COPY

IN THE UNITED STATES DISTRICT COURT

FOR THE EASTERN DISTRICT OF TEXAS

BEAUMONT DIVISION

CECIL SCOTT, ET AL]

v.] No. B-84-1103-CA

MONSANTO COMPANY]

VOLUME II

VIDEO DEPOSITION OF

WILLIAM PAPAGEORGE

May 20, 1987

1300 Post Oak Boulevard

Houston, Texas

Jerry Kelley, Court Reporter

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LAWYER'S NOTES

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Volume 2 of the Videotape Deposition of William Papageorge, taken on May 20, 1987, at 1300 Post Oak Boulevard, Houston, Texas, between the hours of 9 a.m. and 5:15 a.m. before Jerry Kelley, CSR No. 2004 and Notary Public in and for the State of Texas.

VIDEO OPERATOR: This is the continuing deposition of Mr. William B. Papageorge. Today's date is May 20th, 1987, and the time is approximately 8:54 a.m. The witness has previously been sworn under oath.

MR. LACEY:

Q Mr. Papageorge, I believe when we broke yesterday evening we had discussed the cost of production responsibilities that you had as the manager of the Anniston, Alabama, plant that produced PCBs and the relative understanding you had with regard to the actual performance of PCBs in the marketplace in terms of profitability, et cetera. I want to now turn to a different topic. With regard to the production forces at Anniston, Alabama, that work with PCBs, how were those people provided with whatever protections you as

the plant manager and Monsanto generally thought were necessary for them in their work with PCBs?

A They had unlimited and free access to any safety equipment deemed appropriate for that -- for their particular jobs. They were provided with clothing, which included the proper footwear, gloves, head cover, respirators, and, of course, the fire extinguishers that are typical, harnesses which they would attach to themselves if they entered vessels for cleaning, and, as needed, they would also have access to protective gear that was less permeable, for example, -- rubber-coated pants and jackets. I can't think of any others at the moment.

Q Okay. Let me go back and see if I can understand how all of this worked. First, when you say they had free access to safety equipment, obviously they could go and select anything that Monsanto made available to them as they saw fit?

A Yes. It would either be in the immediate vicinity or back in the storeroom.

Q Now, the clothing that was provided, was that a Monsanto uniform that was provided?

A Yes.

Q Can you describe what that was? Was it a jump suit or something like that that they put over

their street clothes or --

A No, at the Anniston plant it was a gray khaki shirt and gray khaki trousers, a two-piece uniform.

Q And did all the employees at the plant have that --

A Yes.

Q -- same uniform?

A All of the hourly-paid employees had that particular uniform.

Q Was there anything different about the uniforms for the PCB workers versus any other workers at the plant?

A No.

Q How frequently were those uniforms provided?

A As needed. They were issued several sets of clothing that were laundered. When the individual would place them in the dirty laundry baskets and in their lockers, they always had at least one clean set.

Q So that as the worker chose he could wear a brand-new uniform each day or he could wear a uniform for a week at a time if he wanted?

A Or as soon as it got dirty he could go change, yes.

Q But that was totally within the worker's discretion on what to do?

A There were times when the foreman or the chief operator would tell them, "Go change your clothes," when they observed too much material on them.

Q Okay. So on occasion, then, they would be instructed to change clothing?

A Yes.

Q Now, with regard to the -- you said proper footwear. What is the proper footwear?

A The normal footwear would consist of a steel-toed, leather-top shoe or boot, or high-top shoe, with an oil resistant sole. Some jobs, such as entering a tank or a railroad tank car or tank wagon, where the surface was oily, they would wear a bootee, which was an oil-resistant overshoe over that leather shoe, or the leather shoe would be removed and a more substantial rubber boot would be used.

Q The bootees were designed to be oil resistant?

A Yes.

Q And were those worn in all departments in the plant?

A They were available to anyone.

Q No difference again between the PCB department and any other department?

A The difference would be primarily in the

appropriateness of other types of footwear in other locations in the plant.

Q Can you explain what you mean?

A There were available to some individuals the more flimsy plastic vinyl like a Saran Wrap -- that's exaggerating a little bit -- that could be put over their shoes and tied for some operations, but that would not be appropriate in PCBs, because it would not withstand the effects of PCBs.

Q Would it eat it up?

A It would literally dissolve and disintegrate.

Q So in the PCB area you had a bootee that was more substantial than supplied in at least some other areas of the plant?

A Yes.

Q What about with regard to these shoes? Were those supplied by Monsanto?

A Yes.

Q And were they left at the plant? In other words, did people wear those to and from home?

A Some individuals wore them home.

Q That was the option of the worker?

A Correct.

Q With regard to the gloves you mentioned, what sort of gloves were provided?

A I recall there were some that were the ordinary canvas glove, white canvas gloves; there was another type which was a white canvas glove that had been coated with a plastic water resistant, oil resistant coating; there was another type that was made of a synthetic rubber, similar yet heavier than one might describe surgical or hospital gloves; another type would be the heavy -- it's a cloth interior with a black synthetic rubber coating on the outside; there were leather gloves, leather-palmed with canvas backs with cuffs, canvas cuffs; and there were also all-leather gloves, some were wrist length and some were elbow length.

Q And all of these would have been available in the PCB department?

A They were available to employees of the PCB department either in the unit or back at the storeroom.

Q Were there any particular types of gloves that were required in the PCB department and others that were considered inappropriate for that particular department?

A The gloves that were required in that department were the oil resistant, liquid resistant types.

Q Okay. What I want to do is as we go through

the department I'm interested in what the PCB people would have had and what they would have been wearing, not what other sections of the plant might be wearing. For example, to make it very clear, if it would have been acceptable to the plant for certain departments to wear these white canvas gloves that were not oil resistant but would have been unacceptable in the PCB department to wear them, I want to be able to tell the distinction between the two.

A Well, I don't want to mislead. There are circumstances in the department where, for example, a — maintenance man may arrive in the department to work on an instrument. He can safely use a canvas glove. He is in the PCB environment. Later another mechanic may show up and he must work on another piece of equipment. He may use the leather glove.

Further, a third mechanic may arrive, but he must use the oil resistant type, because when he does his work he's going to be exposed to the liquids, the chemicals. So it depends not only on the department but the circumstances.

Q Okay. Well, if I'm clear, then, whenever anybody would be doing work where but for the glove covering their hands they might come into contact with PCBs, they were required to wear the oil resistant

gloves to keep the PCBs from contacting their skin.

A Certainly, yes.

Q Okay. And with regard to the clothing that was issued, was that also true that if they were doing a job where PCBs might come into contact with their clothing that is when they would then wear the rubber-coated clothing that would keep the PCBs from coming into contact with their regular clothing?

A Yes.

Q And with regard to their footwear, if they were doing a job where their shoe or any part of it — might come into contact with PCB oils, is that where they were required to wear these oil resistant bootees or rubber boots?

A Yes.

Q Tell me about the head covering.

A At that point in time it was permissible to wear a soft cover, a cap with a beak or whatever seemed to please the individual. We supplied those with the beaks.

Q Something like one of these gimme caps?

A Yes.

Q Okay.

A There were, however, available, and some employees preferred, the hardtop, the helmet-type. So

both were permissible in the unit at that time.

Q If the employee were going to be in a job where PCB oils might contact them on the head, were they required to wear a type of head cover that would keep the oils from coming into contact with the skin?

A Yes, there were rubber-coated skull caps that could be used. And should be used.

Q If there was any possibility of the oils contacting the skin?

A Yes.

Q Did you have available in the PCB department materials that employees could put on the portions of their skin that they could not cover with some type of rubberized material in order to protect from the possibility of PCB exposure to the skin?

A It was available.

Q And what was this material that was available?

A I don't recall the trade name. It was a lotion, skin lotion that repelled most oils for limited periods of time.

Q The purpose or the way you use that is if you thought you might have exposed skin that would come into contact with PCBs, you would put the lotion on.

A Yes.

Q So that it would keep the oils from soaking into the skin, then you remove both the lotion and the oils that got on it at the same time?

A That was the intent, yes.

Q And that was made available by Monsanto to its employees in the PCB department?

A Yes.

Q You don't recall any trade names of the lotion?

A I don't recall trade names. I recall there was a silicon base skin cream.

Q Then with regard to respirators, those were -- did each employee have a respirator issued to him in the PCB department?

A Yes.

Q Did he have that in his locker? Or how would they keep it if they were not using it?

A Some would keep it in their personal lockers back in the change area; some would keep it in the smaller locker they had in the control room associated with the production area.

Q What steps did you as the plant manager take to ensure that the employees in the PCB department always wore the necessary protective equipment to keep them from being exposed to PCB materials?

A I personally would make spot-checks when I was aware that a particular activity was to be performed. I would visit the area and make my personal observations. But for the constant surveillance, I relied on the supervisor, the superintendent, the supervisor and the foreman, as well as the chief operators. All of us had responsibilities in this area.

Q You recognized, I take it, that it was important to have some mechanism in place to ensure that individual workmen actually used the protective equipment in order to protect themselves?

A Certainly.

Q And you viewed that as part of your job?

A Yes.

Q It was not sufficient to you to simply say, I've made the materials available to the people to protect themselves, and whether they use them or not is not my concern?

A That's not sufficient, you are right.

Q Okay. Is it your opinion that during the time that you were the plant manager at the Anniston, Alabama, plant you were generally successful in enforcing the rules so that workers in the PCB unit were not exposed to PCBs?

A Yes.

Q Can you recall any instances where your workers were actually exposed to PCBs -- and by that I mean where they had them, for example, come into contact with their unprotected skin, no barrier creams, no rubberized clothing to keep it out.

A In the five years I spent there, I recall vividly only one incident.

Q Tell me about that one incident.

A One of the long-time employees, chief operator, working alone on the night shift, apparently was -- in a moment of poor judgment decided to perform some duties loading up a tank car with PCBs, did not wear his gloves, and he sheepishly confessed to me the following day or so, after he had gone to see the doctor with severely reddened skin on his hands and admitted that he should have worn gloves but the job was dirtier than he thought it would be and he didn't get around to washing his hands soon enough. That is the only incident I personally -- I saw the hands and I recall the incident vividly.

Q Was it your practice to require incidents like that to be reported to you?

A Yes.

Q Did you take any disciplinary action against this employee?

A No.

Q If you had repeated problems of a particular employee who constantly ignored work safety rules, would you have taken disciplinary action?

A I think before I discipline I would attempt to retrain, recoach, and follow up with -- have the foreman follow-up. And if it continued, then I would be forced to some more severe action.

Q You as the plant manager had the authority to take action to enforce the work safety rules?

A Oh, certainly. The foreman did, too.

Q I understand. But I mean up the line eventually you were the person with the ultimate responsibility?

A Yes.

Q Did that -- within the Monsanto organization, did that authority reach to the point of even terminating an employee who habitually ignored safety rules?

A It could.

Q That was within the scope of your power?

A Yes.

Q And was the Monsanto safety program such that employees knew that if they habitually violated work rules they could be terminated?

A Yes.

Q Frequently reminded of that?

A Yes.

Q And did you frequently ensure that your supervisors reminded employees of the reasons behind the work rules, that is, the personal precautions were there for a purpose?

A Yes.

Q So that it was brought home to the employees that these work rules were not just unnecessary rules and regulations, but designed for their personal protection?

A Yes.

Q And as plant manager did -- as plant manager did you feel that constantly reminding the employees of the reason behind the work rules and the adverse things that could happen to them personally if they ignored them helped to ensure that they were generally followed?

A Yes.

Q Was it a safety practice that if someone, despite all your efforts to keep them from coming into physical contact with PCBs, actually came into physical contact with PCBs that they were to be washed off immediately?

A I don't know that I can properly use the

expression "immediately." Depending on the circumstances. If the employee could postpone what he's doing, permitting him to wash, that was strongly suggested. If, however, there was an emergency kind of situation, where certain actions must take place before the worker can walk away from the scene, then there could be a lapse of time without any harmful effect. So it was not immediate as, say, an acid burn.

Q You wouldn't expect -- I take it what you're saying is you wouldn't expect if an employee spilled some PCBs on his skin to leave a valve open and let a tank load run out on the ground.

A That is correct.

Q You would expect him to take the time to close the valve and then go wash promptly?

A That is correct.

Q Were showers provided in the PCB area of the plant? Or would the employee have to go all the way back to the shower area of the plant to take a shower?

A The showers for cleansing were back in the shower change room.

Q Okay.

A Not in the immediate working area.

Q Okay. So there was no water or shower available to wash off PCBs in the work area?

A Oh, there were washbasins for hands and faces and small wash areas. But not for complete body shower.

Q Okay. So if an employee got it on his hands there would be a place to wash off and appropriate soaps available right there in the unit?

A Yes.

Q And the instructions were to wash as soon as possible without creating an emergency situation?

A That is correct.

Q And I take it in this case of this one employee you've described for me he didn't follow through on those instructions.

A That is correct.

Q And as a result he had some problem develop?

A Yes.

Q Okay. But that's the only incident you are aware of in five years as plant manager?

A Yes.

Q Were you generally aware of any significant exposure by your employees to PCBs?

A If it had occurred, I would have been.

Q That's what I'm -- it's not likely that there would have been a hundred such incidents and you only learned about one, is it?

A You're correct.

Q And I guess summing that up out of the -- let me see if I can figure this out. You had approximately 30 to 40 employees in the PCB area when you came to the plant, you had approximately 50 PCB employees when you left the plant. So you've got somewhere on the average of, say, 40 employees over five years working in the PCB area. Correct?

A That is an approximation, yes.

Q And out of that group of 40 employees no more than one or two would have had any exposure to PCBs during the five years that you were at the plant because of the protective equipment provided by Monsanto?

A I can't honestly say no exposure.

Q Okay.

A If there was exposure, it was low, and the equipment and facilities available to them diminished any effects of any exposure that might have taken place.

Q Let me ask it another way. We know of one incident of an exposure that occurred beyond what would be permitted by applying all the work rules.

A Correct.

Q So out of that 40 or so employees on average over that five years we have one who had an exposure greater than what could be obtained by observing all the work rules?

A Correct.

Q And that was a one-time event. Correct?

A Correct.

Q How long did that employee tell you that the PCBs had remained on his skin before they were removed?

A I don't recall that he told me any time period.

Q Okay. You indicated he told you that they stayed on the skin longer than they should have.

A Well, of course, I don't recall the exact words, but the effect was that he admitted he knew better, he just didn't get around to washing his hands in time. And sure enough, they became red.

Q Okay.

A That's all I really remember about the conversation.

Q The exposure lasted less than seven or eight hours, I take it.

A That is true, yes. One shift.

Q And what you can tell me about all of that is that you're not aware, with the exception of this one employee who was exposed and had some skin irritation, of any employee at the plant that you know of who had any health problems at all because of working around with PCBs.

A Yes.

Q And I guess the same -- what you can tell me also is the only employee that you do know who had any exposure to PCBs beyond what would occur with all this protective equipment had some skin irritation.

A Yes.

Q What particular PCB product was this employee working with?

A I've forgotten.

Q Was it a pure PCB product?

A It was one of the liquids, yes.

Q And by that I mean it wasn't a blended product like a Pydraul or anything?

A That I don't know.

Q Okay. You only know that the product contained PCBs?

A Correct.

Q And it was being loaded into or out of a railroad tank car?

A Into.

Q Was that a customary method by which PCB materials were shipped?

A It was one of three methods.

Q I guess what I'm trying to find out is whether it was a relatively rare occasion to ship PCBs

by railroad tank car or whether that was a relatively common occurrence.

A It was common.

Q What percentage of the PCBs shipped out of the plant would have gone by railroad tank car?

A I don't recall exactly. I would estimate half of them.

Q Okay. And we're talking in terms of quantity at this point?

A Yes.

Q The other means -- another means of shipment was by a tank truck?

A Occasionally.

Q What percentage of the PCBs would have left the plant by means of tank truck?

A Oh, five percent.

Q And that leaves roughly 45 percent or so, give or take some percentage for margin of error, that left in some other type of container?

A Yes.

Q What sort of containers were used for the remaining PCBs that were shipped out of the plant?

A There were -- they were in every case steel containers, a five-gallon pail, a 32-gallon drum and a 55-gallon drum.

Q Was it mandatory that your workers take a shower at the end of each shift in the PCB department?

A No.

Q Were workers given paid time in which to take a shower at the end of the shift?

A No.

Q And I take it, then, nobody would have attempted to require workers to take a shower at the end of the shift.

A I don't understand the question.

Q Okay. Let me -- if workers were paid for ~~10~~ or 20 minutes to take a shower and it was mandatory they do so, then someone might attempt to enforce that rule instead of letting them just leave 20 minutes early and not take the shower. What I'm getting at is, you didn't have -- you didn't have a mandatory requirement that they take showers before they left, you didn't give them paid time, and so nobody tried to enforce any recommendation that they take showers before they leave. Is that correct?

A That is correct. Now, the possibility existed, and I don't know how many, where an individual might get material on him near the end of his shift. At that point it was mandatory, wash up. At that point he would wash up and we would pay the man overtime.

Q So that if someone did get any material on them, they would then be paid for taking a shower, including overtime, if that were necessary?

A Correct.

Q In the locker room area of the plant the employee, I take it, would wear his street clothes to work.

A Yes.

Q Change into the company-supplied uniform at the beginning of the day.

A Yes.

Q At the end of the day he would change out of his company-supplied uniform and back into his street clothes and go home?

A Most employees.

Q What did some employees do?

A Some wore their work clothes home.

Q Oh, okay. So some employees would actually wear the work clothes to work and not have to make the change in the locker room, and then wear them back home?

A Some would do that, yes.

Q Was that permissible?

A As long as the garment hadn't been contaminated.

Q Would it have been permissible for an

employee to wear home a work garment supplied by Monsanto that had any PCB product on it whatsoever?

A No.

Q These employees who wore the uniforms home, would they launder them at home themselves?

A What they did at home I don't know. We encouraged them to return it because the laundering was no cost to them. I have no way of knowing if they did any laundering at home.

Q There was a financial incentive to have it laundered by the plant, but not a requirement?

A Certainly.

Q Were the workers provided with company-supplied underclothing?

A No.

Q Did each worker have one locker in the change area?

A Yes.

Q So he would come in at the beginning of the day and there would be a locker containing his work clothing. He would change into his street clothes and put his street clothes into that locker and get his work clothing and put it on. When he came back, he would put his work clothes back in the same locker out of which he took his street clothes to go home?

A Yes.

Q Was the PCB department labeled as a toxic department at the Anniston, Alabama, plant?

A No.

Q Did you ever visit the PCB production unit at the Krummrich plant in Sauget or East St. Louis, Illinois?

A Yes.

Q What differences existed between those two departments with regard to work practices?

A I don't know that there were any basic differences. There were differences in types of clothing, for example. The Krummrich plant employees had the single-piece coverall jumper-suit type. As far as their operating practices and the objectives, they were, as far as I could tell, identical or similar.

Q The PCB department at the Krummrich plant was a toxic department, was it not?

A No. I don't know what you mean by toxic department.

Q I see.

A There is no such terminology in Monsanto.

Q Okay. The employees at the Krummrich plant were permitted paid time to take a shower at the end of each shift, were they not?

A Yes.

Q As far as the PCB employees went. Is that correct?

A No. This was a negotiated labor union contract with the management of the plant for --

Q I see.

A -- as best I remember, all employees at the plant. All members of the union.

Q And employees were required to take those showers before leaving the plant if they were PCB employees, were they not?

A That's a condition of being paid for having time -- paid time to do so, yes.

Q Well, they were required to take the showers if they worked in the PCB department, were they not?

A No different than the whole plant.

Q I see. In your view, the differences between the shower arrangement at the Krummrich plant and at the Anniston plant had nothing to do with safety whatsoever. Is that correct?

MR. HALL: Would you read that back to me, please?

[The record was read as requested]

A When you say nothing whatsoever, the concept of showering was safety based, but it was negotiated

between the union and the management. So there was a safety element in this discussion.

MR. LACEY:

zzz Q Was the safer practice the one at the Krummrich plant?

A If you measure safety by results, I would say the results being equivalent, then the practice could not be described as safer.

Q So in your opinion it was no safer to require each employee to shower at the end of the shift than to leave that entirely up to their discretion?

A That is correct.

Q Okay. Did the employees at the Krummrich plant have the same rubberized gloves for working with PCBs, rubberized shoe coverings, rubberized head coverings and the like?

A Yes.

Q So that the possibility of an employee at the Krummrich plant coming into contact with PCBs was no greater than the possibility of an employee at the Anniston plant coming into contact with PCBs. Is that correct?

A That is correct.

Q And I suppose to the extent that -- one more question. Did the employees at the Krummrich plant also

have available to them these lotions or creams that they could put on their unexposed -- or on their exposed skin in order to keep PCBs from getting to the skin and being absorbed?

A Yes.

Q So, then, the level of protection at the Krummrich plant was fully as great as the level of protection at the Anniston plant?

A Yes.

Q And possibly the exposure at the Krummrich plant might be lessened to the extent that there's some unnoticed quantities of PCBs that got on the skin at the Krummrich plant, those would be washed off in the mandatory shower, whereas in the Anniston plant they might not be. Is that correct?

A It's only correct if you assume that the Anniston employees did not shower at the end of the shift.

Q Right. But to the extent that there was no requirement that the people at Anniston shower at the end of each shift. Correct?

A That is correct.

Q No financial incentive to shower at the end of each shift.

A That is correct.

Q Whereas at the Krummrich plant showers were supposed to be taken at the end of each shift. Correct?

A Correct.

Q There was a financial incentive to take showers at the end of each shift.

A Correct.

Q The fact of the matter is that more people at the Krummrich plant took showers at the end of each shift than at the Anniston plant.

A I don't know that.

Q Well -- I see. You don't know, then -- strike that.

What percentage of the PCB workers at the Anniston plant took showers at the end of each shift?

A I don't know.

Q I see. And you don't know anything about the Krummrich plant results either?

A I don't know.

Q Okay. So it is possible, as far as you know, that every Monsanto employee in a PCB section of the Krummrich and the Anniston plants shower at the end of each shift?

A That is possible.

Q Okay.

A And so is the reverse.

Q That none of the employees showered at the end of each shift?

A Just went home.

Q If that were true at the Anniston plant, there would be no financial repercussions from that, would there?

A True.

Q If that happened at the Krummrich plant, each employee would wind up losing an hour and 45 minutes or so of paid time every week off his check.

A If he left early.

Q Or if he didn't shower.

A It would have to be somebody monitoring the shower room, which was not done.

Q I see. So the time was provided, but nobody actually made any efforts to ensure that the showers were taken?

A That is correct.

Q Okay. Did you ever propose that the employees in the Anniston, Alabama, plant be given paid time within which to shower at the end of each shift?

A I have a vague recollection of the subject being discussed at one of the contract negotiations along with many other items. And as best I recall, that particular suggestion was immediately rejected by the

union representatives and did not get serious consideration.

Q I didn't ask my question quite the way I intended to, I guess, because that wasn't what I was asking. I was asking whether you as the plant manager recommended to Monsanto that they provide paid showers at the end of each shift as a safety matter to employees without regard to having the union have to negotiate it with you.

A Well, I -- in order to bring this up during negotiations, I certainly had the thought initially and cleared it with Monsanto, as you described it, as an appropriate item.

Q Let me ask it a different way still. I'm not -- would you have had -- maybe it's a matter I don't understand how it worked. Let's assume we're in the middle of the union contract period and the employees are under obligation to work eight hours a day and get paid so much per hour. Right?

A Yes.

Q Could you have said, instead of actually working eight hours, I'm only going to ask you to work seven hours and 40 minutes and provide 20 minutes of paid time for you to go take a shower at the end of the shift and I want you to do that?

A That's impractical. In the first place, I'm violating the contract, second place, I don't have workers standing at the gate to fill in the jobs that the men have vacated to go to the showers. It's a very complex agreement that has to be worked out to do the thing you are proposing.

Q Okay. And at some point you proposed that showers be provided? And a time for showers be provided?

A Pay for shower time. Which meant the employee completes his duties, is properly replaced, and then is showering on his own time for some remuneration.

Q I see.

A It is not part of the eight-hour work shift.

Q I see. That's -- that would be overtime showering?

A That's why the remuneration comes into discussion.

Q Okay. I see. Was that the way the showering was at the Krummrich plant, overtime showering?

A Yes.

Q And were the employees paid overtime for showering?

A They were paid a -- an amount, not equal to the normal overtime. Because that's another complex set

of rules.

Q Were they paid their normal hourly rate for showering?

A I've forgotten. It's a little bit more, but it's not quite the same as though staying over to complete a job and being guaranteed four hours pay for 15 minutes of work or any such --

Q Okay. Let me try to -- let me try to sort this out. Were they paid time and a half for the -- at the time and a half rate for the number of minutes that they showered, they had to shower?

A I forget the details, but that sounds like very close to what I recall.

Q Okay. And your recollection is that you, in negotiations with the union in Anniston, offered as an additional benefit the opportunity for employees to shower and get their overtime rate of pay for that, and the union rejected that proposal?

A Yes.

Q Okay. Do you recall when that proposal was made?

A I'm not certain. 1966, 1967.

Q Relatively early in your career as plant manager at Anniston?

A Yes.

Q How often did you visit the PCB production facilities at the Krummrich plant?

A As I recall, once while I was working at the Krummrich plant and about three or four times after I became the manager, environmental control.

Q So you would have visited once prior to 1966 and then approximately four times after 1970?

A Correct.

Q How many employees were employed in the PCB department at the Krummrich plant?

A I don't know that I ever knew that. I don't know.

Q Do you know in terms of generalities how it compared with Anniston? Was it much lower than Anniston or much larger or you just don't have any idea of the scale at all?

A I would suggest it's very close to the same population.

Q Did both of those plants run three shifts a day?

A Yes.

Q Seven days a week?

A Yes.

Q Did people from the corporate medical department ever come to the Anniston plant and review

the industrial hygiene and worker safety practices in the PCB department at Anniston?

A Yes.

Q Were they familiar with the practices being followed in the Anniston, Alabama, plant?

A Yes.

Q How frequently would people from the industrial hygiene group at the medical department come and visit your plant and review the safety practices and the workers' safety?

A Well, the industrial hygiene representative would come about once a year. And Dr. Kelly would come about once a year.

Q Those were separate visits?

A Yes.

Q Did industrial hygiene representatives of the medical department visit other plants the same way they visited the Anniston plant?

A I can't speak for him. I don't know what his schedule for visits was based on.

Q Well, I guess what I'm trying to find out is you were at the Queeny plant. Did the industrial hygienist ever go to the Queeny plant?

A Yes.

Q You were at the Krummrich plant. Did the

industrial hygienist ever go to the Krummrich plant?

A Yes.

Q Okay. It wasn't just the Anniston plant that got a visit from the industrial hygienist from time to time?

A That is correct.

Q Did the industrial hygienist group there include Mr. Wheeler?

A I personally did not associate Mr. Wheeler with industrial hygiene.

Q I see.

A He could have done some of this. Well, let me correct that. Mr. Wheeler served as a backup for Mr. Garrett, who was the industrial hygiene representative. When Mr. Garrett would be out of the office or vacationing or ill, Mr. Wheeler would perform some of those duties. Other than that I don't know what else Mr. Wheeler did in industrial hygiene.

Q Mr. Garrett reported to Mr. Wheeler, did he not?

A Yes.

Q So that at least as you understood it Mr. Wheeler had supervisory responsibilities for industrial hygiene at Monsanto?

A Yes.

Q Would have been responsible for knowing what the work practices were and calling for changes if he felt they were necessary?

A Yes.

Q Did Mr. Wheeler or Mr. Garrett ever advise you of any changes in the work practices that they recommended with regard to the PCB department at Anniston?

A No.

Q Do you know whether or not they ever recommended any changes in the work practices in the PCB department at the Krummrich plant?

A Not to my knowledge. I don't know.

Q Do you know whether or not Mr. Wheeler and/or Mr. Garrett thought there were any significant differences between -- from an industrial hygiene standpoint between the work practices at the Anniston, Alabama, plant in the PCB department and the Krummrich plant in the PCB department?

A I do not know.

Q Okay. Those were matters that would have to be addressed to one of the company's industrial hygiene people?

A Well, it would have to be answered by the individuals, Mr. Garrett and Mr. Wheeler.

Q That's what I'm getting at. Industrial hygiene at Monsanto was a matter that was in the province of the medical department and the industrial hygienists there?

A Correct.

Q And what the company's view, so to speak, from the industrial hygiene perspective is a matter industrial hygienists would have to speak to?

A Yes.

Q Not you?

A That's correct.

Q And you never held a position where you became a technical spokesman on industrial hygiene on behalf of the company. Correct?

A I don't know your definition of technical spokesman.

Q Well, you're not trained as an industrial hygienist?

A That is true.

Q Okay. Industrial hygiene is an area of some room for training and experience. Correct?

A Yes.

Q And I'm just trying to find out if as between you and a person who has been trained in that area the person who has been trained in that area is more

qualified to speak on it.

A True.

Q Okay. That's all I wanted to make sure. I've had a chance to talk with Mr. Wheeler, and I just wanted to make sure that I can look to him as an appropriate person for industrial hygiene and I don't have to ask you all the questions I asked him about industrial hygiene.

A All right.

Q Now, in terms of having any contact outside of Monsanto itself with regard to PCBs, when was the first time that you had any contact with anybody outside of Monsanto itself with regard to PCBs?

A I am having difficulty recalling the timing. But in terms of PCBs and someone other than Monsanto, my first contact was with General Electric people who arrived at the Anniston plant, as best I remember, in -- shortly after I reported there. So it would have to be early 1965.

Q What were these people coming to the Anniston plant for?

A It had been a practice of the General Electric Company to have a regular and continuing relationship with the Anniston plant in the supplying of the PCBs to General Electric facilities. And as I

recall, this was just one of many trips that were made, not so much on a regular schedule but fairly frequent schedule. And the discussions were centered around quality of product, shipping, meeting shipping schedules, condition of the railroad cars as they were placed in service, new formulations that General Electric might be considering, and an interchange on technology on both parties, the General Electric people on what new was taking place in the design of their equipment, and Monsanto in what new processing techniques were the research people considering. That-- type of discussion.

Q Was the Anniston plant the primary supplier for GE with regard to PCBs?

A It depends on the point in time. In the earlier years, yes. But later, in about the time I was at the Anniston plant, the Krummrich plant became the -- an equal supplier. It evolved into an equal supplier.

Q The reason for my question is just trying to understand why they would come to Anniston, Alabama, as opposed to going to the St. Louis, Missouri, area.

A Oh, I didn't mean to imply that they did not go to the Missouri plant -- the Illinois plant.

Q Do you know whether they did or not?

A I know that they arrived in St. Louis, across

the river. I also know that people from the Krummrich plant were invited to those meetings. Now, whether the General Electric people drove across the river and saw the unit personally I do not know.

Q Okay. Did these visits that took place in Anniston, Alabama, involve actually going out and looking at the unit, or were these primarily office meetings?

A They were both.

Q Okay. What would they do when they went out and looked at the unit?

A They would look and observe and --

Q What could they tell by looking at it?

A Well, I suppose many things one could see if he knows what he's looking for. He can see that the unit is oily or dry in terms of the equipment and the floors and the stairways, and he could see that there was or was not any odor present indicating fumes were escaping, he could see that the workers were -- looked kind of dirty in their clothing or they were clean, that they were wearing gloves or were not. These kinds of observations could be made by a knowledgeable person.

Q With regard to General Electric, how frequently -- and I understand you told me they weren't regularly scheduled, but how frequently during the time

you were the plant manager at Anniston, Alabama, did they come?

A I believe about three times in the five years.

Q What other customer contacts did you have during the time that you were at the Anniston, Alabama, plant?

A I'm not certain, but it seems to me that a delegation of Westinghouse representatives visited the plant once.

Q Okay.

A I don't remember the specifics. It was again a general discussion of Monsanto, Anniston, Alabama, PCB production activities.

Q Where did the GE people physically come from, if you know?

A I'm not certain, because each of the visits would reflect a different interest on their part. And I don't know which visit, but at least one of them came out of Pitsfield, Massachusetts, which was their transformer -- major transformer plant. I recall an individual from their Rome, Georgia, plant visiting our plant. It seems to me that a representative from their New York Hudson Falls location was present, but I don't recall his name.

Q So then the GE visits weren't the same people coming back three times but people coming from three different facilities on different occasions?

A Yes.

Q Where did the Westinghouse people that you recall coming to Anniston come from?

A I recall south Boston, Virginia, their research center in the Pittsburgh area, and I believe there was an individual from the Bloomington, Indiana, plant.

Q Do you know whether or not those same people visited the Krummrich plant?

A I do not know.

Q Do you know how your plant was selected as opposed to the Krummrich plant for the visit?

A I don't know.

Q Do you know whether or not that was a Monsanto decision or a decision of the Westinghouse people about whether they would rather go to St. Louis or Anniston?

A I don't know.

Q Did you meet with any of these groups that came to visit?

A Oh, yes.

Q What would you do?

A Well, I would welcome them to the plant, I would make the opening remarks, introduce the individuals in the plant who were going to make the other presentations, and acted as host primarily, and certainly an interested observer and participator throughout the day.

Q You would stay around for the entirety of each --

A Yes.

Q Besides GE and Westinghouse, who else do you recall coming from -- coming to the Anniston, Alabama, plant?

A I don't recall any others.

MR. LACEY: Why don't we take a break right here. Does that sound good, Bob?

MR. HALL: Fine.

VIDEO OPERATOR: We're off the record.

[Recess]

VIDEO OPERATOR: We've been off the record for a short break. We're back on the record. The time is 10:18 a.m.

MR. LACEY:

Q Mr. Papageorge, I believe yesterday we talked very briefly about documents we called technical bulletins or materials that were supplied to customers

containing information on PCBs.

A I recall that, yes.

Q I want to show you some documents -- I really don't want to review the substance of them with you, but just to see if these are the types of documents that you were talking about yesterday that could be referred to as technical bulletins or customer literature or whatever the appropriate name might be. And what I'm going to do is simply identify the document by its name and its number, if it's got a number, and then the case number and let you look at it and see if that's the sort of document you're talking about. Let me show you first a document called the Aroclors, Physical Properties and Suggested Applications, Application Data Bulletin No. P-115, document number in this case 1581 through 1605, and ask you if that's a type of literature that would be referred to as a technical bulletin or literature provided to customers to give them information on PCBs.

A Yes.

Q All right. Let me show you another document, titled the Aroclors, Physical Properties and Suggested Applications, Application Data Bulletin No. P-115, Document No. 1722 through 1752, and ask you if that is another one of the types of documents that would be referred to as a technical bulletin or literature for

customers on PCBs.

A Yes.

Q Let me show you another document, titled the Aroclors, Physical Properties and Suggested Applications, Application Data Bulletin No. OP-115, Document No. 1889 through 1918, and ask if that's the type of document that would be referred to as a technical bulletin or literature for customers about PCBs.

A Yes.

Q Let me show you another document, called the Aroclor Compounds -- I don't believe this one has a number associated with it except the document number, 1919 through 1966, and ask if that's another type of document or another document that would be referred to as a technical bulletin or a piece of literature for customers.

A Yes.

Q Let me show you another document, called Monsanto Askarel Inspection and Maintenance Guide. Again I don't think it has a technical bulletin number associated with it, but document 2299 through 2331, and ask if that's another one of the types of documents that would be referred to as a technical bulletin or literature for customers about PCBs.

A Yes.

Q Let me show you another version of the document referred to as Monsanto Askarel Inspection and Maintenance Guide, 2347 through 2377, and ask if that isn't another type of document or it may be even a very similar one on technical material or literature provided to customers about PCBs.

A Yes.

Q And yet another Monsanto Askarel Inspection and Maintenance Guide, document 2278 -- I'm sorry, 2378 through 2410, and ask if that is yet another type of document or another copy of a document that would provide customers with information on PCBs.

A Yes.

Q Let me show you another document, with a different-looking cover, but labeled Transformer Askarel Inspection and Maintenance Guide. This has got a bulletin number ICFF 38, Document No. 2450 through 2477, and ask if you if that's another type of -- type of technical bulletin or customer literature that would be provided by Monsanto to its customers with information on PCBs.

A Yes.

Q Let me show you another document, also called Transformer Askarel Inspection and Maintenance Guide,

bulletin No. ICFF 38 R 2, document 2478 through 2505, and ask if that's another type of document that would be referred to as a technical bulletin or customer literature for customers on PCBs.

A Yes.

Q Let me show you another document, labeled When You Want Fire Safety Reliability, Minimum Maintenance and Askarel type -- specify Askarel type transformers. Let me do that again and getting the title right. It's a long title. Let me show you another document, entitled When You Want Fire Safety, Reliability, Minimum Maintenance, Specify Askarel-Type Transformers, Document No. 2522 through 2531, and ask you if that's another type of document that would contain technical information or be supplied to customers with information on PCBs.

A Yes.

Q Finally, let me show you one other document, labeled Care and Grooming of Askarel Transformer Fluid, Document No. 2506 through 2521, and ask you if that's another type of document that would be supplied to customers to give them technical information or other information on PCBs.

A Yes.

Q Now, are you aware of the fact that there are

other technical bulletins besides the ones that I've shown you here today that existed within Monsanto that had to do with PCBs?

A Yes.

Q And the reason I've shown you these is just to establish that these types of documents are the sort of things that we're referring to when we talk about technical bulletins or customer literature provided to customers about PCBs.

A Yes.

Q Okay.

A I understand.

Q I'm not going to take the time to go through the large stack of variations of and maybe even duplicates of these documents that have been provided to me by Monsanto in connection with the lawsuit. So I'll stop with that.

And let me direct your attention now to another type of document that we've previously discussed. Let me show you a document that is titled Process for the Manufacture of Diphenyl and Santo Wax, dated November 1950, Document No. 11085 through 11229, and ask you if that's the type of manufacturing process document that we talked about yesterday that gave information on how one would go about in the plant

manufacturing a particular material, provide training material or reference material in the plant, and contain information about the safe handling of the product that was being manufactured.

A This would be representative of a type of document that would convey that information.

Q And those were standard documents that Monsanto had on its various manufacturing processes?

A Yes.

Q It was customary to have a document like that for every manufacturing process of Monsanto?

A Yes.

Q And those types of documents would be from time to time reviewed and updated to have the appropriate information as it was then in compliance with what was being done and what needed to be done?

A Yes.

Q Let me show you another document, entitled -- let me show you the document entitled Process for the Production of Aroclor, Pyranol, et cetera, at the Anniston and Krummrich plant, dated April 1955, Document No. 11238 through 11714, and ask if that's the type of operating manual that would be operative for the manufacture of PCB products and contain in it the information about how particular steps were to be done,

advise new people or train new people, provide refresher material for existing operators and the like.

A This document is the technical document describing the process for making the chemicals you described. It is not the document used in training or is it the document available to the operating personnel. That is a separate document.

Q Is it a smaller document?

A It's generally smaller and in laymen's language rather than highly-technical language, and does not contain all of the specifics this extensive document contains.

Q The document you have there is a very extensive, detailed document, is it not?

A Yes.

Q Who would make use of a document like that?

A The members of the technical community, the chemists, the engineers, as well as the managers of the unit, the supervisors, superintendent.

Q Would that be a document that would be available to the plant manager?

A Yes.

Q Would the plant manager have one of those type of documents on each process in the plant he supervised?

A Yes.

Q And people who worked under the plant manager with regard to any particular process in the plant as a supervisory-type person would also have a copy of that document available to him?

A They would have access to the plant manager's copy, they may have their own copy, or they may have sections of the -- the appropriate sections of this document.

Q Of this document?

A That would apply to them.

Q Okay. But that is one of the -- I guess what we could say a full and complete copy of the most technical manufacturing document that Monsanto would make for a particular process involving PCBs?

A This is representative of that type of information.

Q Okay.

Let me show you another document and I -- this may be the same thing as that last one. It sounds similar, and I'm not quite sure if it's identical or not. This one is titled process for the production of Aroclors, Pyranols, et cetera, at the Anniston and the Wm. G. Krummrich plant, April 1955, with Mr. Mather's name, Document 6393 through 6895. Again, that's another

pretty hefty one there.

A Yes. This is again a very detailed document describing the processes. It appears to me to be identical to the previous document.

Q Okay. That's what it appeared to me, too, but I wasn't quite certain.

Let me show you another document, and this document is labeled -- actually, on the label it initially said Process Description for the Manufacture of -- I can't read it, because it's been scratched out. But then it's been written in hand below that Aroclors and Pyranols in Department A 246, Document No. 12523 through Document No. 12610, and ask you if that's a type of operating instruction that would be generated by Monsanto and used in the plant in a regular basis.

A Yes.

Q Is that a -- is that the shorter, more condensed version of the earlier documents we've looked at?

A Yes.

Q And who would have that document available to them?

A Normally copies of this document would be available to the plant manager, the superintendent, supervisor, the foreman of the operation, as well as a

copy available to the operators in the producing unit.

Q So if I understand correctly, each individual workman would have his own copy of that that would be available to him.

A No. There would be a common copy to which he has access.

Q Well, that's what I meant to ask. I guess I didn't ask it well. Each individual workman would have an opportunity to look at that type of document?

A Yes.

Q Whereas each individual workman would not have the opportunity to look at the more complete document?

A That is correct. Not normally.

Q Okay. But as far as a supervisory level person went, they would have access both to the lengthy version and to the shortened version?

A That is correct.

Q May I see that again just a moment? In the visits that were made to your plant by other companies, people like General Electric or Westinghouse or anybody else who visited, would they be permitted to see the detailed operating instructions that Monsanto had on its processes?

A There was no reason not to share the

operating instructions with the visitors. I do not recall whether they've ever asked for that opportunity.

Q I see. But these wouldn't be considered anything that you would not be willing to share if someone asked for it?

A The operating instructions.

Q Which one is that? Is that the thin one?

A That's the -- yes, the thin one.

Q The thicker one, the more detailed one, would there be any reason you wouldn't want to share that with customers who came to the plant?

A There may be sections in there that are proprietary to Monsanto, and we would be very careful about divulging some of the information in the thicker document, more detailed document.

Q I see. And is that the reason that the more detailed document was not available to individual workmen?

A That's one of the reasons.

Q What other reasons were there for not making it available to individual workmen?

A In virtually every case the individual workman would not understand much of what's written, and he would have no use for it in performing his duties.

Q The document that we've looked at that talks

about the process description for the manufacture of Aroclors and Pyranols in Department A 246. What is Department A 246?

A That is the designation for the PCB-producing unit at the W. G. Krummrich plant.

Q Okay. This document -- and let me direct your attention to Page 12525, is a document that was in effect or became effective in 1961. Is that correct?

A That's what it says here.

Q The people that are shown as issuing that, are they people at the Krummrich plant?

A Yes.

Q Would they be responsible for the Aroclor department there?

A Yes.

Q Okay. Did your plant issue similar operating documents?

A Yes.

Q Were they identical or were there individual differences? Plant to plant.

A They were not identical, they were similar.

Q Okay. Let me --

MR. HALL: I assume when you refer to your plant you were referring to the Anniston, Alabama, plant. Is that correct? In several questions you've

asked him about his plant.

MR. LACEY: If the context suggested that, yes. And when I use the term comparing the Krummrich plant to your plant, I'm talking about the Anniston plant, where you were the plant manager.

THE WITNESS: That's what I understood, yes.

MR. LACEY: Okay. Yes.

Q If at any point the context of my questions does not make clear what I'm talking about, will you please let me know?

A I will.

Q Have you done that thus far? Have we gotten you confused?

A I don't think I'm confused.

Q Okay. Well, if you're not confused and I'm not confused, then somebody else will have to tell us we're confused. And I'll trust Mr. Hall to let us know that we're confused.

Let me direct your attention specifically to Page 12565 of this process manual that was available to all the workers in the PCB department. Under the Section E on that document number, where it refers to bathing, that specifically provided that everybody who worked in the PCB department at the Krummrich plant was required to bathe before leaving the plant each day?

A Yes.

Q And that was one of the differences or would have been one of the differences between the manual that was in force in your plant and the manual that was in force at the Krummrich plant?

A Yes.

Q Okay. And there may be other similar differences where small areas that you consider unimportant as far as any substance of the matter. Correct?

A Not knowing the areas, I don't know if they're unimportant.

Q Well, is it possible that there were matters of difference between the PCB processes at the Krummrich plant and the Anniston plant that were material to anything?

A [No reply]

Q I certainly don't anticipate asking you to look through two of these documents and find all the differences and tell me -- if you can tell me either there were or weren't material differences, that's fine. Or maybe you don't know.

A There were differences in the printed word.

Q Right.

A And I would suggest that this printed words

repeats what's written in another document, the union agreement about bathing.

Q Yes.

A This statement would not appear in the Anniston plant, because there was no commitment on either party to mandate this approach.

Q Whereas at the Krummrich plant there was commitment on both parties to mandate that approach?

A Yes. This is why the word "must bathe" is included. This does not say that bathing is unimportant at Anniston. I didn't mean to leave you with that thought.

Q Right.

Do you know whether or not there was any effort taken at the Krummrich plant to enforce the provision of the operating manual requiring each employee to bathe at the end of each shift?

A I do not know personally.

Q Okay.

Do you know whether or not -- and I will direct your attention again to the same page, 12565, under Section A on smoking privileges -- do you know whether or not those restrictions at the Krummrich plant effectively prohibited employees from smoking in areas of the department where Aroclors could be present?

A Smoking was permitted where Aroclors were present.

Q Okay. I notice there are some restrictions there that say where you can and you can't. But that did not prohibit smoking where Aroclors were present. Is that correct?

A Again, I don't wish to mislead you. It's possible for Aroclors to be present, but flammable materials to also be present.

Q Yes.

A Therefore, in those areas smoking would not be permitted.

Q Okay. The smoking restrictions only related to flammable materials?

A That is correct.

Q Okay. That, I think, answers my question.

Were the same work rules in effect at the Anniston plant?

A Roughly so, yes, uh-huh.

Q By that I mean specifically smoking was permitted in the Aroclor department so long as it wasn't a section where flammable materials were present?

A That is correct.

MR. HALL: May I see that document, please, Mr. Lacey?

MR. LACEY: Surely.

MR. HALL: Thank you.

MR. LACEY:

Q Let me show you another document, entitled Process Description for Manufacture of Aroclors in Department 246, Document No. 13522 through 13649, and ask you first of all, the Department 246 is a reference to what plant again?

A It's the Krummrich plant.

Q And what process within the Krummrich plant?

A This is the Aroclor process.

Q Okay. What was the department number, if that is applicable, in the Anniston plant?

A There was a number, but it was not commonly used in documents of this type. It was more used in accounting documents. So I don't recall the number.

Q Okay. Well, I guess I was just trying to figure out how I would identify a document that was applicable to the Anniston plant.

A It would refer to the Aroclor department rather than by number.

Q I see.

May I see that document just a moment? The reason, I guess, I asked that is this one doesn't say which plant it is, but it does reference Department 246,

which tells you that it meant the Krummrich plant.

A That is correct.

Q And I'm not sure I've seen any of the separate documents that related solely to the Anniston plant. But there would have been some separate documents that were limited solely to the Anniston plant of this type. Is that correct?

A That is correct.

Q Okay.

MR. HALL: What's the number of that one in your hand?

MR. LACEY: It's 13522 through 13649.

MR. HALL: Thank you.

MR. LACEY:

Q This document is the one that was issued initially in -- sometime in 1966. Is that correct?

A There is a handwritten date 1966 on it. I do not know the accuracy of that.

Q Well, it's written at the spot where one would expect to find the date that it became an operative document. Correct?

A Yes.

Q By the way, that was a numbered series of documents, was it not?

A Yes.

Q What was the purpose of numbering each copy of those type of documents?

A Well, I believe it was multi-purposed. One is to make certain that when revisions were made that the revised copies would be sent to the same individuals or same library or whoever the custodian was. Another was to limit the copies to those individuals in the organization who had what we called the need to know reason for having such a copy. And to discourage the misuse of this information, giving it to parties that should not have it.

Q Were those numbered documents like that lists -- had lists specifically kept of who had each particular copy?

A It is shown on the -- on the document itself where the copies went.

Q Okay.

A And those copies marked extra were retained by the author, principal author.

Q The person who would write these types of documents, these process documents, be they either the long form that we've looked at before that has all the detail or the short form, would that be a job that would be assigned to that person as a part of his duties with Monsanto?

A Yes.

Q What sort of person would draw the assignment of developing these process descriptions, either long form or short form?

A The long form typically went to a technically-trained individual in the technical group of the plant, whether it be the engineering -- whatever it's called, engineering department or technical services department. That's the normal assignment. On occasion some of these documents were written by the research chemist in the St. Louis office. The operating instructions typically were assigned to a foreman in the unit familiar with the details in the operating unit or if the foreman didn't have that capability it would be assigned to a supervisor of that operating unit.

Q And would those documents be reviewed by appropriate people in Monsanto before they got the official publication authorization?

A Well, I don't know what you mean by corporate people.

Q Well, I mean would the author just write it and then start sending it out, or would some people review it to make sure it was accurate before it went out?

A It would be reviewed by the appropriate

levels, higher levels, by people who were -- who had the skill and knowledge to critique, comment and approve it.

Q So these types of documents, be they long form or short form, didn't get out in the public domain, so to speak, within Monsanto? And that's what I'm talking about. They didn't get beyond the author's draft and into a final form unless and until they had been reviewed by whatever people Monsanto thought were appropriate higher-ups to review them?

A Correct.

Q And after they had been reviewed and the accuracy had been confirmed and the proper coverage of each topic had been confirmed, then they would be actually made available for use?

A That is correct.

Q To whatever limited group was supposed to have them?

A Yes.

Q Okay.

Let me show you another document, entitled Process Description for the Manufacture of Pyranols and Inerteen in Department 246, Document No. 8640 through 8700, and ask you if that's another copy of the type of process description document that was issued by Monsanto for use by workmen.

A It is.

Q And that's what, a 1966 document?

A That's the date typed on the cover page.

Q Now, let me hand you back the previous document you had that was the process description for the manufacture of Aroclors. Both of those documents relate to the same department within Monsanto, do they not?

A They do.

Q The reference to Aroclor is a reference to Monsanto's name for PCBs. Correct?

A That is correct.

Q The reference to Pyranols and Inerteen is a reference to or references to the trade names of General Electric and Westinghouse for dielectric fluids that either consisted wholly of PCBs or contained PCBs in them. Correct?

A That is correct.

Q And that department within the Krummrich plant, when we're talking about Department 246, manufactured PCBs that were sold as Aroclors. Correct?

A Yes.

Q That department also manufactured PCBs that were sold as Inerteen or Pyranol. Correct?

A I don't wish to mislead you.

Q Certainly.

A It's the same group of people in terms of operators and supervisors. The physical facilities are adjacent or intermingled. But depending on how one looks at it, you will note that one document referring to the manufacture of Aroclors refers to Document 246. The document referring to the Pyranol and Interteens is A 246. So it's -- it's in some respects another department. But in the real world it's the same, really, group of people and operation.

Q Basically what Monsanto did was take Department 246, which tells us it involves PCBs, and divide that into subclassifications, depending upon what the PCBs were used for. Is that correct?

A Well, I don't know so much the use as the operations are different. The 246 is actually a chemical operation. A 246 is a blending and packaging operation.

Q Okay. Fair enough. I think I understand.

Were there any other subdepartments in 246?

A I don't recall.

Q All right. Back to my question. The Inerteen and Pyranol terms refer to the trade names used by General Electric and Westinghouse for dielectric fluids that either consisted wholly of or contained

PCBs. Correct?

A That is correct.

Q And Monsanto would actually in that Department 246 -- subdepartment A, is it?

A Yes, sir.

Q Actually either put the PCBs into a container that had an Inerteen label on it or blend it, if it was a blended Interteen, and then put it in a drum or container, whatever it might be, that had the Inerteen label on it?

A Yes.

Q And some of the Interteens were pure PCBs. Correct?

A Correct.

Q Some of them were -- were a mixture of PCBs and other chemicals?

A Correct.

Q The same thing is true for Pyranols, is it not?

A That is correct.

Q Okay. Let me get those back for just a moment.

Did the Anniston, Alabama, plant have a similar situation where they both manufactured PCBs and then also had PCBs they packaged under and did whatever

was necessary to send out Interteens and Pyranols?

A Yes.

Q Was there some different description or terminology used to distinguish those operations within the plant?

A Well, locally we refer to it as the PCB drumming station and warehouse.

Q Did the same safety precautions -- and what I'm talking about now, we described the rubberized gloves and head coverings and all this sort of thing that would be used by workmen if they were in a position to have PCBs come into contact with them -- did the same safety precautions apply for workmen who might have Inerteen or Pyranol come into contact with them?

A Yes.

Q Now, did the Anniston plant do any of the blending that made the Pydrauls, the hydraulic fluids?

A Not to my knowledge.

Q Was that all always done at the Queeny plant?

A No.

Q Where else was that done?

A The Krummrich plant did the original blending and packaging of Pydraul. The Queeny plant subsequently did it all.

Q So it all at one time was at Krummrich, then

later it was all moved to Queeny?

A And they were both involved during the transition period.

Q Certainly. As you made the changeover.

Now, did the same safety precautions that applied to workmen who might be exposed to PCBs and to workmen who might be exposed to Inerteen or Pyranols also apply to workmen who might be exposed to Pydrauls?

A Yes.

Q So the safety precautions within Monsanto that related to workmen who were handling any PCB-containing dielectric fluid or any PCB-containing hydraulic fluid were the same?

A Yes.

Q And that was true at Queeny, at Krummrich and at Anniston?

A Yes.

Q Save and except, I guess, the issue of the bathing at Krummrich?

A Well, the bathing provisions that were at Krummrich also were present at Queeny.

Q Oh, okay. Queeny workmen had the same bathing rules, responsibilities, rights, whatever you want to call it, as at Krummrich plant?

A Yes.

Q Did all of the Monsanto plants in the St. Louis area -- and I don't know, maybe those are the only two plants, I don't know, but did all the Monsanto plants in the St. Louis area have the same bathing provisions?

A There are other plants in the St. Louis area. I do not know what their bathing provisions are.

Q Okay. You are familiar with two plants in the area, and they both have the same bathing provisions?

A That is correct.

Q Which is to provide a paid time at the end of the shift for the workmen to bathe and to require that the workmen in fact bathe?

A Correct.

Q Is any effort made to -- and if you don't know, that's fine. But is any effort made to ensure that the workmen actually take a bath at the end of the shift?

A Not that I know of.

Q Let me show you another document, entitled Standard Manufacturing Process Aroclors, Department 246, document 13323 through 13521, and ask if this is another one of those documents that provided information within Monsanto about how to manufacture PCB-containing

products and safety precautions and the like.

A This appears to be another version of the manufacturing process for PCBs at the Krummrich plant.

Q Is that long form or short form? It's sort of in between in the thickness of it. Is that the one that the ordinary workman would have access to or is that --

A No. The workman's copy always had the word "instructions."

Q I see.

A Or operating procedures. The more technical document had the word "manufacturing process."

Q I see. So that is --

A This is the more technical document.

Q Okay.

A Or a copy of it.

Q All right. And that's a 1972 document, is it not?

A There is -- yes. It's dated 1972.

Q Okay.

Let me show you another document, entitled Standard Manufacturing Process, Aroclors, and it's got a parenthesis, Take Over Distilled, closing parenthesis, Department 246, Document No. 12972 through 13150, and ask if this is another one of those documents that would

have contained a technical description of the process and the handling of the chemicals involved in it at Monsanto.

A Yes, this is another example of such a document.

Q That's a 1976 version, is it not?

A Yes.

Q And is that -- that is the longer form, I take it from the fact it has standard manufacturing process on it.

A Yes.

Q Now, again, like with the technical bulletins, I haven't shown you all the copies of these types of documents I have. You appreciate and can understand there would be many more such documents that Monsanto would have regarding its PCB processes over the years it manufactured it?

A Yes.

Q And each of those documents would be a document that was prepared at the time it was prepared by somebody who was assigned that task and reviewed by the appropriate levels in the company before it was issued. Correct?

A Yes.

Q It would have been issued for the purpose of

providing information to particular people in Monsanto to assist them in doing their jobs and to do them safely and properly?

A Yes.

Q Okay. Again, I won't burden you with trying to look at all of them. We've got at least the idea of what these were. I appreciate that.

Let me show you a memo dated September 20 --

VIDEO OPERATOR: I'm sorry. It's okay.

MR. LACEY:

Q Let me show you a memo dated September 21st, 1967, from P. G. Benignus. Do you know who Mr. Benignus is?

A Yes, I do.

Q Who is Mr. Benignus?

A He's a former Monsanto employee who was involved with the marketing of PCBs in dielectric fluids and in hydraulic systems.

Q It's addressed to a Mr. Gerald Miller at Anniston. Do you know who he was?

A Yes.

Q Who was he?

A At that time Mr. Miller was the chief chemist in charge of the analytical laboratory at the Anniston plant.

Q And then there are various people who received copies. And it appears that you received a copy of that memo. Correct?

A Yes.

Q You might take a second to look at that.

A I have read it.

Q First let me ask you, there's a name up at the top on the right-hand side that's been highlighted, I guess, and didn't copy as well as it might have and it looks like the name may be Bryant at Anniston.

A Yes.

Q Can you tell me that person's name first, if you know?

A James.

Q James Bryant?

A James C. Bryant.

Q And who was Mr. Bryant?

A Mr. Bryant was a member of the technical services department at the Anniston plant who concerned himself with technical problems in the PCB manufacturing process.

Q Does that memo relate to this visit that you recalled people from Westinghouse making to the Anniston plant while you were the plant manager there?

A It appears to be, yes.

Q Okay. And it seems to indicate that those people came from Bloomington to the plant.

A Yes.

Q Do you know where Bloomington, Indiana, is?

A I think I do, yes.

Q Well, I mean it's possible you don't. I just wonder if you do. Do you know the approximate distance from Bloomington to Anniston, Alabama?

A No, I don't.

Q Is it closer from Bloomington to Anniston, Alabama, or closer to Bloomington to St. Louis, Missouri?

A I would suspect the distances are about the same, but the ability to get to St. Louis would be easier.

Q Traveling from --

A Traveling.

Q -- Anniston to Bloomington or vice versa would not be particularly easy just as a single trip itself?

A Correct.

Q Okay. May I see the memo just for a second, please?

The individuals who came from Westinghouse, Mr. Pickett and Mr. McNally, did you know those people

before they arrived at the Anniston plant?

A No.

Q Do you recall actually meeting with them at the Anniston plant?

A I do, yes.

Q Do you know, after meeting and visiting with them, what sorts of positions they held in Bloomington?

A Mr. Pickett was the maintenance supervisor, and the other individual was the manufacturing supervisor's representative. I don't quite know what level of supervisor. But he had to do with the working personnel as distinguished from the maintenance personnel.

Q All right. The memo indicates that the Anniston plant supplied all of the Inerteen that was used for capacitors to the Westinghouse plant. Do you recall whether that was in fact correct or not?

A I don't recall.

Q Okay. Do you have any reason to believe that the reference in the memo to the fact that Anniston supplied Westinghouse with all the capacitor Inerteen is incorrect?

A I have no reason to believe that.

Q Would the author of the memo be in a position to be aware of that fact?

A Oh, yes.

Q The sales that were made to Bloomington -- well, strike that.

When the reference is to providing Westinghouse with all of its capacitor Inerteen, do you know whether or not there was more than one Westinghouse facility that bought capacitor Inerteen from Monsanto?

A I do not know of any other capacitor manufacturing facility operated by Westinghouse.

Q So then you would understand that to apply at least to Bloomington and probably not to any other plant?

A That's my understanding.

Q Capacitor Inerteen in 1967 was Aroclor 1242, was it not?

A That is the material we supplied Westinghouse. I do not know if they added anything to it.

Q Okay. Well, that really was my question. What you supplied to Westinghouse as capacitor Inerteen was Aroclor 1242?

A Yes.

Q Were they a customer who typically bought by railroad car quantities?

A Are you referring to Westinghouse in general

or Westinghouse Bloomington?

Q Westinghouse Bloomington in particular.

A Yes.

Q And those rail cars would leave the Anniston plant and travel as a sealed car until they got to the plant where the entire car would be unloaded to Westinghouse?

A Yes.

Q Okay. The memo indicates that -- strike that.

Do you know when Monsanto first started supplying Westinghouse in Bloomington with PCBs for capacitor dielectric purposes?

A I do not.

Q The memo indicates that as of 1967, the time of the memo, the people at Westinghouse had never seen the Monsanto facility that made their PCBs. Correct?

A That's what it says, yes.

Q And you don't recall any visit by Westinghouse people to your facility prior to this visit? Correct?

A That is correct.

Q The stated purpose of the visit was what?

A The stated purpose was to review with the Westinghouse Bloomington representatives the proper

handling of PCBs to avoid spills, people exposure, and the like.

Q Westinghouse as a purchaser of PCB materials from Monsanto was looking to Monsanto to acquire information about proper handling or to protect the safety of its workers. Correct?

A Yes.

Q And you saw nothing inappropriate as the plant manager about having people at your plant as the manufacturer and seller of those PCB materials to Westinghouse give information to Westinghouse on those matters?

A Correct.

Q And in fact it was logical and made sense to you that the Westinghouse people would look to Monsanto as the manufacturer and seller of the PCBs for information on toxicology and safe handling. Isn't that correct?

A Yes.

MR. LACEY: Why don't we go ahead and take a break to change the tape right here.

[Recess]

VIDEO OPERATOR: This is the continuing deposition of Mr. William B. Papageorge. The time is 11:15 a.m. and it's May 20th, 1987.

MR. LACEY:

Q Mr. Benignus notes in his memo to the fact that Westinghouse had been handling PCBs in a sloppy fashion. Correct?

A He does, yes.

Q Would Mr. Benignus be in a position to know that type of information?

A Yes.

Q In fact, he goes on to detail some specific information he had with regard to the Westinghouse handling of PCBs, does he not?

A Yes.

Q What specifically does he indicate he knew about Westinghouse's handling of PCBs?

A Well, in the memo Mr. Benignus refers to spills soaking in the workmen's shoes and clothing, no change of shoes or clothing are practiced. He refers to Westinghouse as considering the use of, to quote the memo, Vitron gloves, aprons and the like.

Q So Mr. Benignus, at least as of the date of that memo in 1967, was aware of the fact that the PCBs sold by Monsanto to Westinghouse were being allowed to get in contact with Westinghouse workers in a way that Monsanto would think was totally inappropriate. Correct?

A Correct.

Q There's no doubt in your mind that what Mr. Benignus describes is totally inappropriate? Correct?

A That is correct.

Q And potentially very hazardous to the workmen who are being exposed in that fashion. Wouldn't you agree?

A I don't know about very hazardous, but potentially harmful.

Q Well, Monsanto had had the experience itself of having workers who had, when they had substantial — exposure before Monsanto enacted its work rules in the mid-Thirties or late Thirties had yellow atrophy of the liver, had it not?

A Yes, there was some experience before Monsanto acquired the facility, yes.

Q When work practices were sloppy, as they had been at Swann. Correct?

A All right. The degree of sloppiness is what I don't know.

Q I understand. But I mean what I -- the point I want to make is that Monsanto knew in the history of the plant that it had acquired from Swann that when there were some sloppiness in the work practices there had, to whatever degree, that workmen had developed --

some of them had developed yellow atrophy of the liver as a result. Correct?

A That's correct.

Q And that's very hazardous, is it not?

A Yes.

Q You can die from that, can't you?

A Yes.

Q Okay.

Now, Mr. Benignus then was aware -- and I guess you became aware of this memo when you got your copy of it --

A Yes, sir.

Q -- that Westinghouse's work practices had been very sloppy and that, for example, people were continuing or allowed at Westinghouse to work in soaked work clothes. Correct?

A That's what it indicates.

Q A practice that you certainly would not support at all.

A That is correct.

Q That would be a matter that you would consider very serious, would it not?

A Yes.

Q And from the standpoint of worker safety a practice that should be changed immediately. Correct?

A Yes.

Q Now, this visit provided an opportunity for Monsanto to impress upon Westinghouse personnel the importance of safe work practices, did it not?

A Yes.

Q They were going to spend the day at your plant where you could talk to them about the importance of good practice to keep their workers from coming into contact with PCBs. Correct?

A Correct.

Q A visit of this type was an opportunity for Monsanto to put together a well-prepared and well-presented program to meet the customer's needs, was it not?

A Yes.

Q In fact, in terms of the resources that were given to the project Monsanto would bring to bear whatever resources the people who carried it out thought appropriate to convey the information, would it not?

A Yes.

Q Now, Mr. Benignus notes in his memo that he thinks this visit provides some opportunities to pass along some other information, doesn't he?

A It does.

Q What things does Mr. Benignus want to get out

of this visit?

A Well, from reading and refreshing my memory, it appears that Mr. Benignus had two objections.

Q And they were?

A One is to share with the representatives of Westinghouse Bloomington Monsanto's procedures for protecting their workers, and No. 2, to share with them the latest in some new technology on purifying Aroclor 1242.

Q Now, Mr. Benignus was a salesman, wasn't he?

A I would more correctly describe Mr. Benignus as marketing manager.

Q Well, okay. Let me -- he was responsible for salesmen selling the product?

A Correct.

Q He had salesmen who reported to him and he supervised?

A Correct.

Q And his job, if you're a chemical company, it's not enough to make the chemical, you've got to sell it, too. Right?

A True.

Q And his job was to get PCB products sold to customers as dielectric fluids and hydraulic fluids. Correct?

A At different times.

Q Yes.

A Yes.

Q And at this point in time he is responsible for getting the PCBs that Monsanto manufactured sold to customers as dielectric fluids.

A That is correct.

Q And one of the things that you're interested in doing when you're a salesman is touting the quality of your product. Right?

A Certainly, yes.

Q And he saw an opportunity to use this meeting to tout the quality of the product? Correct?

A Yes.

Q And Mr. Benignus was simply suggesting, of course, to the people at the plant what he thought the opportunities were. It was up to the plant people to decide how actually to allocate the time and what to do. Correct?

A That is correct.

Q May I see the memo again briefly?

A Sure.

Q Mr. Bryant was the person who was going to be responsible for the technical sales opportunity, if there were any. Correct?

A Yes.

Q There also was scheduled some entertainment of the Westinghouse -- there was a suggestion that there been entertainment of the Westinghouse people when they arrived, was there not?

A Yes, the last paragraph refers to that.

Q That's one of the functions that a plant manager gets involved in from time to time, is it not?

A Yes.

Q Okay.

Now, these Westinghouse people wound up actually visiting the Anniston plant apparently in conjunction with another trip. Is that correct?

A That's what the memo indicates.

Q Okay. And they were going to go to Vicksburg, was it?

A Yes.

Q And that would get them closer to the Anniston area?

A Yes.

Q Now, let me show you another document, Document 25282, which is a September 27th, 1967, memo written by Mr. Bryant to a variety of people, including yourself. That memo is the agenda for this proposed visit, is it not?

A It is.

Q Mr. Bryant was the person who had either the responsibility or who took upon himself the responsibility of preparing the agenda for the meeting. Correct?

A Correct.

Q And the schedule planned for the people to arrive at about 8:00?

A 8:30, it says.

Q 8:30?

A Yes.

Q And you would make the -- the plan was for you to make the introduction and carry out your function as the host for this meeting beginning at 8:30?

A Yes, sir.

Q And they were to stay at the plant until what, 2:00?

A A little bit beyond 2:00. 2:00 was scheduled for a -- what was referred to here as a wrap-up discussion.

Q I see.

A There was no way to know how long that discussion was going to take place.

Q I see. So you can't tell from the agenda -- the meeting would break up sometime after 2:00?

A Correct.

Q And in there there was scheduled a lunch hour, of course.

A Yes, sir.

Q Would that be at some cafeteria in the plant or what type of facilities did you usually make available when people like this came?

A I don't recall the specific one, but it's possible that we went to a restaurant, it is possible we had something catered into the plant or to the local Country Club. It could be any one of those.

Q Now, the purpose of the visit again was to learn about the safe handling of PCB products. Correct?

A [No reply]

Q That's why Westinghouse was coming?

A Correct.

Q And Monsanto was fully aware of the fact that Westinghouse had been handling the products poorly so that it's workmen in Bloomington were being exposed to PCBs in a way that Monsanto would think unsafe. Correct?

A Yes.

Q How much time did Mr. Bryant allot out of the agenda for the discussion of the matters that Westinghouse was coming to talk about?

A It appears he had here half an hour.

Q The remainder of the time allotted in the agenda was allotted to discuss and have things that related to the sales interests that Mr. Benignus suggested might be accomplished at this meeting, was it not?

A The item that Mr. Benignus suggested, as I read this schedule, was scheduled for half an hour from 10:00 to 10:30. The remaining items were not suggested in Mr. Benignus's letter. And I have no way of knowing today who proposed the remainder of the agenda.

Q But they're in Mr. Bryant's memo?

A Yes.

Q And there's certainly nothing to indicate from the documents we have here that it wasn't Mr. Bryant or somebody else at the plant who decided on the specifics of that agenda. Correct?

A Or it could have been Mr. Benignus talking to Westinghouse people. We don't know.

Q Possibly Mr. Benignus suggested to the Westinghouse people while they were present they might do some of these other things. Correct?

A It's possible.

Q Now, the memo has on it some handwritten notes, does it not?

A Yes.

Q First let me ask you: The schedule was that at 8:30 you would make the introductory remarks and they would last 15 minutes?

A Yes.

Q Then there would be a discussion of the toxicology materials and safe handling materials from 8:45 to 9:15?

A Yes.

Q Do you recall whether this meeting went off as scheduled?

A No, I don't.

Q The handwritten notes indicate, do they not, that for some reason the Westinghouse people did not arrive as scheduled at 8:30 but instead arrived three hours later, at 11:30. Is that correct?

A I don't know that.

Q Well, what does the memo say?

A There is a handwritten note on a copy that was sent to Mr. Fuhrmeister, who is Mr. Bryant's supervisor, that says 11:30 a.m. arrival. I don't know if that refers to the Westinghouse arrival. Does it refer to Mr. Fuhrmeister returning from a trip and his intent to attend starting after 11:30 I have -- That doesn't tell me much.

Q I see. You just don't recall whether they arrived as scheduled or not?

A I do not.

Q Do you see a squiggly line running through the early items on the agenda, the times on them?

A I see -- yes, there are some lines faintly printed here.

Q That's the -- that's the copy of this document that's been provided to us by Monsanto. If the lines were bolder in the original, I apologize. But that -- does that seem to indicate to you that those events did not take place?

A Not necessarily.

Q So you cannot tell us whether or not the Westinghouse people did arrive late on that day. Correct?

A That is correct.

Q You cannot tell us what portions of the agenda were scrubbed if the Westinghouse people arrived late. Is that correct?

A That is correct.

Q And you don't have any personal recollection about what happened other than that there was this visit? Correct?

A That is correct.

Q You don't recall any of the topics that were discussed at the visit?

A That is correct.

Q Okay.

MR. LACEY: May I see that, please, Bob?

MR. HALL: Sure.

MR. LACEY:

Q You noted that this copy appears to be Mr. Fuhrmeister's copy. Correct?

A Yes, sir.

Q Was Mr. Fuhrmeister scheduled to make a presentation at this meeting as per the agenda?

A Yes.

Q What time was his presentation scheduled?

A 10:00.

Q So if everything had gone as scheduled, Mr. Fuhrmeister would have needed to be at the meeting at 10:00 to make his presentation?

A Yes.

Q There are some initials out beside that 10:00 entry. Those are Mr. Fuhrmeister's initials?

A No.

Q Whose initials are those?

A William F. Taffee, T a f f e e.

Q And who is Mr. Taffee?

A He was assistant superintendent reporting to Mr. Fuhrmeister.

Q I see. Does that help you in any way unravel this question?

A I would interpret these notes to indicate to me that Mr. Fuhrmeister was going to arrive from somewhere at 11:30, he could not be present for the full agenda, therefore, on his copy he puts this -- these squiggle marks on the times that he could not be present. And when it came time for him to make the presentation, he assigned Mr. Taffee to do it for him.

Q Okay. And that's your -- your guess of what that means. Correct?

A That's my -- yes, my guess.

Q Okay. And it's nothing more than that, is it?

A That is correct.

Q You have no recollection whatsoever of what actually happened?

A That is correct.

Q Would it have been your custom to or the custom of those who worked for you to make some sort of memorandum concerning this meeting?

A It varied with the individual. Some individuals kept diaries, some kept notes, some

published minutes. I don't know what happened in this case.

Q You don't recall?

A I don't recall.

Q Do you know whether or not whatever may have been said at this meeting, if anything, about safe handling of Aroclors was followed up with any written communication with Westinghouse?

A I don't recall any.

Q Prior to this visit, would Westinghouse have had any source of information about the proper handling of PCBs other than the technical bulletins and customer literature supplied to it by Monsanto?

A Normally they would have the information reinforced by discussions with Monsanto's sales representatives.

Q What were sales representatives instructed to tell customers about safe handling?

A Two key points: Do not breathe those vapors; don't get it on your skin.

Q Were they to relay that information in terminology that was consistent with the terminology used in the technical bulletins?

A Yes.

Q So if the technical bulletins said avoid

prolonged skin contact, then what the sales representative should be saying is avoid prolonged skin contact. Correct?

A Or words to that effect, yes.

Q Yes. In other words, they weren't authorized to give far more detailed warnings than the warnings or the safe handling recommendations contained in the product literature, were they?

A That is correct.

Q And in fact from the time that Dr. Kelly became the medical director at Monsanto there was a specific directive, was there not, that questions concerning toxicology and safe handling had to go through the medical department, and all things provided to others about toxicology and safe handling had to be approved by the medical department?

A That is correct.

Q And so it would not be within the province of a sales representative to be saying something to the customer about safe handling and toxicology of a chemical that it did not come from or was inconsistent with the specific directions from the medical department?

A That is correct.

Q And that was true even for you as a plant

manager?

A Yes.

Q It was true for you as people at this meeting with Westinghouse?

A Yes.

Q You-all were not authorized to tell Westinghouse more or go beyond what the medical department had already said about safe handling and toxicology. Correct?

A That is correct.

Q There was a -- I should say this -- I don't want to say it in an ugly way, but there was an authorized version of what was to be told to the customer, and it was important to Monsanto and the medical department that every customer get that same information?

A Yes. This is when laymen were concerned or involved.

Q Well, and you in this meeting -- were you-all laymen to laymen?

A Yes.

Q So you were in that situation where what needed to be conveyed or what was authorized by the medical department to be conveyed to Westinghouse was the authorized version that was already set forth in the

technical bulletins?

A Yes.

Q And if there were to be something more detailed or more specific than what was set forth in the technical bulletins, that would have to come from the professionals in the medical department to professionals at Westinghouse?

A Yes.

Q Did you make any contact with the medical department about this visit and the problems that existed at Westinghouse?

A No.

Q Was anybody on this memo that Mr. Benignus sent out in the medical department? What I'm trying to ask, so I can make it clear, was anybody in the medical department a recipient of that memo from what it shows?

A No.

Q So, as far as you know, from the information that Mr. Benignus sent out, the information that transpired at the meeting, nobody at the medical department was made aware of the extent of the problem that existed at the Westinghouse plant in Bloomington, Indiana. Correct?

A That is correct.

Q And therefore nobody in the medical

department would have known of any need or any reason to call any of their technical counterparts at Westinghouse and read them the riot act, so to speak, about safe handling of PCBs?

A That is correct.

Q Are you aware of anybody in this time frame in the medical department contacting a technical counterpart at Westinghouse to set them straight on the proper handling of PCBs?

A No.

MR. LACEY: Bob, since you didn't get breakfast this morning, do you want to take an early lunch?

MR. HALL: Whatever is up to you.

MR. LACEY: My grape nuts have about worn out. How about we go ahead and take an early lunch?

MR. HALL: That's fine.

MR. LACEY: What time do you want to try to be back, 12:30?

MR. HALL: Yeah, that's plenty of time, I think.

MR. LACEY: Let's do it. Let's shoot for 12:30, then.

VIDEO OPERATOR: We're off the record.

[Recess]

VIDEO OPERATOR: We've been off the record for a lunch break. We're back on the record. It's 12:32 p.m.

MR. LACEY:

Q Mr. Papageorge, we were talking about Westinghouse and the information that was communicated to them in the Sixties before the lunch break. Did you ever personally visit the capacitor plant that Westinghouse had in Bloomington, Indiana?

A Yes.

Q When did you first visit that plant?

A I believe it was June or July 1970.

Q And is that the only visit you made to that plant?

A Yes.

Q What was the purpose of the visit?

A To share with the management of the plant Monsanto's understanding of the PCB issued -- issue and to give the management of that plant a status report on Monsanto's research studies, toxicity studies, analytical methodology, development.

Q The toxicology studies that you were giving a report on, were those the IBT studies?

A Yes.

Q What analytical methods were you giving a

report on?

A These were methods to determine the presence and amount of PCBs in water, soils, animal tissues, air at very low levels and with reliable consistent results.

Q Did those analytical methods also determine the presence of contaminants in PCBs?

A No.

Q Do you recall with whom you met at the Bloomington plant of Westinghouse?

A I don't remember all the people in the room. The name that comes to mind was -- escapes me also at the moment. I believe Mr. Pickett was there.

Q Did you recall meeting Mr. Pickett a few years earlier when he came to Anniston?

A Yes. And a Don -- and I can't recall the last name at the moment. It will come to me. I don't -- I don't recall the names of the other individuals.

Q If you remember Don's last name, you can tell us throughout the course of the deposition.

A I'll try to remember it.

Q And if you don't remember it during the deposition but you remember it afterwards but before you read and sign your deposition, I'm going to ask the court reporter to leave a blank at this point in your

deposition where you can add Don's last name. Will you do that?

A I think I have it. McClain.

Q Okay. That's simple. We won't even need a blank.

When you went to the Bloomington facility of Westinghouse, did you remember that you had met with him two or three years earlier about problems with regard to their handling of PCBs?

A Yes.

Q Did you inquire of them whether or not they had cleaned things up?

A Yes.

Q Of whom did you inquire?

A Of the room full of individuals. It was a conference room full of eight or ten people.

Q And what was your specific inquiry in that line?

A I do not recall the exact words, but the essence was: Have you instituted any new practices regarding control of spillage on your employees' clothing, washing and the like? And I was assured they had.

Q Did you tour the facility while you were there?

A Yes.

Q What portions of the facility did you tour?

A I recall a -- other than their offices, I recall a -- a large enclosed area consisting of what I believe was a chamber in which the capacitors were impregnated with liquid and a rather complex conveyor system that carried the baskets of capacitors to the points where the employees were performing the next step in the process. And I also recall an outdoor area with a railroad siding.

Q Is that where the railroad cars with PCBs arrived and were unloaded?

A In some parts of that siding, yes.

Q Did you see any of the employees actually working with PCBs?

A There were a few individuals. But the line on that day was not actively producing capacitors. For some reason, it was idle.

Q So you actually weren't able to determine whether in the production operation things had in fact been cleaned up?

A That is true.

Q Did you learn whether the plant had started issuing plant clothing to the employees?

A I do not remember.

Q Did you learn whether the plant provided paid showers at the end of a shift?

A I do not know.

Q Did you learn whether the plant provided laundry and cleaning services for the clothing worn by employees at the plant?

A I don't remember.

Q Did you learn whether or not the plant provided impermeable shoe coverings to keep PCBs off of the shoes if they were going to be in an area where they could come into contact with PCBs?

A I do not remember.

Q Did you learn whether the plant provided impermeable trouser and torso coverings over their regular clothing if they were going to be in an area where they could come into contact with PCBs?

A I do not remember.

Q Did you learn whether the plant provided impermeable hand coverings for the employee, gloves or something like that?

A I do not remember.

Q Did you learn whether or not the plant provided impermeable head coverings of the sort that Monsanto had for its employees where they might come into contact with PCBs?

A I don't recall.

Q Did you learn whether the plant provided any barrier creams that could be applied by the employees to the bare skin if they were going to be in an area where they might come into contact with PCBs?

A I don't recall.

Q Did you review the ventilation system to see if you felt that it was adequate?

A Yes. I remember that.

Q Did you find the ventilation system to be adequate?

A It appeared to be, yes.

Q Did you specifically inquire about these other matters, the clothing, the protective coverings, the barrier creams and the like, and just not remember today what you found out? Or did you inquire at all?

A I recall inquiring about that -- those items. The answer given me seemed satisfactory. And the concentration then concentrated on environmental matters. The rest of the day was spent on those matters.

Q The primary purpose of your trip was environmental?

A Yes.

Q The other was incidental to the trip?

A Correct.

Q But you do recall specifically inquiring about all of the protective clothing items. Correct?

A Yes.

Q Including barrier creams?

A Yes.

Q And did you inquire about the showers? Or do you recall?

A I don't recall the specifics of the discussion.

Q Whatever they told you, you did not conclude that you should warn them to do more. Is that correct?

A That is correct.

Q Did you prepare any sort of written summary of your trip which included any discussion about what you just said or what they told you about these safety measures with regard to their workmen?

A No.

Q Did you prepare any summary or memorandum about the trip that dealt with the environmental matters that you discussed?

A No.

Q I'd like to spend a little bit of time talking in more detail about the job that you held from 1970 through 1976, where you had responsibility for the

PCB matters almost exclusively, I understand, in '70 to '72 and then still responsible but free to do other things as well from '73 through '76. Do you understand the period of time I'm now inquiring about?

A I understand the period of time and I understand the reference to PCBs and other chemicals. I don't understand the meaning of the word "responsible" as you use it.

Q I see. Well, you were the manager, environmental control, then the manager, environmental protection, then the manager, product acceptability as it related to PCBs during that six-year period?

A Yes.

Q You had the responsibility of coordinating various functions within Monsanto to be the primary source of information about the PCB problem? Is that correct?

A I was not primary in terms of the degree of sophistication regarding that knowledge. I was primary in that I was the general source of all types of information. For example, I was not the primary medical source as it regards PCB. I was not the primary analytical chemist source. But I was expected to know enough about each of these to be able to relay to other laymen my understanding of the situation.

Q And you related to laymen in many different areas?

A Correct.

MR. LACEY: Let me ask you to mark that as the next exhibit, please.

[Exhibit 5 marked]

MR. LACEY:

Q Let me hand you what has been marked as Deposition Exhibit No. 5 and ask you if you recognize that document.

A I have seen this document once before.

Q When was that?

A The deposition conducted on the Outboard Marine case.

Q Is that a copy of the document that contained the basic job description and function for the position that you held?

A May I read it first?

Q Surely. Absolutely.

A I recognize some of the numbered duties as being part of the assignment. I do not believe the remaining were expected of me.

Q Do you know whose job, then, this does describe?

A I don't think this job -- this document

describes any job. It looks like a draft that was never approved.

Q I see. This is a Monsanto document, is it not?

A Yes.

Q It was prepared in the ordinary course of business at Monsanto by someone responsible for developing job descriptions? Correct?

A That I don't know.

Q I see. Well, who did develop the job description for your job?

A I don't know.

Q Which task on that Exhibit No. 5 are tasks that you agree were your responsibility?

A There's a -- an element of the guidance function under Duty No. 2. I would suggest that it was limited guidance, more persuasion. No. 4, No. 5, No. 6 and No. 7.

Q Let me see if I can get it clear, then. You would agree that your job involved participating directly in visits with customers, plants and other international producers and with government testing agencies and collaborators?

A Yes.

Q Your job involved acting as a central point

of liaison and communications?

A Yes.

Q Your job involved working with the public relations department to handle all "outside" matters of concern and maintain Monsanto's image in the most favorable manner?

A Yes.

Q And it involved reporting to the functional fluids business director with a dotted line responsibility to the plasticizer business director?

A Yes.

Q You also indicated that to a certain extent you thought that you did guide the activities of a task force comprised of members of two business groups, medical, law, manufacturing and public relations departments.

A Yes.

Q And the question there is the extent to which you were the guide of that group.

A Correct.

Q Who were the other members on that task force?

A There were the directors of research from the two business groups --

Q Those were plasticizers and functional

fluids?

A Correct. There were the marketing directors of the two groups or their representatives, the manufacturing managers from the two groups. That describes the members out of the two business groups.

Q And out of the medical group?

A The medical group is primarily Mr. Wheeler.

Q The law group?

A The law group was primarily Mr. Phocian Park. P h o i c a n. I mentioned the manufacturing individuals. Public relations, initially it was Mr. Ed John, and he was replaced by several others as time went on.

Q Who were the various business group and manufacturing representatives by name?

A The research directors were Dr. Richard and Dr. Farrar. Also representing the research function were Dr. Keller and Dr. Tucker.

Q Scott Tucker?

A Yes, sir. The manager of manufacturing was initially a Mr. William Kuhn, K u h n, and he was later replaced by a Mr. James Savage, S a v a g e.

The marketing director initially for the functional groups it was Donald Olson, replaced by Thomas Gossage.

And Walter Schalk, S c h a l k, represented the plasticizers group.

There were individuals who would substitute for these principal members when they were not available.

Q Were there any particular people who were frequently in attendance at the meeting as substitutes because the persons they represented were not available on a regular basis?

A Not frequently, no.

Q The two duties that you say you had no responsibility for, I take it, is the one of assuming overall responsibility for total management of the Aroclor pollution problem.

A That is correct.

Q And the supervising and budgeting, objective setting, assignment of priorities and implementing programs.

A That is correct.

Q Who at Monsanto assumed the overall responsibility for the total management of the Aroclor pollution problem?

A I hesitate because I -- I believe it fell upon at least two individuals, a Mr. John Mason and a Mr. Howard Bergen.

Q These are at different times?

A No, Mr. Howard Bergen was a business director for the functional fluids group, and he reported to Mr. Mason, who was the assistant general manager responsible for that business group to -- Mr. Bergen reported to Mr. Mason. So the overall responsibility from my perspective rested on those two individuals.

Q And the other aspect that you say you didn't have responsibility for was budgeting, objective setting of assignment priorities and implementing programs. Who did that fall on?

A I looked to Mr. Howard Bergen for those activities.

Q So basically if we look at Exhibit 5 responsibilities 1 and 3 fell on Mr. Bergen or his boss. Correct?

A Correct.

Q And responsibilities 2, 4, 5, 6 and 7 fell primarily on you?

A Yes.

Q On the second page of that exhibit there's a notation that the supervision for this position under direct supervision is none. Would you indicate that you felt your position was one where you did not have a specific direct supervisor?

A Well, I had the supervisor. This refers to people I would be supervising.

Q I see. Who was your direct supervisor?

A Mr. Bergen.

Q And you -- did you have anybody that you supervised?

A No.

Q This job was something of a one-man band?

A Yes.

Q In terms of your participation directly in visits with customers, plants, producers, testing agencies and collaborators. What's a collaborator?

A I don't know what the author of this document had in mind. My interpretation would be entities that work with the government in performing tests, evaluations, providing consulting services.

Q Can you give me some examples?

A Can I give you some examples?

Q Yes.

A Yes.

Q Of the groups that would be collaborators.

A I don't recall all of their names, but there were consulting firms in the Washington, D.C., area that were working for the government agencies to conduct studies for them.

Q That's what you're talking about basically, then, is private groups employed by the government?

A That is one form.

Q Okay.

A Another form is, for example, there was a group that I recall at Massachusetts Institute of Technology working on a grant from the government assigned the task of looking into PCBs. It's that type of outside entity working with the government.

Q Okay.

Now, in terms of visiting directly with customers, you've told me about a visit you made to the Westinghouse plant at Bloomington. Was that in connection with the job that you picked up in 1970?

A Yes.

Q How many other customers' plants did you visit -- I'm looking just for an estimate at this point -- during this period of time?

A I never made a count. As best I recall, there were about a dozen plants at that point in time.

Q Now I'm talking about from '70 through the '76. Is that the time you're talking about?

A Oh, I'm sorry. I thought you meant the summer of 1970.

Q No, no. I'm sorry. I meant the entire time

that you held this responsibility.

A I don't know the number. Couple dozen.

Q Somewhere on the order of 25?

A Something like that.

Q Did any customer get more than one visit?

A [No reply]

Q And let me be very specific there. For example, in those 25 visits would there be more than one visit to GE at any facility?

A Yes.

Q How many different GE facilities did you visit?

A I visited their offices in Schenectady, New York, their plant at Hudson Falls, New York, their plant at Pitsfield, Massachusetts, and I believe their plant at Rome, Georgia. I can't recall any other GE facility.

Q In each of the plant visits did you review the practices that were being observed with regard to protection of employees in the plant?

A No.

Q In any of those visits did you review that?

A I don't recall a discussion centered on employee exposure.

Q Let's go to Westinghouse. We know you've told me already that you went to the Bloomington plant.

Did you visit any other Westinghouse facilities?

A I visited the South Boston, Virginia, site and the -- I believe it was two facilities in the Pittsburgh area.

Q Were those both plants?

A No. These were -- one was a research center and the other was primarily an office center.

Q In any of the visits other than the Bloomington visit did you have any discussions about worker safety?

A I don't recall any.

Q What other plants did you visit?

A There were two plants in the New Bedford, Massachusetts, area.

Q Do you know whose plants they were?

A One was the Aerovox, A e r o v o x, plant and the other was Cornell-Dubblier, D u b b i l i e r.

Q What other plants did you visit?

A There was a plant in Vermont, the JARD Company, J A R D company; the Sangamo electric plant in Pickens, South Carolina; the Mallory plant in Tennessee, I believe it was near Murfreesboro, Tennessee; the Wagner Electric plant in St. Louis; the Allis-Chalmers plant in Milwaukee; Rayethon plant in Lowell, Massachusetts; the Ciba-Geigy plant in Tennessee. I

don't recall the city. There were at least two more transformer plants, and I can't recall the city or the name at the moment.

Q Any other types of plants besides dielectric plants?

A The Rayethon and Ciba-Geigy were not dielectric at the time.

Q All right.

A I can't recall any others at the moment.

Q In the New Bedford area did you discuss or inquire about worker protections?

A That was not a topic of discussion.

Q In Gerard -- JARD Company.

A JARD? No.

Q What about Sangamo? Was that an area of discussion?

A No.

Q The Mallory plant?

A No.

Q Wagner Electric?

A No.

Q Allis-Chalmers?

A No.

Q Rayethon?

A No.

Q Ciba-Geigy?

A No.

Q The other transformer plants you visited?

A No.

Q So the only plant that you ever discussed worker protection at was the Bloomington Westinghouse plant?

A To my recollection.

Q Okay. Now, did you ever visit any Ford facility at all?

A No.

Q Did you ever visit any TVA facility?

A No.

Q For purposes of your customer visits -- strike that.

We talked a little bit yesterday about the fact that after Monsanto limited its sale of PCBs to dielectric fluids it refused to sell to companies that did not provide it with written indemnities. Correct?

A Correct.

Q And furthermore there were some companies that would not be considered for sales because they weren't of sufficient size or strength to provide a meaningful indemnity. Correct?

A Correct.

Q Now, Monsanto was willing for and even suggested to the companies that were its customers, that is, that were big enough to provide an indemnity Monsanto could rely on and who did sign one that they could in turn sell dielectric fluids to companies that Monsanto would not sell to direct. Correct?

A Correct.

Q Did you, for purposes of your job, consider companies to whom Monsanto delivered dielectric fluids, even though they weren't the technical purchaser, to be customers?

A Did I personally? No.

Q Okay. There were definitely situations, were there not, in the 1970s where, for example, if you were going to sell PCB materials to Westinghouse and they were to provide for a resale or whatever you might call it to somebody that Monsanto wouldn't sell to directly, what would actually happen is Westinghouse would place the order but direct that the materials be shipped to the third party?

A Yes.

Q And you did not consider those third parties to whom the materials were shipped directly by Monsanto to be a customer on whom you should make a visit or a call?

A That is true.

Q Why not?

A Just by the shear definition of what is a customer and who do we communicate with and what is the -- what are the particulars of the arrangement of the sale? They didn't fit any of these. They were just a ship-to point as far as our records are concerned. We don't know who is the official recipient of that material and what they're doing with it. We had to rely on the bill-to identity.

Q Well, you knew full well the relationship, didn't you? I mean you're the ones who had set up the system of not selling to people who couldn't provide you with the indemnity you wanted, and suggesting this arrangement of a nominal sale to somebody who had an indemnity with the return delivery to the party you wouldn't sell to directly.

A And who had the knowledge of the situation that we felt was appropriate.

Q Who had the knowledge?

A Those customers willing to go along and sign with this indemnity.

Q Well, were you always confident those to whom you shipped had sufficient knowledge?

A We don't know who received it at the other

end and who handled it.

Q Well, if your purchase order was ship to, you knew where it wound up, didn't you?

A I think we have a misunderstanding. Many times the General Electric Company would order their Pydrauls shipped to such and such a company. That meant that General Electric crews would arrive at that site, receive the material, handle it properly, do what was right with it. So it was still General Electric involved. We don't know who handled the material at the ship-to location.

Q You didn't have any idea?

A That's right. The billing -- the order doesn't say: So-and-so will handle it.

Q What effort was made to provide any technical bulletins or other information on safe handling and toxicology to the locations to which PCBs were shipped?

A The environmental statements issued in early 1970 with some followups in subsequent years went to all entities listed on our ship-to, bill-to lists.

Q When you talk about environmental statements, are you talking about the sort of technical bulletins that we looked at earlier today?

A No. These were the memoranda designed to update all of these companies regarding the

environmental presence of PCBs and our cautioning: Do not let it get to the environment. Those letters.

Q But not the documents that contained information on safe handling?

A The safe handling documents, I do not know who got them and who in Monsanto supplied them.

Q So you don't know whether or not they went to people who were ship-tos but not the technical purchaser under the purchase order?

A That is correct.

Q In connection with your function as the central point of liaison and communication and your work with the public relations department to handle outside matters of concern, did you respond to inquiries and correspondence directed to Monsanto concerning PCBs?

A Yes.

Q And in fact was your name made known by Monsanto to others as a person with whom to correspond about matters relating to PCBs?

A Yes.

Q Do you have any idea of the volume of correspondence that you received from customers concerning PCBs in the period from 1970 to 1976?

A I -- I do not have an idea other than it was quite extensive in '70 and '71, and became less frequent

in the period '74 to '76.

Q Did you make an effort to respond to the correspondence that was sent to you?

A Certainly.

Q That was part of your job?

A Yes.

Q It was the expectation of Mr. Bergen, I take it, that if people wrote in to Monsanto asking questions about Monsanto's PCB products and that came to you you were to provide them with a response?

A Or have someone better qualified respond.

Q Okay. If someone better qualified responded, would they respond in their own name or in your name?

A The vast majority of the time in their own name.

Q And typically if that happened they would indicate at the outset that the letter was referred to them by you?

A As appropriate. Because many times a recipient didn't know who I was.

Q Okay. In the case of a person who sent a letter specifically to you, either you would respond or you would refer it to someone who would respond and reference the referral by you?

A Correct.

MR. LACEY: Would you mark that as the next exhibit, please?

[Exhibit 6 marked]

MR. LACEY:

Q Let me hand you what has been marked by the court reporter as Exhibit No. 6 and ask if it's an exhibit consisting of three pages, ask if you recognize the letter that is dated February 2nd, 1972, from Mr. R. T. Richards at Texaco to you and the response that you wrote on February 4th, 1972.

A Now that I've read them, I recall the -- the two documents you refer to.

Q Okay. I'll tell you what. To make it convenient, let me have the reporter mark the letter that Mr. Richards wrote to you as Exhibit 6 A, and then we can distinguish between your response as Exhibit 6 and the Richards' letter 6 A.

[Exhibit 6 A marked]

MR. LACEY:

Q Let me hand it back to you. Now the reporter has marked Mr. Richards' letter to you as Exhibit 6 A. It was part of your function to receive letters of the type that Mr. Richards wrote to you which is marked as Exhibit 6 A?

A Yes.

Q And it was a part of your function on behalf of Monsanto to respond to letters like that from Mr. Richards with the type of response you wrote which is marked as Exhibit 6?

A Yes.

Q Obviously Mr. Richards knew who to correspond with because the letter is addressed specifically to you. Correct?

A Yes.

Q This letter was written in February of 1972. Correct?

A Correct.

Q And by that time had your position at Monsanto become one that was somewhat well-known around the country as being associated with responsibility for PCBs at Monsanto?

A I believe so, yes.

Q You in fact had gone on news programs as a Monsanto spokesman about PCBs, had you not?

A A few, yes.

Q And your name had appeared in documents that were provided to customers and governmental agencies and others about PCBs, had it not?

A Yes.

Q In fact, you had spoken on behalf of Monsanto

to various groups by this time, had you not?

A Yes.

Q So it wasn't at all surprising to find people who knew your name as the person to write to with questions about PCBs by this time, was it?

A That is correct.

Q Did you know Mr. Richards personally?

A No.

Q Had you ever visited the Texaco facilities?

A No.

Q They were not a customer that you went to?

A That is correct.

Q In Mr. Richards' letter he asked for certain information about PCBs. Correct?

A Yes.

Q And your response, which is Exhibit 6, was written -- in fact, we don't -- you don't have a Received stamp on this letter, do you?

A No.

Q It looks like the mail service was pretty good.

A It does.

Q His letter is dated February 2nd, your response is dated February 4th. So you were very prompt in getting a response back to him, were you not?

A I tried to be, yes.

Q Were you always that prompt?

A When I was in the office I tried to keep up with it. Otherwise I would get inundated. It was a matter of survival.

Q Okay. Did you normally write the responses yourself?

A Yes.

Q Okay. So what we have here, then, is your response, not one written by somebody else for you?

A That is correct.

Q And did you give Mr. Richards a full and complete response to his inquiry?

A I'll have to read point by point, make the comparison.

Q Okay. Well --

A To answer.

Q You may want to do that. I really wasn't trying to find a particular flaw in it but just to make sure you fully responded in your mind.

A Well, it appears that my response answered his key questions.

Q Okay. And was it customary for you when you filed things to do it like this, to put the response letter together with the letter that was the inquiry

letter so you would have the two together in your filing system?

A No, this is not my way of filing.

Q I see. How did you normally file things?

A By subject chronologically. And the subject would be at my discretion as to which folder to put it in.

Q What sort of folders could Mr. Richards' letter have fallen into as you filed things?

A This probably fell into the customers 1972 folder.

Q Okay. And where would your response be filed, in that same folder?

A Yes.

Q And so the difference would be if there were any letters you received -- well, let me ask that. Did you file the letters by the date that you received them or by the date that they were dated? When you would file in that folder.

A The date they were dated.

Q Okay. So the difference between what we have here as Exhibit 6 and 6 A or whether or not it's filed exactly as it would have been is whether or not you would have received a document dated February 3rd or written a document dated February 3rd. Correct?

A Or written other documents February 2nd.

Q Okay. And then that -- how would you decide where they were filed in order if it was February 2nd?

A My secretary would put them in there by dates.

Q Okay.

A And we would have to go retrieve them manually and find them.

Q Okay. So depending on whether or not there were any documents that you wrote on February 2nd filed after this letter or documents you wrote on February 3rd, these might have been contained right next to each other in your filing system?

A Yes.

Q Was it your customary practice to maintain for your file copy of your document the type of document we have as 6, Exhibit 6?

A Yes.

Q Did the original go out on your letterhead?

A Yes.

Q But the file copy did not have your letterhead on it?

A No.

Q Did you sign the original document that went out?

A Yes.

Q But you didn't sign the copy that you retained for your file?

A No.

Q So what we have here is -- as Exhibit 6 is a correct copy, then, of the file copy you kept of that letter?

A Yes.

Q And what we have as Exhibit 6 A is a correct copy of the letter that you received from Mr. Richards to which you responded?

A Yes.

Q Did you ever have any further communication with Mr. Richards after you wrote him this response?

A I don't recall.

Q Did you ever, after you received Mr. Richards' letter, do any investigation to find out about the products that Texaco did purchase from Monsanto?

A I don't recall.

Q The reason I ask that, one of Mr. Richards' questions dealt with whether or not Monsanto Aroclors contained PCBs. Correct?

A [No reply]

Q Look at the last sentence in the third paragraph of his letter.

A The reason I'm hesitating, he doesn't use the word "Monsanto's Aroclors."

Q If you'll look at the last sentence in the third paragraph, I read that sentence to say Texaco has used --

A I'm sorry.

Q -- Monsanto Aroclors.

A You're right. You are right. He is asking that.

Q And it is obvious from the way that letter is written that Mr. Richards was under the impression that Monsanto Aroclors had no PCBs in them. Correct?

A Yes.

Q And your response points out that there are some specific series that have Aroclors as ingredients. Correct?

A Yes.

Q And other series that have PC -- I'm sorry. That was a --

MR. HALL: You're just following along. He meant to say had PCBs.

MR. LACEY: I certainly did.

Q Aroclors and PCBs generally in my mind are linked, but there's a slight difference. There are certain Monsanto Aroclors that have PCBs in them as a

constituent part. Correct?

A Yes.

Q There are other Monsanto Aroclors, items that go under that trade name, that have PCBs in them as a contaminant?

A Yes.

Q And the way you've written your response you cover both possibilities.

A Yes.

Q And it appears to me that you wrote the response without having to go and check the records and see which one they actually bought.

A That is correct.

Q And so you weren't sure whether they bought the products that had PCBs in them as a contaminant or the ones that had PCBs in them as a constituent part.

A That is correct.

Q And you never did go and actually determine which particular Aroclor they bought?

A No.

Q The letter also asks about some other names. In particular, he asks about what he calls Askarels, A s c o r a l s. Correct?

A I see that, yes.

Q And the Ascorals was a misspelling of the

term Askarels, A s k a r e l s. Correct?

A Well, I didn't at the time and to this moment know whether that's a misspelling or whether it's a trademark of some other kind that he is knowledgeable of. This is why my response -- I indicated I'm not familiar with that word unless he's referring to the generic name askarels, lower case a. I had no way of knowing what he meant by the word he used.

Q I see. There was a sufficient doubt in your mind or a sufficient question in your mind that what he meant to say was Askarels and misspelled it?

A This is why I went ahead and then pointed that out.

Q Okay. And, of course, Askarels were just a name for PCB-containing dielectric fluids. Correct?

A At that point in time Askarels did contain PCBs, you're right.

Q And they were dielectric fluids?

A Yes.

Q In fact, in some of the technical bulletins we looked at earlier this morning there was discussion by Monsanto of Askarel-type transformers.

A Yes.

Q And that was talking about PCB fluid transformers?

department would have known of any need or any reason to call any of their technical counterparts at Westinghouse and read them the riot act, so to speak, about safe handling of PCBs?

A That is correct.

Q Are you aware of anybody in this time frame in the medical department contacting a technical counterpart at Westinghouse to set them straight on the proper handling of PCBs?

A No.

MR. LACEY: Bob, since you didn't get breakfast this morning, do you want to take an early lunch?

MR. HALL: Whatever is up to you.

MR. LACEY: My grape nuts have about worn out. How about we go ahead and take an early lunch?

MR. HALL: That's fine.

MR. LACEY: What time do you want to try to be back, 12:30?

MR. HALL: Yeah, that's plenty of time, I think.

MR. LACEY: Let's do it. Let's shoot for 12:30, then.

VIDEO OPERATOR: We're off the record.

[Recess]

VIDEO OPERATOR: We've been off the record for a lunch break. We're back on the record. It's 12:32 p.m.

MR. LACEY:

Q Mr. Papageorge, we were talking about Westinghouse and the information that was communicated to them in the Sixties before the lunch break. Did you ever personally visit the capacitor plant that Westinghouse had in Bloomington, Indiana?

A Yes.

Q When did you first visit that plant?

A I believe it was June or July 1970.

Q And is that the only visit you made to that plant?

A Yes.

Q What was the purpose of the visit?

A To share with the management of the plant Monsanto's understanding of the PCB issued -- issue and to give the management of that plant a status report on Monsanto's research studies, toxicity studies, analytical methodology, development.

Q The toxicology studies that you were giving a report on, were those the IBT studies?

A Yes.

Q What analytical methods were you giving a

report on?

A These were methods to determine the presence and amount of PCBs in water, soils, animal tissues, air at very low levels and with reliable consistent results.

Q Did those analytical methods also determine the presence of contaminants in PCBs?

A No.

Q Do you recall with whom you met at the Bloomington plant of Westinghouse?

A I don't remember all the people in the room. The name that comes to mind was -- escapes me also at the moment. I believe Mr. Pickett was there.

Q Did you recall meeting Mr. Pickett a few years earlier when he came to Anniston?

A Yes. And a Don -- and I can't recall the last name at the moment. It will come to me. I don't -- I don't recall the names of the other individuals.

Q If you remember Don's last name, you can tell us throughout the course of the deposition.

A I'll try to remember it.

Q And if you don't remember it during the deposition but you remember it afterwards but before you read and sign your deposition, I'm going to ask the court reporter to leave a blank at this point in your

deposition where you can add Don's last name. Will you do that?

A I think I have it. McClain.

Q Okay. That's simple. We won't even need a blank.

When you went to the Bloomington facility of Westinghouse, did you remember that you had met with him two or three years earlier about problems with regard to their handling of PCBs?

A Yes.

Q Did you inquire of them whether or not they had cleaned things up?

A Yes.

Q Of whom did you inquire?

A Of the room full of individuals. It was a conference room full of eight or ten people.

Q And what was your specific inquiry in that line?

A I do not recall the exact words, but the essence was: Have you instituted any new practices regarding control of spillage on your employees' clothing, washing and the like? And I was assured they had.

Q Did you tour the facility while you were there?

A Yes.

Q What portions of the facility did you tour?

A I recall a -- other than their offices, I recall a -- a large enclosed area consisting of what I believe was a chamber in which the capacitors were impregnated with liquid and a rather complex conveyor system that carried the baskets of capacitors to the points where the employees were performing the next step in the process. And I also recall an outdoor area with a railroad siding.

Q Is that where the railroad cars with PCBs arrived and were unloaded?

A In some parts of that siding, yes.

Q Did you see any of the employees actually working with PCBs?

A There were a few individuals. But the line on that day was not actively producing capacitors. For some reason, it was idle.

Q So you actually weren't able to determine whether in the production operation things had in fact been cleaned up?

A That is true.

Q Did you learn whether the plant had started issuing plant clothing to the employees?

A I do not remember.

Q Did you learn whether the plant provided paid showers at the end of a shift?

A I do not know.

Q Did you learn whether the plant provided laundry and cleaning services for the clothing worn by employees at the plant?

A I don't remember.

Q Did you learn whether or not the plant provided impermeable shoe coverings to keep PCBs off of the shoes if they were going to be in an area where they could come into contact with PCBs?

A I do not remember.

Q Did you learn whether the plant provided impermeable trouser and torso coverings over their regular clothing if they were going to be in an area where they could come into contact with PCBs?

A I do not remember.

Q Did you learn whether the plant provided impermeable hand coverings for the employee, gloves or something like that?

A I do not remember.

Q Did you learn whether or not the plant provided impermeable head coverings of the sort that Monsanto had for its employees where they might come into contact with PCBs?

A I don't recall.

Q Did you learn whether the plant provided any barrier creams that could be applied by the employees to the bare skin if they were going to be in an area where they might come into contact with PCBs?

A I don't recall.

Q Did you review the ventilation system to see if you felt that it was adequate?

A Yes. I remember that.

Q Did you find the ventilation system to be adequate?

A It appeared to be, yes.

Q Did you specifically inquire about these other matters, the clothing, the protective coverings, the barrier creams and the like, and just not remember today what you found out? Or did you inquire at all?

A I recall inquiring about that -- those items. The answer given me seemed satisfactory. And the concentration then concentrated on environmental matters. The rest of the day was spent on those matters.

Q The primary purpose of your trip was environmental?

A Yes.

Q The other was incidental to the trip?

A Correct.

Q But you do recall specifically inquiring about all of the protective clothing items. Correct?

A Yes.

Q Including barrier creams?

A Yes.

Q And did you inquire about the showers? Or do you recall?

A I don't recall the specifics of the discussion.

Q Whatever they told you, you did not conclude that you should warn them to do more. Is that correct?

A That is correct.

Q Did you prepare any sort of written summary of your trip which included any discussion about what you just said or what they told you about these safety measures with regard to their workmen?

A No.

Q Did you prepare any summary or memorandum about the trip that dealt with the environmental matters that you discussed?

A No.

Q I'd like to spend a little bit of time talking in more detail about the job that you held from 1970 through 1976, where you had responsibility for the

PCB matters almost exclusively, I understand, in '70 to '72 and then still responsible but free to do other things as well from '73 through '76. Do you understand the period of time I'm now inquiring about?

A I understand the period of time and I understand the reference to PCBs and other chemicals. I don't understand the meaning of the word "responsible" as you use it.

Q I see. Well, you were the manager, environmental control, then the manager, environmental protection, then the manager, product acceptability as it related to PCBs during that six-year period?

A Yes.

Q You had the responsibility of coordinating various functions within Monsanto to be the primary source of information about the PCB problem? Is that correct?

A I was not primary in terms of the degree of sophistication regarding that knowledge. I was primary in that I was the general source of all types of information. For example, I was not the primary medical source as it regards PCB. I was not the primary analytical chemist source. But I was expected to know enough about each of these to be able to relay to other laymen my understanding of the situation.

Q And you related to laymen in many different areas?

A Correct.

MR. LACEY: Let me ask you to mark that as the next exhibit, please.

[Exhibit 5 marked]

MR. LACEY:

Q Let me hand you what has been marked as Deposition Exhibit No. 5 and ask you if you recognize that document.

A I have seen this document once before.

Q When was that?

A The deposition conducted on the Outboard Marine case.

Q Is that a copy of the document that contained the basic job description and function for the position that you held?

A May I read it first?

Q Surely. Absolutely.

A I recognize some of the numbered duties as being part of the assignment. I do not believe the remaining were expected of me.

Q Do you know whose job, then, this does describe?

A I don't think this job -- this document

describes any job. It looks like a draft that was never approved.

Q I see. This is a Monsanto document, is it not?

A Yes.

Q It was prepared in the ordinary course of business at Monsanto by someone responsible for developing job descriptions? Correct?

A That I don't know.

Q I see. Well, who did develop the job description for your job?

A I don't know.

Q Which task on that Exhibit No. 5 are tasks that you agree were your responsibility?

A There's a -- an element of the guidance function under Duty No. 2. I would suggest that it was limited guidance, more persuasion. No. 4, No. 5, No. 6 and No. 7.

Q Let me see if I can get it clear, then. You would agree that your job involved participating directly in visits with customers, plants and other international producers and with government testing agencies and collaborators?

A Yes.

Q Your job involved acting as a central point

of liaison and communications?

A Yes.

Q Your job involved working with the public relations department to handle all "outside" matters of concern and maintain Monsanto's image in the most favorable manner?

A Yes.

Q And it involved reporting to the functional fluids business director with a dotted line responsibility to the plasticizer business director?

A Yes.

Q You also indicated that to a certain extent you thought that you did guide the activities of a task force comprised of members of two business groups, medical, law, manufacturing and public relations departments.

A Yes.

Q And the question there is the extent to which you were the guide of that group.

A Correct.

Q Who were the other members on that task force?

A There were the directors of research from the two business groups --

Q Those were plasticizers and functional

fluids?

A Correct. There were the marketing directors of the two groups or their representatives, the manufacturing managers from the two groups. That describes the members out of the two business groups.

Q And out of the medical group?

A The medical group is primarily Mr. Wheeler.

Q The law group?

A The law group was primarily Mr. Phocian Park. P h o i c a n. I mentioned the manufacturing individuals. Public relations, initially it was Mr. Ed John, and he was replaced by several others as time went on.

Q Who were the various business group and manufacturing representatives by name?

A The research directors were Dr. Richard and Dr. Farrar. Also representing the research function were Dr. Keller and Dr. Tucker.

Q Scott Tucker?

A Yes, sir. The manager of manufacturing was initially a Mr. William Kuhn, K u h n, and he was later replaced by a Mr. James Savage, S a v a g e.

The marketing director initially for the functional groups it was Donald Olson, replaced by Thomas Gossage.

And Walter Schalk, S c h a l k, represented the plasticizers group.

There were individuals who would substitute for these principal members when they were not available.

Q Were there any particular people who were frequently in attendance at the meeting as substitutes because the persons they represented were not available on a regular basis?

A Not frequently, no.

Q The two duties that you say you had no responsibility for, I take it, is the one of assuming overall responsibility for total management of the Aroclor pollution problem.

A That is correct.

Q And the supervising and budgeting, objective setting, assignment of priorities and implementing programs.

A That is correct.

Q Who at Monsanto assumed the overall responsibility for the total management of the Aroclor pollution problem?

A I hesitate because I -- I believe it fell upon at least two individuals, a Mr. John Mason and a Mr. Howard Bergen.

Q These are at different times?

A No, Mr. Howard Bergen was a business director for the functional fluids group, and he reported to Mr. Mason, who was the assistant general manager responsible for that business group to -- Mr. Bergen reported to Mr. Mason. So the overall responsibility from my perspective rested on those two individuals.

Q And the other aspect that you say you didn't have responsibility for was budgeting, objective setting of assignment priorities and implementing programs. Who did that fall on?

A I looked to Mr. Howard Bergen for those activities.

Q So basically if we look at Exhibit 5 responsibilities 1 and 3 fell on Mr. Bergen or his boss. Correct?

A Correct.

Q And responsibilities 2, 4, 5, 6 and 7 fell primarily on you?

A Yes.

Q On the second page of that exhibit there's a notation that the supervision for this position under direct supervision is none. Would you indicate that you felt your position was one where you did not have a specific direct supervisor?

A Well, I had the supervisor. This refers to people I would be supervising.

Q I see. Who was your direct supervisor?

A Mr. Bergen.

Q And you -- did you have anybody that you supervised?

A No.

Q This job was something of a one-man band?

A Yes.

Q In terms of your participation directly in visits with customers, plants, producers, testing agencies and collaborators. What's a collaborator?

A I don't know what the author of this document had in mind. My interpretation would be entities that work with the government in performing tests, evaluations, providing consulting services.

Q Can you give me some examples?

A Can I give you some examples?

Q Yes.

A Yes.

Q Of the groups that would be collaborators.

A I don't recall all of their names, but there were consulting firms in the Washington, D.C., area that were working for the government agencies to conduct studies for them.

Q That's what you're talking about basically, then, is private groups employed by the government?

A That is one form.

Q Okay.

A Another form is, for example, there was a group that I recall at Massachusetts Institute of Technology working on a grant from the government assigned the task of looking into PCBs. It's that type of outside entity working with the government.

Q Okay.

Now, in terms of visiting directly with customers, you've told me about a visit you made to the Westinghouse plant at Bloomington. Was that in connection with the job that you picked up in 1970?

A Yes.

Q How many other customers' plants did you visit -- I'm looking just for an estimate at this point -- during this period of time?

A I never made a count. As best I recall, there were about a dozen plants at that point in time.

Q Now I'm talking about from '70 through the '76. Is that the time you're talking about?

A Oh, I'm sorry. I thought you meant the summer of 1970.

Q No, no. I'm sorry. I meant the entire time

that you held this responsibility.

A I don't know the number. Couple dozen.

Q Somewhere on the order of 25?

A Something like that.

Q Did any customer get more than one visit?

A [No reply]

Q And let me be very specific there. For example, in those 25 visits would there be more than one visit to GE at any facility?

A Yes.

Q How many different GE facilities did you visit?

A I visited their offices in Schenectady, New York, their plant at Hudson Falls, New York, their plant at Pitsfield, Massachusetts, and I believe their plant at Rome, Georgia. I can't recall any other GE facility.

Q In each of the plant visits did you review the practices that were being observed with regard to protection of employees in the plant?

A No.

Q In any of those visits did you review that?

A I don't recall a discussion centered on employee exposure.

Q Let's go to Westinghouse. We know you've told me already that you went to the Bloomington plant.

Did you visit any other Westinghouse facilities?

A I visited the South Boston, Virginia, site and the -- I believe it was two facilities in the Pittsburgh area.

Q Were those both plants?

A No. These were -- one was a research center and the other was primarily an office center.

Q In any of the visits other than the Bloomington visit did you have any discussions about worker safety?

A I don't recall any.

Q What other plants did you visit?

A There were two plants in the New Bedford, Massachusetts, area.

Q Do you know whose plants they were?

A One was the Aerovox, A e r o v o x, plant and the other was Cornell-Dubblier, D u b b i l i e r.

Q What other plants did you visit?

A There was a plant in Vermont, the JARD Company, J A R D company; the Sangamo electric plant in Pickens, South Carolina; the Mallory plant in Tennessee, I believe it was near Murfreesboro, Tennessee; the Wagner Electric plant in St. Louis; the Allis-Chalmers plant in Milwaukee; Rayethon plant in Lowell, Massachusetts; the Ciba-Geigy plant in Tennessee. I

don't recall the city. There were at least two more transformer plants, and I can't recall the city or the name at the moment.

Q Any other types of plants besides dielectric plants?

A The Rayethon and Ciba-Geigy were not dielectric at the time.

Q All right.

A I can't recall any others at the moment.

Q In the New Bedford area did you discuss or inquire about worker protections?

A That was not a topic of discussion.

Q In Gerard -- JARD Company.

A JARD? No.

Q What about Sangamo? Was that an area of discussion?

A No.

Q The Mallory plant?

A No.

Q Wagner Electric?

A No.

Q Allis-Chalmers?

A No.

Q Rayethon?

A No.

Q Ciba-Geigy?

A No.

Q The other transformer plants you visited?

A No.

Q So the only plant that you ever discussed worker protection at was the Bloomington Westinghouse plant?

A To my recollection.

Q Okay. Now, did you ever visit any Ford facility at all?

A No.

Q Did you ever visit any TVA facility?

A No.

Q For purposes of your customer visits -- strike that.

We talked a little bit yesterday about the fact that after Monsanto limited its sale of PCBs to dielectric fluids it refused to sell to companies that did not provide it with written indemnities. Correct?

A Correct.

Q And furthermore there were some companies that would not be considered for sales because they weren't of sufficient size or strength to provide a meaningful indemnity. Correct?

A Correct.

Q Now, Monsanto was willing for and even suggested to the companies that were its customers, that is, that were big enough to provide an indemnity Monsanto could rely on and who did sign one that they could in turn sell dielectric fluids to companies that Monsanto would not sell to direct. Correct?

A Correct.

Q Did you, for purposes of your job, consider companies to whom Monsanto delivered dielectric fluids, even though they weren't the technical purchaser, to be customers?

A Did I personally? No.

Q Okay. There were definitely situations, were there not, in the 1970s where, for example, if you were going to sell PCB materials to Westinghouse and they were to provide for a resale or whatever you might call it to somebody that Monsanto wouldn't sell to directly, what would actually happen is Westinghouse would place the order but direct that the materials be shipped to the third party?

A Yes.

Q And you did not consider those third parties to whom the materials were shipped directly by Monsanto to be a customer on whom you should make a visit or a call?

A That is true.

Q Why not?

A Just by the shear definition of what is a customer and who do we communicate with and what is the -- what are the particulars of the arrangement of the sale? They didn't fit any of these. They were just a ship-to point as far as our records are concerned. We don't know who is the official recipient of that material and what they're doing with it. We had to rely on the bill-to identity.

Q Well, you knew full well the relationship, didn't you? I mean you're the ones who had set up the system of not selling to people who couldn't provide you with the indemnity you wanted, and suggesting this arrangement of a nominal sale to somebody who had an indemnity with the return delivery to the party you wouldn't sell to directly.

A And who had the knowledge of the situation that we felt was appropriate.

Q Who had the knowledge?

A Those customers willing to go along and sign with this indemnity.

Q Well, were you always confident those to whom you shipped had sufficient knowledge?

A We don't know who received it at the other

end and who handled it.

Q Well, if your purchase order was ship to, you knew where it wound up, didn't you?

A I think we have a misunderstanding. Many times the General Electric Company would order their Pydrauls shipped to such and such a company. That meant that General Electric crews would arrive at that site, receive the material, handle it properly, do what was right with it. So it was still General Electric involved. We don't know who handled the material at the ship-to location.

Q You didn't have any idea?

A That's right. The billing -- the order doesn't say: So-and-so will handle it.

Q What effort was made to provide any technical bulletins or other information on safe handling and toxicology to the locations to which PCBs were shipped?

A The environmental statements issued in early 1970 with some followups in subsequent years went to all entities listed on our ship-to, bill-to lists.

Q When you talk about environmental statements, are you talking about the sort of technical bulletins that we looked at earlier today?

A No. These were the memoranda designed to update all of these companies regarding the

environmental presence of PCBs and our cautioning: Do not let it get to the environment. Those letters.

Q But not the documents that contained information on safe handling?

A The safe handling documents, I do not know who got them and who in Monsanto supplied them.

Q So you don't know whether or not they went to people who were ship-tos but not the technical purchaser under the purchase order?

A That is correct.

Q In connection with your function as the central point of liaison and communication and your work with the public relations department to handle outside matters of concern, did you respond to inquiries and correspondence directed to Monsanto concerning PCBs?

A Yes.

Q And in fact was your name made known by Monsanto to others as a person with whom to correspond about matters relating to PCBs?

A Yes.

Q Do you have any idea of the volume of correspondence that you received from customers concerning PCBs in the period from 1970 to 1976?

A I -- I do not have an idea other than it was quite extensive in '70 and '71, and became less frequent

in the period '74 to '76.

Q Did you make an effort to respond to the correspondence that was sent to you?

A Certainly.

Q That was part of your job?

A Yes.

Q It was the expectation of Mr. Bergen, I take it, that if people wrote in to Monsanto asking questions about Monsanto's PCB products and that came to you you were to provide them with a response?

A Or have someone better qualified respond.

Q Okay. If someone better qualified responded, would they respond in their own name or in your name?

A The vast majority of the time in their own name.

Q And typically if that happened they would indicate at the outset that the letter was referred to them by you?

A As appropriate. Because many times a recipient didn't know who I was.

Q Okay. In the case of a person who sent a letter specifically to you, either you would respond or you would refer it to someone who would respond and reference the referral by you?

A Correct.

MR. LACEY: Would you mark that as the next exhibit, please?

[Exhibit 6 marked]

MR. LACEY:

Q Let me hand you what has been marked by the court reporter as Exhibit No. 6 and ask if it's an exhibit consisting of three pages, ask if you recognize the letter that is dated February 2nd, 1972, from Mr. R. T. Richards at Texaco to you and the response that you wrote on February 4th, 1972.

A Now that I've read them, I recall the -- the two documents you refer to.

Q Okay. I'll tell you what. To make it convenient, let me have the reporter mark the letter that Mr. Richards wrote to you as Exhibit 6 A, and then we can distinguish between your response as Exhibit 6 and the Richards' letter 6 A.

[Exhibit 6 A marked]

MR. LACEY:

Q Let me hand it back to you. Now the reporter has marked Mr. Richards' letter to you as Exhibit 6 A. It was part of your function to receive letters of the type that Mr. Richards wrote to you which is marked as Exhibit 6 A?

A Yes.

Q And it was a part of your function on behalf of Monsanto to respond to letters like that from Mr. Richards with the type of response you wrote which is marked as Exhibit 6?

A Yes.

Q Obviously Mr. Richards knew who to correspond with because the letter is addressed specifically to you. Correct?

A Yes.

Q This letter was written in February of 1972. Correct?

A Correct.

Q And by that time had your position at Monsanto become one that was somewhat well-known around the country as being associated with responsibility for PCBs at Monsanto?

A I believe so, yes.

Q You in fact had gone on news programs as a Monsanto spokesman about PCBs, had you not?

A A few, yes.

Q And your name had appeared in documents that were provided to customers and governmental agencies and others about PCBs, had it not?

A Yes.

Q In fact, you had spoken on behalf of Monsanto

to various groups by this time, had you not?

A Yes.

Q So it wasn't at all surprising to find people who knew your name as the person to write to with questions about PCBs by this time, was it?

A That is correct.

Q Did you know Mr. Richards personally?

A No.

Q Had you ever visited the Texaco facilities?

A No.

Q They were not a customer that you went to?

A That is correct.

Q In Mr. Richards' letter he asked for certain information about PCBs. Correct?

A Yes.

Q And your response, which is Exhibit 6, was written -- in fact, we don't -- you don't have a Received stamp on this letter, do you?

A No.

Q It looks like the mail service was pretty good.

A It does.

Q His letter is dated February 2nd, your response is dated February 4th. So you were very prompt in getting a response back to him, were you not?

A I tried to be, yes.

Q Were you always that prompt?

A When I was in the office I tried to keep up with it. Otherwise I would get inundated. It was a matter of survival.

Q Okay. Did you normally write the responses yourself?

A Yes.

Q Okay. So what we have here, then, is your response, not one written by somebody else for you?

A That is correct.

Q And did you give Mr. Richards a full and complete response to his inquiry?

A I'll have to read point by point, make the comparison.

Q Okay. Well --

A To answer.

Q You may want to do that. I really wasn't trying to find a particular flaw in it but just to make sure you fully responded in your mind.

A Well, it appears that my response answered his key questions.

Q Okay. And was it customary for you when you filed things to do it like this, to put the response letter together with the letter that was the inquiry

letter so you would have the two together in your filing system?

A No, this is not my way of filing.

Q I see. How did you normally file things?

A By subject chronologically. And the subject would be at my discretion as to which folder to put it in.

Q What sort of folders could Mr. Richards' letter have fallen into as you filed things?

A This probably fell into the customers 1972 folder.

Q Okay. And where would your response be filed, in that same folder?

A Yes.

Q And so the difference would be if there were any letters you received -- well, let me ask that. Did you file the letters by the date that you received them or by the date that they were dated? When you would file in that folder.

A The date they were dated.

Q Okay. So the difference between what we have here as Exhibit 6 and 6 A or whether or not it's filed exactly as it would have been is whether or not you would have received a document dated February 3rd or written a document dated February 3rd. Correct?

A Or written other documents February 2nd.

Q Okay. And then that -- how would you decide where they were filed in order if it was February 2nd?

A My secretary would put them in there by dates.

Q Okay.

A And we would have to go retrieve them manually and find them.

Q Okay. So depending on whether or not there were any documents that you wrote on February 2nd filed after this letter or documents you wrote on February 3rd, these might have been contained right next to each other in your filing system?

A Yes.

Q Was it your customary practice to maintain for your file copy of your document the type of document we have as 6, Exhibit 6?

A Yes.

Q Did the original go out on your letterhead?

A Yes.

Q But the file copy did not have your letterhead on it?

A No.

Q Did you sign the original document that went out?

A Yes.

Q But you didn't sign the copy that you retained for your file?

A No.

Q So what we have here is -- as Exhibit 6 is a correct copy, then, of the file copy you kept of that letter?

A Yes.

Q And what we have as Exhibit 6 A is a correct copy of the letter that you received from Mr. Richards to which you responded?

A Yes.

Q Did you ever have any further communication with Mr. Richards after you wrote him this response?

A I don't recall.

Q Did you ever, after you received Mr. Richards' letter, do any investigation to find out about the products that Texaco did purchase from Monsanto?

A I don't recall.

Q The reason I ask that, one of Mr. Richards' questions dealt with whether or not Monsanto Aroclors contained PCBs. Correct?

A [No reply]

Q Look at the last sentence in the third paragraph of his letter.

A The reason I'm hesitating, he doesn't use the word "Monsanto's Aroclors."

Q If you'll look at the last sentence in the third paragraph, I read that sentence to say Texaco has used --

A I'm sorry.

Q -- Monsanto Aroclors.

A You're right. You are right. He is asking that.

Q And it is obvious from the way that letter is written that Mr. Richards was under the impression that Monsanto Aroclors had no PCBs in them. Correct?

A Yes.

Q And your response points out that there are some specific series that have Aroclors as ingredients. Correct?

A Yes.

Q And other series that have PC -- I'm sorry. That was a --

MR. HALL: You're just following along. He meant to say had PCBs.

MR. LACEY: I certainly did.

Q Aroclors and PCBs generally in my mind are linked, but there's a slight difference. There are certain Monsanto Aroclors that have PCBs in them as a

constituent part. Correct?

A Yes.

Q There are other Monsanto Aroclors, items that go under that trade name, that have PCBs in them as a contaminant?

A Yes.

Q And the way you've written your response you cover both possibilities.

A Yes.

Q And it appears to me that you wrote the response without having to go and check the records and see which one they actually bought.

A That is correct.

Q And so you weren't sure whether they bought the products that had PCBs in them as a contaminant or the ones that had PCBs in them as a constituent part.

A That is correct.

Q And you never did go and actually determine which particular Aroclor they bought?

A No.

Q The letter also asks about some other names. In particular, he asks about what he calls Askarels, A s c o r a l s. Correct?

A I see that, yes.

Q And the Ascorals was a misspelling of the

term Askarels, A s k a r e l s. Correct?

A Well, I didn't at the time and to this moment know whether that's a misspelling or whether it's a trademark of some other kind that he is knowledgeable of. This is why my response -- I indicated I'm not familiar with that word unless he's referring to the generic name askarels, lower case a. I had no way of knowing what he meant by the word he used.

Q I see. There was a sufficient doubt in your mind or a sufficient question in your mind that what he meant to say was Askarels and misspelled it?

A This is why I went ahead and then pointed that out.

Q Okay. And, of course, Askarels were just a name for PCB-containing dielectric fluids. Correct?

A At that point in time Askarels did contain PCBs, you're right.

Q And they were dielectric fluids?

A Yes.

Q In fact, in some of the technical bulletins we looked at earlier this morning there was discussion by Monsanto of Askarel-type transformers.

A Yes.

Q And that was talking about PCB fluid transformers?

A Yes.

Q Okay.

He also asked in his letter for a list of trade names or series names of Monsanto products that contained PCBs. And your first paragraph sets out the various trade names or series that contain PCBs as a constituent part. Correct?

A Yes.

Q And that included the Aroclor 1200 series?

A Yes.

Q Now, you didn't mention the 1100 series. Is that because so little of it was sold for commercial purposes?

A That is right.

Q But Aroclor 1100 would also be a series that did contain PCBs?

A Yes.

Q The Aroclor 2000 series. Correct?

A Correct.

Q The Aroclor 4000 series?

A Correct.

Q Thermonol FR. Correct?

A Correct.

Q The Santovac 1 and Santovac 2. Correct?

A Correct.

Q The Pydrauls?
A Correct.
Q And the Montars?
A Correct.
Q Now, Thermonol FR was the heat transfer fluid that contained PCBs. Correct?
A Correct.
Q This was the type of PCB-containing material that was involved in the situations you've told me about when you were discussing the various lawsuits you've been involved in where there were heat transfer fluids that leaked into something. Correct?
A Correct.
Q The Pydraul, that's the industrial hydraulic fluids. Correct?
A Correct.
Q The type of things that were used in large presses and die casting machines and that sort of thing.
A Yes.
Q Montar. Was that the -- the bottoms of the Aroclor production?
A Yes.
Q And that had PCBs in it as well?
A Yes.
Q What was the Santovac 1 and 2?

A They were fluids used in vacuum pump systems. Santovac 1 was Aroclor 1242 and Santovac 2 was Aroclor 1248.

Q Mr. Richards also indicated in his letter that from time to time Texaco disposed of transformer oils in a manner that was similar to waste oils. Correct?

A I see that, yes.

Q And they were concerned about that practice because of the issues that arose with regard to PCBs.

A Yes.

Q In your response letter you talk about in the last paragraph of the first page disposal of scrap fluids by incineration. Correct?

A Correct.

Q And you reference a temperature exceeding 1600 degrees Fahrenheit. Why is that particular temperature so important?

A It takes very close to that temperature to achieve -- to achieve the total destruction of PCBs to reach three stable chemicals, one being water, the other being carbon dioxide and the third being hydrochloric gas.

Q If PCBs are burned at a lower temperature instead of creating those three chemicals other

chemicals can be created, can they not?

A Yes.

Q In particular, burning of PCBs at lower temperatures can lead to the production of dibenzofurans.

A I am told that, yes.

Q And can lead to the production of dibenzodioxins.

A I do not understand that is possible.

Q You do not?

A That is not.

Q I see.

A I'm told it's not feasible.

Q By whom have you been told that?

A Organic research chemists in Monsanto.

Q I see. You remember the transformer fire that we discussed in Binghamton, New York, yesterday?

A Yes, sir.

Q Did you ever learn enough about that to find out what chemical by-products were found in that office building following that fire?

A As we discussed yesterday, chlorodioxins and chlorodibenzofurans, PCBs and others were present or determined to be present.

Q I see. Where did you understand that the

dioxins that were present in the products of that fire came from?

A I understand they could have come from the incomplete incineration of chlorobenzenes that were also present in the fluid.

Q I see. And it is also your understanding, I take it, that they could not have come from the incomplete combustion of PCBs.

A From my understanding of chemistry and my discussions with professionals, I find it difficult to see how that can happen chemically. And that has not been demonstrated that I'm aware of.

Q We've got our graph or chart here again. Can you draw me on that chart a molecule of dibenzofuran and a molecule of dibenzodioxin?

A Yes.

Q And I think we need -- if we can use the red for the carbon again, the black for the hydrogen and the green for the oxygen, we'll be in good shape.

A All right. Let me -- [Drawing].

Q I think it's under that document that's laying there.

A There. That represents the dibenzofuran.

Q Okay. Let me get the court reporter to mark that before you turn the page.

[Exhibit 7 marked]

MR. LACEY:

Q Let me ask you, before we turn the page, on Exhibit No. 7, do we have your sketch of a dibenzofuran molecule?

A Yes.

Q Okay.

Are you going to put on the next page a dibenzodioxin for us?

A Yes.

Q Okay. That's fine.

A [Drawing] That is the dibenzodioxin.

Q Okay.

Let me ask the court reporter to mark that as the next exhibit.

[Exhibit 8 marked]

MR. LACEY:

Q Let me ask you, Mr. Papageorge, if Exhibit No. 8 represents your drawing of a molecule of dibenzodioxin.

A It does.

Q Let me ask you if I understand your testimony correctly. It is your understanding that in an incomplete combustion process PCBs can be converted into dibenzofurans as shown on defendant's exhibits -- or on

Deposition Exhibit No. 7. Correct?

A No. What I showed on Exhibit No. 7 is the nonchlorinated molecule.

Q Okay. If -- let me clarify that. Both the dibenzofuran and the dibenzodioxin that you have drawn as Exhibits 7 and 8 can be chlorinated compounds?

A Yes.

Q It is your opinion that in the incomplete combustion of PCBs, PCBs can be converted into chlorinated dibenzofurans. Correct?

A Correct.

Q But it is your opinion that in incomplete combustion of PCBs they cannot be converted into chlorinated dibenzodioxins. Correct?

A Correct.

Q And that opinion is held in part based on your knowledge of chemistry. Correct?

A Correct.

Q How long have you held the opinion that as a matter of chemistry chlorinated PCBs cannot be converted into chlorinated dibenzodioxins?

A I don't know that it happened on any particular day. It evolved to my present understanding at about -- it's after I was removed from PCB assignments. And at the moment it seems to me somewhere

in '77, '78, that period of time.

Q Did you hold a different opinion about the principles of chemistry prior to your removal of -- from the PCB area, and in specific I mean did you at that time hold the opinion that chlorinated PCBs could be converted into chlorinated dibenzodioxins by incomplete combustion?

A I had a suspicion based upon the presence of the benzene ring, chlorine and oxygen that under conditions that might be present those three types of chemicals could form the right combination to form the chlorodioxins. This was not based on any exotic science other than the presence of those three entities. And I followed very closely any research in those areas for several years until I reached this other point of understanding which exists today.

Q Explain to me the principles of chemistry which cause you to say that it is not possible for chlorinated dibenzodioxin to be formed from the incomplete combustion of PCBs.

A It has to do with the configuration as represented by this flat piece of paper. Where these molecules are in reality three-dimensional.

Q You're referring to Deposition Exhibit 8 when you are talking about the flat piece of paper?

A Yes.

Q Okay.

A This graphically shows the relative positions of the molecules, but it doesn't show us the configuration of three dimensions. And I am told in the very real chemical world the space between these points here is such that it prevents the easy introduction of an oxygen to displace the chlorines or hydrogens that might have been there in the first place and easily reached a double oxygen addition.

Q Well, of course, for chlorinated dibenzodioxins to exist at all we must have a compound that has achieved both in terms of a flat paper drawing, a drawing like that shown on Exhibit 8, and also whatever the true spatial relationship is in three dimensions?

A Correct.

Q So it is certainly possible to achieve that spatial relationship in order to create the chemical compound, is it not?

A Yes.

Q Now, are you telling me that it's your understanding that the probabilities of that compound being created in a combustion process from PCBs is low or that it is impossible?

A I'm not saying either one. It depends on the conditions. I'm saying that there are different routes to the production of that chemical, starting with different starting materials, and it might go very fast and very easily. So the probability under those conditions is extremely good.

Q My question is: Are you telling me that because of the spatial relationships, three dimensional, that exists in polychlorinated biphenyls that it is difficult or that it is impossible under incomplete combustion to achieve the relationships necessary to form chlorinated dibenzodioxin?

A I'm saying it's impossible.

Q Okay.

The PCBs actually produced by Monsanto were contaminated with dibenzofurans, were they not?

A Some of them.

Q Which ones were contaminated with dibenzofurans?

A I understand from analyses done that some batches of some of the Aroclors were found to have low levels of the polychlorodibenzofurans.

Q We're talking about a furan with more than one chlorine?

A Correct.

Q What is your understanding about the frequency with which Monsanto's PCB production was contaminated with chlorinated dibenzofurans?

A I have no feel for that at all.

Q When do you understand that Monsanto first started checking its PCBs for contamination with chlorinated dibenzofurans?

A It was in the spring, early summer 1970.

Q And when that check was first made, it was discovered that the PCB products were contaminated with chlorinated dibenzofurans, was it not?

A They were not. Nondetectable is the report I got.

Q I see. When were they next tested?

A There was a laboratory in the Netherlands testing PCBs from several suppliers. And the investigators at the University of Utrecht informed me that they found the furans in European made material, French and German material, but had not detected it in the Monsanto-produced material, and asked me to try to explain why the difference. So to me that indicated another laboratory also did not observe furans in Monsanto material.

Q I see. When were they next tested?

A I don't -- it must have been after '76,

because I don't recall any activity in the period '70 to -- through '75.

Q And I take it, then, it's your understanding when these next tests occurred in '76 that it was discovered that they were contaminated.

A The more sophisticated methodology was able to detect low levels. Somewhere in the three part per million range. And not all samples had it.

Q Now, the opinion that you have rendered in this case, which is Exhibit No. 3, and let me hand that back to you for a moment, deals with Monsanto's production of PCBs, does it not?

A Yes.

Q And the substance of your opinion is to describe that PCBs were made by taking benzene and in a heated state over catalyst -- is that correct, it's over catalyst -- making diphenyl? Is that correct?

A I am not aware of any catalyst in that process.

Q It was only heat?

A Heat and pressure.

Q Pressure. Okay. So it's a combination of heat plus pressure, as opposed to catalyst, by which benzene is converted to biphenyl or diphenyl. Correct?

A I don't refer to that in this document.

Q I'm sorry. I see. You start only with the biphenyl?

A Yes, sir.

Q Were you responsible for the plant that made the biphenyl?

A Yes.

Q Okay. But you're not an expert in how that was made?

A I was not asked the question. I can answer it just as well as I could this particular question.

Q I see. Well, in fact, that document was — drafted before you were asked any question, wasn't it?

A True.

Q Okay.

Well, let's go back, then, and talk about the process by which the biphenyl was made.

A All right.

Q The plant started with benzene acquired from other sources, did it not?

A Yes.

Q And the benzene was heated under pressure to make biphenyl. Is that correct?

A Correct.

Q Now, if oxygen were present in the process by which benzene was converted to biphenyl, furans could be

made at that point, could they not?

A It's possible.

Q Then the biphenyl which is separated out from any other products that are made when the biphenyl is made, terphenyl -- right?

A Yes.

Q Unreacted benzene?

A Yes.

Q And you attempt to obtain a pure biphenyl to start the next process. Correct?

A Yes.

Q Would that purification process, if operated properly, remove any dibenzofurans made when benzene is converted to biphenyl?

A I don't know the boiling point of dibenzofurans. So I -- I cannot answer your question. I don't know where it would appear.

Q Okay. Then you take biphenyl and again in the presence of heat -- and is there a catalyst at this point?

A Yes.

Q -- and a catalyst, you add chlorine to obtain PCBs. Correct?

A Correct.

Q And again, if oxygen is present in that

process you can create dibenzofurans and chlorinated dibenzofurans during the process of making PCBs, can you not?

A It's possible.

Q Well, we know it's more than possible, because measurements were made that found furans in PCBs, don't we?

A Yes. But we don't know where in these multiple steps they were formed. And your questioning implies they were only formed in that particular step. I don't know.

Q Okay. So what you're telling me is they could have been formed in the step by which benzene was converted into diphenyl. Right?

A Could be. That was why we said possible.

Q They could have been formed in the step by which the diphenyl is chlorinated into PCBs?

A Possible.

Q And if we have PCBs in which that product dibenzofurans or chlorinated dibenzofurans is found we know that in one or the other of those two steps they are being produced. Correct?

A Might be in the third step.

Q That's the purification step?

A Yes, sir.

Q All right. Well, let's talk about that just very briefly. The purification step involves heat, does it not?

A Yes.

Q And again, if there is oxygen present in the purification step then during the purification process dibenzofurans or chlorinated dibenzofurans may be created.

A Yes.

Q So if we have a PCB product manufactured by Monsanto in which chlorinated dibenzofurans or dibenzofurans are found, we know that in one of the three steps, either the manufacture of the diphenyl, the chlorination of the diphenyl or the purification of the PCBs the furans or chlorinated dibenzofurans have been created. Correct?

A All right.

Q That is correct?

A Correct.

Q Now, I understand you to have told me that there were specimens of PCBs that had no dibenzofurans in them. Correct?

A I told that, yes.

Q What that means is that it was possible to make PCBs without creating dibenzofurans. Correct?

A Correct.

Q And it was only when Monsanto failed to make the PCBs correctly that they allowed oxygen to be introduced into the system in some place that dibenzofurans were made. Isn't that correct?

A Well, the oxygen has always been present. When you add lime to neutralize the material, the oxygen associated with the lime has been present in every batch of PCBs produced by Monsanto. The system itself is blanketed with nitrogen, so oxygen from the air is a very remote possibility. The European producers use lye sodium hydroxide, a more aggressive agent. So their ability to introduce oxygen is greater by that process. So there really is no change in the process, but something chemically is happening that today we don't understand.

Q There are certain batches that made according to your specifications don't have furan contamination?

A That's my understanding.

Q Are you telling me that there are other batches that everything works perfectly but they just pop up somewhere?

A That's the way it appears, yes.

Q I see. And is there any process by which they can be purified to remove the furans?

A I personally do not know.

Q Did Monsanto ever make any effort, to your knowledge, to remove the furans that contaminated its product at least from time to time before it was sold?

A Not to my knowledge.

MR. LACEY: Why don't we take about a five-minute break.

[Recess]

VIDEO OPERATOR: This is the continuing deposition of William B. Papageorge. It's May 20th, 1987, at 2:18 p.m. We are back on the record.

MR. LACEY:

Q Mr. Papageorge, let me show you a document, No. 56290, and ask you what this refers to.

A It obviously refers to a meeting that I'm calling on the subject of PCB dibenzofurans and FDA.

Q The FDA is the Food and Drug Administration?

A Yes.

Q And the dibenzofurans you're talking about are dibenzofurans that were contaminants in the PCBs made by Monsanto?

A I don't think -- I don't recall the specifics.

Q I see. You don't recall anything about why that meeting was called or anything else?

A No. I'll have to refresh my memory on that. I just don't recall anything about that.

Q Let me show you another document. That meeting was scheduled when?

A June the 10th, 1975.

Q Let me show you another document, dated June 13th, 1975, written by you regarding PCB furans, 56289, and ask you if that helps you recall what these meetings with the FDA about furans were all about.

A I recall now some of the discussion. This was in response to an FDA inquiry regarding: Are there any chlorinated dibenzofurans in your PCBs? And this meeting was called to develop a program to get the right answers to that question.

Q And in fact it was when Monsanto undertook that investigation in response to the FDA request that it found furans in its PCBs?

A Eventually, yes.

Q Prior to that time Monsanto had been of the opinion it had no furans in its PCBs. Correct?

A Based on earlier analytical results with less sophisticated methodology, yes.

Q And part of the reason that the meeting called for the development of a more sophisticated analytical methodology was that Monsanto was concerned

about assuring the FDA of the absence of furans based on the methodologies they had previously used. Correct?

A Correct.

Q Simply put, they weren't reliable enough to base information on for the government?

A They were reliable to the level that we claimed we could detect. The FDA wanted a method that could detect to lower levels.

Q The FDA was concerned that furan contamination at a level that you previously could not detect could nevertheless be harmful?

A I don't know.

Q You don't know why --

A They didn't express that.

Q I see.

Did you ever learn anything about the toxicity of dibenzofurans and chlorinated dibenzofurans?

A I recall references to highly toxic properties of these materials. I personally am not aware of any sophisticated animal studies to demonstrate this nor am I personally knowledgeable of any known human exposure at known levels that are related to human health problems.

Q Do you hold the opinion that dibenzofurans are more toxic than PCBs, less toxic than PCBs, about

the same as PCBs, or have no opinion whatsoever?

A I have no basis for making a comparison. I just do not know.

Q Okay. So this study of furan contamination in PCBs was an exercise that Monsanto undertook simply to satisfactory an FDA request?

A I think it was more than that. It was to satisfy -- not simply to satisfy FDA requests but to satisfy an FDA request as well as assure ourselves.

Q Well, Monsanto had not been seeking any assurance for itself until the inquiry came from the FDA. Correct?

A That is correct.

Q It was only in response to the FDA inquiry that Monsanto undertook to develop the methodology and the other things necessary to satisfy the FDA?

A Yes. On a semivoluntary basis. There was no requirement on the FDA's part. We just decided, rather than tell FDA we don't know, to try to find out.

Q Well, at the time you undertook this testing in response to FDA request, Monsanto was still attempting to influence various government agencies to take no action to ban the manufacture of PCBs. Isn't that correct?

A That is correct.

Q Because this was before the time that you reached the opinion or the decision that it was appropriate for Monsanto to cease the production of PCBs. Correct?

A Correct.

Q And therefore the corporate policy was still to produce PCBs and plan to the foreseeable future. Correct?

A Correct.

Q Let me show you a memo dated November 10th, 1975, written by you to Dr. Calandra. He was with Industrial Biotest. Correct?

A Correct.

Q Dr. Roush and J. C. Weber. Document 1487, 1488.

A I recall the document.

Q That memo sets forth the agenda for a visit by you and Dr. Calandra, Dr. Roush and I'm not sure, Mr. Weber, I guess, to Washington, D.C., to meet with a number of federal agencies.

A Yes.

Q At the time that that meeting was undertaken had you already reached the opinion that Monsanto should cease the production of PCBs?

A I personally had in my own mind reached that

point.

Q Had you advised Mr. Fitzsimmons of that yet? Or was it Fitzgerald? I can't remember the name.

A Mr. Fitzgerald.

Q Fitzgerald.

A I don't believe I advised Mr. Fitzgerald until at or close to Thanksgiving Day. So it was several weeks later.

Q Was it after this series of visits that you had to Washington?

A Yes.

Q Those visits related in part to presenting Monsanto's position to these various agencies and in trying to influence them not to back the provisions in the proposed Toxic Substances Control Act that would ban the manufacture and sale of PCBs. Isn't that correct?

A I did not personally view it as that being the objective. The objective here was to respond to the findings of Dr. Renate Kimbrough and present Dr. Calandra's and Dr. Poor's opinions regarding the findings of the Industrial Biotest studies and their interpretations.

Q Dr. Renate Kimbrough had done studies with Monsanto PCB products on rats. Correct?

A She -- I don't know that she was -- many

product -- a product.

Q Okay. Dr. Kimbrough had taken a particular Monsanto PCB and undertaken a study of its toxicity on rats. Correct?

A Correct.

Q And the results of her study found that that PCB caused cancer. Correct?

A I think it's more correct to say that the pathologist who helped Dr. Kimbrough in the evaluation of the tissue samples concluded that he observed precancerous cells in the liver tissues.

Q To a layman, can you say that they caused cancer? Or you don't agree that's what the bottom line was?

A If in truth he saw precancerous cells, then a layman could rightfully say that cancer could form.

Q Okay.

A The question is: Did he really see that? And that's the discussion.

Q All right. Now, in that regard, Monsanto was obviously as a manufacturer of PCBs not pleased with the suggestion that its products caused cancer. Correct?

A Correct. Because it had no confirming reports from anywhere to support that.

Q Well, the only studies that Monsanto had done

that related in any way to whether PCB compounds could cause cancer in rats were the studies that Monsanto had commissioned at IBT. Correct?

A At this point in time?

Q Yes.

A Yes.

Q And, of course, those studies had come back giving PCBs a clean bill of health in that regard. Correct?

A If by your expression "in that regard" in terms of cancer findings. Otherwise they were not given a clean bill of health.

Q The Industrial Biotest study reports that were written, the final reports after revisions to the drafts, concluded that PCBs were not carcinogenic. Right?

A Correct.

Q Okay. And that was at odds with what Dr. Kimbrough had found. Correct?

A Correct.

Q Obviously that creates some amount of confusion and question in people's minds about what to conclude and how to understand it. Correct?

A Correct.

Q And at this point in time the problems at

Industrial Biotest have not yet come to public light. Correct?

A 1975. That is correct.

Q I mean you wouldn't have been taking Dr. Calandra with you to influence government agencies after he had been indicted for his conduct at Industrial Biotest, would you?

A Probably not.

Q That wouldn't be very persuasive?

A That is correct.

Q In fact, after the indictment and the conviction of certain principals in Industrial Biotest, that work is of very questionable scientific reliability. Correct?

A In some quarters, yes.

Q Well, can't you agree with me that work done by a scientific laboratory where the principals have been convicted of falsifying test results and submitting false reports to the government would not be the type of material that scientists would ordinarily rely on in forming opinions about matters?

A It would certainly cast a doubt on the data. But if the data were reviewed, audited for flaws, it's conceivable that some of these studies were not affected by whatever the individuals were accused of.

Q Well, if the falsification involved substituting new animals in place of dead animals, writing down measurements that did not exist and the like, then that would make the entire body of the matter suspect, would it not?

A Suspect, yes.

Q Okay. And the mere fact that a laboratory's work has subsequently resulted in the criminal indictment and conviction and affirmance on appeal of principals in that laboratory would be something that scientists would take into account in reviewing and relying on that literature, isn't it?

A I don't know.

Q Would you take it into account as you evaluated the literature?

A As a layman? I would have to seek some professional interpretation of the raw data. I would be in no position to evaluate.

Q I see. And you have no opinion one way or the other whether or not a scientist, person trained in the sciences, would give any -- or in any way give any less credibility to work done by a lab like that than a lab that had no problems at all?

A There could be less credibility but with further review that credibility could be confirmed,

supported or the data be thrown out altogether. It depends on the re-evaluation.

Q Okay. At a minimum, those facts would call for re-evaluation and careful reconsideration?

A Correct.

Q Now, at this point in time, when you are taking Dr. Calandra to Washington with you, there is no such pall over Industrial Biotest's work, because this hasn't yet happened?

A Correct.

Q Now, before Dr. Calandra and you and Dr. Roush went to Washington to talk about the proper interpretation of the Kimbrough work, Monsanto arranged for Industrial Biotest personnel to review Dr. Kimbrough's slides, pathological slides, did it not?

A Yes.

Q And that was done in order to determine whether or not the pathologist's reading of those slides that was associated with Dr. Kimbrough's work was a reading that was accurate or inaccurate. Correct?

A I don't know that this type of science lends itself to a black and white accurate/inaccurate interpretation.

Q Let me rephrase it.

MR. HALL: I don't think he's quite through.

THE WITNESS: Just based on what I know, the individuals asked to review the slides so that they could confirm that in truth the pathologists that looked at them originally was interpreting the way they, too, would interpret them. Dr. Kimbrough's pathologist was also permitted to look at Monsanto tissue slides. The FDA in the meantime had been given Monsanto Industrial Biotest slides long before this point in time, but for reasons unbeknownst to me had not reviewed them. And this is the situation that we faced at that visit.

MR. LACEY:

Q Okay. Well, I take it you are not in agreement that one can be correct or incorrect about pathological results, then.

A I was privileged to look through a microscope set up in my hotel room when some of these slides were reviewed. I'm not a toxicologist. But it strikes me as a very subjective distinction of various shades of pink that the pathologist tries to interpret. I can readily see where a difference of opinion can easily exist.

Q Let me try to ask it this way: After the Industrial Biotest personnel or whoever they arranged to have review the slides reviewed Renate Kimbrough's slides, did they conclude that the pathologist who had done the work for Dr. Kimbrough's study reached a

conclusion that they, too, would reach?

A No.

Q And from whom did you get that report?

A I believe Elmer Wheeler described to me the findings of those discussions.

Q Did Monsanto receive a report from Industrial Biotest pathologists that gave their review of those slides?

A I recall a report signed by Dr. Calandra which summarized the findings. I do not recall seeing a report where slide by slide the evaluation was described, nor did I see a summary of all those observations.

Q Was Dr. Calandra a pathologist?

A Yes, I understand he's a medical doctor majoring in pathology.

Q Was it Dr. Calandra who reviewed those slides of Dr. Kimbrough and concluded that there was no evidence of cancer?

A I don't know.

Q Were you present at the meetings where Dr. Calandra presented the Industrial Biotest view on the Renate Kimbrough study?

A Yes.

Q But you don't recall whether Dr. Calandra

indicated it was his own work as a pathologist that he was reporting on or the work of others?

A I recall it's the work of several. I don't know if Dr. Calandra is one of the pathologists involved.

Q I see. Did he report that all of those several pathologists were in agreement that the slides did not show anything that we as laymen would call cancer?

A That is correct.

Q And were people within the medical department at Monsanto aware of the opinions that Dr. Calandra was going to render on behalf of Monsanto in these meetings with the various government agencies?

A Yes.

Q Did anyone in the medical department advise you of any concern about Dr. Calandra rendering the opinion that the pathologist who had reviewed those slides on behalf of Monsanto were of the opinion that they did not show any cancer or precancer or anything that we as laymen would refer to as cancer?

A That is correct.

Q And that had been approved by the appropriate people within the medical department?

A Yes.

Q On how many occasions did Dr. Calandra go with Monsanto people to various meetings and groups in an attempt to support Monsanto's position that PCBs could not cause cancer?

A I personally don't know all the meetings that Dr. Calandra may have attended with Monsanto personnel.

Q How many are you aware of?

A I am aware of the series of meetings described in the last exhibit and he also made a presentation before the symposium on PCBs held in Chicago later in November of 1975.

Q That was at Monsanto's request?

A I don't know that it was Monsanto's request. The organizers, the EPA organizers of the meeting wrote to Monsanto asking for speakers. And Dr. Calandra was suggested as a speaker on this animal study subject. And he -- the suggestion was accepted and he appeared on the program. I believe I recall an additional session where Elmer Wheeler and Dr. Calandra and I went to Washington EPA to discuss the status of the animal studies that were not yet completed but approaching completion. I believe that would -- that was about -- that would have to be in 1971. Other than those three meetings with government officials, I don't know what other meetings Dr. Calandra might have been involved

with.

Q When Dr. Calandra went and met with governmental officials on behalf of Monsanto, was IBT compensated for his work and time?

A I don't know.

Q You don't know if when you asked him to accompany you to Washington in 19 -- November of 1975 he was going to be paid for his time?

A I don't know.

Q Did Monsanto compensate IBT for performing studies for them?

A Oh, yes.

Q And the question in your mind, I take it, is whether this business of making presentations was included in the price you paid for the studies.

A That I don't know.

Q But I mean is that the question whether he was compensated or not is whether or not it was a separate compensation for each specific thing he went to versus being covered in the overall price?

A That is right.

Q But in any event he was paid for what he did?

A His company was paid.

Q Yes.

A Yes.

Q And whether paid as part of the price for the study or paid individually, that went into the hundreds of thousands of dollars IBT got over several years in doing work for Monsanto. Correct?

A It very likely did. Dr. Roush's department approved the invoicing and the pay -- pay arrangements and the contractual arrangements that were developed.

Q That was one of the things that was excluded from that proposed job description was the budgeting for things like this?

A Yes.

Q And you didn't have to worry about what it cost?

A That is correct.

Q Okay.

Let me show you a letter dated June 2nd, 1970, from you to a Mr. Sprouse with -- I guess it's with the TVA. It's not quite clear. Document 16741, 16742.

A I have read it.

Q Do you recall writing that letter?

A Yes, sir.

Q As part of your job and responsibilities at Monsanto?

A Yes.

system so that the conclusion would be that the current -- then current, 1972 program of Monsanto with regard to PCBs should not result in further regulation?

A That was Monsanto's conclusion that we shared with the audience, yes.

Q And the net result of that was, then, that this was a document suggesting by its presentation of the facts as Monsanto saw them an argument for nonlegislative action and nonregulatory action on PCBs?

A Yes.

Q Okay. Now let me just show you the document that was the presentation to the interdepartmental task force marked 817 through 886 and ask if that isn't in fact the presentation that was made.

A This appears to be a copy of the presentation made in May of 1972.

Q And in fact included in that presentation to this interdepartmental task force was a summary of the IBT work for Monsanto. Correct?

A I didn't see that.

Q I thought there were some charts -- maybe I'm mistaken. I thought there were some charts and the like that presented information on those animal studies.

A There are charts here that show the analysis of animal tissues for PCB content. The animal tissues

were obtained from the test animals at IBT. But there's a sort of a corollary study in the analytical chemistry laboratory as distinguished from a health effects study on the animals.

Q But that was based on what would be found in animals that had been fed PCBs in a certain quantity for a certain period of time, was it not?

A That is correct.

Q Now, not everyone who asked for information from Monsanto got the information they wanted. Correct?

A Probably not.

Q Let me show you a letter that you wrote dated June 27th, 1972, to Ms. Vicki Roper with the EPA, Document 19813.

A I have read it.

Q She asked for some specific information bulletins about PCBs and was told that those were not available. Correct?

A That is correct.

Q Now, was that because Monsanto no longer had any copies of those bulletins?

A They had a reserve copy in the central library in the -- sort of the historic vaults, but they did not have copies to issue freely at request.

Q Was it a problem to make a photocopy of one

Q In that letter you talk about the disposal of PCB-containing dielectric fluids. Correct?

A Correct.

Q You sent that letter to the TVA because you recognized that they used PCB-containing dielectric fluids. Correct?

A Correct.

Q Did the fact that they got that letter indicate that Monsanto had previously sold PCB-containing dielectric fluids directly to the TVA?

A [No reply]

Q I guess another way of asking that is: Did you send that to everybody who was on your customer list?

A No. This particular memo was sent at the request of our sales representative, Mr. Randall Graham, who called me and asked me, "Would you write to Mr. Sprouse? They've got some Askarel units, they've got some leaks there and he wants to know what to do with the leaks."

Q I see. So the letter was sent to the TVA because Monsanto was aware of a problem of leaks of PCB dielectric fluid in and among the electrical equipment they had?

A Yes.

Q And the letter discusses the disposal opportunities that Monsanto could make available or how it could be disposed. Correct?

A Correct.

MR. LACEY: Bob, may I see the letter?

MR. HALL: Sure.

MR. LACEY:

Q The letter discusses the fact that Monsanto itself had built some type of incinerator or disposal facility that could be used by paying three cents a pound to Monsanto to get rid of the PCBs?

A It does.

Q It also indicates that it could be incinerated at temperatures exceeding 800 degrees centigrade. And that would be if they wanted to incinerate it themselves?

A Yes.

Q And the reason we have the 800 degrees centigrade is another way of saying in a different temperature scale high enough to have complete combustion?

A Correct.

Q Because at lower temperatures incomplete combustion may form, at least in your mind, chlorinated dibenzofurans. Correct?

A At least. And other unknowns.

Q Okay. But not dioxin?

A Highly unlikely.

Q Okay. In this letter did you provide any information to the TVA about what measures it should take to protect its workmen from exposure to these leaking PCB dielectric fluids?

A No.

Q Do you know whether or not technical bulletins and the like had previously been supplied by Monsanto to the TVA which would contain that information?

A No.

Q So it is possible that at the time you wrote this letter TVA had no information from Monsanto about how to safely handle PCB-containing dielectric fluids. Correct?

A Possible, but highly unlikely.

Q What you would expect is that they would have had such technical bulletins and written information from Monsanto available to them?

A Certainly. Or from the supplier of the units that they purchased.

Q Well, I'm particularly interested in whether or not you would expect that they would have materials

from Monsanto itself relating to PCBs.

A I would expect that Mr. Graham would have supplied them as part of his job.

Q And is one of the reasons that you didn't supply any information in that letter about the safe handling of PCBs by workmen that you assumed that those materials had already been supplied by Mr. Graham?

A Yes, sir.

Q Did you ask Mr. Graham whether he had supplied those materials?

A I don't recall the question just in those words, but the discussion over the phone was one of, "How about people exposures?"

"Everything looks good."

I was reassured by Mr. Graham's words that things were in order.

Q Mr. Graham led you to believe that they already had the information from Monsanto about personal exposure?

A That is correct.

Q You provided a lot of information to a lot of people over time as you held this job from 1970 to 1976, did you not?

A Yes, sir.

Q And just by way of example, and we don't have

enough time if we had several days here to go over every letter you wrote in that three-year period or six-year period, I don't think, but let me hand you a group of documents that I think consist exclusively of one-page transmittal letters dated in the summer of 1972, Documents 517 through 550, and ask if these are the sorts of letters you would write providing Monsanto documents or documents that Monsanto thought might be of interest to people about PCBs.

A This particular group of letters signed by me address a specific report that we had made in Washington and sent copies to the recipients as shown here. But as typical of the kinds of things we were trying to do in covering customers, laboratories, regulatory agencies.

Q Were letters like that sending out information sent only to those who had asked for the information?

A No. This is an example of none of these people -- to the best of my ability to peruse this document -- asked for a copy.

Q They were all getting this on an unsolicited basis, then?

A That is correct.

Q And you selected those people, I guess maybe among others, because you thought it might be important

for those people to know Monsanto's position and somehow might be influenced by it?

A The primary reason for sending to these people is because these individuals, from my vantage point, were the most active and the most interested. And I would meet them at meetings and they would call me on the telephone. So I developed a list of those people who seemed to be genuinely interested in the subject and would not be disinterested in what I might have mailed them.

Q You certainly didn't just pick up the phone book and start copying down names and mailing them off that way?

A That is correct.

Q But my question, I guess, is: You mailed them to people who might be able to understand the information and who would at least know what PCBs were?

A True.

Q The point of mailing this unsolicited information was to provide these people with Monsanto's view on PCBs.

A Correct.

Q And that view, of course, was somewhat different than views espoused by others, like, for example, Congressman Ryan, who thought they ought to be

banned?

A I don't know that that fits this particular item discussed in these letters.

Q That's the presentation to the interdepartmental task force?

A Yes. This presentation centered on the apparent ability for some PCBs to biodegrade and brought up to date the task force -- to the task force Monsanto's program for limiting sales. It really did not, in my opinion, try to establish in any concrete way what should be banned and what should not be banned. It just reported the status of things in May of 1972.

Q Well, didn't the presentation -- strike that.

Wasn't the presentation designed to present the view that the most environmentally persistent homologs or congeners, whatever the appropriate word is of PCBs had been removed from mass use by the use of 1016 and the plan to have lower average weight chlorinated PCBs in transformers to present the picture of the closing of the loop, as Monsanto referred to it, in order to ensure that PCBs would not in the future be getting into the environment and therefore -- and also to present information on the position that it was necessary to continue to sell PCBs for dielectric use from a standpoint of having a satisfactory electrical

of those documents and send it to the Environmental Protection Agency?

A No, there's no problem. It's just that the volume or the bulletin I offered to send her covered the same information.

Q She asked for two specific bulletins and got neither one.

A That is correct.

Q Those bulletins existed within Monsanto? Correct?

A Yes, yes, we had a copy.

Q They could have been copied and sent to her but were not?

A That's right.

Q Okay. There were other people who wanted information from Monsanto. For example, there was an interest in sales figures. Correct?

A Yes.

Q Monsanto refused to supply that information.

A Yes.

Q There were people who were interested in the names of the customers to whom Monsanto had sold PCBs. Correct?

A Correct.

Q And Monsanto refused to supply that.

A Yes.

Q In both cases the request for that type of information came from governmental agencies. Correct?

A Correct.

Q But that was not forthcoming from Monsanto?

A Monsanto offered the data. What was not forthcoming was the agency's willingness to accept this data as confidential material and used for their purposes without divulging it publicly.

Q Monsanto wanted some way to keep it under wraps, in other words?

A Well, the proper terminology is keep it confidential. We even sent a copy to a government agency registered, certified mail, which was returned unaccepted.

Q Because it had a confidentiality agreement associated with it?

A Correct.

Q And said you couldn't use it unless you sign this?

A Correct.

Q There was correspondence back and forth between Monsanto and Congressman Ryan about PCBs, were there not?

A Yes.

Q The correspondence -- let me just show you first a letter from Congressman Ryan to Mr. Edward Bach, who in April of 1970 was the president and chief executive officer of Monsanto. Correct?

A Correct.

Q Dated April 9th, 1970, Document 43921 through 43927. And it has attached as a part of that package a -- what appears to be a draft response.

A I have reviewed it.

Q You received a copy of that letter from Congressman Ryan before Monsanto sent its response to him, did you not?

A I don't recall whether I received a copy or was shown a copy. But I was aware of it.

Q Okay. Let me show you another document, 42849 through 42852, and ask if that isn't a draft response which was reviewed by you for your comments.

A Yes. This is a draft response reviewed by me.

Q Then let me show you what I believe is the actual response, a letter dated April 28th, 1970, signed by John Mason, Document 43907 through 43910, and ask if that isn't the actual response that was provided.

A This appears to be a draft of the response -- the final version of the response to Congressman Ryan.

Q Do you recall that Congressman Ryan found the response unsatisfactory?

A Yes.

Q And he wrote another letter to Monsanto in response to its response to his initial letter, did he not?

A He did.

Q Let me show you a letter dated June 18th, 1970, No. 43928 through 43930.

A I have reviewed this document.

Q There are certain things that he points out were requested in his initial letter that were not addressed in the Monsanto response. Correct?

A Correct.

Q One of the things that he asks for are copies of technical bulletins. And he's still asking for that in his second letter. Correct?

A Correct.

Q He also inquires about whether Monsanto has advised people of the uses that have been discontinued and the uses for which PCBs are no longer thought to be satisfactory. Correct?

A Correct.

Q Did you review that second letter and provide a draft response to it?

A I did not provide a draft response. I reviewed a draft of a response prepared by Mr. Mason, John Mason.

Q The letter that was sent to Congressman Ryan on April 28th, 1970, by Monsanto specifically rejected his suggestion that Monsanto provide a complete list of the uses for PCBs that had been recommended by Monsanto and the names of the products and manufacturers who had used PCBs in their products. Is that correct?

A That is correct.

Q In fact, Monsanto had a policy of refusing to disclose to even its customers the specific blends in products that it sold, did it not?

A Yes.

Q And in fact even here as we are in May of 1987, almost ten full years since Monsanto has last manufactured and sold a PCB-containing product, that policy is so strong in your mind that you had doubt about whether to reveal the constituents in one of the PCB-containing Pydraul products. Correct?

A Correct.

Q It was the -- that type of policy by Monsanto that made it difficult for customers to fully know what was in Monsanto products. Correct?

A Yes.

Q And could lead to the type of confusion or misunderstanding that was demonstrated, for example, by Mr. Richards at Texaco, who didn't appreciate the fact that the Aroclor trade name was a trade name under which many PCB products were sold. Correct?

A Well, Mr. Richards, if he had read the literature, would have known that Aroclors contain polychlorinated polyphenyls, because even the labels contained, or the literature. Or at least he would know that they were chlorinated hydrocarbons.

Q There's a difference between being a chlorinated hydrocarbon and being a PCB, isn't there?

A Well, one term covers the whole family of chlorinated hydrocarbons.

Q I understand. But to say we have a chlorinated hydrocarbon is not the same thing to say we have a PCB?

A No, they are not the same.

Q All PCBs are chlorinated hydrocarbons?

A Correct.

Q But the family of chlorinated hydrocarbons is made up of literally thousands of different chemicals?

A Correct.

Q And PCBs are only a very small part of that family?

A Correct.

Q So to know that one has a product that contains chlorinated hydrocarbons is not to know that one has a product containing polychlorinated biphenyls. Correct?

A Correct.

Q So again, this Monsanto policy of not disclosing the chemicals that went into compounds, of not disclosing the names of products that had PCBs would contribute to confusion not only by customers and the public generally but even by -- even to chemical companies who purchased Monsanto products. Correct?

A It's correct only if you designate -- if you are describing the situation long ago. But the letters as similar to Dr. Richards from Texaco in 1970s indicates to me that Dr. Richards has not read his mail or has not read the labels, because the labels say: This product contains chlorinated biphenyls which studies have found, and on and on. So the presence of PCBs was not hidden once Monsanto was aware of the problem.

Q These labeling situations changed about 1970 or '71?

A 1970 was the first change relating to environment and the reference to PCBs, yes.

Q Prior to that time one would not be able to ascertain from any product label that it contained PCBs, would they?

A There were some product labels that referred to poly -- to chlorinated polyphenyls for a period of time. Other than that, they just referred to chlorinated hydrocarbons.

Q And Dr. Richards -- I'm sorry, not Dr. Richards, Mr. Richards, the industrial hygienist at Texaco, questioned -- you say indicates he hadn't been reading his mail well. Is that correct?

A Yes.

Q And that's because you believe in his mail he would have these technical bulletins and these other things that Monsanto supplied to people like him?

A Or at least he would have a memo that says: This could be an environmental problem, it contains PCBs.

Q Is it also possible that the fault didn't lie with Mr. Richards in failing to read the material Monsanto supplied but instead the fault lay with Monsanto in failing to get the material to him?

A That's a possibility, yes.

Q Let me show you a letter dated June 30, 1970, Document 28970 through 28975, and ask if that isn't

Monsanto's response to Congressman Ryan's second letter to Monsanto.

A This appears to be a copy of the response to Mr. Ryan's second letter.

Q And in that letter Monsanto still did not provide all the information that Congressman Ryan was requesting. Correct?

A That is correct.

Q Did Monsanto ever supply Congressman Ryan with all the information that he requested about PCBs?

A No.

Q That second letter went to several people at Monsanto, including the lawyers that were part of this policy team that you were involved with. Correct?

A It's a single person. The lawyer.

Q One person? The lawyer?

A Yes, sir.

Q Mr. Park?

A Yes.

Q What was Mr. Park's role on this matter? Was there some legal proceeding that he was involved in?

A No, Mr. Park was part of the task force that addressed PCB issues of all types, and he was a regular member and no particular issue legally was involved. He was our legal consultant for all matters.

Q And that involved in the committee's work many general business considerations of a nonlegal nature?

A Oh, yes.

Q And he participated in all of those matters?

A Not all. Some. Many times he would excuse himself from the meeting.

Q To take care of other matters?

A Presumably so, yes.

Q I guess what I'm trying to find out is whether Mr. Park only appeared when there were legal — questions and limited his comments and observations to legal matters.

A Mr. Park was invited to all sessions. He would try to attend. And he would comment on legal matters when appropriate.

Q Did he comment on nonlegal matters? Did he have an input into the business decisions of the company?

A No. He would avoid those.

Q I see. Was it thought that the policies that the company was developing had legal implications for the company?

A That's a constant thought.

Q Okay.

A Every decision can have legal implications.

Q Did Mr. Park keep the committee advised of lawsuits that were being brought against the company as a result of PCBs?

A When Mr. Park was actively involved, I don't recall any lawsuits relating to PCBs being filed. Later, when they were filed, I don't recall Mr. Park being actively involved. There were other attorneys involved.

Q Well, was the committee, the business group on the committee, familiar with lawsuits being filed against the company related to PCBs?

A Yes.

Q And were they generally familiar with the types of claims being raised in those lawsuits?

A In a general way, yes.

Q So they would be familiar with whether or not an individual who was a plaintiff in a lawsuit was claiming their health had been adversely affected by PCBs?

A Yes.

Q Did the committee take the claim of people that they had been injured by PCBs into account in its policy making? Or were those simply rejected as unmeritorious claims that would ultimately be proven

false?

A The committee existed through about -- and I don't recall the exact date when it sort of disbanded informally -- through maybe 1972. There were, to my recollection, no lawsuits filed claiming human health effects. Therefore, the subject never came up.

Q Okay. And after that time when the committee was disbanded, in about 1972, were you during the remainder of your work for Monsanto kept aware of lawsuits that were filed in which people were claiming to have been injured because of PCBs?

A I was kept aware of some. I don't know if that represents all.

Q And did you take the fact that those lawsuits were filed into account in trying to assess whether PCBs might be causing human injuries and the type of injuries they might be causing?

A Certainly.

Q So you did not reject out of hand, then, the claims being made by the plaintiffs in those lawsuits about the types of injuries they had sustained?

A That is correct.

Q And did you in your role advise others in the company that they ought to be cognizant of the possibility that PCBs might be causing injuries of the

type claimed by those people?

A Certainly.

Q You took an active role on behalf of the company in trade associations and industry groups dealing with the PCB-related matters, did you not?

A Yes.

Q For example, the National Electrical Manufacturers Association came out with standards on PCB electrical equipment, did it not?

A They came up with handling guidelines, yes.

Q And those handling guidelines were proposals that would permit the continued use of PCBs in dielectric equipment, capacitors and transformers?

A Yes.

Q And they contemplated the continued manufacture by Monsanto of PCBs and its sale for dielectric purposes?

A Yes.

Q You were an active participant in the group that came up with that proposal?

A Yes.

Q And that was something that was a part of your regular work with Monsanto?

A It became a part. Monsanto is not a member of that association.

Q And yet for this particular situation Monsanto was involved in coming up with the NEMA proposals on PCB transformers?

A Monsanto did not come up with those.

Q I said Monsanto was involved in coming up with them.

A Yes.

Q And made specific proposals consistent with its continued production and sale of PCBs.

A We made no proposals. I was chairman of the committee.

Q Okay. Well, that's some level of involvement, isn't it?

A Certainly. I assigned two teams of individuals to subcommittees who then worked on the guidelines. My role was to call for the meetings, to make certain that progress was being made, and to keep the members of these two committees up to date on developments in the governmental arena, in the analytical arena and in the animal testing arena.

Q You were on both committees?

A I would go from one room to the other as they -- as they wrestled with how to word the guidelines.

Q Mr. Benignus was also an active participant

in that, was he not?

A He was a member of the steering committee, yes, sir.

Q And the National Electrical Manufacturers Association concluded that it would be well to have standards actually promulgated by the American National Standards Institute. Is that correct?

A That is correct.

Q And so at the request of the National Electrical Manufacturers Association, which was made up primarily of Monsanto's customers for PCBs -- correct?

A Primarily, yes.

Q In fact, was there anybody who was a part of the National Electrical Manufacturers Association who hadn't bought PCBs from Monsanto at one point in time or another?

A I don't know of any.

Q Okay. So the National Electrical Manufacturers Association group, consisting at least generally, if not exclusively, of Monsanto PCB customers, went to the American National Standards Institute and asked them to set up a committee to deal with standards for PCB transformers. Correct?

A Correct.

Q And that did happen, did it not?

A Yes.

Q And there was another committee to work on the American National Standards situation, was there not?

A Well, it's the same people with a new name.

Q And lo and behold you're chairman again. Right?

A Yes, sir.

Q And in that particular group Mr. Benignus was also involved?

A Yes.

Q And the two of you take part in the efforts that lead up to the ANSI standards on handling and disposing of PCB dielectric fluids?

A Yes.

Q Let me show you a Document 34704 through 34719 and ask to whom that information was presented.

A This appears to be the -- a copy of the presentation that I made before the NEMA-ANSI group at its organizational meeting back in 1971.

Q Now, did those two groups work exactly at the same time and reach their conclusions at exactly the same time?

A One of the two, I have forgotten which, met more often or longer than the other. But they would

schedule their meeting in such a way that the two groups could have a joint session to conclude that particular cluster of meetings and then agree to meet again.

Q So basically the ANSI standards were the NEMA standards developed by the same group for all practical purposes?

A Yes.

Q And --

A Let me comment.

Q Certainly.

A The NEMA guidelines, you will note, are referred to as proposals. And they're deliberately stated as such. Because they were proposed to ANSI for consideration and adoption.

Q And then ANSI appointed a committee to consider them and recommend them. Correct?

A I don't claim to know the entire workings of ANSI. But it does have a board of directors, it's a very small group in terms of numbers of people. It's my understanding that their board of directors reviewed the NEMA proposal and accepted it as an ANSI standard. It was not a group of knowledgeable people in the dielectric equipment manufacturing community.

Q The board was not?

A That is correct.

Q It would be very difficult for it to make any technical changes other than just accept what's proposed?

A Correct.

Q And that's what they did?

A That's correct.

Q Let me ask you with regard to the business changes -- and I'm talking now about contractual business changes that Monsanto engaged in in the early Seventies where it modified the contracts with its customers to whom it sold PCBs and required the execution of indemnity agreements, who was responsible for developing that idea? Was that you?

A No.

Q Who within Monsanto came up with that idea?

A I don't know.

Q Did you review the proposed language of the indemnity agreement form?

A No.

Q You have no knowledge about where it came from or what it was there for?

A I know what it was about. After it had been completed and accepted.

Q What was it about?

A I'd have to read the exact words, but it had

to do with --

Q Okay. Let me assist you. I'll provide you with a copy of what appears to be the actual indemnity agreement executed by Westinghouse as a letter agreement dated January 15th, 1972, Document 15117 through 15119.

A I don't know what I can add to the words in the document, which I believe speak for themselves, if I may use that expression.

Q You can use it. You told me you knew what it was about. I was hoping we could get a layman to help us understand what it was about.

A Well, I can express to you my understanding.

Q Feel free to do that.

A The intent on Monsanto's part was to continue the sales of PCBs to those customers who had exhibited the right attitude and understanding the issues related to the environment and PCBs and were capable of conducting the necessary programs and whatever is required to make certain the PCBs do not become an environmental contaminant and if there are any problems arising they have the resources to correct those problems. Otherwise Monsanto didn't want to deliver these materials to parties who did not exhibit that appropriate attitude and ability.

Q What did the indemnity agreement have to do

with the appropriate attitude with regard to safe handling of PCBs?

A Well, the attitude would eventually result in a problem. If you didn't have the right attitude, you would not implement the right programs, you would have loss to the environment --

Q I didn't ask my question very well. I'm trying to find out what about the indemnity agreement assured that somebody had the right attitude so you wouldn't have those problems?

A Well, there's no assurance of attitude other than if something is in writing it makes a different impact on the listener and how he performs later.

Q I see. There were other contractual modifications that also took place in addition to the indemnity contract, were there not?

A I don't know of any.

Q Are you familiar with the addition of clauses that permitted Monsanto to stop selling to customers in the event that there was some problem with the PCBs in the mind of Monsanto?

A I have seen copies of those documents recently. I have not seen them until recently. I was not aware of them.

Q You in your role at Monsanto were not aware

of the fact that the sales contracts would permit Monsanto to cease selling PCBs for dielectric purposes if they were being misused by the customer in such a way as to pose a threat to the environment or to health?

A That is correct.

Q Did you ever see any use of PCBs by Monsanto's dielectric customers after you came to your position in 1970 which you thought presented a threat to the environment?

A In early 1970 I saw evidences of situations that needed improvement. And the customers appeared to me to be taking steps for improvement. And my criteria was one of if a true effort is being made for improvement that's going a long way toward achieving what we all wanted.

Q Did you find customers who didn't make sufficient improvement, in your opinion?

A There were times when improvement was, in our opinion, too slow and we would make that known. And we saw evidence that there was a response and we pursued it.

Q Did Monsanto, to your knowledge, ever stop selling PCBs to any customer because of their use in such a way as to bring a hazard to the environment?

A Not to my knowledge.

Q Did Monsanto ever stop selling PCBs to a customer because of their use of the product in such a way as to cause a hazard to health?

A Not to my knowledge.

Q What role did you have with regard to the worldwide PCB problem?

A The role was similar to the U. S. role, working through Monsanto representatives in Europe and in Japan.

Q What sort of contact did you have with people in Japan?

A My primary contact was through the Monsanto U. S. representative in Japan. I would mail him and share with him documents that I would have in my possession and he in turn either personally or through his staff would send me reports, special reports as needed, or a monthly summary of their activities for a period of time until they terminated their operations totally.

Q Was there any effort to make sure that the information that was given out in England or the United Kingdom and Japan was consistent with that given out in the United States?

A Yes.

Q What effort was taken in that regard?

A Oh, it took many forms. Primarily one of sharing with both Europe and Japan representatives copies of documents used in the United States, with the suggestion that they might need revision which would make them more suitable for the local situations. That, in my opinion, was the -- the principal method of assuring some semblance of consistency.

Q What type of modifications would make information more suitable for the local situation?

A Well, the obvious one is the listing of some products that are or are not marketed in that area. The use of different trade names. The use of different termination dates. The references on disposal, for example, when Europe and Japan did not have a Monsanto unit they would have to refer to a commercial unit. It's that kind of thing that had to be considered in making revisions.

Q Who was the Monsanto representative in Japan?

A Do you mean the individual person?

Q Well, was there one person that was the representative or --

A I worked with one, Dr. John Durland.

Q Okay. And what was Dr. Durland's role?

A I don't know his formal assignment, but I would describe it as being the Monsanto U. S. presence

in Tokyo.

Q Okay. And was he a Monsanto employee?

A Yes.

Q Who did you work with in England or the United Kingdom?

A I worked initially with Don Cameron, C a m e r o n, who was a marketing representative. And on some technical matters I worked with Ron Lidgett. And eventually it narrowed down to where I was working primarily with Dr. Richard Baxter and Hal Vodden, V o d d e n.

Q Is it Hal that's his first name or Alf?

A Well, his initials are HA. I think he went by both.

Q Okay.

A Depending on how long you've known him.

Q But Alf Vodden is the same person?

A Yes.

Q Let me show you a document entitled Management Plan for the Polychlorinated Biphenyl Environmental Problem, Document 25699 through 25707, and ask you who developed that plan.

A This appears to be a copy of a plan that I put together from information supplied by the members of this task force we referred to earlier.

Q So that plan is the plan that was developed by the task force pursuant to the assignment from Monsanto management?

A Yes. That assignment really was: Prepare a presentation to be given before the top management of Monsanto.

Q What group are we talking about there, the corporate administrative committee or the --

A I believe at that time it was referred to as the corporate administrative committee.

Q That group has gone by different names, the corporate management committee the corporate administrative committee, the corporate development committee.

A Yes, sir.

Q It's all the same group?

A That's the way I perceived them.

Q Okay. And so your group developed a proposal to be presented to that group?

A Correct.

Q And did you actually participate in the presentation of the proposal?

A Yes, sir.

Q And was the proposal adopted by that committee?

A No.

Q What was it that you proposed that they refused to adopt?

A They were anxious that the business groups involved speed up the timetable so that the actions proposed were acceptable but the target dates for completion of the different elements were not acceptable to the committee. They wanted quicker action.

Q They wanted to get out of all the PCB businesses other than the dielectric business more rapidly than your group proposed?

A Yes.

Q And their instructions to the businesspeople were: Take whatever efforts are necessary to speed up that process, including the development of alternative products for our customers.

A Yes.

Q And it was in response to that urgency that there were very accelerated development efforts, for example, with the replacement for PCBs and carbonless carbon paper?

A Yes.

Q There was, however, no directive from that committee to have accelerated research efforts on the replacement of PCBs as dielectric fluids, was there?

A That is correct.

Q That research proceeded at a normal pace? Correct?

A I would not call it a normal pace. It was accelerated compared to normal research activities.

Q But --

A But not at the pace devoted to the copy paper application.

Q And that was a response to the fact that your group had recommended getting out of all the other uses and they wanted to get out of those uses as quickly as possible, but your group had not recommended getting out of the dielectric uses of PCBs. Correct?

A That is correct.

Q The decision of that committee was to get out of whatever it was that was recommended to be given up in PCB use as soon as possible?

A Correct.

Q And the only reason that there wasn't a similar effort with regard to dielectrics is because your group didn't recommend it?

A Correct.

Q And it was not until you yourself personally reached the decision in November of 1975 that the wheels started rolling at Monsanto on getting out of the PCBs

as dielectrics. Correct?

A Well, the timing was such that it coincided with my discussions with Mr. Fitzgerald. I have no way of knowing if Mr. Fitzgerald and others had also arrived at the same decision more or less coincidently.

Q To your knowledge, you were the first person at Monsanto to say: We ought to get out of the PCBs as dielectric business?

A Yes.

Q And it's conceivable to you that maybe your statement of that and the action that followed very shortly thereafter was coincidental because others were working on the same approach?

A That was possible.

Q Have you ever heard of anybody else who was working on that same conclusion?

A No.

Q As far as you know, you were the moving factor in that?

A Yes.

Q And as far as you know, had you made that same recommendation two or three years earlier Mr. Fitzgerald would have taken that recommendation to the management committee and they would have acted to get out of the PCB business two or three years earlier?

A No, I don't know that.

Q What I'm saying is: You don't have any reason to believe they wouldn't have one way or the other?

A True.

Q I mean if there is some reason you believe that your recommendation, had it been made two or three years earlier, would not have been accepted by Monsanto, I'm interested in whatever you may know about that.

MR. HALL: I think he's just reluctant to speculate on something like that, David.

THE WITNESS: That is speculation. The reason I said that wouldn't have happened, Mr. Fitzgerald was not involved three years earlier. A whole new set of Monsanto people were now involved.

MR. LACEY:

Q Well, were the people who preceded Mr. Fitzgerald less sensitive to needs to get out of the PCB business?

A I didn't mean to imply that.

Q Well, that's what I was trying to find out.

A You had indicated if I had told Mr. Fitzgerald three years earlier. I could not have done it. He was not involved.

Q Okay. Let me see if I can get the question

clarified. Had you gone to the appropriate person two or three years earlier and recommended that Monsanto get out of the business of using PCBs as dielectrics, do you have any reason to believe that those recommendations would not have been acted upon favorably by the company?

A Yes.

Q And what is the basis for that belief?

A Monsanto's strong understanding was that the electrical industry, manufacturers, distributors of electrical power and the like, just could not tolerate an absence of PCBs. That belief was so strong in Monsanto's thinking that any proposal to ban the sale of PCBs to that use would not have been acceptable or even conceivable. The understanding was too strong in the other direction.

Q Did you also understand that there were strong financial incentives to Monsanto to stay in that business and it would not conceive of getting out of that business as long as those financial incentives were there?

A No, I've never felt that PCBs were that strong a product.

Q Let me show you a memo dated July 14th, 1970, written by you to Messrs. Bergen, Mason -- is it Mason?

A Mason.

Q Mason and Springate, Document 25625. Take a moment to review that, if you would.

A I have read the document.

VIDEO OPERATOR: We're off the record.

[Recess]

VIDEO OPERATOR: We're back on the record.

MR. LACEY:

Q Do you see the next-to-last paragraph in that document?

A Yes.

Q It discusses a portion of a conversation you had with an employee of one of Monsanto's competitors in the PCB business, does it not?

A Yes.

Q And in that memo you report to the recipients what you had advised that representative about Monsanto's position.

A Yes.

Q And that paragraph deals with Monsanto's position on ceasing to supply PCBs as dielectric fluids, does it not?

A Paragraph 4? I don't -- I don't see any reference to dielectric fluids.

Q I see. In this document, in Paragraph 4, you, in discussing with Mr. -- is it Schwindt?

A That's the way I would pronounce it.

Q Okay. You were talking with Mr. Schwindt --

A Yes.

Q -- about certain uses of PCBs that the company had decided to get out of. Correct?

A Correct.

Q And those were the uses other than dielectric uses. Correct?

A Correct.

Q You also discussed or talked with him about the fact that Monsanto would not abandon the dielectric market. That's the market you were going to continue to sell in, isn't it?

A At that time, in 1970, the heat transfer application was still considered acceptable.

Q Okay. So you had two markets then, dielectrics and heat transfer?

A Right.

Q Those were the only two markets that Monsanto intended to continue to sell in at the time that memo was written?

A That is right.

Q And what you report that you told Mr. Schwindt was that Monsanto would not voluntarily abandon this business without some protection by proper

authorities regarding imports. Isn't that right?

A Yes.

Q Isn't that what you told Mr. Schwindt?

A Yes.

Q Simply put, Monsanto was going to continue to produce PCBs so long as other people produced PCBs and would be prepared to sell to Monsanto customers if you didn't. Isn't that right?

A We would be prepared to sell to Monsanto customers?

Q Monsanto was going to continue to sell PCBs to its customers, would not voluntarily stop producing, as long as other companies who made PCBs were prepared to import it if Monsanto didn't sell it. Correct?

A All right. What this says is that if PCBs are permitted in the dielectric and heat transfer systems and someone is going to supply that need, Monsanto would be the supplier. If we terminate the sale of PCBs to those two principal and remaining uses, we would do so if no one else would supply that PCB. Because if somebody is going to supply it, we might as well supply it. The problem is not solved.

Q Isn't it true that one of the reasons Monsanto decided in December of 1975 to stop selling PCBs for dielectric uses is that it knew that the Toxic

Substances Control Act was going to pass, they could see the handwriting on the wall, and therefore finally it had come to pass that there was going to be a restriction on other companies selling PCBs in the United States and thus Monsanto was finally prepared to voluntarily abandon the market?

A I don't recall that our thought process was that sophisticated.

Q Well, isn't that exactly what you were suggesting right there? If Congress would pass a law banning the import of PCBs in 1971, then Monsanto might consider voluntarily ceasing production?

A Yes.

Q And the whole point of that was, Monsanto didn't want to give up the competitive position it had in the market voluntarily?

A That's true.

Q Let me show you a document labeled --

MR. HALL: David, we're about out of time.

MR. LACEY: I heard Mr. Papageorge indicate earlier he had a backup flight possibly. I think we're probably going to need to shoot for that. Do you want to take a break, let my secretary confirm that?

A Don't worry about it. It's -- I'll get on it.

Q Okay. Well, fine.

A We'll get another hour then, is what he's saying.

MR. LACEY: Let me show you a document titled Question-and-Answer Sheet on Polychlorinated Biphenyls, Document No.25673 through 25682.

Mike, why don't you ask Dayle to --

What's that other flight, Mr. Papageorge? Is it that Southwest flight?

THE WITNESS: Southwest flight at six something.

MR. LACEY: Would you ask Dayle to check on that, please, and make a reservation?

THE WITNESS: I have reviewed the document.

MR. LACEY:

Q Did you prepare that?

A No.

Q Do you know who prepared that?

A Mr. Ed John.

Q He was the publicity man?

A Yes.

Q Did you review that document before it was provided to people for use?

A Yes.

Q What was the purpose of that document?

A There are two documents in this collection.

Q Oh, I'm sorry.

A There is a question-and-answer sheet, accompanied by a three-page press release.

Q Is the press release referred to -- it's referred to in the question-and-answer section, is it not?

A I believe it is, yes.

Q So, actually, that made up one packet of information to be supplied to various employees of Monsanto?

A True.

Q Okay. Let me just say the question and answer plus whatever attachments went with it so the person would have it. What was the purpose of that question and answer and attachment section?

A Monsanto was issuing this press release in response to Congressman Ryan's comments to the press. And in many instances, and this is one of them, the public relations department prepares the question-and-answer sheet that is sent to all of Monsanto's plants and offices to equip the local Monsanto representatives with enough information to respond to any local telephone calls, inquiries from the local press, to elaborate on the press release that is issued.

Q Was it the intention in preparing that that there be a consistent story told by the various Monsanto employees who might be contacted?

A That is one objective.

Q And was the intention that if a person got inquiries from the press they would read those answers verbatim?

A Well, I don't know if they would answer them verbatim. It depends on the style of the person using this sheet.

Q How quickly they can find it when the telephone call comes in?

A True. That's one factor. The majority of recipients have no knowledge at all of the subject. And this is their first exposure.

MR. HALL: David, let's knock off for about three minutes.

MR. LACEY: Sure, sure.

[Recess]

[Exhibit 9 marked]

VIDEO OPERATOR: We've been off the record for a short break. This is the continuing deposition of Mr. William B. Papageorge and it is 4:25 p.m.

MR. LACEY:

Q Mr. Papageorge, let me show you what the

court reporter has marked as Exhibit No. 9, ask you if you recognize that letter.

A Yes, I do.

Q That's a letter from Westinghouse asking for your assistance in trying to solve a problem they were having with state regulatory authorities about the disposal of PCBs. Correct?

A That is correct.

Q And that was a function that was within the scope of your job there at Monsanto. Correct?

A Correct.

Q You would actually assist customers in dealing with disposal problems, including negotiating with regulatory authorities?

A The negotiating to a limited degree.

Q Let me show you a document dated July 27th, 1970, Document 16411 through 16412, and ask if that is the letter you wrote back to the Westinghouse representative summarizing the results of your negotiations.

A No. These two -- these two address the same subject, but at different times. I received this document you just handed me prior to the previous document.

Q I see. So you had previously done some

negotiation and then they came back to you for subsequent assistance?

A I don't know what you mean by negotiation.

Q Well, I'm trying to -- in the letter of July 27th, 1970, you discuss with Mr. -- is it Viland?

A Viland.

Q The problem of dealing with landfilling materials. Correct?

A Correct.

Q PCB materials.

A Correct.

Q And Mr. Viland then writes you. When is the letter, the subsequent letter?

A The subsequent letter is six weeks -- well, three weeks later.

Q And Mr. Viland has apparently been attempting to convince regulatory authorities there in Pennsylvania to permit the landfilling of PCBs.

A Correct.

Q And for whatever reason he has been unsuccessful.

A That is correct.

Q And looks to you to assist him in convincing the regulatory authorities in Pennsylvania to permit the landfilling of PCBs.

A That is correct.

Q Okay.

Let me show you another letter, dated October 1st, 1970, to Mr. Viland, Document 25823 and 25824, and ask if that is the response to the letter marked as Exhibit No. 9.

A Yes. This is a copy in response to Exhibit No. 9.

Q Okay. And in that document you then summarize the results of your negotiations on behalf of Westinghouse with the regulatory authorities. Correct?

A Correct.

Q And essentially your failure in convincing them that PCBs should be permitted for landfill in Pennsylvania?

A Correct.

Q Do you know whether or not Mr. Viland came back to you again for additional assistance in trying to resolve that problem?

A I don't recall any.

Q Okay.

Do you recall any problems with contamination of Monsanto's dielectric fluid products with chlorinated naphthalenes?

A I've never heard that.

Q Okay. Would it be a cause for concern if PCB products were contaminated with chlorinated naphthalenes?

A Well, from my understanding of the toxicity of chloronaphthalenes, studies which occurred, as I remember best, in the 1930s, Forties, very early, I would suggest the concern would be related to the levels present and the potential for exposure and the concern would be related to the chloracne symptoms that were observed.

Q No concerns other than that?

A That's all I would have, yes.

Q Let me show you a document entitled PCB Environmental Problem, July Status Report, dated August 18th, 1970, which is a document that was prepared by you, I believe, Document 25599 through 25606, and ask if that in fact is a report that you prepared.

A This looks like a copy of a report that I prepared, yes.

Q Was it your custom to prepare such reports?

A There was a period of time starting in the summer of 1970 when I decided that in order to communicate the success of our withdrawal program more effectively I would issue a monthly status report and requested each of the task force members to make

contributions which I assembled and issued as a monthly status report.

Q Let me show you a September 8th, 1970, document entitled PCB Environmental Problem, August Status Report, Document No. 42664 through 42676, and ask if this was the report you prepared for the month of August, 1970.

A This appears to be a copy of the August 1970 status report.

Q Let me take a look at this with you for just a minute. This report deals entirely with PCBs, does it not?

A Yes.

Q Let me ask you to look at the section on the second page of the report, Document No. 42665, entitled Aroclor Distillation.

A I have read it.

Q There's a reference there to Chocolate Bayou. Is that the plant -- Monsanto plant located near Alvin, Texas?

A Yes.

Q And what was the relationship between the Chocolate Bayou plant and PCBs?

A They had a piece of equipment used for distillation that was idle at the plant and available

for use elsewhere.

Q And was there a need in the Monsanto production facilities for additional distillation equipment?

A Yes.

Q Was that for further purification of the Monsanto PCB products?

A Strictly speaking, yes.

Q Was that because Monsanto was increasing its capacity at that time?

A No.

Q Well, what led to this need for additional purification equipment?

A This was the replacement of Aroclor 1242 with Aroclor 1016. And in order to make Aroclor 1016 we needed an additional distillation unit. And we found this idle unit at the Chocolate Bayou plant.

Q Let me direct your attention back to the August report very briefly, Pages 25600 and 25601. Was it customary for your reports to contain a report on the status of legal matters?

A Whenever the legal representative on the task force had something to contribute, yes, I would include that.

Q This report involved or included all of the

matters that were brought to you by the task force. Correct?

A Yes.

Q Let me show you the August report, Page 42666, and ask you if you just simply left a blank like that when the legal group had nothing to report.

A No.

Q Let me show you another document, dated November 10th, 1970, entitled PCB Environmental Problem, October Status Report, Document 25792 through 25801, and ask if that is the report that you prepared for the month of October regarding the PCB problem.

A This appears to be a copy of the report I issued to cover the October status.

Q How long did you continue to provide this type of report?

A I don't recall exactly. I believe it's about a year or so.

Q And these reports went to not only people in the United States but also representatives of Monsanto in Europe and representatives of Monsanto in Japan. Correct?

A Correct.

Q So that all of the Monsanto organizations that produced or were involved with PCBs were aware of

what was going on?

A Yes.

Q Did you make an effort to ensure that these reports were accurate before they were made?

A Yes. As best as I could.

Q Certainly. Do you know to whom these reports went? I'm particularly interested in whether or not they ultimately went to the corporate development committee or corporate administrative committee, corporate management committee at the company.

A The only people that I know received it are those specifically listed as addressees and carbon copy recipients. I do not know if any of those individuals shared their copy with anyone or made additional copies.

Q Okay.

Let me show you another document, dated December 7th, 1970, entitled PCB Environmental Problem, November Status Report, Document No. 42677 through 42687, and ask if that's the report that you prepared for the November 1970 status of PCBs.

A This appears to be a copy of the report I issued in December to report on the status November 1970.

Q Were each of the reports that you prepared for the duration that you prepared them similar in the

format to the ones that we've just looked at?

A Yes.

Q What led to the decision to stop providing those reports?

A Primarily one of decreased activity to the point where it didn't require this effort to properly communicate to all the interested members.

Q Did you have some other form of reporting or recordkeeping with regard to what your group did?

A We did not keep a record, no.

Q So to know what your group did from the time that these reports stopped it would be a matter of what you can recall about it?

A Or searching each individual's files to see what happened in research, what happened in marketing, medical, et cetera.

Q At the time you left Monsanto did you still have individual files you were holding with regard to PCBs?

A No.

Q What happened to those files?

A They were transferred in 1976 to my successor.

Q I see.

Let me show you a document dated

September 1st, 1970, a letter from you to Mr. Reinhardt with Maloney Electric Company, and an attached page, Document 25843, 25844, and ask if that is a letter that you wrote along with the attachment that you wrote about PCBs as dielectric fluids.

A Yes.

Q In that statement that you wrote for inclusion in the ANSI document you reached the conclusion or recommend that a statement be made that the benefits of the uses of PCBs as dielectric fluids far outweigh any problems associated with them. Correct?

A Correct.

Q Did ANSI adopt your recommended position?

A Yes.

Q There never were found any products that were nonPCB but had the specific benefits of PCBs you were referring to there, were there?

A That is correct.

Q Ultimately the government reached the conclusion that the environmental problems of PCBs outweighed their benefits in the electric application. Correct?

A Correct.

Q And the positions provided by ANSI and by

Monsanto were rejected?

A Correct.

Q Let me show you a letter dated March 18th, 1975, written by you to a Dan Albert with Westinghouse which has attached to it certain questions that he asked, along with answers to them, and some reference material, Documents 16416 through 16423. Do you recall that letter?

A Yes, I do.

Q You had received from Mr. Albert a list of questions that dealt with the hazards to humans of PCBs. Correct?

A Correct.

Q And he on behalf of Westinghouse was asking for Monsanto's information with regard to the answer of those questions. Correct?

A Yes.

Q Did you provide the answers to the questions?

A I provided them to Mr. Albert. But I got the answers from Mr. Wheeler.

Q All right.

A Personally.

Q Did -- let me show you a document 25286 through 25297 and ask whether this contains within it the answers or proposed answers that Mr. Wheeler

recommended. There's a collection of documents there that appear to relate to this, and I'm trying to understand them.

A I find in this collection of documents a memorandum of transmittal signed by Mr. Wheeler, addressed to me, indicating that attached are the answers to the questions from Mr. Albert. The attachment in this particular document precedes that transmittal letter, consists of several pages.

Q Okay. Do the pages that precede the transmittal letter appear to you to be the attachment that went with it?

A With Mr. Wheeler's note, yes, sir.

Q Okay. And did you supply verbatim to Westinghouse the answers to the questions drafted by Mr. Wheeler?

A Yes.

Q You didn't have any part in actually developing the answers, then?

A That is correct.

Q And that again was consistent with the policy of the company that questions about the adverse consequences of PCBs on human health were to be answered by the medical department?

A Correct.

Q Was there any thought on your part that it was inappropriate for Westinghouse to look to Monsanto as the manufacturer and seller of PCB-containing dielectric fluids for answers to questions like that?

A No. I didn't consider it inappropriate. This would be a step in the right direction, in my opinion.

Q Okay. And certainly some evidence of the fact that Westinghouse was looking to Monsanto for information on the hazards of PCBs?

A Well, certainly. But it would also indicate that their professionals would be playing a role in what eventually is done at Westinghouse.

Q So you viewed what Monsanto knew as a part of at least what Westinghouse would look to for their decisions on health effects of PCBs?

A Very definitely.

Q And that's typical for a customer of a chemical company to look to the chemical company for information on the products that the company supplied?

A Certainly.

Q Let me show you a letter dated December 20, 1976, from you to Jerry Johnson with NIOSH and ask if that's a copy of a letter you wrote in December of 1976.

A It is.

Q In that letter you discuss the issue of whether certain documents that are being prepared by NIOSH with regard to occupational exposure to PCBs should refer to PCBs as being carcinogenic. Correct?

A Correct.

Q And one of the things that you point out is that you have previously -- you and Industrial Biotest, I guess, more correctly, have previously submitted information indicating that there is a disagreement based on Industrial Biotest's work with the reading of -- the pathologist's reading of Dr. Kimbrough's work. Correct?

A Correct.

Q And what you point out is that according to Industrial Biotest's work Dr. Kimbrough's slides do not show things that laymen would consider carcinogenic?

A That is correct.

Q Okay. And that's the same thing that you went to Washington to tell people about in November of 1975. Correct?

A Correct.

MR. LACEY: Would you mark that, please, as the next exhibit?

[Exhibit 10 marked]

MR. LACEY:

Q Let me direct your attention to Exhibit No. 10, in particular to the two pages that are attached to that exhibit, and ask if you can tell me what those two pages that are attached to that exhibit represent.

A The two pages attached to the exhibit appear to be a listing of the plasticizers that Monsanto Company was selling in October 1970, and it lists the price per pound which is associated with the mode of delivery and the amount of delivery.

Q Is that type of price list for products that Monsanto sold a customary form of document that Monsanto maintained?

A I do not know.

Q You've never seen a price list like that before?

A That is true.

Q Are there any PCB products on that price list?

A I see a reference to Liquid 1221, which would be a monochlorobiphenyl.

Q Would all of that be monochloro or would there be a mixture in the case of 1221?

A It's a mixture of the many monochloros that are available. As you know, there are ten of them possible.

Q Yes.

A There's some biphenyl in it. What I don't know is if there is any dichlos in it. I don't recall that.

MR. LACEY: Okay.

MR. HALL: David, we're going to have to leave at 5:00 to make that airplane. So if you want to cover this other business, you better not forget to do it.

MR. LACEY: Why don't you run about a minute of just leader on this thing.

MR. HALL: Good idea.

CORRECTIONS

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SIGNATURE OF WITNESS

I, William Papageorge, solemnly swear or affirm, under the pains and penalties of perjury, that the foregoing contains a true and correct transcript of the testimony given by me at the time and place stated, with the corrections, if any, and the reasons therefor noted on a separate sheet of paper and attached hereto, and that I am signing this before a Notary Public.

William Papageorge

THE STATE OF

Subscribed and sworn to before me, the undersigned authority, by the said William Papageorge on this the day of , 1987.

Notary Public in and for the State of

THE STATE OF TEXAS]

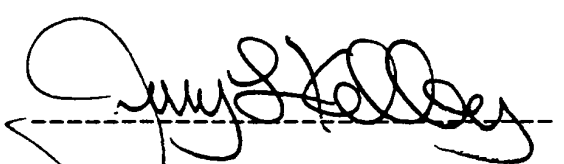
CERTIFICATE

I, Jerry Kelley, a Certified Shorthand Reporter, hereby certify that the foregoing testimony was given before me after the witness had been duly sworn.

I further certify that the foregoing is a true and correct copy of the transcript of the proceedings.

I further certify that I am neither attorney for, related to nor employed by any of the parties or any attorney of record in this cause, nor do I have a financial interest in the matter.

Witness my hand in Houston, Texas, on May 22, 1987.



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