11] MR. BYRNE: Let's do this, let's take
[12] just a short break and then we'll come back and kind
[13] of move into the home stretch. I know we're going
[14] through the — we can go off record.
[15] THE VIDEOTAPE SPECIALIST: We're now
[16] going off the videotape record. That concludes
[17] Videotape No. 2. The time, 12:24.
[18] (Short recess.)
[19] THE VIDEOTAPE SPECIALIST: We are
[20] now back on the videotape record. The date, June
[21] 30, 2003. The time, 12:43. This is Tape No. 3.
[22] You may continue.
[23] BY MR. BYRNE:
[24] Q: Mr. Bryant, I want to pick up on the time
[25] that you spent in Anniston in 1969. As I understood

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[1] **Bryant - direct**
[2] your earlier testimony, you left for St. Louis in
[3] 1968 and came back a few times —
[4] A: That's right.
[5] Q: — in 1969; correct?
[6] A: Correct.
[7] Q: And tell me again, what was or what were the
[8] purposes for the visits in 1969 to Anniston?
[9] A: The purposes in 1969 was basically removal
[10] of the mercury out of that chlorine plant and shut
[11] that operation down and then discuss the
[12] possibilities of cleanup of the earth underneath the
[13] plant.
[14] Q: What did you understand was the situation
[15] with mercury underneath the plant?
[16] A: I understood the ground was saturated with
[17] mercury from spillage from the plant from years of
[18] operation.
[19] Q: And what dangers if any did that present to
[20] the public health or to the environment?
[21] A: Well, they didn't want it to get into the
[22] drainage system in the plant. And from the
[23] standpoint that this all went basically through the
[24] ditch that we're talking about, and they wanted to
[25] try to avoid getting as much mercury as they could

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[1] **Bryant - direct**
[2] get through there.
[3] Q: In other words, spills around the plant
[4] could eventually migrate to Snow Creek?
[5] A: Uh-huh.
[6] Q: And that the plant had some evidence, I'm
[7] assuming, in 1969 that that had been going on and
[8] needed to be stopped?
[9] MR. SHARMAN: Object to the form.
[10] A: They had evidence that — well, I'd say from
[11] Ferguson work, yes, they had information that it had
[12] been going on. But they had information that the
[13] stuff would migrate. That had been known for some
[14] time.
[15] Q: And would migrate into the community outside
[16] the plant?
[17] MR. SHARMAN: Object —
[18] A: Not necessarily, but migrate down through
[19] the ground structure.
[20] Q: Did it get into the drinking water or
[21] groundwater?
[22] A: No, to my knowledge it didn't. The drinking
[23] water, all of it I thought came from Cold Water
[24] Spring, which was like an artesian, a huge thing.
[25] In fact, I think it supplied the whole city of

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[1] **Bryant - direct**
[2] Anniston. Some of the best water I ever tasted.
[3] No. That was absolutely no concern of getting into
[4] that water system.
[5] Q: So the concern was it getting into Snow
[6] Creek and then perhaps —
[7] A: Uh-huh.
[8] Q: — some surface runoff going into the
[9] neighborhoods and such?
[10] MR. SHARMAN: Object to the form.
[11] A: Well, it would go down through the
[12] neighborhood, but it would make its way to the Logan
[13] Martin complex.
[14] Q: I see.
[15] A: Which was a big waterway, recreation.
[16] Q: The work that you did to shut down the
[17] plant, obviously you were successful in shutting
[18] down the chlorine production plant; correct?
[19] A: Uh-huh.
[20] Q: Were you successful in recovering all the
[21] mercury that had been lost?
[22] A: No.
[23] Q: But you were able to recover some percentage
[24] of it?
[25] A: They were giving us suggestions on what to

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[1] **Bryant - direct**
[2] do. Now, I don't know what they did and if they
[3] recovered anything. That's about the time we lost a
[4] whole truckload and my interest then was in trying
[5] to recover that.
[6] Q: What percentage of the mercury spilled in
[7] the ground around the plant was recovered, to your
[8] knowledge?
[9] A: I have no knowledge.
[10] Q: Did you have any goals in mind for the
[11] recovery?
[12] A: No. I wasn't directly responsible for that.
[13] I was basically the person that tried to determine,
[14] you know, what we could do in short order and assign
[15] a priority in comparison with everything else. And
[16] like I said, mercury wasn't my main concern because
[17] it didn't have enough dollars associated to it. It
[18] was an expensive product, but I assumed the losses
[19] were small, plus the fact that that was something I
[20] couldn't do much about anyway.
[21] Q: Parathion and aroclor were more expensive
[22] losses?
[23] A: Parathion was the top priority, no question
[24] about it.
[25] Q: Because the losses were so expensive to the

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[1] *Bryant - direct*
[2] plant in terms of lost sales?
[3] A: No. Because the product was so expensive in
[4] terms of market.
[5] Q: Right.
[6] A: It supported anything that you could do to
[7] improve the process as well as control losses.
[8] Q: And I think we're talking about the same
[9] thing. I mean, it was a good selling product and
[10] losing it through the plant waste streams that left
[11] the plant wasn't a smart way to do business?
[12] A: No. Another concern was the toxicity of it.
[13] I mean, it wasn't smart business to kill people out
[14] in the community or animals or anything else. So we
[15] were very conscious of that. And I'd say that
[16] stemmed over into the PCB as well. Now, we didn't
[17] do any outside analysis that I know on PCBs and
[18] stuff while I was there. I've heard they did some
[19] after we left, I'm sure they did.
[20] Q: What do you mean by outside analysis?
[21] A: Community analyzing animals and things that
[22] possibly would have been exposed.
[23] Q: St. Louis had been conducting studies on
[24] chickens and rats and poultry and things like that
[25] for a long time in the '50s, '60s, that time period?

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[1] *Bryant - direct*
[2] A: Rats and dogs mainly is what we used. The
[3] customers did a lot of chicken testing, not
[4] intentional, but down in his neck of the
[5] neighborhood, North Carolina, they did a bunch of it
[6] inadvertently.
[7] Q: Was there any discussion in St. Louis about
[8] possibly testing some of the cows and poultry in the
[9] Anniston area?
[10] MR. SHARMAN: Object to the form.
[11] A: No. The only area of discussion we got into
[12] was in Bloomington, Indiana, with Westinghouse.
[13] They had that cow fed on organic grass grown from
[14] city sewage, and the city sewage was loaded with
[15] PCBs, and the net result is Old Bessie, the organic
[16] fed cow, the milk was blue but it wasn't blue from
[17] lack of cream. It was blue from — it physically
[18] wasn't blue, but it was just totally highly
[19] contaminated with PCB. It had to have passed
[20] through the metabolism of the cow. It accumulated
[21] where we thought it would, in the fatty tissue, or
[22] fatty product which was the milk.
[23] Q: And the medical department, I'm assuming,
[24] understood that PCBs also had the potential to
[25] accumulate in human breast milk; correct?

[1] *Bryant - direct*
[2] MR. SHARMAN: Object to the form.
[3] A: Oh, yes. Yes.
[4] Q: Okay. From your interaction with the
[5] medical department at Monsanto, wasn't that clearly
[6] something that they communicated and understood at
[7] least internally that it could to that?
[8] MR. SHARMAN: Object to the form.
[9] A: Yes. We didn't communicate that to
[10] customers. The primary test ground for that I think
[11] was Denver, Colorado, they had had problems with it
[12] there. And that was pretty well known fact.
[13] Q: When were those cow studies going on?
[14] A: The cow studies?
[15] Q: Yes, sir, with Westinghouse.
[16] A: It would have been in the, I think it was in
[17] the '60s.
[18] Q: And Monsanto in St. Louis at least knew of
[19] the studies; correct?
[20] A: Well, Anniston knew of them because we had
[21] the guys in for — in fact, I had the guys in for
[22] interviews, discussions on PCB pollution problems.
[23] Q: There are a lot of farms, are there not,
[24] along Choccolocco Creek; correct?
[25] A: Uh-huh.

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[1] *Bryant - direct*
[2] Q: And some of those farms had cows and pigs
[3] and poultry and things like that; true?
[4] A: (Witness shakes head.)
[5] Q: Do you remember that?
[6] A: Uh-huh.
[7] Q: Did anyone to your knowledge from the plant
[8] ever go and speak to some of those farmers about
[9] issues with their milk cattle, or dairy cows or
[10] chickens or hogs or things like that?
[11] A: Some of those farmers worked at Monsanto and
[12] they knew of them. Whether or not they were related
[13] that to the community, I don't know. But they were
[14] aware of it, some of them.
[15] Q: Do you remember anyone in the plant
[16] management in Anniston speaking with the workers
[17] that had farms that they needed to stay away from —
[18] A: No.
[19] Q: — cow milk if the cows graze near the
[20] creeks?
[21] A: No. I don't think they would have given
[22] that advice out from what I knew — what they knew
[23] at the time.
[24] Q: If cows grazing on organic material in
[25] Bloomington, Indiana, from just a municipal waste

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Bryant - direct

[1]
[2] facility was getting high levels of PCBs, is there
[3] any doubt in your mind that livestock grazing in the
[4] Choccolocco Creek and Snow Creek area, that they
[5] were picking up tremendous amounts of those same
[6] contaminants?
[7] **MR. SHARMAN:** Object to the form.
[8] **A:** Not to the same degree that Bloomington,
[9] Indiana, was. But physically could they? Yes.
[10] **Q:** Okay. Now, the cows in Bloomington,
[11] Indiana, that was a one-time exposure issue, wasn't
[12] it?
[13] **A:** Yes.
[14] **Q:** That wasn't a constant —
[15] **A:** No.
[16] **Q:** Okay. There weren't constant PCB waste
[17] issues in the Bloomington, Indiana, study like you
[18] would have in an area like, say, Anniston where
[19] waste may be a continuous thing over many years?
[20] **MR. SHARMAN:** Object to the form.
[21] **BY MR. BYRNE:**
[22] **Q:** Is that fair?
[23] **A:** I'd say you're correct.
[24] **Q:** How much mercury was recovered during the
[25] shutdown of the chlorine plant?

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Bryant - direct

[1] **A:** 28,000 pounds, I believe, was what was taken
[2] out of the plant.
[3] **Q:** 28,000 pounds?
[4] **A:** Uh-huh.
[5] **Q:** And do you have some — well, obviously that
[6] wasn't all the mercury that had been lost. I mean,
[7] you didn't recover 100% of it; correct?
[8] **A:** They wouldn't generally recover in the sense
[9] that, did we recover this from any leakage or
[10] spillage? No. Zero. This was recovered from the
[11] process.
[12] **Q:** Oh, I see. I got you. Taken out of the
[13] equipment and —
[14] **A:** Yes, exactly.
[15] **Q:** Okay.
[16] **A:** I'd say it didn't contain anything that was
[17] spilled or waste otherwise.
[18] **Q:** What about efforts to collect spilled
[19] mercury and the like; did that yield any kind of
[20] recovery?
[21] **A:** I don't know what happened on that because,
[22] like I say, I made the suggestions and cleared out
[23] of there back to St. Louis. I had so many other
[24] problems I was working on, I never even, I never was

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Bryant - direct

[1] interested to go back.
[2] **Q:** Did anyone ever report to you, at least
[3] anecdotally, what became of some of the mercury
[4] spillage?
[5] **A:** No. Most of the thing reported back to me
[6] at that time, because we had lost a whole truckload
[7] that we had taken out of the process, and we spent a
[8] couple of years trying to find that.
[9] **Q:** Did you ever have any involvement in work at
[10] the Anniston plant related to the dump sites?
[11] **A:** Two dump sites, and I never actually worked
[12] related to them. One was called Clagon or Clayton's
[13] Lake, which was apparently a pit over in the back
[14] side of the plant where they dumped the montars from
[15] the aroclor manufacturing, stuff like this in. And
[16] the other was on top of the mountain directly across
[17] the Birmingham Highway from the plant, where every
[18] kind of waste went into it.
[19] And the only thing I ever had with
[20] that was, I used to get on some of the people in the
[21] parathion department for spillage of PNP, this type
[22] of thing, that would give you a yellow color, and
[23] when it would rain it would run down the ditch on
[24] the highway. And I didn't like that from a
[25]

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Bryant - direct

[1] liability standpoint because it was obvious
[2] pollution.
[3] **Q:** Because it was so visible?
[4] **A:** Yes.
[5] **Q:** You mentioned a Clagon or Clayton Lake?
[6] **A:** Clagon, and I don't know how you spell that,
[7] but C-L-A-G-O-N, I guess, lake. Apparently he was a
[8] supervisor or something in that plant and people
[9] would laugh about, you know, as to where they dumped
[10] the stuff and they called it his lake.
[11] **Q:** It was just a pit for waste?
[12] **A:** As far as I know, it was just a pit along
[13] the back corner of that plant.
[14] **Q:** What was put into that?
[15] **A:** Old montar, they call it, residue,
[16] limestone, carbon from distillation of PCB.
[17] **Q:** Well, first, describe what is a montar?
[18] **A:** Montar is the bottoms from distillation of
[19] aroclor. It basically was a carbonaceous limestone
[20] type of — generally was a solid material. It could
[21] be a resin.
[22] **Q:** But it was a highly chlorinated product?
[23] **A:** Yes, it had highly chlorinated products in
[24] it. But it was predominantly limestone from
[25]

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[1] *Bryant - direct*
[2] neutralization for the acid. And carbon from
[3] breakdown of the aroclors.
[4] Q: How would it be dumped into Clagon's Lake?
[5] Would it just be poured in after it came off of the
[6] production line or how would it work?
[7] A: It came off of the thing hot. As I recall,
[8] they catch it in old open top drums and this type of
[9] thing, clip the down onto it, get over there and
[10] just turn it up and dump it in that pit.
[11] Q: Pour the liquid?
[12] A: Pour the liquid while it was hot, because
[13] once it got cold it wasn't liquid.
[14] Q: And when you pour that kind of stuff into a
[15] pit, what would happen? Would that create fumes
[16] or —
[17] A: Yes.
[18] Q: — things of that nature? And what were the
[19] fumes, just vented into the open air?
[20] A: Yes. I mean, some of it, if it solidified,
[21] it probably went up on that mountain dump, drum and
[22] all.
[23] Q: Just a matter of how quickly you could get
[24] it from one spot in the back —
[25] A: That's right. If it set there too long, you

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[1] *Bryant - direct*
[2] just put it in the dump.
[3] Q: What else was put in Clagon Lake, to your
[4] knowledge?
[5] A: As far as I know, that's all it was.
[6] Q: Do you know how long Clagon Lake operated?
[7] A: It operated as long as I was there, four
[8] years at least.
[9] Q: Any parathion or paranitrophenol waste go in
[10] there?
[11] A: No.
[12] Q: Do you know why not?
[13] A: Toxicity.
[14] Q: This Clagon Lake pit, is there anything
[15] special about its design or was it just a pit —
[16] A: As far as I know —
[17] Q: — that was backhoed out?
[18] A: Just a pit, yeah. They would occasionally
[19] go over with a backhoe and dig some of it out, try
[20] to crack it up, sieve it and package it. They were
[21] trying to sell it as an extender for asphalt, on
[22] particularly the southeastern highways where the sun
[23] would get so hot in the summertime, it would be
[24] higher melt and improve the melting point of the
[25] asphalt. But I don't know if that project ever

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[1] *Bryant - direct*
[2] materialized or not.
[3] Q: Was it a sludge pit or, I mean, is that a
[4] different kind of —
[5] A: No. It was pretty much solid, it was like a
[6] rock. Backhoe could chip it.
[7] Q: What other wastes were put into Clagon Lake
[8] that you know of?
[9] A: I don't know of any other.
[10] Q: What was taken up to the landfill, you
[11] said —
[12] A: Anything else was taken up there that wasn't
[13] like that. On the aroclor department it would be,
[14] you know, floor waste and it would be drums of
[15] montar that got too cold, solidified on them.
[16] Q: Anything else that was put up there?
[17] Obviously, paranitrophenol —
[18] A: Oh, they would put the PNP — everything
[19] that I know of as far as the chemical nature was put
[20] up there.
[21] Q: Were you asked to address any issues with
[22] respect to runoff coming down from that landfill?
[23] A: Only thing I would do would be my personal
[24] interest in something I saw that was an obvious
[25] exposure that we didn't want.

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[1] *Bryant - direct*
[2] Q: And the paranitrophenol runoff was an
[3] obvious liability issue?
[4] A: Uh-huh. That's the same type of appearance
[5] I'd get when I'd neutralize a parathion spill. It
[6] bothered me from the standpoint of if — I never had
[7] one, but if I had a parathion spillage and had to
[8] neutralize it, the people would see it's the same
[9] thing that was coming down off that mountain. Then
[10] the question is how toxic can it be or is the stuff
[11] coming off the mountain always as toxic as the stuff
[12] we're dealing with now. That was the reason I was
[13] opposed to it.
[14] Q: Was parathion waste running off of the dump
[15] area up on the side of the hill above Highway 202?
[16] A: Intermediates, not parathion per se.
[17] Q: Okay.
[18] A: Sodium PNP type things.
[19] Q: Toxic chemicals like —
[20] MR. SHARMAN: Object to the form.
[21] A: Oh, yes, it would have been toxic.
[22] Q: What would happen? You would have a
[23] rainstorm and —
[24] A: Rainstorm, rundown on water. Most of that
[25] stuff is water soluble.

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Bryant - direct

- [1]
[2] Q: Where would the runoff go to?
[3] A: Out of the ditch probably to Snow Creek.
[4] Q: How long as you understood it had that been
[5] going on, this taking stuff up on the mountain,
[6] rains would come, runoff would happen, that sort of
[7] thing?
[8] A: It got worse because of manufacturing
[9] demands were great, I'd say around '65, '66, '67, in
[10] there. I didn't notice it as bad when I first went
[11] there. It may have been I wasn't that observant of
[12] it. I don't think that was the case because the
[13] road to that dump went right behind what I used as a
[14] laboratory and office. And that's where I would
[15] pick it up, just physically looking out the window
[16] at the highway and I see this stuff running down the
[17] drainage ditch. And they stopped that.
[18] It took some management from St.
[19] Louis, guy by the name of Mulindore called a meeting
[20] and chewed them out, and for the most part that
[21] stopped. I'd say '67. But for a couple of years it
[22] got bad.
[23] Q: The time period after 1967, did you observe
[24] any effort by plant management in Anniston to go out
[25] and explain what had gone on with that dump site up

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Bryant - direct

- [1] on the mountain?
[2] A: No.
[3] Q: Is the dump, did it contain any other
[4] wastes? Lead, asbestos, anything like that?
[5] A: That dump, as I understnad it, had been up
[6] there for years. I don't know what that thing
[7] contained.
[8] Q: Okay.
[9] A: It just was a general dump.
[10] Q: Was that where spent or used lead was hauled
[11] to?
[12] MR. SHARMAN: Object to the form.
[13] A: I have no way of knowing.
[14] Q: Did anybody at the plant ever say —
[15] A: No one ever said —
[16] Q: — that started at the place where we would
[17] take used lead from the lead pot process?
[18] A: All I can tell you is that when I arrived
[19] there, I was made aware that this was a plant dump.
[20] And, as I say, you know, the standard in those days
[21] was different from now. Having a plant dump wasn't
[22] that unusual.
[23] Q: Did anyone at the plant — I'm moving to the
[24] air emissions end of the game again, if you don't
[25]

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Bryant - direct

- [1] mind — did anybody ever talk to you at the plant
[2] about lead air emissions —
[3] A: Unh-unh.
[4] Q: — connected to the lead pot process?
[5] A: Unh-unh. See, the lead pot process was gone
[6] by the time I got there, even by the time I
[7] interviewed. So there was never any reason for it
[8] to come up.
[9] Q: Had you ever seen a molten lead —
[10] A: No.
[11] Q: — operation like that before?
[12] A: No.
[13] Q: Had you ever encountered it or read about
[14] it?
[15] A: No, never even read about it.
[16] Q: Do you have any idea about what kind of
[17] temperatures the lead was being worked on in these
[18] pots?
[19] A: No.
[20] Q: I guess by virtue of it being molten lead it
[21] had to be pretty high temperature; is that true?
[22] A: Yes, it had to be at least above the, like
[23] you said, the melting point of lead. I wasn't
[24] overly upset with lead, to be honest with you,
[25]

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Bryant - direct

- [1] because I didn't know enough about it. But I
[2] remember in World War II as a kid, you know, you
[3] couldn't buy toys. The military took everything.
[4] And I did have the advantage of my father had a blow
[5] torch and we had lead chunks — I don't know why he
[6] had the stuff, but I could buy molds that you make
[7] little toy soldiers and this type of thing, and my
[8] brother and I would heat that stuff in the furnace
[9] or heat it with that blow torch and pour the molten
[10] lead up and mold those things to play with, and then
[11] we'd play with them.
[12] Q: That was back in what time frame, '30s and
[13] '40s?
[14] A: In the '40s. That's probably that's wrong
[15] with me today, but we didn't know it at the time.
[16] Q: Well, molten lead gives off air emissions,
[17] would it not?
[18] A: Yes.
[19] Q: And do you know where air emissions, at
[20] least in that old lead pot process facility, would
[21] have been vented to?
[22] A: Oh, that, in that lead pot process, the
[23] residual equipment I saw left there, which couple,
[24] several years after it was shut down, would have
[25]

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Bryant - direct

[1] been just a conventional open windows, open doors,
[2] maybe they had a roof ventilation type system, but I
[3] don't even think it was a fan propulsion or
[4] anything.
[5] Q: Based on your background in chemistry, if
[6] molten lead produces air emissions of lead, do you
[7] have some idea of how far can that stuff travel?
[8] MR. SHARMAN: Object to the form.
[9] A: Oh, that, it's like anything else, it
[10] depends on the velocity and the characteristics of
[11] the wind. Can be scattered all over the place.
[12] Q: Do you have reason to suspect that during
[13] the time that process was in place that lead would
[14] have been emitted into the atmosphere and perhaps
[15] into the neighborhoods around the plants?
[16] MR. SHARMAN: Object.
[17] A: Not a doubt in my mind, if they're emitted.
[18] I don't know whether they were the only ones emitted
[19] because you got lead associated with a lot of
[20] different processes in those days.
[21] Q: But if you're operating molten lead pot
[22] processes?
[23] A: There's a good chance you're going to have
[24] losses, you're exactly right.
[25]

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Bryant - direct

[1] Q: All right. You indicated that when you
[2] returned to St. Louis, that you worked with the
[3] marketing department?
[4] A: Uh-huh.
[5] Q: And you also had some interaction with the
[6] medical department; is that correct?
[7] A: That's correct.
[8] Q: Were those two departments working hand in
[9] hand during that time period?
[10] A: Correct. Correct.
[11] Q: And why was that? Why was there sort of
[12] that close relationship between those two
[13] departments in St. Louis once you returned there in
[14] say '68 and '70?
[15] A: Because the environmental data was coming in
[16] through the medical department, being screened by
[17] the medical department, and it was being dispersed
[18] to the customer complex through the marketing
[19] department. And I actually varied contacts in the
[20] marketing department. I would be a salesman, I'd be
[21] a tech service, and I finally wound up in research.
[22] But it depends on the objective of what we were
[23] trying to find out. I was always in the marketing
[24] department, but I may be posing, you know, as a
[25]

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Bryant - direct

[1] scientist one day and as a salesman the next day.
[2] Because I used to say I couldn't sell you a glass of
[3] water if you were in the desert, but at least I
[4] could find out what you were doing with it. This is
[5] what I was trying to do.
[6] Q: And I hate to skip around, I've got to
[7] backtrack one moment. How was the decision made to
[8] close the Corning plant in Anniston?
[9] A: Economic.
[10] Q: Economic?
[11] A: Uh-huh.
[12] Q: Tell me about that?
[13] A: It just wasn't economical for the amount of
[14] chlorine, it was too small a facility for the amount
[15] that they manufactured. And they didn't have any
[16] sales of chlorine to my knowledge. It was totally
[17] consumed internally and they could bring it in from
[18] another location, produce it much cheaper and
[19] freight it in in the tank cars.
[20] Q: So it was a cost issue, not a pollution
[21] issue?
[22] A: Exactly. Well, I'd say the pollution may
[23] have figured in in the fact that the thing might
[24] cost them more long range, they probably weighed
[25]

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Bryant - direct

[1] that part of it, too. They already had the
[2] exposure, particularly at Krummich, in other areas.
[3] There was one exposure they could eliminate.
[4] Q: What had gone on at Krummich with respect to
[5] chlorine production or mercury pollution?
[6] A: Just a big chemical complex. And the
[7] typical problems they had, they had all kinds of
[8] problems with chemical migration into the
[9] environment, wastewater, personnel. Just was a
[10] sloppy operation, the whole industry was in the '60s
[11] and '50s.
[12] Q: Did Krummich have problems with the health
[13] of employees?
[14] A: Yes, but I don't know what it was related
[15] to. Nitro even had problems with that. But
[16] Monsanto was doing some background work on I think
[17] it was some type of amine that they were exposed to
[18] that caused tumors of the bladder. And a lot of
[19] people, particularly central engineering and in fact
[20] my boss, marketing guy was involved in it. They
[21] would do physical exams on them every year, and I
[22] guess pay their medical expenses or at least
[23] insisted that they got it, medical operation or
[24] whatever they needed for the tumors to remove them.
[25]

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Bryant - direct

- [1]
[2] And that was an ongoing project, been going on for
[3] years. And it was still going on.
[4] Q: Was that project connected to Anniston or
[5] Krummich or both?
[6] A: Only in the sense that those people in
[7] Anniston had been in West Virginia, and you say were
[8] there were any problems at Krummich, I don't know if
[9] they had some problems like that because I wasn't
[10] privileged to their medical records. But I would
[11] say they had some chemical problems with operators.
[12] Q: What chemical did they attribute the bladder
[13] cancer problem to?
[14] A: Some triaryl amine, I believe, A-R-YL for
[15] aryl, amine, I think was a product.
[16] Q: Do you remember the plant or the medical
[17] department at least ever instituting employee blood
[18] tests or screens for PCBs?
[19] A: No.
[20] Q: Was that ever suggested or considered —
[21] A: No.
[22] Q: — at Monsanto?
[23] A: No.
[24] Q: Do you know if any liver studies were ever
[25] undertaken of plant employees?

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Bryant - direct

- [1] A: No, not to my knowledge.
[2] Q: Do you know if any liver studies were ever
[3] undertaken at Krummich for some workers?
[4] A: I don't know.
[5] Q: Now, aroclor production at the Anniston
[6] facility ceased in 1971; is that correct?
[7] A: I believe so. I was actually out here at
[8] that time.
[9] Q: You were in Delaware at that time?
[10] A: Right, the first time.
[11] Q: And were you involved in any of the
[12] committees that met to discuss the future of aroclor
[13] manufacturing at the various Monsanto plants?
[14] A: Yes.
[15] Q: Okay.
[16] A: From a manufacturing standpoint.
[17] (Memo, 12/9/70, to Gossage, et al,
[18] from Savage marked Plaintiff's Exhibit 7.)
[19] BY MR. BYRNE:
[20] Q: I'm going to hand you a memo that I'm
[21] marking as Plaintiff's Exhibit 7. This appears to
[22] be a December 9, 1970, memorandum marked
[23] "Confidential," and the subject line reads "Minutes
[24] for the December 4, 1970, meeting on aroclor
[25]

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Bryant - direct

- [1] manufacturing sites." Did I read that correctly?
[2] Is that the title of that memo?
[3] A: Uh-huh.
[4] Q: Now, various people are copied on this memo,
[5] one of them is Mr. Benignus?
[6] A: Benignus.
[7] Q: Benignus?
[8] A: Right.
[9] Q: You worked quite a bit with Mr. Benignus —
[10] A: I worked directly for him.
[11] Q: Did you ever participate in or assist in
[12] gathering information for any of the meetings on the
[13] aroclor manufacturing sites that were going on?
[14] A: Yes.
[15] Q: And were you a participant in the December
[16] 4, 1970, meeting that's described in this memo
[17] marked Plaintiff's Exhibit 7?
[18] A: I don't think I — no, I wasn't a direct
[19] participant in this meeting.
[20] Q: Were you briefed on the results of that
[21] meeting or —
[22] A: Yes. I had the input to that meeting from
[23] the field and also got information back.
[24] Q: Just to help summarize here, what was your
[25]

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- [1] understanding as to why the decision was made to
[2] discontinue aroclor production at Anniston in 1971
[3] and consolidate production in Krummich?
[4] MR. SHARMAN: Object to the form.
[5] A: Krummich was an old facility that needed to
[6] be upgraded to begin with.
[7] Q: Krummich was an old facility —
[8] A: Yes.
[9] Q: — or Anniston was an old facility?
[10] A: No; Krummich was an old facility. In fact,
[11] we had just built a new facility, expansion at
[12] Anniston while I was still there in the mid '60s.
[13] But Krummich had a bunch of equipment
[14] that was available — I know one thing we did was
[15] fractionate the aroclors into capacitor grade and
[16] transformer grade, and Krummich had the only
[17] facility that we could do that with, and that was
[18] available.
[19] But to be honest with you, I think it
[20] would have cost too much to get Anniston in
[21] condition that they thought they needed for it to be
[22] worthwhile; and Krummich, they had to spend a lot of
[23] money because that was a major chemical complex with
[24] a lot of other products. And I think they realized
[25]

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[1] that life of parathion was short-lived, so the
[2] product profile at Anniston didn't have a lot of
[3] future if they lost the aroclor.
[4] Q: I take it from your comment, you tell me if
[5] I'm wrong, that one of the concerns about Anniston
[6] was that the pollution control issues were just too
[7] expensive and too costly to justify continued
[8] production at that plant?
[9] A: I think that's correct.
[10] Q: There appear to be estimates in this memo on
[11] the second page in Item 4 that the capital for
[12] Anniston PCB pollution control would have been
[13] estimated in 1970 dollars somewhere between 280
[14] million and 1 billion dollars. Have you heard those
[15] figures before?
[16] A: Uh-huh.
[17] Q: And was that the general consensus among the
[18] folks that were either working on or participating
[19] in these meetings, that to get the Anniston PCB
[20] pollution under control, it would take somewhere
[21] between a quarter of a billion and a billion
[22] dollars?
[23] MR. SHARMAN: Object to the form.
[24] A: I have no basis of that number, but that's

[1] threats are more imminent and the problems more
[2] visible."
[3] Based on your contacts and working
[4] with and for the members of that committee, what do
[5] you understand that to mean?
[6] A: I think what they're saying is that the
[7] Illinois environmental control was more lax than
[8] that of Alabama, on probably less subject to
[9] liability exposure, so they put their efforts to
[10] where they had the least exposure.
[11] Q: Well, it says that legal threats are more
[12] imminent at Anniston. What was that referring to?
[13] Was there some threat of legal action by some
[14] governmental agency in Anniston at the time?
[15] A: Not that I'm aware of, but, see, this is
[16] about the time that the marketplace was getting
[17] heated on PCBs. And this was what, 1970?
[18] Q: Yes, sir.
[19] A: See, '70, '71 is when I moved from St. Louis
[20] here to the East Coast, but I was running all over
[21] the United States. And politically this thing was
[22] getting heated. And this may have been reference --
[23] we got into problems with vacuum pump oil in
[24] Pensacola, at the Pensacola fibrous plant which was

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[1] the type of number that I've heard, that I did hear.
[2] Q: And is that referenced in Paragraph,
[3] numbered Paragraph 4 under the heading "Can we get
[4] capital for Anniston pollution"? Look in the first
[5] sentence of that paragraph.
[6] A: Uh-huh.
[7] Q: If you see the reference to Anniston PCB
[8] pollution control cost estimates being between 280
[9] million and 1 billion dollars?
[10] A: Yes.
[11] MR. SHARMAN: Object to the form.
[12] BY MR. BYRNE:
[13] Q: I want you to turn, if you would, to Page 3
[14] of Plaintiff's Exhibit 7, and up at the top there is
[15] a section entitled "Do legal/PR considerations
[16] dictate?" Do you see that?
[17] A: Right.
[18] Q: And under that it reads that "The answer
[19] seems to be 'not quite.' While recent Illinois
[20] regulatory activity indicates some threat that PCB
[21] control at Krummich would become politically hot,
[22] Bill Papageorge stated that the law and medical
[23] departments and others would welcome a decision to
[24] shut down Anniston liquid aroclor since the legal

[1] a huge facility.
[2] Q: Yes.
[3] A: And traced this PCBs back up the Escambia
[4] Bay to the Pensacola plant. And that area was
[5] sensitive to this type of exposure. And that's
[6] possibly what could have been meant in this
[7] paragraph, unless they had something else I didn't
[8] know about. But they had exposure, man, PR was
[9] terrible. In fact, that's the reason I was out
[10] here.
[11] Q: How were Anniston PCBs tied in to the
[12] Pensacola plant?
[13] MR. SHARMAN: Object to the form.
[14] A: Through vacuum pump.
[15] Q: Tell me what you mean by that?
[16] A: The diffusion pumps, using diffusion pump
[17] for diffusion to create vacuum. The case there,
[18] with chloronitriol, or whatever they were making in
[19] that plant. But it was commonly sold for that
[20] purpose.
[21] Q: And what was happening to the PCB involved
[22] in that product or products?
[23] A: Oh, it was getting into the river, down into
[24] the bay and killing shrimp.

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[1]
[2] **Q:** Was any PCB waste ever stored in or around
[3] that plant in Florida? For instance, were there any
[4] deep recovery wells that were put in place down
[5] there?
[6] **A:** No. They were in Florida with purely
[7] entrainment in the air, pulled off the vacuum
[8] system. There was no question about waste. It was
[9] just straight Araclor 1254, which was diffusion pump
[10] oil.
[11] **Q:** Would you agree that the bottom line reason
[12] why PCB production at Anniston at least stopped, why
[13] all PCB production was consolidated into the
[14] Krummich plant, was because the Anniston pollution
[15] problem had gotten too big and too costly for.
[16] St. Louis to justify spending the money on?
[17] **MR. SHARMAN:** Object to the form.
[18] **A:** It was big and it had gotten publicity from
[19] the time I left, particularly with Ferguson's work.
[20] There was a lot of pollution problem and I'd say the
[21] Krummich facility didn't have that kind of problem
[22] for two reasons: one is it was a big chemical
[23] complex and people were kind of used to chemical
[24] exposure. And there wasn't a lot of farming
[25] community around. Really for three reasons. And

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[1] also it sat right on the Mississippi River, which is
[2] very silty, and it would discharge ahead there, I
[3] defy anybody hardly to do a residue analysis in the
[4] silt and find anything. Or in the case of
[5] St. Louis, find everything, probably, from Chicago.
[6] But, no, I don't know of any. It was very difficult
[7] to determine pollution in that setup.
[8] **Q:** So Anniston was a more complicated
[9] situation?
[10] **MR. SHARMAN:** Object to the form.
[11] **BY MR. BYRNE:**
[12] **Q:** In terms of pollution, pollution control,
[13] pollution expenditures, that sort of thing?
[14] **A:** I think this memo speaks for itself. I
[15] think, you know, they recognized the expenses of
[16] cleaning up that facility and Savage was the guy
[17] that would have been in the position to make that
[18] decision. Very competent guy.
[19] **Q:** Under the conclusions section there's a
[20] statement that it's marked Item 3 or Paragraph 3
[21] that reads, "PCB pollution capital at Anniston
[22] should be held to a minimum consistent with the
[23] timing of the phase-out and reasonable control of
[24] chlorinated terphenyl." What did that mean? What

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[1] did you understand that to mean?
[2] **A:** Chlorinated terphenyl we got into later. In
[3] fact, we just had a memo from Mieure, he was a
[4] research guy, accidentally left a chromatograph on
[5] one night and terphenyl eluted way downstream from
[6] the biphenyl, chlorinated biphenyl. And in looking
[7] at animal studies on terphenyl it was just as bad or
[8] worse than chlorinated biphenyl. And that's what he
[9] was referring to here, trying to get out of the
[10] chlorinated terphenyl.
[11] **Q:** Which was being produced in Anniston?
[12] **A:** Yes.
[13] **Q:** And what kind of —
[14] **A:** Now, that type of thing wasn't produced at
[15] Krummich.
[16] **Q:** That was not produced at Krummich?
[17] **A:** No.
[18] **Q:** How long was it produced in Anniston?
[19] **A:** As far as I know, it was there, you know,
[20] when I came there.
[21] **Q:** And what capital expenditures were being
[22] made to reasonably control chlorinated terphenyl?
[23] **A:** I don't know.
[24] **Q:** What's the chlorine composition of

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Bryant - direct

[1] chlorinated terphenyl?
[2] **A:** It can vary. Usually around 60%.
[3] **Q:** Are there any other by-product chemicals
[4] that come from the manufacture of chlorinated
[5] terphenyl that you don't necessarily see with
[6] chlorinated biphenyl?
[7] **A:** No, but I don't think the inverse can be
[8] said. Chlorinated terphenyl is a plasticizer, and
[9] chlorinated biphenyl can be a hydraulic fluid,
[10] electrical fluid, plasticizer. I don't know of any
[11] chlorinated terphenyl. Usually fairly high
[12] performance plastics.
[13] **Q:** What was the idea behind keeping PCB
[14] pollution capital at Anniston to a minimum?
[15] **MR. SHARMAN:** Object to the form.
[16] **BY MR. BYRNE:**
[17] **Q:** And I ask that because at the time of this
[18] memo, the plant was still producing PCBs at the
[19] plant, so what was the justification for minimizing
[20] pollution capital expenditures when the plant was
[21] still producing PCBs, at least for another year?
[22] **MR. SHARMAN:** Object to the form.
[23] **A:** I think what was behind this was the fact
[24] that — reason for having two production facilities

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[1] on chlorinated biphenyl was to answer requests —
[2] not a request, a requirement by General Electric
[3] that they have two sources of supply. And I don't
[4] think from a production standpoint that they needed
[5] both facilities. And if you consolidated, and
[6] business is shrinking, then you do it in one
[7] location that you can figure is the best location to
[8] do it in. I think that's what they did.
[9] Q: Did General Electric at around this time
[10] give the okay for Monsanto to consolidate all of its
[11] production in one facility?
[12] A: General Electric was running in so many
[13] different directions at that time from exposure I
[14] don't think they cared where they got it from.
[15] Q: Exposure, what do you mean by that? legal
[16] exposure?
[17] A: Legal exposure in the marketplace from
[18] customer, from public response, electronic devices
[19] and things. Every research in the country was
[20] attacking them.
[21] Q: And attacking Monsanto as well or just —
[22] A: No. Monsanto was isolated from that. In
[23] '60 — oh, God, in '71, I believe, maybe '72,
[24] Monsanto had the customers sign a hold harmless
[25]

[1] Monsanto's strategy to continue supplying the market
[2] while protecting themselves from the contamination
[3] issues —
[4] A: Exactly.
[5] Q: — that these customers were creating?
[6] MR. SHARMAN: Object to the form.
[7] A: Pardon?
[8] Q: In other words, was that Monsanto's
[9] strategy, as you understood it, that would enable
[10] them to keep supplying a valuable product to the
[11] market without being at risk for liability —
[12] A: Yes.
[13] Q: — for the waste that the customers were
[14] causing?
[15] A: Exactly.
[16] Q: Was one of the ideas behind this customer
[17] education program to try to distance Monsanto was
[18] some of those pollution issues that the customers
[19] had?
[20] MR. SHARMAN: Object to the form.
[21] BY MR. BYRNE:
[22] Q: In other words, by alerting them to the
[23] problem, they could wash their hands of it?
[24] MR. SHARMAN: Object to the form.
[25]

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[1] agreement in the electrical aroclors, that they
[2] could not phase out of it because it was needed for
[3] the economy of the country. And if people wanted to
[4] buy this, they had to have an equivalent insurance
[5] of 50 million or 100 million or a net worth of that.
[6] And the reason, they originally came out with the
[7] net worth, but the antitrust people, we convinced
[8] St. Louis that that would never fly, because then
[9] we'd get in trouble with antitrust people because we
[10] would only manufacture, and it would eliminate
[11] everybody else except GE and Westinghouse, and it
[12] would get us into restraint of trade.
[13] So we had to work some system that a
[14] small manufacturer could also participate in this
[15] market. And that's where the insurance policies or
[16] liability insurance of 50 and 100 million came in,
[17] depending on the production quantity that they used.
[18] Q: And when you were doing work for the
[19] marketing department in the early '70s, one of your
[20] jobs was to carry these hold harmless agreements to
[21] customers and have them sign them?
[22] A: Yes, for the life of the industry, I carried
[23] them all.
[24] Q: And that was, as you understood it,
[25]

[1] A: Yes, I think this is true because Monsanto
[2] had experience with saccharin, to where they ceased
[3] manufacture. And the government made them continue,
[4] resume manufacturing because of the diabetics, they
[5] had no substitute for it. And with that experience,
[6] and also they had sold a cyclamate business off to
[7] Eli Lilly, and gotten out of that before the
[8] cyclamate hit the market, because it hit them later
[9] in acrylic bottles and things like this. But I
[10] think those experiences were dictating in particular
[11] to Tom Gossage, who was the director of marketing at
[12] the time that, hey, let's distance ourselves from
[13] the liability problems. And I think it was done for
[14] pure liability. In fact, I know it was done for
[15] pure liability. Because anybody that didn't sign
[16] that agreement didn't buy it.
[17] Q: And as you understood it, it was the idea
[18] then to isolate the liability issues to just the
[19] locations where the company had historically
[20] produced aroclor and PCB products, and that the
[21] customers deal with whatever liability issues came
[22] from their waste at their plants?
[23] MR. SHARMAN: Object to the form.
[24] A: The liability was strictly the customer's.
[25]

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Bryant - direct

[1] That's I think the reason Anniston was protected per
[2] se for so many years because I don't think anybody
[3] in GE certainly didn't make reference that the
[4] product only came out of Anniston. At one time
[5] Anniston was the only place GE would take product
[6] from. But because as environmental issues,
[7] developed then they had to start taking some out of
[8] the Krummich, and eventually took it all out of
[9] there.
[10] **Q:** Is it your understanding that the whole
[11] reason behind the development of the Krummich plant
[12] was to take some of the load off Anniston? — in
[13] terms of production?
[14] **A:** It essentially took — yes, I think it took
[15] all the load off Anniston with the exception —
[16] well, yes, it would have taken it all off because it
[17] still made Santo Wax at Anniston but there wasn't
[18] enough chlorinated in — yes, I'd say all of that
[19] chlorination operation there, no chlorine in plant,
[20] no reason to produce these thing.
[21] **Q:** If Anniston had continued to be seller,
[22] supplier, and producer of PCBs to industry in the
[23] United States and, heck, in other places as well,
[24] was there some concern that the pollution issues
[25]

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Bryant - cross

[1] that that would have caused would have been too much
[2] to handle?
[3] **MR. SHARMAN:** Object to the form.
[4] **A:** They had a greater base to charge off the
[5] costs if they had that situation, but I'd say their
[6] pollution problems would have been as great or
[7] greater if they had more volume production.
[8] **MR. BYRNE:** I don't think I have any
[9] more questions. These gentleman may.
[10] **MR. SHARMAN:** Why don't we take a
[11] eight- or nine-minute break, let me consult with my
[12] counsel here, and we'll try to get this done.
[13] **MR. BYRNE:** Okay.
[14] **THE VIDEOTAPE SPECIALIST:** We're now
[15] going off the video record. The time, 1:37.
[16] (Short recess.)
[17] **THE VIDEOTAPE SPECIALIST:** Back on,
[18] 2:06.
[19] **CROSS-EXAMINATION**
[20] **BY MR. SHARMAN:**
[21] **Q:** Mr. Bryant, my name is Jack Sharman, as we
[22] discussed earlier, and I represent Solutia. I'm
[23] going to ask you a few followup questions, and I'll
[24] try to do so in as efficient a manner as possible to
[25]

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Bryant - cross

[1] get everybody out. And as you were with Mr. Byrne,
[2] just so we'll have a nice clear record, be sure and
[3] let me get my question all the way out, even if you
[4] know the answer, and then you respond so we can read
[5] it real clean later on.
[6] Earlier today you were talking about
[7] the bug pit and an incident when a portion of a
[8] retaining wall collapsed or fell away. Do you
[9] remember that discussion?
[10] **A:** That's correct.
[11] **Q:** And you mentioned something to the effect, I
[12] believe, that there was some instructions or
[13] directives to let it go, that is, the material
[14] released from the failure of that retaining wall, to
[15] bypass the normal Anniston public treatment works;
[16] is that right?
[17] **A:** That's correct.
[18] **Q:** That instruction was a decision or
[19] instruction by the city of Anniston folks rather
[20] than a Monsanto instruction?
[21] **A:** That's correct.
[22] **Q:** At the time the bug pit was in place in
[23] Anniston, that was a fairly new, cutting edge type
[24] of technology, wasn't it?
[25]

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Bryant - cross

[1] **A:** No question, correct.
[2] **Q:** In that context we had also heard you talk a
[3] little bit about parathion and the way parathion
[4] wastes were handled. At any time while you were in
[5] Anniston, Mr. Bryant, did you hear of anybody
[6] complaining of any illnesses or injury from exposure
[7] to parathion other than that occasion or occasions I
[8] think you mentioned where there was some eye
[9] irritation experienced by some workers, anything
[10] besides that?
[11] **A:** That's the only thing that I was aware of.
[12] **Q:** Same question with regard to PNP. While you
[13] were in Anniston, did you ever hear of anybody
[14] complaining of any sort of illness or injury from
[15] PNP exposure?
[16] **A:** No.
[17] **Q:** You also mentioned a few occasions when you
[18] and others responded to a variety of spills and
[19] upsets mainly, I believe you said, in places other
[20] than Anniston; Palm Beach, for example, and
[21] Mississippi with the candy bars was another example.
[22] Do you remember that little discussion?
[23] **A:** Yes.
[24] **Q:** In any of those response actions that you
[25]

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Bryant - cross

- [1] took, was there ever anybody, at least as far as you
[2] were aware, that complained of any illness or injury
[3] from any of those events?
[4] A: Only one was in San Diego, California. And
[5] there I think four or five Mexican kids died because
[6] of exposure to contaminated flour in a government
[7] warehouse from parathion. And that was, it was
[8] something wrong with that setup. I had a very
[9] difficult time getting the information, but the
[10] government apparently had stored, and the parathion
[11] was leaking, and they were very tight with the
[12] information because it appeared to me that the
[13] government was responsible. And as far as I know,
[14] that's the way it turned out.
[15] Q: So there was parathion stored in some sort
[16] of facility along with some flour, and there was
[17] some sort of leak or rupture of the parathion
[18] storage, and that caused the flour to become
[19] contaminated?
[20] A: Correct. And the parathion carried strict
[21] warning labels not to be stored around foodstuff,
[22] but yet it was stored in foodstuff. The fascinating
[23] thing or the disturbing thing to us was that the
[24] flour was processed in bread and through the normal
[25]

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Bryant - cross

- [1] additives and all in bread-making, the heat, we
[2] would have thought the parathion would have been
[3] neutralized, but apparently it wasn't.
[4] Q: Other than that San Diego incident, anything
[5] else as far as complaints of illness or injury from
[6] any of those response actions that you described
[7] earlier?
[8] A: No. That's the only one I was aware of.
[9] Wait a minute. I'm sorry. There was one in Florida
[10] where some I think mentally disturbed person mixed
[11] it with milk, farm laborer, and that killed a bunch
[12] of children. That was on television here only four
[13] or five — three or four years ago. The thing
[14] happened, must have been 20, 25 years ago.
[15] Q: You mean your understanding is that in
[16] Florida there was a person, a mentally unstable
[17] person, who on purpose took —
[18] A: Uh-huh.
[19] Q: — parathion, mixed it with milk, and then
[20] gave it to children?
[21] A: Uh-huh.
[22] Q: I'm sorry, you need to say yes or no for the
[23] record.
[24] A: Yes.
[25]

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Bryant - cross

- [1] Q: Outside of the government warehouse in San
[2] Diego and outside of what sounds like a horrible
[3] situation with the mentally unstable person in
[4] Florida, anything else where you had a response
[5] action to some spill or upset with parathion or any
[6] other Monsanto product where somebody complained of
[7] an injury or an illness?
[8] A: No. We had one truck wreck out of Anniston
[9] with caustic, and it was a confusing, some people
[10] said the truck was mislabeled. I don't think the
[11] truck was mislabeled. I think somebody just messed
[12] up and let the guy lie in the caustic, on caustic
[13] the way to counteract that is get him up and flush
[14] him with water as quick as possible. And there was
[15] some unnecessary injury to the guy because of that.
[16] But I think it was the Georgia State Police, I don't
[17] think it was a company because the truck, again, had
[18] warning labels and everything on it.
[19] Q: You also mentioned earlier the stack at the
[20] Anniston plant and its height, you remember that
[21] discussion?
[22] A: Right.
[23] Q: Now, I take it there's nothing per se wrong
[24] with a tall stack; right?
[25]
- [1] *Bryant - cross*
[2] A: No. At that time there definitely wasn't.
[3] Now you probably, they have gotten more much
[4] sophisticated testing on stack emissions and this
[5] type of thing.
[6] Q: Even today it's known, for example, power
[7] plants normally have pretty tall stacks, don't they?
[8] A: Not as tall as that thing was. That was an
[9] extremely tall stack, for the obvious reasons.
[10] Q: And when you say obvious reasons, the reason
[11] was to attempt to get a greater volume by the height
[12] of the stack of air so that it would disperse any
[13] emissions coming out of the top of the stack?
[14] A: Right. Particularly the type of emissions
[15] that were coming off of that thing, because
[16] vegetation is very sensitive to SO2 emissions, and
[17] it will defoliate the whole community if it's too
[18] much.
[19] Q: But that didn't happen at Anniston?
[20] A: No, that didn't happen, no.
[21] Q: You also mentioned a couple of times what I
[22] believe you referred to as a dropped batch of
[23] parathion; is that right?
[24] A: Dropped batch of intermediate. It wasn't
[25] actually parathion. It was only half of a parathion

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Bryant - cross

[1] start of the Clean Air Act. But maybe they didn't
[2] pass anything at that time. My experience with
[3] Congress has been they don't move that fast.
[4] Q: Right.
[5] A: And if you say 1970 from 1948, that's
[6] probably reasonable.
[7] Q: With regard to SO₂, sodium dioxide, did you
[8] ever see or hear of anyone complaining of any
[9] illness or health effect or injury from SO₂ in
[10] Anniston?
[11] A: No. Nobody is going to stay around in it
[12] that long.
[13] Q: I'm sorry?
[14] A: Nobody is going to stay around in an
[15] environment of SO₂ that long because it's very
[16] irritating.
[17] Q: You would know it if —
[18] A: Yes.
[19] Q: — you get a whiff of it?
[20] A: And the real danger in SO₂ is probably not
[21] the SO₂ as much as SO₃, because the two tend to run
[22] together. And because with any moisture in the air,
[23] like what you got the humid climate in Alabama would
[24] be sulfuric acid, and that's bad.
[25]

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Bryant - cross

[1] But I never knew of any complaints
[2] even on that. I had a complaint myself one time, in
[3] fact, we had to finish off my own automobile, and I
[4] thought it was attributed to hydrochloric acid from
[5] a chlorination of biphenyl. But the insurance
[6] company didn't dispute it, so a lot of other people
[7] had the same problem. And I don't think that came
[8] from the sulfur burn; I think it possibly came from
[9] the muriatic filter, hydrochloric.
[10] Q: By the same token, just as with SO₂, if one
[11] is exposed to any meaningful amount of hydrochloric
[12] acid, you would know that, too?
[13] A: You would know it.
[14] Q: Because it's an irritant as well?
[15] A: Exactly.
[16] Q: In response to some more of Mr. Byrne's
[17] questions about parathion, did I understand you
[18] correctly that parathion had a pretty short life
[19] once it was introduced into the environment?
[20] A: Correct.
[21] Q: Matter of hours, three, four, five hours?
[22] A: Correct.
[23] Q: Then I believe you said when it was
[24] neutralized, that life shortened dramatically to a
[25]

[1] Bryant - redirect
[2] matter of even seconds?
[3] A: Oh, yes.
[4] MR. SHARMAN: Mr. Bryant, I don't
[5] think I have any other questions. I appreciate your
[6] time.

REDIRECT EXAMINATION

BY MR. BYRNE:

[7] Q: Mr. Bryant, just a few followup questions.
[8] When you were in Anniston, did you
[9] have any real contact with people in the nearby
[10] community, either socially or as part of your job?
[11] A: Oh, socially I did, yes, I had a lot of
[12] friends in town.
[13] Q: In west Anniston?
[14] A: No, not too many in west Anniston. Couple
[15] of black guys that I was pretty friendly with that
[16] cleaned my labs and stuff like that. Yes, I'd say,
[17] you know, I had general friendly conversation with
[18] them.
[19] Q: Do you recall whether the plant managers in
[20] Anniston ever instituted some sort of program where
[21] they went door to door and asked people —
[22] A: No, they didn't have any program like that.
[23] Q: Let me get the whole question out. Did they
[24]
[25]

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[1] Bryant - redirect
[2] ever had a program in place where they went door to
[3] door perhaps and surveyed people with any health
[4] issues they might have?
[5] A: No. As a matter of fact, Bill Papageorge
[6] would have been the plant manager then, and Bill was
[7] as straightforward a guy as you'll ever meet, but he
[8] did have a communication problem. He didn't like to
[9] talk to people. And I'd say that's the reason I'm
[10] so positive when I say I know they didn't have any
[11] program like that, because it wasn't in his nature
[12] to want to do that kind of thing. He had to do it
[13] when he came to St. Louis, that was a different
[14] story. He came there on the PCB problem.
[15] Q: In the various response actions that you
[16] mentioned where spills might take place and you
[17] would go down to trouble-shoot and whatnot, did you
[18] go around the neighborhoods or areas around the
[19] spill sites and survey people to, you know, maybe a
[20] week or two after the spill to see if they had
[21] suffered any kind of health effects?
[22] A: No. My objective was to get in, clean it
[23] up, and get out.
[24] Q: Okay. Did the Anniston plant, as far as you
[25] know, ever have any kind of program in place where

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Page 197

[1] Bryant - redirect
[2] people with health-related issues, maybe a health
[3] problem, could call in from the community and speak
[4] to someone at the plant about a health issue they
[5] had?

[6] A: No, not as long as I was, in the years that
[7] I was there.

[8] MR. BYRNE: That's all I have.

[9] MR. SHARMAN: Thank you very much.

[10] THE VIDEOTAPE SPECIALIST: That now
[11] concludes this videotape deposition and Tape No. 3.
[12] The time, 2:35.

[13] (Witness excused.)

[14] (Whereupon the deposition adjourned
[15] at 2:35 p.m.)

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[2] CERTIFICATE

[3] I HEREBY CERTIFY that the proceedings,
[4] evidence, and objections are contained fully and
[5] accurately in the stenographic notes taken by me
[6] upon the deposition of JAMES G. BRYANT taken on
[7] June 30, 2003, and that this is a true and correct
[8] transcript of same.

[9]

[10]

[11] MADALENE FOSTER ROHDE

[12] Registered Professional Reporter

[13] Notary Public

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[19] (The foregoing certification of this
[20] transcript does not apply to any reproduction of the
[21] same by any means unless under the direct control
[22] and/or supervision of the certifying reporter.)

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[11] PLAINTIFF'S EXHIBITS

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[14] 1 Memo, 11/14/69, to Papageorge from Wright 85

[15] 2 Memo, 9/18/70, to Bell from Hodges 88

[16] 3 Memo, 8/7/70, to Bergen from St. Louis
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[18] 4 Memo, 9/20/55, to Barrett from Kelly 104

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[20] 5 Memo, 10/20/70, to Keller form Mieure 116

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[22] 6 Solutia Inc./Anniston report 127

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[24] 7 Memo, 12/9/70, to Gossage, et al, from
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Lawyer's Notes
