

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

THE UNITED STATES OF AMERICA,)
)
Plaintiff,)
)
vs.) No. 78 C 1004
)
OUTBOARD MARINE CORPORATION)
AND MONSANTO COMPANY,)
)
Defendants.)

The deposition of RICHARD J. DAVIS,
called by the Plaintiff for examination, pursuant
to agreement and pursuant to the Rules of Civil
Procedure for the United States District Courts
pertaining to the taking of depositions, taken before
Thea L. Urban, a Notary Public in and for the County
of Cook, State of Illinois, and a Certified Short-
hand Reporter of said State, at 200 East Randolph
Drive, 56th Floor, Chicago, Illinois 60601, on the
29th day of January, A.D. 1981, commencing at 9:30
o'clock a.m.

PRESENT:

MS. ELIZABETH STEIN,
(Pollution Control Section
Land & Natural Resources Division
Department of Justice
Washington, D.C. 20530),

appeared on behalf of the
United States of America;

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PRESENT: (Continued)

MS. ROSEANN OLIVER,
(Phelan, Pope & John, Ltd.
30 North LaSalle Street
Chicago, Illinois 60603),

and

MS. JOANNA NEW,
(Martin, Craig, Chester & Sonnenschein
115 South LaSalle Street
Chicago, Illinois 60603),

appeared on behalf of Outboard
Marine Corporation;

MR. BRUCE A. FEATHERSTONE,
(Kirkland & Ellis
200 East Randolph Drive
Chicago, Illinois 60601),

appeared on behalf of Monsanto Company.

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I N D E X

WITNESS:

<u>Direct</u>	<u>Cross</u>	<u>Redirect</u>	<u>Recross</u>
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RICHARD J. DAVIS

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E X H I B I T S

Davis-Government Deposition
Exhibit

Marked for ID

No. 1	25
No. 2	35
No. 3	71
No. 4	108
No. 5	118
Nos. 6, 7	126
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No. 14	133
No. 15	150

Davis-OMC Deposition Exhibit

Nos. 16, 17, 18	176
No. 19	230

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MS. STEIN: Swear the witness, please.

(Witness sworn.)

R I C H A R D J. D A V I S,
called as a witness herein, having been first duly
sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. STEIN:

Q Would you state your full name, please.

A Richard J. Davis.

Q Your business address?

A Monsanto Company, 800 North Lindbergh
Boulevard, St. Louis, Missouri 63166.

Q Your home address, please?

A 120 West Swon Avenue, Webster Groves,
Missouri 63119.

Q Could you give me your educational background,
please?

A I have a Bachelor of Science Degree in
Chemical Engineering.

Q Where did you get that degree?

A Worcester Polytechnic Institute, Worcester,
Massachusetts.

Q What year did you receive that degree?

A 1951.

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Q Do you have any graduate work in chemical engineering?

A No, I do not.

Q In any other field of study?

A No, I do not.

Q After 1951 when you received your Bachelor of Science in Chemical Engineering, where did you go?

A I went to Monsanto Company.

Q In what capacity were you employed at Monsanto?

A I was employed in our manufacturing plant in Monsanto, Illinois as a chemical engineer.

Q How long were you at the Monsanto, Illinois facility?

A Five years.

Q What were your duties while you were at the Monsanto, Illinois plant?

A The first year was spent in the laboratory just doing chemical analyses and the subsequent four years were involved with process improvements, starting of new processes and some supervision of production.

Q What products were manufactured at the Monsanto, Illinois facility during the time you were there?

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A There were many of them. The largest of them were sulfuric acid and phenol.

Q P-h-e-n-o-l?

A That is correct.

Q Is the manufacturing facility at Monsanto, Illinois also known as the Krummrich Plant?

A Yes, that's correct.

Q During the first year that you were there and doing chemical analyses, what kind of substances were you analyzing?

A These were intermediates and finished products of some of the processes at the plant. For the moment, I cannot remember which ones I analyzed.

Q What kind of analyses were you doing? Were you looking for impurities in the products?

A No. These were standard analyses to identify the purity by crystallization point, the color of the material, the specific gravity of the material, moisture content.

Q But you do not remember what the substances were that you were analyzing during that period?

A Offhand, I do not.

Q I believe you said it was the first year you were there that you were doing the chemical analyses?

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A Yes.

Q For the next four years you were working on some process improvements and did some supervision of production?

A Yes, that is correct.

Q Could you explain what you mean by process improvements?

A An example would be if a process yield, that is the amount of end product you get for what you put in, might be improved, that is if you might get more end product from the raw material and it was up to me in an engineering sense to find a way to do that, adjusting the temperature of the process or whatever.

Q Did you make any recommendations for process improvements during the time you were there?

A Yes.

Q Can you remember what the products were for which you specified improvements and what those improvements were that you specified?

MR. FEATHERSTONE: Why don't you ask him if they related to Aroclors or PCBs or Pydrauls or something that is involved in this lawsuit, Ms. Stein, because I am not going to let him answer the wide range of products that Monsanto makes unless you can

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tie it up to this lawsuit.

MS. STEIN: All right.

BY MS. STEIN:

Q Did you do process improvements on hydraulic fluids?

A No.

Q Did you process improvements on chlorinated hydrocarbons?

A Chlorinated toluene.

Q What is that, please?

A It is an intermediate chemical used to produce certain plasticizers.

Q What are the chemical elements that are present in chlorinated toluene?

A Chlorine and toluene.

Q What are the substances that make up the toluene because that is not a chemical element. I'm trying to get down to the components.

A Oh, the elements: Toluene is carbon and hydrogen.

Q Are there any six carbon rings or benzene rings in toluene?

A Toluene is a six-membered ring with something attached to it, carbon and hydrogen attached to it.

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Q To whom did you report when you were working at the Monsanto, Illinois facility?

A At what time?

Q During the first year.

A Ronald Kuster.

Q What was his title?

A Chief Chemist.

Q During the time that you were working on process improvements, to whom did you report?

A There were so many people.

Q During the four years, there was no direct chain of command in one person who was a supervisor?

A I can name some names as I recall them, that I reported to.

Q That's fine.

A One was Jack Graves, I believe I reported to Mr. Holzapfel, Fred Holzapfel; Dick Donovan.

Q What was your title at the time that you were working in process improvements?

A Probably chemical engineering.

Q Were they supervisors of some kind of analytical division of the Monsanto, Illinois facility, these people to whom you reported?

A Were they supervisors of what, Ms. Stein?

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Q Of some kind of division or department.

A After the first year, after reporting to the Chief Chemist, I was reporting to people who were merely supervisors over part of this chemical engineering service function within the plant. They did not have responsibility beyond that.

Q You also said you did some supervision of production, isn't that correct?

A Nighttime supervision of production. It was in fact a training program for young engineers.

Q Was there any formal course of instruction during that year?

A On what subject?

Q On management?

A No.

Q On manufacturing?

A No.

Q After your five years at the Monsanto, Illinois facility, where were you next employed?

A At Monsanto's offices in St. Louis.

Q What was your first position at Monsanto's office at St. Louis after you left the Monsanto, Illinois facility?

A I was in Marketing in a technical service

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capacity and I don't remember my title.

Q For how long were you in that job?

A Two years.

Q Had you ever had any marketing training?

A No.

Q Had you requested the transfer to Monsanto in St. Louis from Monsanto, Illinois?

A Yes.

Q Had you requested a change into the marketing functions?

MR. FEATHERSTONE: Wait a minute. He didn't testify he had marketing functions at all. He said he was in a technical service capacity in the marketing function.

BY MS. STEIN:

Q Had you requested a transfer to be affiliated with the marketing function?

A Yes.

Q What were the reasons for requesting that change?

A Long range. I wanted marketing to be my career.

Q With what subdivision of Monsanto were you associated in a technical service capacity for the

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first two years that you went to St. Louis? Was it the Organic Chemicals Division?

A That is correct.

Q Were you in a particular group within that division?

A Yes, I was.

Q What was the group?

A I can't remember the name, but it was associated with our industrial, our hydraulic fluids.

Q To whom did you report during the two-year period?

A Mr. Plummer.

MR. FEATHERSTONE: Wait until she finishes the question before you respond. You never know what she is going to say.

MS. STEIN: Can we strike that, please?

MR. FEATHERSTONE: What is wrong with that statement? You don't know what you are going to say until you've got it out of your mouth, Ms. Stein.

BY MS. STEIN:

Q Mr. Plummer, is that correct?

A Yes.

Q What was his title?

A As best I recall, it was Supervisor, Pydraul

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Sales.

MS. OLIVER: Can I just clarify?

What period of time are you talking about? Is this 1956 to '58?

THE WITNESS: That's correct.

BY MS. STEIN:

Q What were your functions in your technical service capacity in the Industrial Fluids group from 1956 to 1958?

A They were twofold: One was for my training in marketing and the other was to be of technical service for our customers for Pydraul fluids.

Q Had you had any experience with Pydraul fluids before going to Monsanto's office in St. Louis in 1956?

A None whatever.

Q Had you had any experience with hydraulic fluids before going to Monsanto in 1956?

A No.

Q Could you give me a little more detail on the functions of your technical services that you provided during that two-year period? Did you provide chemical analyses?

A No, no to the chemical analyses.

Q Can you be more specific?

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A I will try.

I remember making sales calls with our field salesmen and providing technical information about Pydraul to help them sell the product and also to discuss the new applications of Pydraul with present customers.

Q How were you familiarized with the Pydraul fluids? Was this some sort of training course that you went to?

A There was informal training by Mr. Plummer regarding hydraulics in general. I did attend a school given by one of the hydraulic equipment suppliers. I think it was a one-week school.

Q What was that hydraulic supplier?

A The supplier, Vickers.

Q Do you remember what that course was about?

A Pumps and valves and principles of hydraulic power.

Q Was there any discussion about the compatability of particular hydraulic fluids with specific kinds of machinery?

A I don't remember there being any. It was certainly not a major part of the discussion, if it was discussed at all.

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Q Did Monsanto have literature on the Pydrauls that you read and is that how you familiarized yourself with these fluids?

MR. FEATHERSTONE: You mean in addition to what he has already said?

MS. STEIN: Yes.

BY THE WITNESS:

A Yes. In addition to other things I have, of course, read our literature.

BY MS. STEIN:

Q What was the nature of the training you got from Mr. Plummer on Pydraul fluids?

A Well, it was discussions of events as they came up. We shared an office and talked continually about the application, about our customers, about our products.

MR. FEATHERSTONE: On-the-job training?

THE WITNESS: Right.

BY MS. STEIN:

Q But there was no formal training course for you with respect to the Pydraul fluids sponsored by Monsanto?

A That is correct.

Q Did you attend any kind of training session

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on hydraulic fluids, any kind of formal conference or seminar on hydraulic fluids during that two-year period of time?

A Not that I recall.

Q During that two-year period of time, 1956 to '58, was there some kind of training session for sales representatives?

A Yes, it seems to me I recall that there was.

Q Did you ever attend any of those sessions for sales representatives?

A I'm sure I would have attended. I don't remember them clearly, but your question triggers my memory that we did do some training of salesmen and I would have attended, but I don't have a clear recollection of what the meetings were like.

Q Would you have attended as a student? I am not familiar with the format so I am trying to figure out what your function would be in these training sessions.

Were you still learning or were you teaching?

A Obviously in the beginning, I would be learning, and in the end, I would be teaching, but I don't remember it well enough to want to testify about

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it.

Q After the two years, 1956 to 1958, when you served in a technical service capacity, what was your next job?

A Supervisor of Pydraul Sales.

Q For how long were you in that position?

A I had responsibility for Pydraul sales for 10 years.

Q So this was approximately 1958 to 1968, is that correct?

A That is correct.

Q Could you describe the duties of the Supervisor of Pydraul Sales?

A It was to see to the proper and profitable sale of Pydraul fluids, period.

Q Did you have profit responsibility?

A Not solely, but I shared that responsibility with my superiors.

Q Who were those superiors with whom you shared that responsibility?

A Through most of that period, my superior was George Buchanan.

Q What was his title?

A He was a Sales Manager with responsibility

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for several product areas.

Q What were those product areas for which he was responsible?

A In addition to the industrial fluids area, there were aircraft hydraulic fluids, dielectric fluids and for part of that time oil additives; that is additives for petroleum oils.

Q Did you ever do any work with respect to any of these other fluids: The aircraft hydraulic fluids, dielectrics, oil additives?

A No, I did not.

Q During the period 1958 to 1968, did you attend any kind of management training?

A Yes.

Q Can you tell me what training you attended and the dates. Give me a description of the process.

A The reason I hesitated is it is hard to remember that. There were annual sales meetings held by the Organic Chemicals Division in which some --

MR. FEATHERSTONE: Wait a minute.

What you are asking for are educational programs as such?

MS. STEIN: It is very broad. If he had said something, just conferences, I would have said was

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there any kind of formal or informal training.

I am trying to get the scope of management exposure, training.

MR. FEATHERSTONE: The question would ask for management training programs, formal and informal, that you attended from 1958 to 1968, if there were any.

BY THE WITNESS:

A I attended courses given or sponsored by Monsanto Company on supervision of people, on decision-making and perhaps peripheral things like public speaking, et cetera.

BY MS. STEIN:

Q Any on marketing?

A Marketing is a broad subject.

MR. FEATHERSTONE: Techniques of marketing, I think she was talking about, is that right?

BY MS. STEIN:

Q Techniques, philosophy of marketing. I know it is very broad.

If you like I would say, how do you market a product?

A Yes, it seems to me I did attend courses on marketing.

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Q Do you remember anything at all about the course on decision-making that you took, the management courses sponsored by Monsanto on management?

A I remember some things.

Q When did you take that course?

A During that period, but I don't know the date.

Q How long was the course?

A One week or less.

Q Could you describe what you remember from that course, please?

MR. FEATHERSTONE: Well, describe what you remember the course teaching you. I suspect there are things that live on.

Did you learn anything --

MS. STEIN: Well, he is --

MR. FEATHERSTONE: He is not going to sit here and tell you why I use that course today in my day-to-day affairs doing X. He will tell you what it is he was taught, to the extent he remembers. I think you are entitled to that.

MS. STEIN: I am asking what he remembers from that course.

MR. FEATHERSTONE: In answering that question,

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tell what it is you remember being taught in that course.

BY THE WITNESS:

A We were taught procedures for analyzing information and trying to draw conclusions and make a decision based on those conclusions.

We were also taught to separate those things which were critical from those things which were merely desirable.

BY MS. STEIN:

Q Do you remember what the procedures for analyzing the information were that you were taught in that course?

A No.

Q What were the criteria for determining which things were critical as opposed to those things that were merely desirable in decision-making?

A A critical thing was something that if not fulfilled would make the objective unreachable.

Q Did the course discuss fashioning objectives in any way?

A I don't recall that it did.

Q And I guess I am getting back to the other question: Do you remember what the criteria were

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other than if not fulfilled, for determining what kind of things were critical in decision-making?

MR. FEATHERSTONE: The question is do you remember anything other than that about what made up the critical element of the decision-making process.

BY THE WITNESS:

A I could only give examples. I don't know if they would add up to anything.

BY MS. STEIN:

Q Yes, I would like to have an example.

A It would be so basic as to say if you were flying an airplane, it would have to lift up off the ground. That was critical. Whether it had to fly at 30,000 feet or 10,000 feet was a desirable, not a critical aspect.

Q Was making a profit considered a critical objective in this training course?

A It was not discussed in this training course.

Q Earlier you mentioned that there were annual sales meetings of the Organic Chemicals Division.

MR. FEATHERSTONE: He didn't say that. He said there were annual sales meetings.

MS. STEIN: Would the reporter read back that answer?

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MR. FEATHERSTONE: Why don't you just ask him, Liz. He didn't say that. I am not disputing there might have been, but he didn't say it yet.

BY MS. STEIN:

Q Were there annual sales meetings of the Organic Chemicals Division?

A Yes, as I recall, there were.

Q How long did those meetings last?

A About three days.

Q Who was present at those meetings?

A My field salesmen, their managers and the product supervisors and managers.

Q Was the business director of the individual groups present?

A They would have been, yes. I hesitated because our organizational changes make me stop to think when business directors came into existence, but when they did, yes, they attended.

Q When was the first year you remember the title of business director?

A I don't remember the exact date, but I would place it in the mid to late '60s.

Q Do you remember what the title was before business director?

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A We were organized differently and there was no counterpart.

Q Would you please draw for me a chart of the organization between 1958 and the mid-'60s when there was a reorganization and the new title, business director, came into being?

A Yes.

MR. FEATHERSTONE: What do you want, other than directing him by reference to the change in titles, how far is he supposed to go? Is he supposed to start off with the Chairman of the Board, Functional Fluid area, or what?

MS. STEIN: Organic Chemicals Division.

MR. FEATHERSTONE: Could you do that?

THE WITNESS: I think I can.

MR. FEATHERSTONE: All right.

MS. STEIN: Of course, if you all would agree to provide us with organizational charts, starting from about 1955 to 1972, we would not have to ask the witnesses in the depositions to do this.

MR. FEATHERSTONE: I will let that comment slide. The next time we do war, I will do battle.

MS. OLIVER: Off the record.

(Discussion off the record.)

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MS. STEIN: I would like to mark the organizational chart that Mr. Davis has drawn before as Davis Deposition Exhibit 1.

(Davis-Government Deposition
Exhibit No. 1 marked for
identification 1/29/81, TLU.)

BY MS. STEIN:

Q Mr. Davis, could you show me where the Supervisor of Pydraul Sales fit into this organizational chart, please?

MR. FEATHERSTONE: Do you want him to draw it?

MS. STEIN: Please.

THE WITNESS: (So indicating.)

BY MS. STEIN:

Q One other thing I would like you to draw on there for me, please. Could you show me where the Pydraul sales representatives fit in on this organizational chart?

A (Indicating.)

Q This chart has been marked as Davis-Government Deposition Exhibit No. 1.

Do you remember the years during which you were in Pydraul Sales that this was the organizational arrangement?

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A As I said earlier, when we changed from that organization, I don't recall, but I recall it was in the mid to late '60s we changed. I don't remember the date.

Q From 1958 to 1968, who was the Product Manager for Pydraul?

A In this organization, I mentioned George Buchanan as the one I remember.

Q Was he responsible for products other than Pydraul as well?

A Yes.

Q What products were those?

MR. FEATHERSTONE: Do you want it again? He already told you. This was oil additives --

MS. STEIN: I'm sorry, that is correct. No, I don't need him to go over it again.

BY MS. STEIN:

Q During the period when this was the organization in the Organic Chemicals Division, who was the Director of Marketing?

A I remember two names: Herbert Parham and Ernie Robson.

Q Did they oversee products other than industrial fluids, aircraft, hydraulic fluids, dielectric

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and oil additives?

A Yes. They oversaw marketing of all of the products of the Organic Chemicals Division.

Q During the time that this was the organization of the Organic Chemicals Division and you were there, who was the General Manager of the Organic Chemicals Division?

A Part of the time, it was Howard Minkler. I am trying to remember names of those who preceded him.

MR. FEATHERSTONE: You are only required to remember names of those who preceded him and post-dated 1958.

THE WITNESS: That's one I should know. There is a man whose name I should remember because he later became a vice president or president of Monsanto, but I just don't remember his name.

BY MS. STEIN:

Q Do you know what the Commercial Development group was in the Organic Chemicals Division?

A Yes.

Q Were its functions different than those of the Marketing group?

A Yes, they were.

Q What were the functions of the Commercial

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Development Department?

A To find new uses for our products and to find new products.

Q From 1958 to 1968, who was the Director of Commercial Development in the Organic Chemicals Division?

A There were several.

Q Do you remember any of the names?

A I believe Monty Throdahl.

Q Do you remember any others?

A Not offhand, no.

Q Could you describe to me, please, what the functions of the Director of Marketing of the Organic Chemicals Division did?

A The Director of Marketing oversaw both the field sales of our products and the product management of those products.

Q Could you describe what you mean by product management?

A Yes. While the field sales people had responsibility to serve specific customers, the product management people had responsibility to watch over, supervise a product regardless of customers to whom they were sold.

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Q Did that include primary responsibility for keeping or increasing sales of various products?

MR. FEATHERSTONE: You mean the Marketing Director's responsibilities?

The question was the Marketing Director's responsibilities for increasing sales?

MS. STEIN: For keeping or increasing sales of products.

MR. FEATHERSTONE: For sales volume?

BY THE WITNESS:

A Yes.

BY MS. STEIN:

Q Was the Marketing Director the person primarily responsible for sales volume?

A Yes.

Q And the Marketing Director reported to the General Manager, is that a correct reading of this chart?

A That is correct.

Q What were the functions of the District Sales Managers in the Organic Chemicals Division?

A To supervise the field salesmen who were selling the division's products to customers

Q Were they responsible for dealing with

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customer complaints about various products?

A Responsible for dealing with them?

Q Yes.

A I would answer that by saying complaints, they would be aware of complaints but it wasn't up to them to handle. We had a department that handled complaints, according to what the complaint was.

Q Did the District Sales Managers direct this complaint to these departments that handled them?

A Normally the Sales Department did and informed the Sales Managers.

Q What was the department that handled customer complaints?

A Depending on the kind of complaint.

Q What were the various departments that were available to handle the range of customer complaints?

A Primarily Distribution and the Analytical Laboratory.

Q Who handled complaints, what was the name of the person who handled complaints concerning distribution during the period '58 to '68 for Pydraul?

A I really have no recollection. I would guess there were many.

Q Do you know who was responsible between

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1958 and 1968 for handling customer complaints in the Analytical Laboratory on Pydraul?

MR. FEATHERSTONE: Wait a minute. You mean who in the Analytical Lab would have handled complaints, not customer complaints in the Analytical Lab?

MS. STEIN: Yes.

BY THE WITNESS:

A It would have been the responsibility of the Chief Chemist in the laboratory involved.

BY MS. STEIN:

Q Were there different laboratories?

A We have many plants and each plant had its own laboratory.

Q Each plant that manufactured Pydraul had its own laboratory and the complaint would be directed to that person, is that what you are saying?

A I didn't understand you were speaking of Pydraul. We were talking of the Organic Chemicals Division.

MR. FEATHERSTONE: You have answered the question.

Do you want to pose a more specific question, Ms. Stein? That has been the problem for the last 20 minutes.

MS. STEIN: Strike that, please.

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MR. FEATHERSTONE: No, leave my comment on. You can strike her comment.

BY MS. STEIN:

Q What were the various laboratories in the Organic Chemicals Division that had responsibility for handling customer complaints?

MR. FEATHERSTONE: Are we to a particular product yet or just general?

MS. STEIN: No, I am not.

MR. FEATHERSTONE: I direct you to limit your answer only to Pydraul fluids.

MS. STEIN: Certify the question.

THE WITNESS: I don't know what all that means.

MR. FEATHERSTONE: Mr. Davis, in responding to her question, you can identify to the extent you can, the laboratories that would have been involved with any kind of customer complaint received and that concerned the product Pydraul which is the product involved in this litigation.

BY THE WITNESS:

A The Queeny Plant in St. Louis was the plant in which Pydraul came at during that time and it would be the Chief Chemist of the Queeny Plant.

BY MS. STEIN:

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Q Who was the Chief Chemist of the Queeny Plant from 1958 to 1968?

A There were more than one.

Q Do you remember the names of those people?

A I remember one man and I don't remember when he was there. It is Ray Geisman, and I don't remember when he was there.

Q After 1968, where were you employed?

A After 1968?

Q Yes.

A I remained employed in Monsanto's St. Louis office.

Q What was your title after 1968?

A Manager, Commercial Development, Functional Fluids.

Q How long were you in that position?

A Two years.

Q Could you add onto this chart, please, the structure under the Commercial Development Department? I assume there were some people who reported to you as a Director of Commercial Development?

A The organization changed.

MR. FEATHERSTONE: He told you that in the late 1960s it changed and you are pointing to a chart that

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he drew for the early 1960s.

MS. STEIN: All right.

Could you draw for me, please, an organizational chart effective during the period when you were Director of Commercial Development?

BY THE WITNESS:

A I was not --

MR. FEATHERSTONE: Go ahead.

BY MS. STEIN:

Q Manager of Commercial Development for Functional Fluids.

MR. FEATHERSTONE: All right. Draw the chart that pertained to what you were manager of.

MS. STEIN: No. I understand there was a re-organization after that.

MR. FEATHERSTONE: By that you mean Davis Exhibit 1?

MS. STEIN: Yes.

MR. FEATHERSTONE: You want the entire --

MS. STEIN: I want the entire organization.

MR. FEATHERSTONE: That is not what your question asked.

THE WITNESS: I'm trying to remember what the name of the total entities was, whether it was Organic Chemical Division or whether it changed by then.

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MR. FEATHERSTONE: Mr. Davis, don't think out loud.
Respond to her question.

THE WITNESS: Okay.

MS. STEIN: I would like to have the reporter
mark as Exhibit No. 2, this document.

(Davis-Government Deposition
Exhibit No. 2 marked for
identification, 1/29/81, TLU.)

BY MS. STEIN:

Q Mr. Davis, the chart which you have just
drawn as Davis Deposition Exhibit 2 is the organization
of the division and you cannot remember what it was
called at this point, after 1968, is that correct?

A For some period after that, after 1968, yes.

Q Do you remember what that period was?

A It began, I believe, at the very end of 1968
and continued until about 1975. I am not certain about
that year.

Q According to the organization on Davis-
Government Deposition Exhibit 2, you were the Manager
of Commercial Development from 1968 to 1970?

A That is correct.

Q Who was the Manager of Marketing at that time,
1968 to 1970?

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A I believe it was Don Olson.

Q Who was the Business Group Director during that same period of time?

A Howard Bergen.

Q Who was the Manager for Research & Development?

A Bill Richard.

Q Who was the General Manager of the Division?

A Howard Minkler.

Q Who was Director of Manufacturing?

A I don't recall.

Q During the time that you were the Manager of Commercial Development for Functional Fluids, could you please describe the business relationship that you had with the Marketing Manager?

A At the time I was working on products totally except from those that we were then marketing, so that while I would see the man, we had very little business relationship.

Q What were the products on which you were working?

MR. FEATHERSTONE: You can describe them generally at this point.

BY THE WITNESS:

A One was a traction lubricant and the other

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was trying to develop a business in systems and equipment.

Q What kind of systems and equipment?

A Heat transfer systems and equipment.

Q What was your business relationship during the period that you were the Manager for Commercial Development of Functional Fluids with the Manager of Research & Development?

A It seems to me in the early part of that '68 to '70 period, I reported to him and then later reported to Mr. Bergen, and I had interface with the people below the Manager of Research on the traction lubricant program.

Q During the period from 1968 to 1970, were you involved in the development of new formulations of Pydraul?

A No, I was not.

Q What was the nature of your relationship with the Business Group Director during the period from 1968 to 1970?

A The second part of that period, I reported directly to him. He was my boss.

Q Did you report on the viability of these proposed products, whether they looked like they were

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going to go or not? Was that in kind of --

A Yes.

Q After 1970, what position did you hold with Monsanto?

A We reorganized and my position was a Commercial Development Manager, that is a Project Manager.

Q How long were you in that position?

A I am still in it.

Q What is a products manager?

A Project.

Q Excuse me, project manager?

A He manages a project as opposed to people doing projects.

Q Could you tell me what you mean by a project?

MR. FEATHERSTONE: You mean as used in that sentence?

MS. STEIN: Fine.

MR. FEATHERSTONE: Again, generally.

BY THE WITNESS:

A I am trying to find a word to describe it. It is quite basic.

A project is a program in which you are trying to develop a new entity and you are responsible for the interface with various departments within the

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company and with contact outside the company to get that program achieved.

BY MS. STEIN:

Q Was this related to chemical products?

A Sometimes, and as I mentioned earlier, sometimes with the systems and equipment, but primarily with chemicals.

Q Were you involved with the development of reclamation systems for Pydraul fluids?

MR. FEATHERSTONE: In this job, 1970?

MS. STEIN: In the job from 1970.

BY THE WITNESS:

A No.

BY MS. STEIN:

Q Were you involved with the development or research on Pydraul reclamation systems between 1968 and 1970?

A No.

Q Were you involved in the development or research relating to reclamation systems for Pydraul between 1958 and 1968?

A Yes, to the extent that I saw there was a source for fluid reclamation for our customers, available to our customers, and that source was outside of

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Monsanto.

Q Were you responsible for cultivating and finding that source?

A Could you define responsible for it, was I asked to do it or what?

Q Yes, were you asked to do that?

A No. From a commercial sense, I thought it would be desirable for our customers to be able to.

MR. FEATHERSTONE: You have answered the question.

BY MS. STEIN:

Q Was it under your initiative then?

A Yes.

Q That a Pydraul reclamation program was started at Monsanto?

MR. FEATHERSTONE: Are we still talking about the same outside source that he has been referring to?

MS. STEIN: Yes.

MR. FEATHERSTONE: The witness' problem is the word Pydraul reclamation started at Monsanto.

Why don't you rephrase that, using outside source, and I don't think we will have a problem.

MS. STEIN: Why don't we leave off started at Monsanto and say were you the initiator of a Pydraul reclamation program or project?

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BY THE WITNESS:

A I would have to answer that no.

BY MS. STEIN:

Q How did you become aware that there was an outside source that could reclaim Pydraul fluids?

A A customer was seeking a source to filter some Pydraul that he had and someone in the company, I don't recall who, directed him to a man who managed the Findett Company.

MR. FEATHERSTONE: Which was the outside source?

THE WITNESS: Which was the outside source.

BY MS. STEIN:

Q Was the customer that came to you seeking to reclaim the Pydraul, Johnson Motors?

A No.

Q Have you ever published any articles?

A On what topic?

Q On any topic.

MR. FEATHERSTONE: That only requires a yes or no response.

BY THE WITNESS:

A Yes.

BY MS. STEIN:

Q On what topic have you published articles?

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A I remember giving a talk on the subject of fire-resistant hydraulic fluids which was then published.

Q Do you remember when you gave that talk?

A I believe it was 1959.

Q To whom did you give that talk?

A It was fire insurance people.

Q Could you be a little bit more specific on what you mean by fire insurance people?

A As I recall I was asked by the National Fire Protection Association to give a talk. It was at a meeting they were holding.

Q Where?

A In what publication did this talk that was then published appear?

MR. FEATHERSTONE: Is that the one that produced --

THE WITNESS: Yes.

MR. FEATHERSTONE: You've got it. Do you really want to exhaust his recollection on this?

MS. STEIN: I would like for him to tell me the publication.

BY THE WITNESS:

A It was published by the National Fire Protection Association, if I have that recollection correct, and offered by them as a pamphlet.

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BY MS. STEIN:

Q Do you remember what year it was published?

MR. FEATHERSTONE: He has already identified it as 1959.

MS. STEIN: No, that was the year he gave the talk, I believe. I know there is often a lag time and it may not be the same year.

BY THE WITNESS:

A No, I don't remember when it was published.

BY MS. STEIN:

Q Did you receive any royalties or payment of any kind?

A No.

Q For either the talk or the article?

MR. FEATHERSTONE: Answer now, but wait until she finishes the question before you respond.

BY THE WITNESS:

A No, I did not.

BY MS. STEIN:

Q Are you a member of any professional societies or organizations?

A Presently?

Q Yes.

A Yes.

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Q Could you name those, please?

A I am a member of the American Bakers Association.

Q Have you ever been a member of any other professional associations or societies?

A Yes.

Q Could you name those and the periods of your membership?

A Since 1951 and '2, I was a member of the American Institute of Chemical Engineers and I am not certain, of course, of these dates, but they are approximately correct.

Offhand I don't remember any other memberships.

Q Did you hold an office in the American Institute of Chemical Engineers during that time?

A No. No, I did not.

Q Do you know when Monsanto began to manufacture Pydraul?

A Approximately.

Q When was that?

A Approximately 1950.

Q Do you know which Pydraul that was, was that F-9, was it AC, was it -- do you remember the designation?

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A I believe the first one was Pydraul F-9.

Q Do you know what the chemical composition, the chemical components of that first Pydraul F-9 were?

A Approximately, yes.

Q Would you tell me what they were?

A Chlorinated biphenyl and phosphate ester.

Q Do you know which was the next Pydraul fluid which Monsanto put on the market?

A It was one of, either of two, and I'm not sure which preceded the other.

Pydraul 150 and Pydraul 625.

Q Let me back up for a moment.

What were the applications of Pydraul F-9?

A It was used in hydraulic equipment, primarily in the metalworking industry.

Q What were the applications of Pydraul 150?

A It was used as a fire-resistant hydraulic fluid, primarily in hydraulic systems exposed to low temperatures.

For example, a steel mill.

Q Did Pydraul 150 have chlorinated biphenyls in it?

A Yes, it did.

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Q Did it also have phosphate esters?

A Yes, it did.

Q Do you remember approximately when it was put on the market?

A Only that it was between 1950 and 1956.

Q What were the applications of Pydraul 625?

A Again, a fire-resistant hydraulic fluid used primarily in the metalworking industry, but for equipment that required a more viscous fluid.

Q More viscous than F-9?

A That is correct.

Q What would be the example of the industry?

A A large forging press.

Q Do you remember when Pydraul 625 first came on the market?

A As I said, only that it was between 1950 and 1956, and I don't know if it preceded or followed Pydraul 150.

Q Do you remember what the next Pydraul was that was put on the market?

A I believe it was Pydraul AC.

Q Do you remember when that was put on the market?

A No, I do not.

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Q Could you give me a range of years?

A My best guess would be 1956, plus or minus a couple of years.

Q What was the application of Pydraul AC?

A Primarily as a fire-resistant lubricant for air compressors.

Q Did Pydraul AC contain chlorinated biphenyls?

A Yes, it did.

Q Did it also contain phosphate esters?

A Yes, it did.

Q Did Pydraul 625 contain chlorinated biphenyls?

A Yes, it did.

Q Did it also contain phosphate esters?

A Yes, that is correct.

Q Do you remember after Pydraul AC, which was the next Pydraul to be put on the market?

A I believe it was Pydraul A-200.

Q Do you remember approximately when that was put on the market?

A Approximately 1958.

Q Did Pydraul A-200 contain chlorinated biphenyls?

A Yes, it did.

Q Did it contain phosphate esters?

A No, it did not.

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Q What were the applications for Pydraul A-200?

A Similar to those for Pydraul F-9.

Q Were you involved in the development of Pydraul A-200?

A From a commercial sense, yes.

Q Were you involved in the changeover from Pydraul F-9 by virtue of the elimination of phosphate esters? Do you know whether that was done?

MR. FEATHERSTONE: You have two questions. One assumes there was a changeover from F-9 to A-200. I don't think that is correct.

If you want to ask your second question which is a different question, fine, but which is it?

BY MS. STEIN:

Q Was Pydraul A-200 intended to replace Pydraul F-9?

A Not necessarily.

Q What would be those applications in which Pydraul A-200 would not replace F-9?

A It was a customer's choice. They could be used one or the other, but we gave the customer a choice of which they preferred.

Q What were the differences between Pydraul F-9 and Pydraul A-200?

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MR. FEATHERSTONE: Functionally? You have the chemical differences.

BY MS. STEIN:

Q Functionally.

A Pydraul A-200 was lower in price. I don't know if that was functional, but there was a distinct difference.

Q Were there different fire-resistant capabilities?

A Yes. Pydraul A-200 was still a bit better.

Q Was there a difference in wear or usage, for example, with Pydraul A-200 or was it advertised as holding up better or for a longer period of time than Pydraul F-9?

A I believe it was stated that Pydraul A-200 had greater stability against temperature and moisture contamination. That it is more stable.

Q Were you involved in visiting customers to describe Pydraul A-200 and discuss its differences from Pydraul F-9?

A Did you ask if I was involved?

Q Yes.

A I was involved to some extent with primary responsibility being with our salesmen.

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Q Did you ever make calls on any customers?

A Yes.

Q Did you make any calls on Johnson Motors in connection with a possible changeover from Pydraul F-9 to Pydraul A-200?

A I don't believe that I was involved in calls to Johnson for that purpose.

Q Do you know who was?

A I remember it as being our field salesman, whoever that was at that time.

Q Do you remember who the field salesman was at that time?

A No, I do not.

Q Which was the next Pydraul?

A Could I take a short break?

, MR. FEATHERSTONE: Sure, is that all right?

MS. STEIN: That is fine.

(Brief recess had.)

BY MS. STEIN:

Q After A-200, which was the next Pydraul introduced by Monsanto?

A I don't think any more were introduced while I was involved, so I don't remember which might have been next.

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Q Do you know whether there was ever a Pydraul F-9A?

A I am not familiar with that term.

(The witness conferred with
his counsel.)

MR. FEATHERSTONE: He has since remembered another Pydraul. Do you want it?

MS. STEIN: Yes, go ahead.

MR. FEATHERSTONE: This was prior to the time you got out of the Pydraul business?

THE WITNESS: I'm pretty certain it was.

It was Pydraul 312.

BY MS. STEIN:

Q Do you remember approximately when that would have come out on the market? That was Pydraul 312.

MR. FEATHERSTONE: About the time you left the business?

BY THE WITNESS:

A Approximately, yes.

BY MS. STEIN:

Q That is approximately 1968?

A Yes, but I am not really sure of the date.

Q Do you know whether Pydraul 312 had chlorinated biphenyls in it?

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A Yes, it did.

Q Do you know whether it had phosphate esters in it?

A Yes, it did.

Q Do you know what the applications of Pydraul 312 were?

A Similar to Pydraul F-9 and Pydraul A-200.

Q What would be the differences in application for Pydraul 312 from the application for Pydraul F-9 and A-200?

A Again, a customer's choice. They could use one or the other.

Q What were the characteristics of Pydraul 312, the functional characteristics or the price characteristics of Pydraul 312 that made it different from Pydraul A-200?

A It was still lower in cost than Pydraul A-200, as I recall.

Q Did it have different fire-resistant characteristics from Pydraul A-200?

A Yes. It was not quite as fire-resistant as Pydraul A-200.

MR. FEATHERSTONE: Would you read what he just said?

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(Answer read.)

BY MS. STEIN:

Q Was it as stable under high temperature conditions as Pydraul A-200?

A No, not quite as stable.

Q Mr. Davis, do you know whether Monsanto obtained patents for any applications of Pydrauls or any patents on the Pydraul formulations?

MR. FEATHERSTONE: That is the question now?

MS. STEIN: Yes, that is, sorry.

BY THE WITNESS:

A I really don't know.

BY MS. STEIN:

Q Are you familiar with Monsanto Aroclors?

A Yes, somewhat.

Q Can you tell me which Aroclors are in Pydraul F-9?

A I'm not sure which ones are in F-9.

Q Do you know which Aroclors are in Pydraul 150?

A I think I know. I think it was Aroclor 1242, but I'm not positive.

Q Do you know which Aroclor was in Pydraul 625?

A No.

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Q Do you know which Aroclor or Aroclors were in Pydraul AC?

A No.

Q Do you know which Aroclor or Aroclors were in Pydraul A-200?

A Yes. I believe it was both Aroclor 1248 and 1242.

Q Do you know which Aroclor or Aroclors were in Pydraul 312?

A No, I do not.

Q With respect to those Pydrauls for which you told me you did not know which Aroclor or Aroclors were in, did you know at one time?

A Yes, I did.

Q Would that have been between 1956 and 1968?

A Yes.

Q Do you know how long Johnson Motors has been purchasing Pydraul fluids?

A Not exactly.

Q Was Johnson Motors purchasing Pydraul in 1956?

A Yes.

Q Which Pydraul was Johnson Motors purchasing at that time?

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A Pydraul F-9.

Q Did Johnson Motors ever change to purchase another Pydraul?

A I believe they did.

Q Which one was that?

A That would be Pydraul A-200.

Q Did they continue to purchase Pydraul A-200 during the time that you were the Supervisor for Pydraul Sales?

A As I recall, they did.

Q After 1968, do you know whether Johnson Motors continued to purchase any Pydraul fluids?

A Do I know?

I am going to say I believe they continued to purchase Pydraul fluids.

Q Were you involved with any Pydraul sales in any manner whatsoever after 1968?

A No, I was not.

Q By that, do you mean you had no direct responsibility for Pydraul sales after 1968?

A That is correct.

Q But it is possible that by virtue of your continuing employment at Monsanto that you might have known whether or not Pydraul was sold to various people?

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MR. FEATHERSTONE: It is a possible question?

MS. STEIN: Yes.

MR. FEATHERSTONE: It is a possible question.

Answer.

BY THE WITNESS:

A As I already said, I think I remember hearing that Johnson Motors continued to buy Pydraul A-200, so yes, it is possible.

BY MS. STEIN:

Q As the Supervisor of Pydraul Sales, did you ever visit the customers?

A Yes.

Q Did you ever visit Johnson Motors?

A Yes.

Q When did you visit Johnson Motors?

A I think I visited when it was quite new, excuse me. Could you restate your question?

Q Between the period from 1956 through 1968, did you ever visit Johnson Motors?

A Yes, I did.

Q When was that?

A It would be primarily in the early years between 1956 and 1958.

Q Do you remember what the purpose of those visits

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was?

A Customer relations, calling with our field salesman to let them know who I was.

Q Could you describe what you mean by customer relations, please?

A I was introduced to the people at the plant as the man involved with Pydraul fluids in St. Louis. I was shown their facilities briefly and another occasion, it was strictly a social visit, going ice fishing.

Q Do you remember when that ice fishing trip was?

A It was between '56 and '58.

Q Did you see Johnson's die casting operations on the visit when you were shown the facilities?

A Yes, I was in the shop briefly.

Q Are you familiar with die casting machinery?

A Slightly.

Q Could you describe what you mean by slightly?

A I was familiar with hydraulic systems because they involved that product, but not the operation of a machine.

Q But you knew in general what die casting was as an industrial process?

A Yes.

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Q After these visits in 1956 to 1958, that time period, did you make any other visits to Johnson Motors?

A I don't recall, but it is possible that I did.

Q During the period from 1956 to 1968, did representatives of Johnson Motors ever come to St. Louis to talk with you about Pydraul?

MR. FEATHERSTONE: The period of time was '56 to '68?

MS. STEIN: That is correct.

BY THE WITNESS:

A No, I don't believe they did.

BY MS. STEIN:

Q Between the period 1958 to 1968, what was the mechanism in the Organic Chemicals Division, Functional Fluids Group, in which you were the Supervisor of Pydraul Sales for managing customer complaints?

Was there a routine mechanism of some kind?

A Yes, there was a mechanism.

Q Could you describe that mechanism, please?

A Again, it depends on the nature of the complaint, but it originated as a communication between the customer and the field salesman.

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Q Were the sales representatives required to make any kind of written notation of customer complaints?

A Yes. Not initially but if the complaint was significant and was valid, it was certainly written up, yes.

Q What were the criteria for determining whether or not it was a valid complaint?

A If the shipment was one hour late and it could be settled by telephone calls, as an example, that might not be written up as a formal complaint against the plant that would require supervisory action and investigations and follow-through.

If the truck had been a whole day late, there certainly would be a write-up and the matter would be investigated and actions taken to prevent reoccurrence.

Q With respect to customer complaints about product, the Pydraul quality, how were those handled?

MR. FEATHERSTONE: You are assuming there were complaints.

BY MS. STEIN:

Q Were there ever any complaints about the Pydraul quality?

A I'm sure there were.

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MR. FEATHERSTONE: I didn't know what he was going to say.

BY MS. STEIN:

Q What was the mechanism for handling between the 1956 and 1968 period, customer complaints about Pydraul quality?

MR. FEATHERSTONE: What do you mean by quality? Do you mean its functional characteristics or its performance in the plant?

I don't know what you mean by quality.

BY MS. STEIN:

Q Any customer complaints. I do intend for it to be a very broad question.

MR. FEATHERSTONE: So you don't have any particular meaning in mind when you say product quality?

MS. STEIN: Can we let the question stand, please?

MR. FEATHERSTONE: Do you understand it?

THE WITNESS: I think sufficient to answer it.

MR. FEATHERSTONE: All right. When you answer the question, state what it is that you understand the term or phrase product quality to mean. I think that will solve the problem.

BY THE WITNESS:

A I understand that if the field salesman

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receives a complaint from the customer which is not related to the delivery service but to something other than that, he would notify his supervisor, the field sales manager, the product group. That is the Pydraul Marketing people, and usually the Chief Chemist of the plant in which the product was made.

BY MS. STEIN:

Q Were Pydrauls manufactured at any other plant other than the J. F. Queeny Plant?

A I believe the W. G. Krummrich Plant also manufactured at some time.

Q Do you know whether there were any other Monsanto facilities that manufactured Pydrauls?

A I don't believe there were any others, at least while I was involved.

Q If a field representative received a complaint about performance of a Pydraul, what would be the procedure for handling such a complaint?

MR. FEATHERSTONE: By performance, that is again very broad, is that right? You don't have any particular performance characteristic in mind, do you?

MS. STEIN: Performance as a hydraulic fluid.

MR. FEATHERSTONE: Functional performance?

MS. STEIN: Yes.

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BY THE WITNESS:

A The field salesman would certainly notify the product group, the Pydraul Marketing group.

BY MS. STEIN:

Q What would be the next step?

A Depending upon the problem, the Pydraul Marketing group and/or the field salesman might conduct applications research.

Q Who or what was applications research?

A Applications research was a part of our R&D program that was dedicated to an understanding of functional performance as opposed to chemistry of Pydraul fluids.

For example, they would run pump tests.

Q Between the years 1956 and 1968, who in the applications research department was responsible for these functional performance tests on Pydraul fluids?

A I believe it was Lou Stark.

Q What would be the next step after notifying applications research?

A If the problem could be understood and resolved by telephone between the salesman, the customer, the Pydraul marketing group and applications research or any combination of these, it would be resolved.

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If it were necessary for a visit to the plant, then the appropriate people from that group would make the visit with the salesman.

Q To the customer?

A To the customer.

Q Was there ever a procedure for getting samples of the product from the customer and bringing them into Monsanto for analysis of some kind?

A Yes.

MR. FEATHERSTONE: This is the Pydraul product we are talking about?

MS. STEIN: That's right.

BY THE WITNESS:

A Yes, there were procedures.

BY MS. STEIN:

Q Could you describe that procedure?

A The salesman generally went to the customer to obtain the sample. Sometimes he even brought a sample bottle with him so that the sample could be mailed back to St. Louis and depending upon the nature of the question, it would either go to the plant, the laboratory of the plant that made it, or more frequently go to the applications research laboratory.

Q Do you know whether there was a similar

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kind of sample analysis program available for other products in the Organic Chemicals Division that contained PCBs?

MR. FEATHERSTONE: Could you read the question back, please?

(Question read.)

BY THE WITNESS:

A Yes, I believe the same approach was taken.

BY MS. STEIN:

Q Between the period from 1956 to 1968, were you routinely copied in on reports from the field sales personnel of customer contacts?

A I believe I was.

Q Do you know who else was routinely copied in on these reports of field representative visits to the customers?

A Certainly the field salesman's boss, the District Manager, and my copy might have gone to or been shared with the Technical Service man on Pydraul who reported to me as we discussed earlier. But those were the primary contacts unless there was some reason to include other people.

Q During the period 1958 to 1968, who was the Technical Service person for Pydrauls who reported to

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you?

A Dale Smith.

Q What is his educational background?

A I don't know.

Q Did he have any marketing responsibility during the period 1958 to 1968?

A No, only technical service.

Q By technical service capability, do you mean he would answer questions about product composition or compatibility with other products?

A Yes.

Q During the years 1956 to 1968, were you involved with the development of Monsanto technical bulletins on Pydrauls?

A Yes.

Q Could you tell me what that role was?

A As I recall, it was to decide what information would be helpful to give a customer, compile that information from various sources, be it research or medical, and see to its printing, to proofread it to be sure it contained proper information.

Q Were you the person?

A And to achieve the necessary approvals from Medical and Legal in Monsanto before publishing.

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Q Then were you primarily responsible for the preparation and dissemination of these technical bulletins?

A Yes.

Q Could you describe the process of developing a technical bulletin on the Pydraul fluids?

A It varied considerably, but either I or the Advertising Department would follow the format of previous bulletins on a similar product and change the content to be appropriate for the product that we were talking about.

Q Were these regularly updated?

A They were updated as needed, when there was something new to say.

Q What would be the something factors that would render a previous edition of a technical bulletin obsolete?

A Certainly if it were a new product, if I understand your question, if it were Pydraul A-200 or as opposed to Pydraul F-9, we would write a new bulletin and pose its properties.

Q For the same product, assuming Pydraul F-9, the Pydraul F-9 technical bulletins would have been updated?

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A I really don't remember the Pydraul F-9 bulletins being updated. It may have been. It was printed, but I don't know if it was changed.

Q Would there have been any of the other Pydraul technical bulletins that were revised?

MR. FEATHERSTONE: The time period you are talking about is the time period Mr. Davis was involved in Pydraul fluids?

MS. STEIN: 1956 to 1968.

MR. FEATHERSTONE: Okay.

BY THE WITNESS:

A As best I recall, the bulletins did not require revising during that time period.

BY MS. STEIN:

Q Did you do a draft and then circulate that draft to other portions of the Organic Chemicals Division?

A That is the customary procedure I used.

MR. FEATHERSTONE: The customer?

THE WITNESS: Customary procedure I used.

BY MS. STEIN:

Q You would get comments from these various departments within the Organic Chemicals Division?

For example, you would get comments

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from the Research & Development for Functional Fluids?

A They would either write their portion or critique the portion that I or Advertising had written, yes.

Q Who was responsible for giving you input on those technical bulletins?

A Primarily Lou Stark.

Q Who was responsible in the Medical Department for giving you input into the technical bulletins?

A Primarily Elmer Wheeler.

Q Anybody else in the Medical Department?

A Director, Dr. Kelly.

Q Going back to the Research Department, did Dr. Richard give you any input?

A His input was more review and approval of what had been done.

Q Did you get input from Manufacturing, comments of the Organic Chemicals Division as well?

A That was rarely required.

Q Did you get input from the Legal Department of Monsanto?

A We always got a review as opposed to input.

Q Did you have to get the approval of the Legal Department before a technical bulletin could be

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issued?

A Yes, we did.

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Q Did the Director of Marketing review technical bulletins?

A Generally he did not.

Q What were the necessary approvals that had to be obtained before a technical bulletin for Pydraul could be put out to the public?

A As I recall, it was both Medical and Legal that was required.

Q Who worked in developing a draft of technical bulletins in the Pydraul sales component of the Functional Fluids group during the period 1956 to 1968?

A I have indicated that either Advertising or I would initiate the literature and then we would send it out for reviews and critiques.

Q With respect to the sales information as opposed to technical bulletins, and I am talking now you had something, did you not, called Pydraul selector guides?

A I seem to remember a selector guide, but I don't remember when that was, if it was during my period of '56 to '58 or after.

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Q '56 to '68?

A '68.

Q You do not remember being involved in the development of the Pydraul selectors?

A I remember their existence, but I apparently was not the author in that I don't remember them as well as the others.

Q Was it the Medical Department that was responsible for the input and information on toxicity in the Pydraul technical bulletins?

A Yes. In fact, generally they presented us with the information to put in as opposed to our writing one for their approval.

Q That would have been Mr. Wheeler?

A Yes.

Q With the approval of Dr. Kelly?

A I don't know whether he had the authority or whether he had to seek Dr. Kelly's approval, I don't know.

Q During the period from 1956 to 1968, were you involved in the development of Pydraul labels?

A Yes.

Q Would you describe what your role was in the development of these Pydraul labels?

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A Monsanto from time to time, or at least at one time, attempted to have a corporate standard type of label for all products as far as physical appearance was concerned. So I was involved in conforming with that standard, presenting all the information necessary on our product.

MR. FEATHERSTONE: Which copy do you want to show him? I will be happy to show him this one.

MS. STEIN: You can compare them to make sure.

MR. FEATHERSTONE: I just want to make sure I have the identical one.

(Davis-Government Deposition

Exhibit No. 3 marked for

identification, 1/29/81, TLU.)

BY MS. STEIN:

Q I am going to show you what has been marked as Davis-Government Deposition Exhibit No. 3 and ask you if you are familiar with that document.

A Would you repeat your question, please?

Q I haven't asked one yet.

MR. FEATHERSTONE: You did, actually. It was are you familiar with the exhibit? That was the question.

BY MS. STEIN:

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Q Are you familiar with this?

A Yes.

Q Did you review it before you came in here today?

A Yes.

Q Did you review it yesterday?

A That is correct.

Q Let me back up for a minute here.

None of the copies that we received is very clear and I could not see who the addressees are, nor could I tell what the date was.

Do you remember when you wrote this?
I believe it is a memorandum.

A I don't remember when I wrote it, but it was during the -- I did write it and it was during the period that I was involved with Pydraul.

Q Do you recognize the handwriting in the margins?

A No, I do not. I recognize the signatures.

Q The initials, you mean, in the margins?

A Yes.

Q Whose initials are those?

A I believe the one on the left is George Buchanan. I'm not sure about the one on the right.

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It might be John Newcombe.

Q In the first paragraph of the memorandum, you state:

"Due to recent changes in the labeling laws of several states it is necessary to include the precautionary information on many product packages. The Pydrauls are included in this category."

How did you become aware of changes in the labeling laws of several states?

A From one of the departments within Monsanto. It may have been the Label Department.

Q Was there a Label Department between 1956 and 1968 for the entirety of the Monsanto conglomerate?

MR. FEATHERSTONE: Do you mean did Monsanto Company have a Label Department, is that what you mean?

We can dispense -- that is Ling, Temco, Vaught, or something. It is not a conglomerate. Why don't you phrase the question that is proper.

MS. STEIN: Rather than nitpick, I will change it, but the question was not objectionable or offensive.

MR. FEATHERSTONE: It is not accurate.

BY MS. STEIN:

Q Did Monsanto have a central labeling department?

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A There was a labeling department. I don't recall if it served part of the company or all of the company, but there was a Label Department, with which I dealt.

Q Did it serve the entirety of the Organic Chemicals Division?

A Certainly that, yes.

Q Did it also serve the Inorganic Division?

A As I explained, I don't know if it served that also or if they had their own.

Q Did somebody describe to you the kind of changes that would have to be made in Pydraul labels as a result of these labeling laws?

A Yes.

Q That was what prompted this memorandum?

A Yes.

Q Do you remember who it was who told you?

A As I said, the best I can recall, it might have been the Label Department that served us or it might have been the Medical, but I believe it was the Label Department.

Q Do you remember whether you were required to specify that Pydraul included chlorinated hydrocarbons?

A I recall that the State of California and

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perhaps others had a new law that said any product containing chlorinated hydrocarbons must so state on the label for the products to be shipped to the consumer in their state. That is what I remember.

Q Were you charged with the development of the label for all Pydraul products that would conform with these labeling laws?

A Yes.

Q Did you prepare one label for one state and a different label for a different state?

A No, we used the same label throughout the country.

Q Prior to the date of this memorandum, and I really cannot tell what the date of it was, do you know whether or not the Pydraul labels contained information stating they contained chlorinated hydrocarbons?

A I believe they did not so state.

Q Do you know whether they stated prior to the date of this memorandum that the Pydrauls contained polychlorinated biphenyls, specifically?

A I believe the labels did not state that.

Q After the third paragraph of this Davis-Government Deposition Exhibit 3, there is some suggested language beginning, Caution, contains chlorinated

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hydrocarbons, and then there are four precautionary measures which I think were also to be included on the label, is that correct?

A That is correct.

Q What was the source of the information contained in those four measures? Did you develop it?

A No, I did not develop them.

Q From whom did that information come?

A I believe it came from a suggestion from the State of California or it might have been part of a law, I really don't recall clearly, but I believe it was California law.

MR. FEATHERSTONE: Wait, she is referring to, if I am not mistaken, paragraphs, if you would examine those, that begin with, avoid prolonged breathing of vapors or mists, avoid contact with eyes or prolonged contact with skin -- is that what you were referring to, Mr. Davis?

THE WITNESS: That's what I was referring to.

BY MS. STEIN:

Q Do you remember whether you sent a copy of this memorandum to the Medical Department?

A I am quite certain that I did.

Q Did the Medical Department have any

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responsibilities, do you remember --

A As best I remember, this was discussed with the Medical Department before the bulletin was issued and the bulletin was issued to our field sales people.

MR. FEATHERSTONE: The bulletin is the exhibit here?

THE WITNESS: The bulletin is the exhibit which went fairly widely within Monsanto.

BY MS. STEIN:

Q With whom in Medical would this labeling change have been discussed?

A I would expect it to be Elmer Wheeler.

Q Who is Jack Garrett?

A Jack Garrett was an industrial hygienist, I believe, and he worked in the Medical Department.

Q Did you ever work with him on any labeling change?

A I worked with him on matters regarding Pydraul. I don't recall whether labeling was one of them.

Q Do you remember how long he was in the Medical Department at Monsanto?

A No. It was a long time, but I don't know the dates.

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Q Do you remember whether he was there between 1958 and 1968?

A I believe he was, for at least part of that period.

Q On the next to the last paragraph of this first page of Davis-Government Deposition Exhibit No. 3, there is a paragraph that says:

"Most of your customers will not be concerned if this recent change in state legislation is explained to them and they expect to see the label on Pydraul containers. They may be quite concerned, however, if they see the label without prior explanation."

Could you describe for me the basis for your statement that the customers would not be concerned if this recent change in state legislation is explained to them?

A What I meant was it was not a change in the product that required special handling, but it was a new warning and required in the State of California.

If it was not explained, they might be concerned that the product had changed or that there was something new they should be worried about as far as handling the material.

Q In conjunction with this change in the label,

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do you remember whether there was any information disseminated to customers regarding handling of the Pydrauls?

A Would you repeat that?

Q At the time of this bulletin, you were talking about changing the labels. At this time, was there any discussion about disseminating information to customers regarding the handling of the Pydrauls?

A I understand your question. The discussion or the communication with customers was to be from the field salesmen and that was the intent of this bulletin, asked the field salesmen to explain to their customers that there was a label change, but no change in the products.

Q Were the Pydraul sales representatives given any kind of training by Monsanto?

A Yes.

Q Could you describe what that training was?

MR. FEATHERSTONE: Wait a minute.

Were you involved in the training of these people?

THE WITNESS: At times, yes.

MR. FEATHERSTONE: I guess you can describe the training that you gave them.

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They reported to somebody else, Ms. Stein. That is the problem. If you look at his diagram, the field sales representatives report to the District Sales Manager who reported to the Director of Marketing, not to Mr. Davis.

MS. STEIN: I don't think the direct lines of chain of command are dispositive of whether or not Mr. Davis knew what kind of training was given to the sales representatives.

MR. FEATHERSTONE: But you asked him to testify about how those people were trained and you haven't established a foundation that he knows how they were trained and if he knows how they were trained, to what extent they were trained. They were not his people.

MS. STEIN: I did in fact ask him whether he knew that the sales representatives were given training by Monsanto.

MR. FEATHERSTONE: That's right. That says he knows they were trained, but that does not tell us anything more than that.

MS. STEIN: And I am asking him now to tell me what he knew about the training that was given to the sales people.

MR. FEATHERSTONE: That is a different question.

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What do you know about it?

BY THE WITNESS:

A I know the field sales people received some formal training in selling with which I was not involved, and they also received some training in the products that they were selling.

BY MS. STEIN:

Q Were you involved in that?

A I was involved with some of the training on Pydraul and its use, yes.

Q Could you please tell me the substance of that training?

A As best I recall, we explained to them what a hydraulic system was, what Pydraul's purpose was, the advantages of Pydraul over other hydraulic fluids. Those were the primary things.

Q Did you discuss with them products made by competitors?

A Of course we described what the competitive choices of products were that were available and who made them, yes.

Q Did you have available to you information listing the chemical components of competitors' fluids?

A No, not written material.

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Q How did you know what the competitors' fluids were then?

A They advertised.

Q Did you have that advertising information available to you?

A We read it.

Q Did you use that in developing your presentation for training to the sales representatives?

A The advertising told us that our competitors' products were made with water or without water, this sort of thing. I cannot say that it was a basis of training, other than to say we understood something about water-containing fluids. This one we know is water-containing because the customer so advertised.

MR. FEATHERSTONE: You mean the supplier?

BY THE WITNESS:

A (Continuing.) The supplier, I beg your pardon.

So we can tell you the advantages of Pydraul fluids over that type of fluid.

BY MS. STEIN:

Q Did you give the sales people information relating to the chemical components of Pydraul fluids?

A We told them about the composition. I don't

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recall whether we handed them written material or not, but we certainly did tell them the composition.

Q Did you tell them that Pydraul contained chlorinated hydrocarbons?

A Yes, we did.

Q You mentioned you also told them the purpose of Pydrauls?

A Yes.

Q Could you tell me in more detail what you meant by the purpose of Pydraul?

A The functional purpose. Pydraul was to replace petroleum hydraulic fluids in those applications where the petroleum fluids could represent a significant fire hazard and we discussed fire-resistance.

We also described that Pydraul's purpose was to perform similar to the petroleum fluids in its hydraulic sense, that is that it be non-compressing and that it lubricate the pump, which was pumping it, et cetera.

Q Did you also give the sales representatives information relating to the physical structure of hydraulic systems?

A Very fundamental, yes.

Q Did you discuss with them compatibility of

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various components of hydraulic systems with various kinds of hydraulic fluids?

A Yes, we did.

Q Could you give me a description of what kind of information you gave to these sales representatives?

A We told them that our Pydraul fluids required elastomer seals that were not the same as those used for the petroleum oil. Certainly those seals where there is motion and that these should be made of different materials and we explained what those materials are.

This was the same information generally we had in our technical bulletin.

Q Do you know whether the field representatives discussed seal compatability and Pydraul fluids with the customers?

A Yes, I'm quite certain they did.

Q Did you ever discuss compatibility of seals and Pydraul fluids with customers yourself?

A Yes.

Q Did you ever discuss it with Johnson Motors?

A I really don't recall it. Normally if it was a question, I would discuss it, or if it was appropriate to discuss it, I would, but I don't directly

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recall whether I had that exact discussion with Johnson Motors.

MR. FEATHERSTONE: Are you done with Exhibit 3?

MS. STEIN: For right now.

BY MS. STEIN:

Q Let us turn to the Pydraul production for a moment.

Do you know whether Monsanto has a routine mechanism for checking Pydraul purity before it leaves the manufacturing facility?

A Yes.

Q Who would be responsible for overseeing that quality control program, if you will?

MR. FEATHERSTONE: You mean at the plant?

MS. STEIN: At the plant.

BY THE WITNESS:

A The manager of that production department would be responsible to see that samples were taken and analyzed and that the product conformed to specifications, that the analyses results were within the specifications that he had for that product before he could ship it out of his department.

BY MS. STEIN:

Q And the product manager, you said?

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A Production manager, manager of that production unit.

Q That was at the individual plant?

A Yes.

Q Who was the production manager at the Queeny Plant involved with Pydraul?

A I simply do not recall.

Q Who was the production manager for Pydraul at the Krummrich Plant?

A I also don't recall that.

Q Were you involved in the development of Pydraul specifications?

A Yes.

Q Could you tell me what your role was in the development of Pydraul specifications?

A The Applications Research people and I would discuss and agree on those properties which were important to control the properties of the fluids and specifications were proposed that were meaningful to the application proposed by the Applications Research people and proposed by the plant as to how tightly they could control in a range, these specifications.

My job was to see that this all matched up and it was logical that the plant could produce what

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the customer needed. It was sort of an overseeing role that I played.

MR. FEATHERSTONE: Would you read that answer?

(Answer read.)

BY MS. STEIN:

Q Were product specifications developed without reference to specific customers?

MR. FEATHERSTONE: Are you talking about functional specifications now or chemical specifications?

MS. STEIN: Functional for now.

BY THE WITNESS:

A Functional specifications were defined by the application and since essentially all applications had multiple customers, the answer is no, we did not make physical, actual physical performance specifications for any customer that I can recall.

BY MS. STEIN:

Q Is it accurate to say that you were developing the product and the specifications based on perceived needs in industrial applications within an industrial category or an industrial use but not on a customer by customer basis? Is that right?

A That is correct.

Q Did product specifications also have a

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chemical component as say a functional component?

A In Pydraul?

Q Yes.

A No, they were physical properties we were measuring.

Q There was no specification relating to product purity, for example?

MR. FEATHERSTONE: You are using the word specification differently. That is the problem. That is why I asked whether it was a chemical specification or a functional specification.

I believe when he says specification, he is referring to the physical properties or foundations.

MS. STEIN: Performance characteristics is what you are talking about there.

MR. FEATHERSTONE: Right.

MS. STEIN: And I am asking now whether or not there were quality control type specifications for the Pydrauls.

BY THE WITNESS:

A I would answer it this way: There were specifications on the raw materials that went in, the various ingredients that were printed in. They had

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their specifications to which they had to conform.

Then these were brought together to make the Pydraul and the physical properties of blended Pydraul which we measured and told us quite a bit about the proper formulation. If something were incorrect, if it were incorrect in the formulation, the specifications would have shown it.

MS. OLIVER: Can I ask a question?

When you say formulation, you are talking about the chemical formulation now?

THE WITNESS: I am referring not as a chemical reaction but bringing together chemical entities and mixing them.

MS. OLIVER: The raw materials?

THE WITNESS: Yes.

BY MS. STEIN:

Q So you had functional specifications for the components and those functional specifications for the components would help you to determine whether or not the Pydrauls had a particular chemical quality purity?

A I am not following this properly.

MR. FEATHERSTONE: Again, I think you are beyond the scope of his job responsibility. He did not have

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quality control function in the plant.

MS. STEIN: I am asking him whether he knew whether or not there was one.

MR. FEATHERSTONE: Do you know that?

MS. STEIN: As a Supervisor of Pydraul Sales, I would think he knows that.

MR. FEATHERSTONE: You might think he knows it but that doesn't mean he does and that doesn't mean he doesn't know.

Do you know?

THE WITNESS: I've lost what it is.

MR. FEATHERSTONE: Pose the question, Ms. Stein.

BY MS. STEIN:

Q Do you know whether or not there was some mechanism for ensuring the chemical integrity of Pydraul fluids?

A Yes.

Q Can you describe to me what that mechanism was?

A I believe I can.

MR. FEATHERSTONE: Was that part of your job?

THE WITNESS: No.

MR. FEATHERSTONE: Give her what you can then.

BY THE WITNESS:

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A The materials that were blended into Pydraul had generally both chemical and physical property specifications which identified the chemical and its purity. These were brought together in certain proportions to make Pydraul and the physical properties of Pydraul were measured to ensure the proper blend of these properly pure components.

BY MS. STEIN:

Q But the chemical properties as opposed to physical performance properties of Pydraul were not measured as far as you know?

MR. FEATHERSTONE: You can answer that question as far as you know.

BY THE WITNESS:

A I don't believe that is correct.

MR. FEATHERSTONE: Is that somebody else's job? Was that somebody else's job responsibility?

THE WITNESS: That was somebody else's job responsibility.

BY MS. STEIN:

Q Assuring the chemical integrity of the Pydraul fluids?

A It was, I believe, performed and it was not my responsibility.

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Q Do you know who performed it?

A Yes. It was a combination of the Chief Chemist in the plant involved and the man responsible for manufacturing. There is a point that is not understood. Very briefly, chemical purity is often measured by physical properties.

Q What were the names of the people who were responsible for assuring the chemical and physical integrity of the Pydraul fluids?

A That is a fair question but I have already answered that I remember the Chief Chemist at the Queeny Plant was one of them and his name was Ray Geisman, and I don't remember who preceded or succeeded him. And I don't remember the man responsible for Pydraul at either the Krummrich Plant -- my memory just does not recall it.

Q Do you know for how many years this quality assurance program was in effect at the Queeny and Krummrich Plants for the Pydraul fluids?

A To the best of my knowledge, from their inception.

Q A while ago when we were talking about training for the sales personnel on Pydraul fluids, were there any course materials that were handed out

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in these training sessions?

A Course materials?

Q Any literature of any kind passed out, any memoranda?

A We reviewed our literature which of course the salesmen had, but we brought the matter and reviewed all phases with them carefully from application, proper handling, sales benefits. We reviewed copies of our own advertisements, testimonial advertisements by happy customers, that sort of thing, and I believe we had a sample book on hydraulic pumps that we got from one of our suppliers of pumps, like Vickers, and would give this out for better understanding of the system, that sort of course material, but nothing special, nothing specially prepared.

Q So no course manual of any kind?

A Not that I recall.

Q Or compilation of all these materials?

A Not that I recall.

Q Do you know what other kind of training besides that which you gave and the sales training for which you were not responsible the sales representatives received from Monsanto?

A No, I am not familiar with any other training

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that they received.

Q Do you know for how long Monsanto has had the training program, the sales and product-related training for its sales representatives?

A I believe it has been a practice of Monsanto from before the period which I was involved with Pydraul through today.

Q Was any part of the training with which you were familiar directed at techniques for getting or keeping business?

A I am not sure I understand what you mean by that.

Q Was the training with which you were involved related to the technical aspects of the product as opposed to techniques for getting and keeping customers?

MR. FEATHERSTONE: He has already explained that there was discussion of benefits of Pydraul versus other industrial hydraulic fluids which would certainly relate to your question. Do you want something beyond that?

MS. STEIN: I would like to know if there was anything more than that.

MR. FEATHERSTONE: Anything more that you were involved in?

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BY THE WITNESS:

A If I interpret your question, did I teach sales techniques or did I evolve the teaching of sales techniques, and no, I did not.

BY MS. STEIN:

Q Were you the only person who gave these technical training sessions to sales representatives?

A No, I would be joined by the Applications Research people.

Q Do you know who was responsible for the sales training the sales force received?

A Yes.

Q Who was it?

A I cannot say it was an individual. Field salesmen did then and always do report up through some kind of authority and part of that line of authority is the training responsibility and that, as an organization changes, there is always someone responsible for training of salesmen.

Q In the Functional Fluids Group, do you know who the individual or individuals were who were responsible for training the sales people?

A The same men as I am talking about, the salesmen received training and how to sell. There was

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someone responsible for that.

Separate from that, the product people, such as I, taught them about the product. They sold a number of products.

Q Who were the sales supervisors, if you will, who were responsible for training the sales force in Functional Fluids?

A Not in selling but in functional fluids?
I'm lost.

MR. FEATHERSTONE: She wants to know, and correct me if I am wrong, Ms. Stein, she wants to know the name of the individual or individuals who gave the sales training to the salesmen.

MS. STEIN: Sales people.

MR. FEATHERSTONE: Is that right?

MS. STEIN: That's right.

BY THE WITNESS:

A Sales training, not Pydraul training?

BY MS. STEIN:

Q That's right.

A I don't know the name of the man responsible for giving the sales training.

Q Do you know the name or the title or position of the person responsible for giving sales training to

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the sales people?

MR. FEATHERSTONE: Just calm down.

MS. STEIN: I am making sure it is clear.

BY THE WITNESS:

A I understand your question perfectly.

As I have said, the title and organization constantly changed but there is always someone affiliated with marketing in Monsanto and who has this responsibility --

MR. FEATHERSTONE: Beyond that you don't know the title?

THE WITNESS: I don't know the title.

MR. FEATHERSTONE: Fine, that answers the question.

BY MS. STEIN:

Q Please look at Davis-Government Deposition Exhibit No. 1.

In this organizational structure, which position would have been responsible for the sales training of the sales persons?

MR. FEATHERSTONE: Wait a minute. He just answered that.

MS. STEIN: No, he keeps saying the organization was changing. I am giving him a specific organizational framework to refer to and am asking if he could tell me

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within that organizational framework what position or who had the responsibility for sales training.

BY THE WITNESS:

A It would come under the responsibility of Director of Marketing.

BY MS. STEIN:

Q Looking at Davis-Government Deposition Exhibit No. 2, within this organizational structure, what position was responsible for training of sales people?

A There are two, depending on the exact date. There are two ways: This is a corporate staff off of this page which would be responsible for training the salesmen, and as I recall now, there was for some time a Field Sales Manager somewhere in this organization.

MR. FEATHERSTONE: Wait, somewhere in the organization? Do you know where?

BY THE WITNESS:

A (Continuing.) As best I recall, he was another part of this line here.

MR. FEATHERSTONE: Do you want him to draw it, Ms. Stein?

BY MS. STEIN:

Q Please draw it, Mr. Davis.

A I will draw it as a dotted line since it is

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an addition.

Q Thank you.

Do you know whether the sales force was periodically updated with product training of the type with which you were involved?

A They were certainly updated. They were updated through sales information bulletins such as the one produced recently.

MR. FEATHERSTONE: Exhibit 3?

BY MS. STEIN:

Q Exhibit 3?

A Yes, and they were updated by discussions and joint travel with product people such as me. Yes, they were updated, does that answer your question?

MR. FEATHERSTONE: That should have been the answer originally.

BY THE WITNESS:

A Yes, they were updated.

BY MS. STEIN:

Q You indicated one of the means by which the sales force was updated was sales information bulletins.

A Yes.

Q Were you responsible for preparing those for Pydraul sales for the period 1958 to 1968?

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A Yes.

Q Do you know whether those sales information bulletins which you prepared were routinely kept, copies of them routinely kept at Monsanto?

A Yes, I believe they were.

Q Do you know where those are located?

MR. FEATHERSTONE: Today?

MS. STEIN: Today.

BY THE WITNESS:

A No.

BY MS. STEIN:

Q Where were they kept during the period 1958 to 1968?

A In a file in the department.

Q And by department, what do you mean?

A The Functional Fluids -- well, again, our organization changed but they were in the file related to wherever I was, Pydraul Marketing Department.

Q Did you have custody of those files?

A Did I have custody of them?

Q Or control, were they in your office?

MR. FEATHERSTONE: Did you have access to them?

BY THE WITNESS:

A No. They were in a department file outside

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of my office.

I had access to them.

BY MS. STEIN:

Q Who succeeded you as the Supervisor of Pydraul Sales?

A You are speaking of after 1968?

Q After 1968.

A I am hesitating because there was a reorganization.

MR. FEATHERSTONE: All she wants to know is the name.

BY THE WITNESS:

A I don't remember the name.

MR. FEATHERSTONE: That is the answer.

BY THE WITNESS:

A I don't remember the name.

BY MS. STEIN:

Q Did the title change after the reorganization, the person who was responsible for Pydraul Sales? Did the title of that individual change after --

A I believe it did.

MR. FEATHERSTONE: By that, you are referring to the superintendent?

THE WITNESS: Supervisor.

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MR. FEATHERSTONE: Supervisor for Pydraul Sales?

MS. STEIN: That is correct.

MR. FEATHERSTONE: I don't think the two were synonymous.

BY MS. STEIN:

Q After 1968, was the title Supervisor, Pydraul Sales changed?

A Yes.

Q To what was it changed?

A I don't recall.

Q Was it changed at about the same time that you left that job?

A Yes.

Q Do you know what the mechanism was for Monsanto to get Pydraul business? Did the sales persons just go call on various companies or do you know what the mechanism was or mechanisms were for developing business in the Pydraul field?

MR. FEATHERSTONE: Go ahead. I wanted you to wait until she finished the question.

BY THE WITNESS:

A Yes. The primary mechanism was that field salesmen went out to call on customers.

BY MS. STEIN:

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Q Do you know what the criteria were for determining the enterprises on whom the field representatives made their calls?

MR. FEATHERSTONE: You are assuming there were criteria.

BY THE WITNESS:

A Yes, the salesmen called at companies that were in the business that normally used Pydraul. An example: The die casting business.

BY MS. STEIN:

Q Do you know how they knew who those companies were?

A I don't recall the mechanism used.

Q Do you know whether Monsanto had an award program for its sales personnel based on volume of Pydraul sales, like salesmen have yearly awards for selling X million dollars --

A Of Pydraul?

Q Yes.

A I don't believe there was such an award.

Q Was there any kind of incentive program for sales personnel in Pydraul Sales?

A I don't believe so.

Q Was there any kind of program for giving

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gifts or awards or citations to customers who purchased Pydraul based on you're a great customer, you bought X million dollars --

MR. FEATHERSTONE: You mean a customer of the year award?

MS. STEIN: Customer of the year award.

MR. FEATHERSTONE: Anything like that?

MS. OLIVER: We are not talking about kickbacks, whatever they might be. We are talking about a nice little gift?

MS. STEIN: That's right.

BY THE WITNESS:

A No.

BY MS. STEIN:

Q Are you familiar with Monsanto's record retention schedule?

A I've heard of it.

Q Are you personally familiar with it?

A Yes.

Q Would the sales bulletins that you prepared have been kept or destroyed according to the record retention schedule?

A I don't know.

Q Do you remember whether the record retention

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schedule dealt with sales information bulletins?

MR. FEATHERSTONE: Specifically?

MS. STEIN: Yes.

MR. FEATHERSTONE: Okay.

BY THE WITNESS:

A I don't recall that they singled them out.

BY MS. STEIN:

Q Was sales literature generally a subject of the record retention schedule of Monsanto?

A Sales literature? No.

Q Earlier we talked about product labels.

Who had the final approval authority for Pydraul labels during the period 1956 to 1968?

A There were joint responsibilities by many people: Labeling, manufacturing, product group, legal and medical.

Q Who has responsibility in the Medical Department?

A The Director of the Department was Emmett Kelly.

MR. FEATHERSTONE: The person who was responsible?

BY THE WITNESS:

A And he would have ultimate responsibility. If he delegated it below him, okay, but he was responsible.

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BY MS. STEIN:

Q Marketing also had an approval role, did you say? I am sorry.

A Yes, I included the product people, marketing, yes.

Q Going back to Exhibit 1, on Davis-Government Deposition Exhibit 1, who on this organizational structure had approval authority for labels in the Marketing Department?

A Did you say responsibility or authority?

Q Approval authority, final approval authority.

A It was delegated from the Director of Marketing down to the Supervisor of Pydraul Sales.

Q Therefore, during the period you were the Supervisor of Pydraul Sales, you had the approval authority for Pydraul labels within the marketing component of the organization?

A That's correct.

MR. FEATHERSTONE: Off the record for a second.

(At 12:40 o'clock p.m., a luncheon recess was taken to 1:15 o'clock p.m., this same day.)

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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

THE UNITED STATES OF AMERICA,)
)
 Plaintiff,)
)
 vs.) No. 78 C 1004
)
OUTBOARD MARINE CORPORATION)
AND MONSANTO COMPANY,)
)
 Defendants.)

January 29, 1981,

1:15 o'clock p.m.

The deposition of RICHARD J. DAVIS resumed
pursuant to noon recess at 200 East Randolph Drive,
56th Floor, Chicago, Illinois 60601, before Thea L.
Urban.

PRESENT:

MS. ELIZABETH STEIN,

MS. ROSEANN OLIVER,

MS. JOANNA NEW,

MR. BRUCE A. FEATHERSTONE.

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IN THE UNITED STATES DISTRICT COURT
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THE UNITED STATES OF AMERICA,)
)
 Plaintiff,)
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 vs.) No. 78 C 1004
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OUTBOARD MARINE CORPORATION)
AND MONSANTO COMPANY,)
)
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January 29, 1981,

1:15 o'clock p.m.

The deposition of RICHARD J. DAVIS resumed pursuant to noon recess at 200 East Randolph Drive, 56th Floor, Chicago, Illinois 60601, before Thea L. Urban.

PRESENT:

MS. ELIZABETH STEIN,
MS. ROSEANN OLIVER,
MS. JOANNA NEW,
MR. BRUCE A. FEATHERSTONE.

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A Mr. Ault was in charge of keeping a record of all specifications of that portion of Monsanto.

Q You approved the specification in 1961 and in one of the boxes it shows supersedes specs of July 15, 1959.

Do you recall that the specifications for the Pydraul fluids, including F-9, would be superseded by new specs at a different point in time?

A It appears that a new specification had been established.

MR. FEATHERSTONE: The question is do you recall that.

BY THE WITNESS:

A Do I recall it?

No, I don't. I do not recall that it was changed, I don't know that it was changed.

BY MS. OLIVER:

Q There is also written on the cover sheet here, Canceled 8/25/65.

Can you recognize that handwriting?

A No.

Q Do you recall that the specifications were canceled in 1965?

A No.

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the plant, leaving the machine?

A Yes, an area.

Q Falling on the floor would be a plant effluent?

A That or out of the building, as opposed to a water body.

Q If Pydraul left the die cast building, for example, to your knowledge that would be plant effluent?

MR. FEATHERSTONE: If it left the building?

MS. OLIVER: If it left the building.

BY THE WITNESS:

A Then it would be plant effluent.

BY MS. OLIVER:

Q Did you have knowledge at the time you wrote this memorandum that there were customers of Monsanto who were using Pydraul and in some instances Pydraul was leaving their building?

A Not actual knowledge.

Q You have no knowledge of it?

A I wasn't aware of where the Pydraul was.

Q Why had Monsanto prepared itself to design, install and start up new fluid recovery systems to remove Pydraul from plant effluent if you weren't aware there was any plant effluent?

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R I C H A R D J. D A V I S,

called as a witness herein, having been previously
duly sworn, was examined and testified further as
follows:

(Davis-Government Deposition

Exhibit No. 4 marked for

identification, 1/29/81, TLU.)

DIRECT EXAMINATION (Resumed)

BY MS. STEIN:

Q Mr. Davis, I show you what has been marked
as Davis-Government Deposition Exhibit No. 4 and ask
you if you have ever seen that document before.

A Yes.

Q Have you had a chance to review it?

A Yes, I have.

Q Did you review that document before you came
here today?

A Yes, I did.

Q Did you review it yesterday?

A Yes.

Q Is the Mr. Parham who was the Marketing
Director at one time in the Organic Chemicals Division?

A Yes, that is correct.

MS. OLIVER: For the record, could we identify what

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it is?

MS. STEIN: Sure.

It is a March 11, 1959 memorandum.

BY MS. STEIN:

Q Is that a memorandum, Mr. Davis --

A Yes.

Q -- from Mr. Davis to Dr. R. E. Kelly, and the subject is Pydraul Labeling.

It is a one-page document and it is Page 414 of the documents produced.

In that memorandum, you indicate that Mr. Parham has requested the permission from Douglas Aircraft to put a toxicity warning label on the enterprise Pydraul fluids, is that correct?

A Yes.

Q Do you know what was underlying Douglas Aircraft's request to put a toxicity label on enterprise Pydraul fluids?

A Yes.

Because the cost of the work Monsanto and Douglas did together in developing aircraft hydraulic fluids --

MR. FEATHERSTONE: The question was do you know what was underlying the request?

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MS. STEIN: Then I was going to ask, he anticipated my next question, which was what was underlying the request?

BY THE WITNESS:

A We had a joint program with Douglas Aircraft involving some of the early Pydraul fluids and so they were involved in some of the decisions such as this. We would consult them on some of the decisions such as this.

BY MS. STEIN:

Q Could you describe what that joint program was? Were they involved in the development of hydraulic fluids for aircraft?

A For aircraft, correct.

Q Were they involved in the development of what is known as the Skydrol fluids?

A Correct.

Q Were they also involved in the development of Pydraul fluids?

A Some Pydraul fluids.

Q Which were the Pydraul fluids which they were involved with?

A Pydraul, going backwards, AC, 625, 150 and F-9.

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Q What was their role with respect to those products?

A They did the performance testing, that is the pump testing.

Q This is for the physical properties of the various --

A For the performance properties, of lubrication properties.

Q Is this before these by-products, the Pydraul fluids went on the market?

A I don't understand your question.

Q Was this a joint development program?

A Yes, it was.

Q And the testing that was done by Douglas was done before the various Pydraul or the various substances that came to be known as Pydraul was put on the market?

MR. FEATHERSTONE: You mean the product Pydraul, before the Pydraul was marketed?

MS. STEIN: Yes.

BY THE WITNESS:

A They were developing Pydraul before it entered the market.

BY MS. STEIN:

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Q Did they continue to do performance testing of Pydraul after they were on the market?

A Yes.

Q Could you tell me what an enterprise Pydraul fluid is, please?

A The relationship between Monsanto and Douglas was called an enterprise.

Q That still does not give me a good idea of what you mean by an enterprise fluid.

A It was a Pydraul fluid that was subsequently developed under an enterprise contract between Monsanto and Douglas. Not all Pydraul fluids were in that joint enterprise. Those that were, we called enterprise fluids.

Q Therefore, the reference in there meant that enterprise fluids means Pydraul fluids other than those covered by those in this document from Douglas and Monsanto?

A Yes, correct.

Q Could you name for me what the non-Pydraul fluids were?

A From Pydraul A-200 in time, whatever the fluids were. I mentioned A-200 and 312. These two, those are the two I know of.

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Q You have indicated in the memorandum that the wording on the label was requested by Socony.

A Yes.

Q How was Socony involved?

A Socony, now known as Mobil, was a distributor for some period of time and I would imagine was a distributor of Pydraul for some period of time. And I would imagine they were at this time and that is why I wrote this. I don't remember beyond that.

Q Is it normal to have other companies distribute Pydrauls, companies other than Monsanto?

A Is it common, you say?

Q Yes.

MR. FEATHERSTONE: I think the word she used was normal.

MS. STEIN: Normal, yes.

BY THE WITNESS:

A Was it normal to have other companies distribute? Yes, for a period of time there were distributors for Pydraul in addition to our sales effort.

BY MS. STEIN:

Q Did you enter into a contract with these other companies?

A Yes, we did.

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Q Do you know generally what the responsibilities of that other company were with respect to distribution of Pydraul fluids under that contract?

A I remember few details. The intent was for them to be able to sell the product, become informed on the product and then sell the product.

Q Were they acting as sort of an agent for Monsanto?

A I don't understand.

Q Were they selling it and taking a commission?

A Yes.

Q How long did it take from the time that you wrote that memorandum until a new label was developed?

A I don't remember.

Q You were asking for comments from other people, is that correct?

A Yes.

Q With respect to proposed changes in the label?

A Yes.

Q You were asking for Pydraul F-9 labels, were you not, as well as Pydraul A-200, I think?

MR. FEATHERSTONE: I think it refers to enterprise Pydraul and non-enterprise Pydraul A-200.

MS. STEIN: All right.

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BY MS. STEIN:

Q Let me ask you this, Mr. Davis:

With respect to enterprise Pydraul fluids, how long was it from the time you wrote this memorandum to the time that a new warning label for enterprise Pydraul fluids was put onto the containers of those fluids?

A I would have to refer to the previous exhibit.

Q Exhibit No. 3?

A Yes.

MR. FEATHERSTONE: That is the one he is referring to.

BY THE WITNESS:

A But I can't read the date.

MR. FEATHERSTONE: It looks like either June or July 11, 1959, which would suggest three or four months.

BY MS. STEIN:

Q Attached to Deposition Exhibit No. 3 are four pages of Pydraul F-9 labels. There are no Pydraul A-200 labels attached. Therefore, I am asking how long from the time that you wrote your March 11, 1959 memorandum which is Deposition Exhibit No. 4 was it until you had a revised Pydraul A-200 label?

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A The same date because this document states that starting in immediately Pydraul A-200 will have this on its label as well.

Q Attached to Deposition Exhibit No. 3 are three different Pydraul F-9 labels, all of which are different.

Can you explain to me what the difference is between these labels and why they have different dates on them. Was there a chronology here of some kind?

MR. FEATHERSTONE: Ms. Stein, on my copy anyway, the copy the witness is looking at, the first sticker does not seem to have a date.

MS. STEIN: That is undated. The second one --

MR. FEATHERSTONE: I was only referring to the first one. We have a date on the others.

BY MS. STEIN:

Q The second and the third and the fourth all have different dates and the fourth does not have any warning on it.

A The first one which I have dated 1955 has on it a statement by Underwriters Laboratory relating to the fire-resistant properties of Pydraul F-9.

Q Was that the standard label for the Pydraul

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F-9 fluids?

A Yes, as I recall.

MR. FEATHERSTONE: What date?

BY MS. STEIN:

Q Before 1959.

A It was in 1959 and I can only presume there was no change between then and 1959.

MR. FEATHERSTONE: Yes, but you are not to presume. Do you remember if there was or was not?

THE WITNESS: I don't remember.

BY MS. STEIN:

Q The second and third of these labels, the second is dated February 16, 1960 and the third is dated August 15, 1959.

Can you tell me what differences there are on these labels?

MR. FEATHERSTONE: If any.

BY THE WITNESS:

A I don't see any difference.

BY MS. STEIN:

Q Were the Pydraul labels periodically reviewed by you?

A Only when there was a change.

MS. OLIVER: Could I ask a question

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Do you know how the stamp dates got on the label?

THE WITNESS: No, I don't know.

MS. OLIVER: When it was approved or the label was approved and was going to be put on a gallon or can or whatever, I presume Pydraul, was it the practice, if you know, to date the label?

THE WITNESS: Not in this fashion but a date was placed on the package, but not in the position shown here, okay?

BY MS. STEIN:

Q Where is the date placed on the packages?

A Stenciled on the side of the drum or the top of the drum.

Q What did the date reflect?

A The date the product was manufactured.

(Davis-Government Deposition

Exhibit No. 5 marked for

identification, 1/29/81, TLU.)

BY MS. STEIN:

Q Mr. Davis, I am going to show you what has been marked as Davis-Government Deposition Exhibit No. 5 for identification and ask you if you recognize that document.

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A Yes, I do.

Q When was the last time you reviewed it?

A Yesterday.

Q What does OS95 have a reference to?

A Pydraul A-200.

Q Who is H. S. Litsinger?

A H. S. Litsinger was in the Commercial
Development of Functional Fluids.

Q What was his responsibility?

A The commercial development of some fluids.

Q Could you be more specific?

A He was mostly involved with Skydrol and a
little in Pydraul.

Q Why would you have been writing to him?

A Because of his partial responsibility for
Pydraul commercial development.

Q By commercial development, are you saying
getting a stance onto the market for some kind of
use, is that what you mean?

A Yes.

Q This memorandum is entitled Toxicity of
OS-95. It is dated April 2, 1958.

A Yes.

Q At the time that you wrote this memorandum,

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were you the Supervisor of Pydraul Sales?

A Yes.

Q As the Supervisor of Pydraul Sales, did you as part of your duties and responsibilities in the course of your business get results of toxicity studies on substances which were proposed for marketing that were in the development process?

A I got interpretations by the Medical Departments, not the raw data.

Q In other words, this memorandum on toxicity of OS-95, the information that was underlying it was something you received from the Medical Department?

MR. FEATHERSTONE: You mean the entire document?

MS. STEIN: Yes.

MR. FEATHERSTONE: You better read it.

BY THE WITNESS:

A No, some of this relates to information from the Medical Department.

BY MS. STEIN:

Q Which portions of this relate to the information from the Medical Department?

A The quotations in Paragraph 1 and in Paragraph 2 where it says Jack Garrett, who was with the Medical Department, indicates thus and so. Those are

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the areas.

Q You have indicated that there is material in quotations in the first paragraph, the source of which was the Medical Department and these are phrases: practically non-toxic on oral ingestion, slightly toxic on skin absorption, only a mild irritant and only slightly irritating to rats exposed for six hours.

Were you familiar with what those designations meant from a toxicological standpoint?

A Not familiar, but an understanding.

Q What was your understanding of what these terms meant?

A That the product was safe to use without any special handling precautions beyond what we normally recommend for Pydraul.

Q In 1958 what were the handling precautions for Pydraul that you recommended?

A We stated then in the literature, and as best I recall, they were to avoid prolonged or repeated contact with the skin. If contact with eye occurred, they were to flush their eye with copious quantities of water. Those are the warnings I remember.

Q What did you mean here by special handling precautions?

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A Anything beyond the precautions we described for other Pydraul fluids.

Q Which was avoiding prolonged exposure, or getting them in your eye, exposure to vapor or avoiding contact with the skin, is that correct?

A I don't remember skin and I don't recall whether or not that was --

Q Why don't you repeat for me what the standard Pydraul precautions were since there seems to be some confusion.

MR. FEATHERSTONE: Well, Ms. Stein, he repeated what he could remember already. Do you want him to repeat again?

MS. STEIN: Apparently I misunderstood or he said something different from what I understood.

Unless you would like to have the reporter read it back.

MR. FEATHERSTONE: Why don't you repeat again, what you remember.

BY THE WITNESS:

A Avoid repeated or prolonged contact with the vapors and if eye contact occurs, wash with copious amounts of water.

BY MS. STEIN:

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Q What measure would constitute special handling precautions?

A Measures beyond those.

Q Are there any specific ones that you ever recommended with respect to any Pydraul product?

A Not that I recall.

MR. FEATHERSTONE: Ms. Stein, there are some on the Pydraul label that are in addition to what he has just testified to.

MS. STEIN: Mr. Featherstone, please don't testify. This is a deposition --

MR. FEATHERSTONE: Well, you are playing games. You want the witness to remember what was on labels 20 years ago or 30 years ago.

MS. STEIN: He testified he reviewed both these documents yesterday.

BY MS. STEIN:

Q In the second paragraph of Deposition Exhibit 5, you talk about toxicity testing of decomposition vapors and, "Jack Garrett indicates that this could be done by Kettering Laboratories for something of the order of \$2,000 or by Younger Laboratories for about \$400."

Do you know whether or not there was

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any toxicity testing of decomposition vapors for OS-95 that was performed?

A Yes, I'm quite sure there were tests performed.

Q Do you know who would have firm knowledge of whether or not such tests were performed?

MR. FEATHERSTONE: You mean assuming his knowledge isn't firm?

MS. STEIN: He said that he thought they had.

MR. FEATHERSTONE: No, Ms. Stein. He said I'm quite sure they were.

BY MS. STEIN:

Q Did you ever see the results of toxicity testing with respect to decomposition vapors of OS-95?

A Do you mean the raw results or the interpretation?

Q Let us start with the raw results.

A I don't believe I saw the raw results.

Q Did you see a summary of the results?

A I believe I did see an interpretation by the Medical Department.

Q Who would have been responsible for providing you with that summary?

A Dr. Kelly or his subordinates.

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Q Any particular subordinates?

A The ones we mentioned earlier, Elmer Wheeler or Jack Garrett.

Q During the time that you were Supervisor of Pydraul Sales, was Johnson Motors the largest Pydraul customer?

A They were large. I do not recall if they were the largest.

Q Who were the Monsanto sales representatives to Johnson beginning in 1958, if you remember?

A I don't remember.

Q One further question with respect to Deposition Exhibit No. 3 which is the sales information bulletin.

You indicated that sales information bulletins were a routine means of keeping the sales force current on information of the various products, isn't that correct?

A Yes.

Q Were there other sales information bulletins relating to the Pydraul products?

A Yes.

Q After this date?

A After this date?

Q Yes.

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A Yes.

Q Do you remember the dates of any of those?

A No.

Q Do you remember approximately how many of those there were?

A There were many, but I don't recall how many.

Q Would they have been kept at Monsanto?

A Yes. This is the same papers you just asked about earlier.

Yes, they would have been.

MR. FEATHERSTONE: Are you done with Exhibit 3 and 5?

MS. STEIN: For right now, yes.

(Davis-Government Deposition
Exhibits Nos. 6 and 7 marked
for identification, 1/29/81, TLU.)

BY MS. STEIN:

Q Mr. Davis, I hand you what has been marked as Davis-Government Deposition Exhibit No. 6 and 7 for identification and ask you if you are familiar with these documents.

A Now that I see it, I remember that I have seen it before.

Q Do you remember when the last time was that

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you saw these documents?

A That was No. 6.

MR. FEATHERSTONE: 6 is the one he looked at first. Your question is?

MS. STEIN: The last time he remembers seeing this document.

BY THE WITNESS:

A A long time ago.

BY MS. STEIN:

Q Were you involved in the preparation of this document which is entitled Fire-Resistant Hydraulic Fluids, Physical-Property-Comparison Chart, and in the middle of that cover page the date October 1961.

A As best I recall it, I did not prepare it but it was done while I was responsible for Pydraul Sales.

Q What were the approval authorities that were required to prepare a document like this within Monsanto?

MR. FEATHERSTONE: And if there weren't any, tell her that as well.

BY THE WITNESS:

A On this type of document, I am not sure that I recall approvals were necessary.

BY MS. STEIN:

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Q Who would be responsible for preparing a document like this?

A I would have been responsible for its existence.

Q And for its content?

A Yes, I believe so.

Q Davis-Government Deposition Exhibit No. 7 is also entitled Fire-Resistant Hydraulic Fluids, Comparison of Physical Properties. It does not have a date on it.

Can you tell me when this document was prepared?

A Not offhand.

Q Would you have been responsible for the preparation of this document?

A It depends on the date that it was prepared.

Q Is there any way of ascertaining the date of this document from any of the information in or on it?

A From the Pydraul fluids listed, you might get a range of dates.

Q Would you mind taking a look at it and seeing if you can ascertain the date on it?

A It was after 1958 and before 1960.

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Q How did you determine that it was after 1958?

A Because Pydraul A-200 appears on the list.

Q That is all I have on these two documents
for right now.

(Davis-Government Deposition
Exhibits Nos. 8 through 13,
inclusive, marked for identi-
fication, 1/29/81, TLU.)

BY MS. STEIN:

Q Mr. Davis, I am going to hand you now docu-
ments numbered as 8, 9, 10, 11, 12 and 13. Each of
these is marked as Pydraul selector.

Can you tell me what a selector is?

A As best I recall, it is a piece of literature
that presents information on a range of Pydraul fluids
so that the customer can select the one that is right
for his application.

Q Do you know what the difference in designa-
tion is of Selector 1 or Selector 2 or no number
following selector, what it means?

MR. FEATHERSTONE: Just a good old selector?

BY THE WITNESS:

A I don't actually know.

BY MS. STEIN:

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Q What operating unit within Monsanto was responsible for the Pydraul selectors?

A Pydraul Marketing.

Q And you were part of the Pydraul Marketing Group, weren't you?

A That is correct.

MR. FEATHERSTONE: Wait until she finishes the question.

BY MS. STEIN:

Q What would the information source for the information of these selectors be or the sources of information?

MR. FEATHERSTONE: Since you haven't turned over the first page yet, you might want to thumb through one or two of these.

THE WITNESS: Okay.

MR. FEATHERSTONE: I think although Ms. Stein's identification of sources of the types of material, I don't know that you have to go through them all. If she gets specific, you can go to a specific paper.

BY THE WITNESS:

A The sources of material have come from several places: Previous Pydraul literature, safety and handling information from the Medical Department,

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performance data from our Applications Research Department.

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BY MS. STEIN:

Q What was your role in the preparation of these selectors during the time from 1956 to 1968?

MR. FEATHERSTONE: If you had a role.

BY THE WITNESS:

A I had a role of responsibility for it.

BY MS. STEIN:

Q Did you review these?

A Yes.

Q In draft form?

Q Yes.

MR. FEATHERSTONE: Please wait until she finishes the question.

THE WITNESS: I keep thinking she is finished.

MR. FEATHERSTONE: I know. She fakes you out.

BY MS. STEIN:

Q Is there any way of determining the date of these publications, Exhibits Nos. 8 through 13?

A One way would be the content of material as we discussed on previous literature. Sometimes there is indication on the page of the number of copies printed and the date of the printing.

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Q Could you point that out to me, please?

A On at least one of these documents, I do see a number that might be a date and I'm not sure that it is a date.

MR. FEATHERSTONE: He is referring to Davis-Government Exhibit No. 9. He is referring to Page 4809. That is the Bates number and he is referring to a number PZ-0471-IGI, whatever that means.

MS. STEIN: When are we going to swear you, Bruce?

BY MS. STEIN:

Q Could you explain that?

A It's possible that 0471 relates to April 1971. It's not certain, it is possible.

Q On several of these on the front page are designations with an O/FF and then a numeral. Could you tell me what that designation means?

A I believe the O stands for Organic Division. FF stands for Functional Fluids and the 3, a sequential number on the literature, but I am not certain about the 3.

Q Is there any way that one can ascertain the dates with reference to that number that you believe is a sequential identification?

A I am not aware of how.

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Q Were you responsible also for the input in the various exhibits, 8 through 13, with respect to the proper seals that were compatible with the Pydraul fluids?

A If these exhibits were produced between 1956 or between 1958 and 1968, I would be responsible for the content.

MS. STEIN: Roseann, I believe you have a copy of the next exhibit that I'm going to have marked. It was Richard Deposition, I believe it is a May 23, 1968 memorandum from Richard Davis to W. R. Richard and it is entitled FDA Aroclor Inquiry, and the document number is 708.

(Davis-Government Deposition
Exhibit No. 14 marked for
identification, 1/29/81, TLU.)

BY MS. STEIN:

Q Mr. Davis, showing you what has been marked as Davis-Government Deposition Exhibit 14, it is entitled FDA Aroclor Inquiry. It is dated May 23, 1968 and I am going to ask you if you recognize that document.

A Yes, I do.

Q Did you look at that document yesterday?

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A Yes, I did.

Q Do you remember the circumstances surrounding the preparation of this memorandum to Dr. Richard?

A Yes.

Q Could you tell me what those circumstances were?

A I received a memorandum from Dr. Richard and this was my response to him.

Q What was in his memorandum to you?

A He said that people were looking to determine if Aroclor was in the environment and if it were, he was asking whether we were prepared to identify, reduce or eliminate the sources of entry.

Q Before Dr. Richard wrote his memorandum to you, had you had any discussions or seen or read anything that indicated that the presence of Aroclors in the environment was of concern to scientists?

A I heard Dr. Richard state that some work had been done in Europe that suggested Aroclors might be in the environment.

Q Do you remember when it was he told you that?

A Not exactly, but it was prior to his memo to me.

Q At the time that you wrote this memorandum

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which is Exhibit No. 14, were you still the Supervisor of Pydraul Sales?

A Yes, I was responsible for Pydraul Sales.

Q What was the date which you left the position of Supervisor of Pydraul Sales?

A November of 1968.

Q What was the source of information underlying your statement, the first sentence of this memorandum, which is:

"The major entry of Aroclor into sewers and streams from industrial fluids applications is in industrial hydraulics."

A Did you ask what the source of information was?

Q Yes, that is correct.

A It was a review on my part of the industrial fluids applications for Aroclors.

Q What were those applications?

MR. FEATHERSTONE: Do you want to answer?

THE WITNESS: Yes.

MR. FEATHERSTONE: Okay.

BY MS. STEIN:

Q What were those applications?

A Dielectric fluids, heat transfer media and

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hydraulic fluids.

Q As Supervisor of Pydraul Sales, were you also responsible for looking into the application of Aroclors in uses other than industrial hydraulics?

A During the deposition I have remembered that my responsibilities broadened to include heat transfer but not dielectrics.

Q When did your responsibilities expand to include heat transfer?

A Approximately 1961.

Q Were you also responsible then for sales of heat transfer fluids?

A From a product sense, yes; not a field sales sense.

Q What were the trade names for those products?

A Therminol.

Q Did you have a different title or an additional title to that of Supervisor of Pydraul Sales that indicated your responsibility for these Therminol products?

A Yes.

Q What was that title?

A Marketing Manager with Industrial Fluids.

Q Was that from approximately 1961 until

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November of 1968?

A Yes.

Q Were your responsibilities with respect to the development of Therminol heat transfer liquids the same as they were for the Pydrauls?

MR. FEATHERSTONE: There was no testimony he was involved in the development of.

BY MS. STEIN:

Q Were you involved in the development of the Therminol products?

A In part.

Q What was the part you played in the development of the Therminol products?

A It was a commercial role from a marketing position and not a technical role.

Q Could you describe what you mean by a commercial role?

A Identifying market needs, identifying the markets that we would serve as opposed to developing a chemistry of the fluids.

Q What were the Therminol products that were put onto the market by Monsanto during the time that you were the Marketing Manager for Industrial Fluids?

A Therminol FR, of which there were several,

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Therminol 66 and I believe during that period, Therminol 55 and 77.

Q Did Therminol FR contain polychlorinated biphenyls?

A Yes.

Q Which were the Aroclors that were contained in Therminol FR?

MR. FEATHERSTONE: Listen, this suit involves Pydraul. I'm going to let you ask him questions about whether those Therminol products contain PCBs, but we are not going to get involved in a long discussion about Therminol fluids. They are not at issue.

Johnson Motors, I think, will stipulate that they didn't buy Therminol. We will stipulate they didn't.

MS. STEIN: The lawsuit involves PCBs.

MR. FEATHERSTONE: The lawsuit involves PCBs in Pydraul fluids sold to Johnson Motors in Waukegan.

It does not involve Therminol fluids sold to someone else, someplace else.

MS. STEIN: For the record, the Government does not agree with Mr. Featherstone's characterization of the scope of the lawsuit.

BY MS. STEIN:

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Q What were the Aroclors that were contained in Therminol FR?

MR. FEATHERSTONE: I direct you not to answer that question.

MS. STEIN: Certify the question.

BY MS. STEIN:

Q Did any of the Therminol fluids other than Therminol FR contain PCBs?

A No, they did not.

Q Were there various formulations of Therminol FR?

A There were three Therminol FR fluids, as best I remember.

Q How were they designated?

A One, two, and three.

Q Did they each contain different Aroclors?

A Yes.

Q Going back to the earlier line of questioning involving Davis-Government Deposition Exhibit 14 and the first sentence of that memorandum, you indicated that you had done research that was a source of that first sentence there.

MR. FEATHERSTONE: He did not use the word research.

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MS. STEIN: Excuse me.

BY MS. STEIN:

Q I would like you to go through with me again what the sources of information were behind that first sentence.

A I reviewed the applications for functional fluids which contained Aroclors.

Q How did you go about determining what those applications were?

A I was very aware of the three applications for Aroclor in functional fluids.

Q How were you aware?

A I was responsible for the marketing of two of them and the other one, it was the responsibility of the man in the next office, I suppose, next to me. It was part of the same business group.

Q Did you read any articles or was this just general knowledge of the systems?

A General knowledge of the systems.

Q Did you discuss the possible sources of entry into sewers and streams with anyone at Monsanto?

A You mean related to this statement? No.

Q After the time that you wrote this memorandum did you discuss the sources of entry of Aroclors into

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streams and sewers with anyone at Monsanto?

A I don't recall, truly.

Q Were you involved in the development of Pydraul 50-E?

A No.

Q Were you involved in the development of Pydraul A-200B?

A No.

Q Could you explain what you mean by the second sentence in that memorandum:

"We are prepared to design, install and start up effective fluid recovery systems which remove Pydraul from plant effluent."

A Yes. We had for some time encouraged customers to capture and recover and reuse Pydraul fluids for the economic benefit to them, this ability, primarily through the outside service.

MR. FEATHERSTONE: This is Findett?

BY THE WITNESS:

A (Continuing.) Findett.

This service was available and we were prepared to tell customers about it.

We had been telling them about it for some time.

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BY MS. STEIN:

Q This Findett fluid recovery system, when was it first considered a viable system for customers?

MR. FEATHERSTONE: You mean by Monsanto or by the customer or by Findett?

MS. STEIN: By Monsanto.

MR. FEATHERSTONE: By Monsanto.

BY THE WITNESS:

A It was the 1960s, but I'm having difficulty remembering the exact date. Findett in the early '60s offered the service of reclaiming fluid that was sent to them, to their facility from the customer.

Somewhat later, still in the '60s, they offered the services of going to the customer's facility and being of help to him in various ways.

BY MS. STEIN:

Q How did the customer's fluids get to Findett for reclamation or recovery?

MR. FEATHERSTONE: You have not laid a foundation that he would know that. He was not employed by Findett and he was not a customer.

BY MS. STEIN:

Q I believe you said that in the early '60s, Findett was reclaiming certain customer fluids, isn't

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that correct?

A Yes.

Q When was that program begun?

A In the early '60s. I can't be more precise.

Q Were you involved in the development of that program?

A Certainly knowledgeable of it.

Q How was the availability of that service disseminated to customers?

A Our salesmen were instructed to tell customers who asked about recovery service that it was indeed available from at least one source.

Q Do you know whether the sales personnel were instructed to volunteer that such a service was available?

A I don't recall the instructions, but they did volunteer it.

Q Do you know whether the availability of the Findett fluid recovery system was made known to Johnson Motors?

A It was --

MS. OLIVER: At any period of time or just in the 1960s or early 1960s, late 1960s?

MS. STEIN: I am asking the question first and

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if the answer is positive, when.

MS. OLIVER: Okay.

MR. FEATHERSTONE: Do you have the question in mind now?

BY THE WITNESS:

A Yes. It was very common to mention this to our customers, but I am not aware of specific conversation in which we said this to Johnson Motors, but it was our common statement.

BY MS. STEIN:

Q Do you have any idea when Monsanto informed Johnson Motors of the availability of Findett --

MR. FEATHERSTONE: I am going to object to the question. He just testified he didn't have the specific knowledge that it was specifically mentioned to Johnson Motors.

Do you have the question in mind?

There's an objection.

There is a question and you should answer the question, I guess.

THE WITNESS: To be safe, let us review the question.

BY MS. STEIN:

Q Let me ask this:

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Do you know whether or not Johnson Motors was at any time told of the availability of the Findett fluid recovery system for Pydraul?

A I am confident they were told.

Q Do you have any idea when they may have been told?

A Only from the standpoint of being a very major customer, they would have been told early, but I could not pick a specific date.

MS. OLIVER: I am going to move to strike the answer to that question, the previous one, as based on speculation.

BY MS. STEIN:

Q Other than the Findett fluid recovery system, were there other methods of recovering Pydraul plant effluent?

MR. FEATHERSTONE: Wait a minute. That is the whole question?

MS. STEIN: Yes.

MR. FEATHERSTONE: You mean recommended by Monsanto, other outside sources recommended by Monsanto or just did other die casters --

MS. STEIN: Does he know whether or not there were other Pydraul recovery systems than the Findett

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one specifically mentioned in that memorandum.

BY THE WITNESS:

A Customers sometimes did their own reclamation of fluid, including Johnson Motors.

BY MS. STEIN:

Q What was the mechanism of the fluid recovery system of Findett? Was it a couple of pumps, a couple of barrels and hoses, or --

MR. FEATHERSTONE: Are you speaking of recovery or reclamation? I am not clear of the difference, if this memorandum is directed to recovery.

MS. STEIN: Why don't we start with recovery.

MR. FEATHERSTONE: If you know, discuss it. If you don't know, tell her that because her question assumes you know it.

THE WITNESS: You're right. I don't know it.

BY MS. STEIN:

Q You don't know what fluid recovery is?

MR. FEATHERSTONE: No, that was not your question. Your question was how did Findett recover the fluid. Findett is not Monsanto, okay? You haven't laid a foundation that he knows how Findett did other than the fact that they did do it.

BY MS. STEIN:

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Q Do you know how the Findett fluid recovery system worked?

A No, because there was not a single system.

Q Do you know what the different systems were for fluid recovery that Findett had?

A I know in general terms.

Q Could you describe each of those, please?

A Findett found with the customer, found a place where they could physically collect the fluid and then begin to recover.

Q Could you describe to me each of the specific fluid recovery systems with which you are familiar once that material was gathered?

MR. FEATHERSTONE: This is broader than just the Findett techniques or just all techniques?

MS. STEIN: This is the Findett techniques.

BY THE WITNESS:

A It is my understanding that once the fluid was gathered, how was it recovered for reuse or reclaimed for use -- yes, I am familiar with it. In fact, Monsanto's literature recommends some methods.

It was in essence the removal of the excessive dirt from the fluids by one of several

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techniques and filtration to remove all foreign particles, sometimes filtration through media that would remove any acids that had gotten into the fluids.

(Brief interruption.)

BY MS. STEIN:

Q Mr. Davis, do you know what the effective recovery rate was on the Findett systems in terms of how many gallons of used Pydraul would go in and how many gallons of usable Pydraul would be resolved from the Findett system?

A Only in general terms.

Q What were those in general terms?

A It depended on what was sent to them. If the fluids were recoverable, a very high percentage of it would be sent back as reusable.

Q What factors would determine whether the fluid was recoverable?

A One factor for it was if it was contaminated with material that could not be removed from it.

Q What kind of material could not be removed?

A Petroleum oils.

Q Were there other substances?

A That is the primary one.

Q In the second paragraph, you have said:

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"If and when customers are presseded to keep Pydraul out of the streams due to Government legislation, we are prepared to act by referring them to Findett or serving as prime contractor, sub-contractor to Findett."

Can you explain to me what the reason was for saying "if and when customers are presseded to keep Pydraul out of the streams," et cetera? Do you know of any instances in which customers had already been prepared to keep Pydraul out of streams due to Government legislation?

A As I recall, I didn't know of any companies that were pressed by the Government. I knew that a few companies used the recovery method for economic purposes, but very few.

Q What was the basis for saying "if and and when more customers are presseded to keep Pydraul out of the streams due to Government legislation, we are prepared to act by referring them..."?

A The emphasis was on pressed since customers weren't doing that voluntarily for economic reasons. It would require some sort of pressure to get them to do it.

As far as the question you asked earlier,

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I don't know any companies being pressed by the Government at that point in time.

That is the best of my memory.

MR. FEATHERSTONE: You are done with 14?

MS. STEIN: For now, yes.

(Davis-Government Deposition
Exhibit No. 15 marked for
identification, 1/29/81, TLU.)

BY MS. STEIN:

Q Mr. Davis, showing you what has been marked as Davis-Government Deposition Exhibit No. 15, I ask you if you recognize that document.

A Yes.

Q Did you look at this document yesterday?

A Yes.

Q I believe you testified earlier that you left the position of Supervisor of Pydraul Sales or was it at that point renamed Manager of Pydraul Fluids?

A When I had left?

Q In November of 1968, is that correct?

A Yes.

Q I believe you said you were not involved with Pydraul products after that time, is that correct?

A That is correct.

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Q Can you explain to me why you wrote this memorandum?

A I was responsible for Santotrac 50.

Q What was Santotrac 50?

A That was the lubricant I mentioned earlier.

Q Was Santotrac 50 supposed to be a replacement fluid for Pydraul A-200?

A No.

Q Can you explain the first sentence of this memorandum?

A I am not familiar with what Pydraul A-200B is as I mentioned earlier. It was apparently being used here not as a hydraulic fluid but as a lubricant on a conveyor.

Pydraul, that was Santotrac 50 could be used as a lubricant on a conveyor. Pydraul A-200B, whatever, was tried and as I recall, did not perform adequately and Santotrac 50 was proposed.

Q Would a lubricant --

(Brief interruption.)

BY MS. STEIN:

Q Are you familiar with the terminology open uses and closed uses with respect to PCB-bearing fluids?

A I think of all fluid uses as closed. I am

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not familiar with what open means.

(Discussion off the record.)

BY MS. STEIN:

Q Could you define for me what you mean by closed use with respect to an industrial fluid?

A Yes. A fluid contained within a system, either static or circulating within that system, not intending to go out of that system.

Q Did you have a business relationship with Robert Keller?

A I believe that is Robert Keller in Monsanto?

Q That is correct.

A I know the name as the man in our Analytical Laboratories, but I don't recall any particular relationships with him.

Q Could you describe the nature of the business relationship with Elmer Wheeler?

A Elmer Wheeler was the industrial hygienist or toxicologist to whom we frequently turned for the judgment of the Medical Department.

Q Do you know what his educational background is?

A No, I do not.

Q Could you describe your business relationship

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from 1956 to 1968 with Dr. William Richard?

A Dr. Richard was the Manager of Research & Development for Functional Fluids during part of that period, the latter part.

Q What was the nature of the relationship that you had with him during that latter part?

A I worked with Dr. Richard's people on any fluid products such as Lou Stark's applications research and maintained communication with Bill Richard.

Q What was the nature of that communication with him?

A Technical discussions in addition to those I had with his subordinates.

Q Did you ever discuss with him the presence of Aroclors in the environment?

A I recall that he mentioned when a paper was published in Europe, suggesting the possible presence in the environment.

I remember his mentioning, and I remember of course the memorandum we just discussed.

Q Do you remember when it was that he mentioned this paper in Europe?

A It was prior to our memoranda, but I don't

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know exactly when.

Q After the day of that memorandum which is Exhibit 15, do you remember discussing --

MR. FEATHERSTONE: Exhibit 14, if you are referring to the memorandum with Dr. Richard.

MS. STEIN: You are right, thank you.

BY MS. STEIN:

Q Exhibit 14, do you remember having discussions with Dr. Richard concerning Aroclors, presence of Aroclors in the environment?

A I don't remember as a dialog so much as I remember his discussing or describing continued effort to confirm or deny whether there were chlorinated biphenyls in the environment.

Q Did he describe to you what those efforts were?

A He said he was working with our analytical people, specifically assigned to detect, to define anything in the analytical methods to see if even in tiny quantities chlorinated biphenyls could be found.

Q Did he ever discuss the biodegradability of Aroclors with you?

A Again, I don't remember it as a dialog, but I remember him describing, but I do not remember when

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it was in my career, that there was an effort to try to determine the biodegradation of Aroclor, measuring.

Q Do you remember his mentioning to you any of the findings of those studies?

A Yes, but I don't remember when.

Q Do you remember what those findings were?

A In general, he was finding some of them were biodegradable and others were very slow to biodegrade.

Q Do you remember which ones biodegraded?

A Generally those with less chlorines biodegraded more rapidly.

Q Did you deal with Lou Stark directly?

A Yes.

Q Could you describe your relationship with Lou Stark?

A Lou Stark, as I said, was in charge of the Applications Research, performed the applications research on Pydraul fluids so that as I wanted to know the performance of a Pydraul fluid in a certain type of pump or its fire-resistant characteristics, I would turn to Lou.

He was responsible for those areas of technology.

Q Did Mr. Stark ever do sampling on Pydraul

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fluids that had been obtained from customers?

MR. FEATHERSTONE: Is it Dr. Stark?

THE WITNESS: No, Mr. Stark.

BY THE WITNESS:

A Had he done anything with samples obtained from customers?

BY MS. STEIN:

Q Yes.

A A limited amount of work, yes.

Q Are you familiar with any of the work that he did?

A In a very spotty way.

Q Were you familiar with the work he did on samples from Johnson Motors?

A No.

Q With respect to samples from customers, did he discuss the results of his analyses with you?

A I am hung up on the word analyses. He tended to do things more physical than analyses.

Q What do you mean by things more physical than analyses?

A If a sample of Pydraul had some foreign material floating in it or whatever, it might come to him to try to judge what it was or to see if it

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affected the fire-resistance. Those were not chemical analyses.

Q Could you describe the business relationship with Don Olson?

A Don Olson was in charge of Marketing for a number of products including functional fluids.

Q During what period of time?

A That is what I am trying to remember. I remember it as after 1968. I am not sure when he started.

Q What was the relationship with him, was he a supervisor of yours?

A No, he was not. As I recall, I was in Commercial Development when he was in charge of Marketing.

Q Were you on a par, if you will, within the hierarchy?

A He was higher than I was.

Q Could you describe your business relationship with Norman Johnson?

A Norman Johnson was in charge of field sales for products including functional fluids and again, I am not sure of the time. I believe it was about the same time that Don Olson was in his capacity.

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MR. FEATHERSTONE: After 1968?

THE WITNESS: That is the way I remember it.

BY MS. STEIN:

Q Do you know whether Mr. Johnson was employed at Monsanto before 1968?

A Yes.

Q Do you know what capacity he was employed in at Monsanto before 1968?

A I know that at one point in his career, he was a field salesman.

Q Would that have been in the Functional Fluids Group?

A Part of the time.

Q Would you describe your business relationship with Larry Bradford?

MR. FEATHERSTONE: So that you know, because there is not any foundation on this, if you do not have a business relationship, just tell her that.

I don't know whether you did or didn't with Larry Bradford, but she is assuming every case you did unless you tell her otherwise.

BY THE WITNESS:

A I am pausing because a number of years has transpired and I am not a computer.

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BY MS. STEIN:

Q You have time to think.

A I remember Larry Bradford being first in Advertising, I believe during the period, part of the period that I was in Marketing of Functional Fluids.

After that, Larry Bradford got into the marketing or the field selling side of fluids, but I apparently did not have a relationship with him. I can't remember --

MR. FEATHERSTONE: The question asked for the business relationship you had. She has not asked you for a historical analysis of these guys' working relationship. To the extent you had a business relationship, testify to it. If you didn't, tell her you didn't.

BY THE WITNESS:

A Okay.

BY MS. STEIN:

Q Can we have Davis Exhibit No. 2, please?

I would like Mr. Davis to look at it.

Referring to Exhibit No. 2, where would Mr. Papageorge fit into the organization, if you know?

MR. FEATHERSTONE: If he fit into the organization.

I am going to get you to lay a foundation

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yet.

BY THE WITNESS:

A I don't know to whom Mr. Papageorge reported.

BY MS. STEIN:

Q Thank you.

Did you have a business relationship
with Robert Weyland?

A You're asking me?

MR. FEATHERSTONE: Even though she is looking at
me, she is asking you.

BY THE WITNESS:

A Yes.

BY MS. STEIN:

Q Could you describe that relationship, please?

A I remember Bob Weyland as a field salesman
in Chicago during part of the time I was involved in
Pydraul Marketing.

Q Do you remember when he started?

A No.

Q Were you involved in the development of a
PCB incinerator?

A No, I was not.

MS. STEIN: I think that is all.

MR. FEATHERSTONE: Why don't we take a break

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before you start.

(Brief recess taken.)

CROSS EXAMINATION

BY MS. OLIVER:

Q Mr. Davis, I am going to go back over some of the things you testified earlier today, just to clarify them for myself.

Just a little while ago, we were talking about Santotrac.

A Santotrac.

Q You said you were in charge of that in about 1972. Exhibit 15, you were looking at that exhibit and it referred to Santotrac?

A Yes.

Q Was Santotrac a functional fluid?

A It was under development as a functional fluid.

Q And you were in the Commercial Development Department at that time?

A Yes.

Q While you were in the Commercial Development Department between 1969 and the present -- are you still there?

A Yes, but of a different group of products.

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Q From 1969 to 1974, were you still given updates or review updates on the functional fluids from Research & Development or any other group?

MR. FEATHERSTONE: Pydraul or just any functional fluids?

MS. OLIVER: Functional fluids in general.

BY THE WITNESS:

A In 1969 and '70, I attended a meeting in which I overheard Pydraul updates and 1970 on, I had very little contact.

BY MS. OLIVER:

Q At some point in time, Functional Fluids became part of a Specialty Products Group. Are you aware of that?

A Yes.

Q Are you aware that when the Specialty Products Group was formed, there was a kind of summary, a monthly summary sent out updating specialty products?

A Yes. There were monthly summaries.

Q Did you receive any monthly summaries?

A I received some.

Q Who was it who determined what you received and what you didn't?

A Generally those summaries that contained

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information of importance to me, I received them.

Q Would that be true until 1975?

A Generally, yes.

Q Do you know who a Pat Krapfl, K-r-a-p-f-l,
is at Monsanto? Do you know that person?

A Yes, she was a secretary at Monsanto.

Q Do you know in what department?

A No.

Q Do you know a Cumming Paton at Monsanto?

A Paton, yes.

Q Paton?

A Yes.

Q Is he presently with Monsanto?

A Yes.

Q What is his present role?

A He is a Business Director in Brazil.

Q How long has he been with Monsanto, do you
know?

A Quite a few years, but I don't know the exact
dates.

Q Do you know whether he was involved in any
manner with the marketing or the formulation of Pydraul
fluids?

A For a time he was involved with the marketing.

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Q Can you tell me when that period of time was approximately?

A I am quite certain he was involved around 1974 and previous to that, but how previous, I am not certain.

Q You didn't work with him in your commercial development activities?

A Not relating to Pydraul.

Q Do you have knowledge of what his responsibility was with the marketing of Pydraul?

A I remember him in a management role with marketing of Pydraul, but I don't remember specifics.

Q In the years you were Supervisor of Pydraul Sales, were you familiar with the specifications for the Pydraul fluids?

A Yes.

Q Were you familiar with the formulations for the Pydraul fluids?

A Yes.

Q Could you explain to me what a formulation is?

A By my definition, a formulation is a mixture in certain proportions, mixture of certain ingredients in certain proportions that make up the end product.

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Q It is a blend of the raw materials, is that correct?

A Yes.

Q I think you talked earlier about how you were in charge of the responsibility anyway of overseeing putting together the specifications for the Pydraul fluids, is that correct?

A No. I had, I think I called it an overseeing sort of role, but it was not a primary responsibility role. It was a role to see that what the plant could make and what the customers needed matched up and that all the approvals of medical and so forth had been achieved.

Q Was there one person in the period of 1956 to 1968 who had a primary responsibility for the specifications?

A There was a procedure and I don't believe anyone was responsible beyond all of us seeing the procedure was met.

Q When we are talking about the specifications, we are talking about the physical properties?

A That is correct.

Q Flash point and viscosity and lubricity, those types of things?

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A Lubricity was not one of the specifications, but the others are correct.

Q Were you familiar in the period that F-9 was being marketed with the formula for the F-9 Pydraul?

A At that time I was familiar with it.

Q Do you recall what that formula was?

A Only that it contained chlorinated biphenyl, phosphate ester and additives.

Q You don't recall what the additives were?

A I recall their function but not what they were chemically.

Q What was their function?

A One was to improve the viscosity index. One was to prevent rusting, and another to prevent foaming.

Q What was the function of the chlorinated biphenyl in F-9?

A It was one of the two major ingredients to provide the viscous liquid with a hydraulic fluid and at that time to be highly fire-resistant.

Q So it was related somewhat to the viscosity of fluid, is that correct?

A It was a viscous fluid which did affect the viscosity, could affect the viscosity of the finished

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product.

Q Would I be correct in saying you could add some or subtract some from a given formula and add or subtract viscosity of that fluid?

MR. FEATHERSTONE: You are talking about the chlorinated biphenyl?

MS. OLIVER: Yes.

BY THE WITNESS:

A Could we vary the ratio?

BY MS. OLIVER:

Q Yes.

A In general, you are correct. I am not technically competent on the two ingredients that were used to know how much that ratio could be varied without affecting the performance.

Q Was there a range of chlorinated biphenyls that you could use in any one blend of F-9?

A The last I recall --

MR. FEATHERSTONE: Do you mean how much of a particular chlorinated biphenyl or are you talking about different chlorinated biphenyls?

BY MS. OLIVER:

Q In F-9 the Aroclor used was 1248, is that right?

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A I don't recall.

Q When you are talking about chlorinated biphenyls as part of the F-9 formula, is that the same as the Aroclor?

A Yes.

Q You do not recall today which of the Aroclors or whether there was one or several Aroclors which made up the Aroclor in F-9?

A That is correct. I don't recall at this time.

Q You were the Supervisor of Pydraul Sales at the time A-200 was put on the market, is that correct?

A That is correct.

Q And A-200 was a blend of Aroclors 1248 and 1242?

A That is correct.

Q Do you recall what other substances went into the formula for A-200?

A I recall that there were additives.

Q Again, do you recall what they were?

A Not chemically, but functionally there was one for lubrication, one for preventing foaming, one to prevent rust. I believe that I may have overlooked

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one.

Q Do you know whether or not in adding the Aroclor 1248 and the Aroclor 1242, there was a range of limits of how much could be put into any one blend of A-200?

A There was a range but as I recall, the range was established by the viscosity of the finished product rather than the amount of which product was added.

Q Would the customer's needs at times be a determination of how much Aroclor went into A-200?

A No.

Q If the customer complained about the viscosity, somebody would sit down and add a little more Aroclor?

A No.

Q Going back for a minute to F-9, what was the function of the phosphate esters?

A It was like chlorinated biphenyl, a viscous material with fire-resistance. It also had good lubrication properties.

Q That was being marketed at the time you became Manager of Pydraul Sales?

A That is correct.

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Q Do you know whether the formulation or the formula for F-9 changed or varied over the period of time it was on the market?

A I believe it did not change.

Q Do you know whether the formula or the formulation for A-200 changed or varied during the period of time it was on the market?

MR. FEATHERSTONE: You are talking about chemical formulation?

MS. OLIVER: Yes.

BY THE WITNESS:

A I am aware that it did not change up through the time that I was involved with Pydraul A-200, specifically 1968.

BY MS. OLIVER:

Q In talking about Pydraul A-200 and F-9, when A-200 came out on the market in about 1959 or '58, F-9 remained on the market?

A That is correct.

Q And Monsanto gave its customers a choice of which of the two fluids they would use?

A That is correct.

Q Which was the more expensive fluid?

A F-9.

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Q F-9 was more expensive? Why was it more expensive than A-200?

A The ingredients were more expensive.

Q The phosphate ester?

A Primarily the phosphate ester.

Q Was the phosphate ester in F-9 a synthetic phosphate ester or some other kind?

A Yes. I believe all phosphate esters are synthetic, but this one certainly was.

Q Was A-200 more stable than F-9 as a fluid?

A Stable in what way?

Q Against moisture and condensation.

A Yes, it was.

Q Contamination?

A Yes, it was.

Q It was more fire-resistant or a better fire-resistant fluid than F-9?

A Yes, they were both very good but Pydraul A-200 was a bit better.

Q And A-200 was also a lower price?

A Yes, it was. That's right.

Q Do you know of any reason why F-9 was not taken off the market entirely and replaced by A-200?

A There was no need to take it off and I don't

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believe customers should be deprived of something they want if you can present it to them, so there was no question in my mind to leave it off.

Q Do you know whether once A-200 became a marketable product, whether Monsanto salesmen were instructed to make an effort to sell A-200 to its customers to replace F-9?

A I don't recall that they were asked to replace F-9 but to describe the products to the customers. They were asked to try to displace competitive products to come over to A-200.

Q Do you have a recollection that Monsanto's F-9 customers went over to A-200?

A I recall that some did.

Q Do you recall whether the majority of F-9 customers switched or didn't switch?

A I recall it as a matter of time. A few began to, then more and more, but I don't know that it was ever complete.

Q Do you know why Monsanto developed a hydraulic fluid, A-200, which does not have a phosphate ester base?

A The primary reason was it allowed us to make a lower cost product and bring it into the

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marketplace and get certain advantages on stability and allowed us to bring something of lower cost to the customer.

Q When a product is in the development stage and leading up to its being marketed as a new product by Monsanto, there are different aspects of the development of that product.

For example, there is a formulation in the specification stage, is that right?

MR. FEATHERSTONE: Are we talking about Pydrauls?

MS. OLIVER: Pydrauls.

BY THE WITNESS:

A There are various stages, that is correct.

BY MS. OLIVER:

Q And one involves the development of the chemical composition itself?

A That is one of the steps.

Q Were the raw materials that were used in F-9 manufactured by Monsanto?

A The major ones were.

Q The major ones, we are talking about the Aroclor and the phosphate ester?

A That's correct.

Q Where were those manufactured?

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A The phosphate ester, I believe, was manufactured at the Queeny Plant in St. Louis, and the Aroclor was manufactured at the Krummrich Plant in Monsanto, Illinois.

Q I think you said that F-9, the product F-9 was first manufactured at the Queeny Plant and later at the Krummrich Plant?

A No, I said Pydraul F-9, and if I recall the formulations, it was at the Queeny Plant and later some of the Pydrauls might have been at the Krummrich Plant.

Q When the Pydraul F-9 was manufactured at the Queeny Plant, did the Aroclor ingredient have to be transported from the Krummmrich Plant to the Queeny Plant for the blending process?

A Yes.

Q How was that done, do you know?

A I don't actually know.

MR. FEATHERSTONE: All right.

BY MS. OLIVER:

Q In addition to the chemical composition and specifications for Pydraul fluid, there would also be the manufacturing process, is that correct, the actual manufacturing process, making the product?

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A You say was there a process to make the product, yes.

Q And is that the blending process that we have talked about?

A That is correct.

Q As Manager of Pydraul Sales, were you familiar with the manufacturing processes for the Pydraul fluids?

A Only vaguely.

Q Did you ever have occasion as Manager to review those manufacturing processes?

A No.

Q You never reviewed the process?

A I may have read the process but it wasn't anything I had to approve or anything. I don't remember reading it.

Q Do you have any knowledge that over the years the manufacturing process, for example F-9, would be changed?

A I am not aware of a change or whether or not the process changed.

Q Would the Manager at the Queeny Plant be the person who would have the most knowledge of the manufacturing process for Pydraul F-9?

A If it were the product made at the Queeny

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Plant, yes, the supervisor of the department in which it was made would have the best knowledge.

(Davis-OMC Deposition Exhibits
Nos. 16, 17 and 18 marked for
identification, 1/29/81, TLU.)

BY MS. OLIVER:

Q Mr. Davis, if you would look at what we have marked as Davis-OMC Deposition Exhibit 16 for identification, there are several pages stapled together as they were produced to us from Monsanto, and the cover sheet on the exhibit is entitled J. F. Queeny Plant, Finished Product Specification, Product, Pydraul F-9.

The cover sheet appears to be undated.
Could you identify what the cover sheet is, first?

A Well, it is as you said, a specification for Pydraul F-9.

Q We are talking about the physical properties for F-9?

A With the exception of moisture, which I guess that is a physical property, yes.

Q In the upper right-hand corner of that, there is a box that states Standard Master. There is an Approved By and also some people's names and signatures

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and then the date.

Does your signature appear in that box?

A Yes, it does.

Q What is the date next to your name?

A July 26, '61.

Q What does that signify?

A It signifies approval of this specification.

Q By you on that date?

A That's right.

Q What was the custom and procedure in Monsanto for the approval of specifications for the Pydraul fluids?

A There were a number of people to whom the proposed specifications were sent and they would read them and sign on their approval or interrupt the process.

Q Besides you, who were the other people by job description, not by name necessarily, who would have the responsibilities of approving these specifications?

MR. FEATHERSTONE: At this date, 1961?

MS. OLIVER: Yes.

BY THE WITNESS:

A Certainly the Research Department. I presume

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the Manufacturing Department. There was someone who maintained the specifications, he would have approved it to log it into his book of specifications. Those are the titles I remember.

BY MS. OLIVER:

Q Would those same people be responsible for approval of specifications throughout the years you were Manager of Pydraul Sales?

A Those same titles of people?

Q Yes.

A I believe they were.

Q Who is Mr. Cassidy whose name appears there?

A I don't remember the name.

Q The next name appears to be Mr. Geisman.

A Mr. Geisman was the Chief Chemist at the Queeny Plant.

Q Would he be one of the persons who had responsibility to approve specifications as a regular practice?

A Yes.

Q How about Mr. McHugh?

A Mr. McHugh was the Research Manager in the Functional Fluids Group.

Q Who is Mr. Ault?

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Q You don't know what that means?

A No, I don't know what it means.

Q Would the specifications for a Pydraul product be contained on one sheet of paper, a cover sheet of Exhibit No. 16?

A Yes, yes.

Q Do you know if the modifications or any amendments to the specifications for products such as F-9 would be all kept together by Mr. Ault or anybody else?

A Yes, I believe Mr. Ault would have kept a record of all of them.

Q Could you identify it for us, what the additional pages of Exhibit No. 16 are, perhaps not individually but if you know, why would they be grouped together like this?

MR. FEATHERSTONE: You have two questions, Rose, and one is what those pages are and the other is is there a reason why they would be grouped together other than Monsanto's counsel had them reproduced and distributed that way or Record Copy stapled them?

MS. OLIVER: If he states that, that's fine.

MR. FEATHERSTONE: I don't know --

BY THE WITNESS:

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A This appears to be a collection of a number of memos related to changes of specifications in Pydraul F-9.

BY MS. OLIVER:

Q Does that refresh your recollection that there were a number of specification changes for F-9 through the years?

A This refreshes my memory about these two here, yes.

Q On the third page of this exhibit, there is a memorandum and your name appears on the top.

MR. FEATHERSTONE: Rose, because you may end up detaching these at a later date --

BY MS. OLIVER:

Q It is a document number stamped on as 649 and it is a memorandum that appears to be from a Mr. Biven dated August 2, 1965 relating to Pydraul F-9 and 625, is that correct?

A Yes.

Q In this memo there are certain discussions of specifications for the two Pydrauls.

MR. FEATHERSTONE: There are certain statements made, yes.

BY MS. OLIVER:

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Q Near the bottom of the page, there are four Pydrauls listed there with numbers listed after them. Do you see that?

A Yes.

Q The first one is Pydraul F-9 and then it has a series of numbers. Do you know what that series of numbers refers to?

A In part, they represent a part of the division of Monsanto and manufacturing plant involved. I don't know what the other means.

Q What are the numbers that indicate the division of Monsanto and the department involved?

A It is not the first four. It is some of the others. I don't remember specifically.

Q And it refers to cancel at the end of that line?

A Yes.

Q Do you know what that means?

A Since Pydraul F-9 continued to be an item of commerce, it would mean a new specification took its place.

Q The next line is Pydraul F-9 Rust Inhibited and there is a series of numbers.

Was there another Pydraul formulation

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for F-9 which was a rust inhibited fluid?

A I don't recall if we were changing the name internally without rust inhibited or whether we actually added a rust inhibitor. I do not recall. It's possible we added a rust inhibitor.

Q Does that memorandum refresh your memory at all that there may have been several different formulations for F-9?

A Not necessarily. What I read here indicates a change of a property that we measured but not a change in the product itself.

Q It may have been a change in the product to get the properties, is that so?

A The first paragraph does not refer to that type of change. It refers to a change of measurement, a measurement change, not a formulation change.

This could be a type as we discussed, that might be a formulation change, but I don't remember.

Q But your testimony earlier was, and so I understand it, that when you measured the physical properties of the fluid at the end of the process, that tells you a lot about what the chemical constituents are?

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A Yes.

Q And to alter the physical properties so you could come out with something different at the end, in some cases you might alter the chemical constituents?

A What you said is correct insofar as if we added rust inhibition properties, we would have made some change to do that. It is not correct if we measure viscosity this way or that way. (Indicating.)

Q But as to certain physical properties, you could change the physical property by changing the chemical constituent?

A Is your question could you change the physical properties of Pydraul by changing its constituents?

Q Yes.

A Yes, it could.

Q I just wanted it understood that that was true.

The next couple of pages in that exhibit are identified or stamped with a document stamp of 650 and 651 and appear to be memoranda written by you.

Would you please review those two.

A I reviewed this one.

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Yes, I've reviewed both.

Q Was that written by you as Manager of Pydraul Sales in your role as overseeing the specifications of Pydraul F-9?

A Yes, that is correct.

Q The second memorandum that I referred to, which is Document 651, is dated June 14, 1965.

In Paragraph 2 of that memorandum, you refer to a preference of the Marketing Department with respect to temperature viscosity. Is that an example of what you testified about earlier about how the specifications would be sort of a blend of what the customer wanted, the marketing people wanted, what the applications people were able to do, come up with a fluid that was marketable and you could sell?

A Yes, insofar as it was a way of being sure that we measured a property of our fluid that was important to the customer and measured in the best way possible, not to change the fluid but measure it in a meaningful way.

Q If a customer had a problem with a property, that problem would be turned over to Mr. Stark in Applications Research?

A It would come to Mr. Stark, yes.

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Q What did Mr. Stark do about the problem, if you know?

A He would consult the marketing and other development people and together plans would be drawn as to whether or not we could formulate another fluid or whether we could not.

Q If a decision to formulate another fluid was made, where would the fluid be formulated?

MR. FEATHERSTONE: That is different from manufactured, I take it?

MS. OLIVER: When I talk about formulate, I mean changing the chemical properties.

BY THE WITNESS:

A I would expect it to be formulated -- do you mean experimentally formulated or produced formulated?

BY MS. OLIVER:

Q I mean first experimentally formulated.

A Experimentally formulated, by Lou Stark in Applications Research.

Q Would Mr. Stark have the opportunity to formulate a product and then send it right back to the customer?

A No.

Q It wouldn't be like a custom-made product?

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A That is correct.

Q Once Mr. Stark's department eventually formulated a new product, what would happen to it?

A The commercial justification for making a new product of Monsanto would have to go on and that would require approval in the Marketing Department, probably at a fairly high level. Specifications would have to be established, manufacturing processes for the formulation would have to be written and established. Some form of literature would have to be prepared even if it was very simple. It is rather complex procedure.

Q What you are saying is the whole process would have to be started again?

A Yes.

Q Do you have any knowledge that the Applications Research Department ever made an experimental fluid to help a customer with a problem with the Pydraul and just sent it back to the customer?

MR. FEATHERSTONE: Again, you mean a custom-made product?

BY THE WITNESS:

A Certainly not a large quantity. There may have been an experimental batch or something made,

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but I'm not familiar with that being done.

BY MS. OLIVER:

Q You have had the opportunity to look at what we have marked as Davis Deposition Exhibit No. 17, is that right?

A Yes.

Q Again, this is called a Finished Product Specification for Pydraul A-200.

MR. FEATHERSTONE: The cover sheet is --

BY MS. OLIVER:

Q The cover sheet, yes.

A Yes.

Q It has your signature with a date in the upper right-hand corner, is that correct?

A That is correct.

Q Would that be your approval of the specification for A-200 as of that date?

A That is correct.

Q There is some writing on the cover sheet and it appears to say Canceled 3/13/63, it looks like.

MR. FEATHERSTONE: Maybe.

MS. OLIVER: Maybe.

BY MS. OLIVER:

Q "Moved to WGK Plant."

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Do you know, first of all, what canceled 3/13/63 means?

A From reading the rest of it, it means to me as I read it now that the Queeny Plant has canceled this specification because the product formulation has been moved, the blending operation has been moved to the WGK, Krummrich Plant.

Q Does that refresh your recollection that about 1963 the Krummrich Plant took over production of A-200?

A It is still very vague to me whether that's what happened.

Q The rest of this exhibit appears to me to be related to specifications for A-200. Is my understanding correct from your review of that?

MR. FEATHERSTONE: I don't think Page 2 is.

BY MS. OLIVER:

Q Let us go back to Page 2 -- but the rest of it?

MR. FEATHERSTONE: Before you respond --

BY THE WITNESS:

A I will have to look at it.

Yes, this page is separate. Page 2 related to Pydraul specifications.

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BY MS. OLIVER:

Q And that relates to various quality and reviews of specifications, is that right?

A That's right.

Q Page 2 is a copy of a letter on the letter-head of the Department of Labor and Industries, State of Washington, regarding an evaluation of any hazard that might be involved in the use of A-200.

While you were Manager of Pydraul Sales, do you recall seeing or reviewing any letters similar to this?

A Yes, in that we received the letters primarily from customers asking for whatever information they felt they needed on Pydraul, and these we turned over to our Medical Department.

Q There is also a reference in this letter to the State of Washington enclosing the precautionary labeling standards.

Is it your recollection there were other statements through the years submitted to Monsanto, regulations or laws relating to labeling?

A Could you read that again?

(Question read.)

MR. FEATHERSTONE: Submitted to Monsanto or

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submitted to Mr. Davis?

MS. OLIVER: Submitted to Monsanto which he was aware of or is aware of.

MR. FEATHERSTONE: Were you aware of any?

BY THE WITNESS:

A No, with the exception that we discussed earlier.

BY MS. OLIVER:

Q California?

A California.

Q The page of the exhibit which is also identified as No. 605 is called Specification Quality Review.

Are you familiar with that type of form?

A Only that it was this type of form.

Q Do you know what the reference to Pydraul A-200 (80688 and 80699) is?

A I don't know what those numbers mean.

Q I also ask you to look at what we have marked as Exhibit No. 18 for identification which has in the upper right-hand corner the identification Pydraul F-9 and a series of information on it. Although your name does not appear as having reviewed or devised the sheet, I would like to ask you if you

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know what that is?

A It appears to be a page from a final report from Research in which some specifications or proposed specifications for Pydraul F-9 are given.

Q In your position during the period of 1958 to 1968, did you have occasion to read research reports on Pydraul fluids which had all this information in it?

MR. FEATHERSTONE: All this information?

MS. OLIVER: Similar information.

BY THE WITNESS:

A Yes, I read research reports. I can't state whether or not I have read this one, but I read research reports which had contained similar information in it.

BY MS. OLIVER:

Q Would these research reports be issued when a new fluid was developed?

A Typically, yes.

Q Were there any other circumstances when research reports would be issued for Pydraul fluids that you can recall?

A Yes. There would be periodic monthly reports for updating of continuing work and if some major piece

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of work was being done, not necessarily related to developing a new fluid, that too would be reported.

Q You mentioned earlier that A-200 was originally developed under the name OS-95 or the designation.

A Yes.

Q What does the OS stand for?

A Originally it is believed to be outside sample, a sample which went beyond our laboratories, out to a customer.

Q What does that mean?

A It means we might prepare various chemicals and formulations within the confines of Monsanto but when a sample of a material went outside of Monsanto to someone else, most typically a customer, it was given some designation, simply a code number, and we chose outside series and we later changed that code.

Q This is before the fluid is approved and marketed as A-200?

A And in some cases, it could be sold under that OS designation.

Q Was A-200 sent out to customers to sample before it got its final approval and became a part of the product line?

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MR. FEATHERSTONE: You mean tested at the customer's plant?

MS. OLIVER: Yes.

BY THE WITNESS:

A I don't remember.

BY MS. OLIVER:

Q Did you keep any record of that fact, if it happened?

MR. FEATHERSTONE: Did you?

THE WITNESS: Did I?

BY THE WITNESS:

A I would have. I don't remember what the records were.

BY MS. OLIVER:

Q When you changed your position in 1968, did you take any of the records of the Pydraul Sales with you?

A No, I did not.

Q How long did you keep your records in Pydraul Sales over the years?

Do you understand what I asked?

A I don't understand what records you mean.

Q You got copies of reports from field salesmen, I think you testified to?

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A Yes.

Q And you had sales bulletins that you issued or that were issued over a period of time.

A Yes.

Q How long would you keep those types of things?

A Typically, the report from salesmen would be kept one to two years after which they were too voluminous to keep.

Q By sales bulletins?

A Typical sales bulletins were typically kept for a long period of time.

MS. OLIVER: Off the record.

(Discussion off the record.)

BY MS. OLIVER:

Q Back on the record, if you look again at what has been marked as Deposition Exhibit No. 3, I think you identified the initials that appear on the left and right-hand corners or margins of that exhibit.

A Yes.

Q The memorandum.

Could you read what the writing on the right-hand margin is?

A I believe it says not in all of these label files for Pydraul. I'm not sure of the last word,

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all of these label files -- I'm not clear on that word either.

MR. FEATHERSTONE: By that word, you mean what appears to be the third word from the end before the initials?

MS. OLIVER: Second.

BY THE WITNESS:

A After the word label, file.

BY MS. OLIVER:

Q Was there a label file kept that you know of?

A I don't know of the time. I would presume there were label files.

MR. FEATHERSTONE: You are not to speculate, Mr. Davis. Just tell her what you know.

BY THE WITNESS:

A I don't know.

BY MS. OLIVER:

Q You didn't keep a label file?

A No.

Q If you look at Davis Deposition Exhibit No. 5, which is your memorandum to Mr. Litsinger in 1958, the last paragraph of that begins: "It is possible that such tests," and he is referring to toxicity tests, "might be abbreviated if we divulge the

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formulation of OS-95."

Let me ask you this: What tests were you referring to?

MR. FEATHERSTONE: In the phrase, such tests?

MS. OLIVER: Yes.

BY THE WITNESS:

A Tests such as the one in the previous paragraph which I recommended that the decomposition vapors be examined.

BY MS. OLIVER:

Q What was your understanding of how those tests might be abbreviated if the formulation of OS-95 was divulged?

A If we could utilize existing toxicological data on Aroclor materials in formulation of Pydraul A-200, we might not then have to repeat these tests on finished formulations. That was a possibility that I was presenting.

Q Did you discuss with Mr. Litsinger that possibility, other than this memorandum?

A I don't recall that I did.

Q The next sentence with respect to the "classification of this product is a good subject for future discussion," what classification are you talking

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about?

A As best I remember, as to whether we would call that a chlorinated hydrocarbon fluid or a chlorinated biphenyl fluid. That's what I meant.

Q Was there some discussion within Monsanto as to whether you would call it a chlorinated hydrocarbon or chlorinated biphenyl?

A I was presenting at this date that that was something we had to decide. I don't recall if there had yet been discussion about it.

Q Was there discussion about it after your memorandum?

A I remember there was a discussion at the time of the California label requirement to label chlorinated hydrocarbons.

Q Why was the decision made to call it chlorinated hydrocarbons?

A Because chlorinated hydrocarbon was a fairly broad and better understood term as far as what these compounds are and how they are handled. Chlorinated biphenyl is one type of chlorinated hydrocarbon and not broadly known and would not be very meaningful to our customers or their people.

Q What are other types of things that are

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chlorinated hydrocarbons that are more generally known?

A Solvents and degreasers used in die casting shops.

Q Mr. Davis, I'm going to skip around a little bit in my notes.

You testified earlier this morning that for the period from 1956 to 1958 you were in a technical service capacity with the Marketing Group?

A That is correct.

Q And you at least in part made sales calls with salesmen giving technical information to help sell Pydraul?

A Yes, that is correct.

Q What kind of technical information do you recall giving customers?

A An explanation of what fire-resistance meant and fire-resistance of our products compared to other choices of hydraulic fluids, seals which might be used and their vulnerability, safety in handling of the product; things of that nature.

Q You did not tell the customers that Aroclors were part of the fluid or that it was a chlorinated hydrocarbon, did you?

A We would refer to the product as you are

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speaking of Pydraul F-9.

Q That was the period you were going around, is that correct?

A Yes. We would have referred to Pydraul F-9 as a phosphate ester-based fluid containing chlorinated hydrocarbon.

If a customer was in any way aware of chlorinated biphenyl, we would have mentioned that, but unfortunately, they didn't know what that was.

Q Do you recall telling any customer in that period that F-9 had chlorinated biphenyls?

A I have said it quite a number of times, but I cannot be specific about the dates or to whom.

Q You do not have a recollection of saying that specifically to someone at the Johnson Plant, do you?

A I think we covered that earlier. It is logical that I did, but I cannot remember specific conversation.

Q You do not have any recollection of doing it?

A Not a specific one.

Q I think in answer to a question on what your duties were as Supervisor of Pydraul Sales in the period of 1958 to 1960, you said it was to see to the proper and profitable sale of Pydraul fluid.

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What do you mean by the proper sale?

A To see that information was conveyed to our salesmen to the customers, to be alerted if the customer needed fluids or things like this, see that the procedures of Monsanto were followed.

Q What about the profitable sale, how would you see to that?

A If the profits were very poor on Pydraul, it would be up to me to find out why, whether the expense of selling the product was too high or that the customers could only pay a certain amount of money and our product be sold profitably at that level so we could formulate a new product, that sort of thing. It is not a specific thing.

Q Were the F-9 and A-200 fluids profitable for Monsanto?

A It is hard to answer. They were not very profitable, but they were acceptably.

Q As Supervisor of Pydraul Sales, you had some connection with the salesmen to make sure they had the information they needed to sell Pydraul?

A Yes.

Q But you did not have direct supervisory control over the individual salesmen?

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A That is correct.

Q You don't know what the salesmen were in fact telling your customers, do you?

A We have some record of it from joint calls with them and from what they wrote in their call reports.

Q Other than the call reports or the memorandum that the salesmen may have written, you cannot be sure what the salesmen were conveying to the customers?

A Without being there, there is no way to be sure.

Q Did you ever have any meetings with salesmen in the period of 1958 to 1968 to discuss what they were telling the customers?

A I recall that we had some meetings during that general period of time with our salesmen in which we gave continuing training on what our product was and what its properties were and what they should be conveying to the customers.

Does that answer the question you had in mind?

Q Did you get input from the salesmen as to what they were in fact telling the customers or problems that the customers were having?

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A I'm sorry. I don't mean to be difficult, maybe it is getting late in the day.

(Question read.)

BY THE WITNESS:

A Yes.

BY MS. OLIVER:

Q In the period from 1958 to 1968, can you tell me today, do you have a recollection of any specific problems that customers were having that you were informed of?

MR. FEATHERSTONE: At these meetings?

MS. OLIVER: At these meetings.

BY THE WITNESS:

A I don't remember any specifics of what the problems were, no.

BY MS. OLIVER:

Q What were the general types of problems that would come up at these meetings?

A They related not to performance problems with our product but more to difficulties the salesmen were having in selling our products to someone who was not yet using a fire-resistant fluid or who was using a competitive one.

Q How often would you have these meetings with

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salesmen?

A Less than annually, I think maybe we had one one year and one the next and then skipped a few. It was tied into a larger sales meeting.

Q Once you became Supervisor of Pydraul Sales, did you continue to make calls on customers with salesmen?

A Occasionally, yes.

Q For what reason would you be called on to make a call?

A Sometimes to augment what the technical service man was doing; that is to call on additional accounts, get more breadth or sometimes just my presence could be somewhat helpful to the salesman getting an audience with the people he wanted to talk to in the plant.

Q Would you say you limited your involvement to customers, with the biggest customers?

A Not necessarily.

Q Besides Johnson Motors who was a big customer of Monsanto, what were the other big customers?

MR. FEATHERSTONE: I direct you not to answer that question.

MS. OLIVER: Certify the question.

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BY MS. OLIVER:

Q Did you ever make a call at the General Motors Plant in Bedford, Indiana?

A Yes.

Q For what reason did you go there?

A As best I recall they were interested in Pydraul A-200 and I went with the salesman to discuss the product.

Q Do you recall when that would have been?

A Only by the dates at which Pydraul A-200 was brought to market, which was the late '50s, early '60s.

Q Do you recall who the salesman was that you went with?

A No, I don't.

Q Do you recall in the period of '58 to '68 about how many salesmen there were for Pydraul fluids that were selling Pydraul fluids?

A I recall the salesmen had many things to sell and I recall there were something over 20.

Q Was that 20 salesmen for across the country or around the country?

A That is correct.

Q There were no salesmen you were aware of that

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just sold Pydraul fluids?

A That is correct.

Q The salesmen would sell the functional fluid group?

A Yes, and prior to that would sell other products in addition to functional fluids.

Q When you visited the Johnson Plant on the one occasion that you were shown the facility briefly, do you recall who went with you from Monsanto?

A No, I don't.

Q Do you recall who you saw at the Johnson Plant or who you talked to?

A Bill Bratzke and Dick Stenberg.

Q Do you recall any conversation you may have had with them during that visit?

A I recall the feeling rather than the conversation, the feeling --

MR. FEATHERSTONE: Wait a minute. She wants to know whether you recall any conversation.

BY THE WITNESS:

A I don't recall the specific conversation.

BY MS. OLIVER:

Q Do you recall the purpose of that visit?

A To introduce me to the account or the

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salesman to introduce me to the account.

Q Was it your practice after visiting a customer to write a report on the visit?

A A call like that, no. Generally the salesman's report would suffice.

Q Did you make a written report on any calls you made to customers?

A I don't remember.

Q The second trip you made to Johnson Motors was for ice fishing trips, is that correct?

A I am not positive it was the second, but I went ice fishing with Bill Bratzke and a friend of his.

Q That was after the first visit?

A That was after the first visit.

Q Other than those two visits, do you have any specific recollection of being at the Johnson Plant?

A I recall being there more than twice, probably not more than five times, but these were visits generally in the office with either Bill Bratzke or Dick Stenberg.

Q Would they have been in the period of 1960 to 1968?

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A They would have been in the early period of 1956 to '60.

Q Do you recall what the purposes were for your several other visits?

A I recall no specific purpose other than to assist the salesman.

Q Do you recall who the salesman was?

A No, I believe you asked that. I don't know.

Q I want to make sure for every visit that you can recall being at Johnson, you don't know who you were with from Monsanto?

A I don't recall. I don't remember the names of the salesmen who were involved at that time.

Q Do you recall the substance of the conversations you had with Mr. Stenberg or Mr. Bratzke during the several other visits?

A I remember being introduced to them and what my function was. I remember the first visit, being shown their shop.

Q I am talking about after the ice fishing trip.

A I don't remember the substance of the conversations.

Q At the time you left the Pydraul Sales Group,

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there was a reorganization of Organic and Chemical Division in 1968, late '68?

A Yes.

Q Do you know whether the reorganization was related in any way to the information that Dr. Richard told you about, the presence of --

MR. FEATHERSTONE: Possible presence.

BY MS. OLIVER:

Q (Continuing.) -- possible presence of chlorinated biphenyls in the environment?

A It was in no way related. It was a much broader structural change in the company.

Q You may have been asked this before, but when you moved into the Commercial Development Department, did you do any work with Pydraul at all?

A No, I did not.

Q Did you supervise any work on Pydrauls?

A No.

Q Were you contacted by anyone in any other department or within Commercial Development Department concerning the Pydraul fluids after 1968?

A The only contact would be if I received a report with information related to what I was doing but also contained information of Pydraul. Other than

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that, no.

Q You were not asked to comment on anything you received relating to Pydraul?

A That is correct.

Q You have talked a little bit about Findett, the Pydraul recovery group?

A Yes.

Q Do you know how it came about that Monsanto would recommend the Findett group to customers?

A Yes. As I said, we wanted to be sure that there was a service available to our customers who chose not to reclaim their own fluid but have it done for them.

We wanted to be sure that there was a source that appeared to us to be reasonably competent and qualified.

Q That was in the early 1960s, is that right?

A Yes.

Q Did you advise your customers that they should be reclaiming Pydraul in the early 1960s?

MR. FEATHERSTONE: You mean Mr. Davis personally?

MS. OLIVER: Or his Pydraul group, let us put it that way.

BY THE WITNESS:

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A Yes. In fact our literature from even before 1956 had recommended recovering and reclamation of fluid.

BY MS. OLIVER:

Q When you say your literature, what are you talking about?

A The Pydraul F-9 literature.

Q The technical brochures?

A Yes.

Q What was the reason in the early 1960s that you recommended to your customers that Pydraul be reclaimed?

A For their own economy.

Q Because it was expensive?

A Compared to petroleum and hydraulic oil, it was quite expensive.

Q You mentioned that some customers were doing their own reclaiming and recovering. What customers were you aware of?

A I am aware of Johnson Motors.

Q Were you aware of any other customers?

MR. FEATHERSTONE: You can answer that question yes or no. Were you aware of any other customers?

MS. OLIVER: Besides Johnson.

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MR. FEATHERSTONE: Doing their own reclamation,
is that it?

MS. OLIVER: Yes.

BY THE WITNESS:

A Yes, I am aware of them but can't remember
who they were.

THE WITNESS: I don't have to say that.

MR. FEATHERSTONE: Well, you said it.

BY MS. OLIVER:

Q How were you aware that Johnson was recovering
or reclaiming?

A When I joined the Pydraul Group, I was told
of it.

Q By whom?

A By my supervisor and there was a sales film
in which there was a picture of Johnson Motors re-
covering Pydraul.

I was told it was Johnson Motors.

Q This was 1956?

A The movie would have been made prior to 1956.

Q Who was your supervisor in 1956?

A Mr. Plummer.

Q Mr. Plummer, and was that a Monsanto film?

A Yes, it was.

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Q What department had responsibility or did the filming?

A The Advertising Department had it done.

Q Did you see the film?

A Yes.

Q What was your understanding of the Johnson recovery system?

MR. FEATHERSTONE: You mean reclamation?

MS. OLIVER: Recovery, reclamation system.

BY THE WITNESS:

A I understood that they filtered, had two containers and filtered from the dirty one to the clean one.

BY MS. OLIVER:

Q The dirty one being the one with the Pydraul in it?

MR. FEATHERSTONE: The pre-treated Pydraul and reclaimed Pydraul, is that right?

THE WITNESS: Yes.

MR. FEATHERSTONE: That is what you mean by dirty and clean?

THE WITNESS: Yes.

BY MS. OLIVER:

Q Do you know how the fluid got to these

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filters?

A No.

Q Do you know where those filters were?

A It was a single filter located someplace in the plant. I believe it was portable.

Q After having seen that film, did you obtain any additional knowledge about the Johnson recovery/reclamation program?

A No.

Q Do you know if the Advertising Department keeps these films, promotional films by Monsanto?

A I don't know.

Q Did you use the films at the sales meetings, not that film specifically, but did you use promotional films at your meetings with salesmen?

A That film was shown at at least one sales meeting.

Q That was right after you joined the Pydraul Group?

A Yes, it was shown shortly after joining the Pydraul Group.

Q Was that where you had seen that film?

A No. My boss had shown it to me earlier.

Q Are you aware of any other films made at the

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Johnson Plant by anyone with Monsanto?

A There was an updated colored version of that film, but I don't recall if Johnson Motors was included.

Q Approximately when was that updated version made?

A I don't remember.

Q You testified, I think, that in the period of 1958 to 1968 you had one person working underneath you or with you, Mr. Smith, is that right?

A Yes.

Q What was Mr. Smith's function or responsibility?

A He became a technical service man on Pydraul as I moved to the supervisory role.

Q He went out with the salesmen to the customers?

A Yes.

Q Did you ever have any conversations with Mr. Smith about any visit he may have made to Johnson Motors?

A Not that I recall.

Q Do you recall revising any technical bulletins relating to the potential problem of Pydraul being out in the environment?

A No.

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Q Do you recall revising any technical bulletins referring to the water pollution?

A No.

Q With respect to the labeling that was done for the Pydraul fluids, is it true there were some shipments of Pydraul fluids that were made by tank cars?

MR. FEATHERSTONE: To whom, anybody?

BY MS. OLIVER:

Q To customers.

A I am aware of tank trucks. I don't know about tank cars.

Q Tank cars or tank trucks, would the tank trucks contain those labels?

A No, I don't believe there was a label on the truck.

Q Do you believe labels would appear on what product, on what package?

A Would you explain to me what you mean by that or rephrase it?

Q Maybe I could rephrase it.

Labels for the Pydraul products would appear on what packages, on drums?

A Oh, it would appear on drums.

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Q If deliveries were made by tank trucks, there would be no labels, is that correct?

A That's correct. There were no labels.

Q Would there be any identifying marks on the tank truck as to what was in the tank truck?

A I am not familiar with that, I don't know.

Q Would the salesmen know, a salesman for a customer who got a tank truck delivery? Would he know?

A Would he know what?

Q Would he know whether there were any identifying marks on the tank truck, if you know?

A He might, somebody would know.

Q Somebody would, but you don't know who would know?

A Distribution Department.

Q Is Distribution Department the same as product forwarding or freight forwarding?

A Shipping would be a close analogy.

Q That is closer.

If you can look a minute at what has been marked as Exhibit No. 3, the sales information bulletin, you prepared that for distribution to salesmen, is that correct?

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A The salesmen and others, that is correct.

Q And others, what others would get sales information bulletins?

A People within headquarters who should be kept abreast of things that went out with Pydraul, for example; the research people.

Q Unless a salesman wrote a call report and indicated that he had disseminated the information on the sales information bulletin, you would have no way of knowing that this salesman actually discussed this with a customer?

A Unless he told me.

Q Or unless he told you.

You testified earlier today about chemical integrity of the Pydraul fluids. What do you mean by chemical integrity?

A I don't remember in what context I used those words.

Q Do you have any knowledge of the phrase chemical integrity? Does that mean anything to you?

A No.

Q Do you have an understanding of what quality control of the chemical constituents of Pydraul fluid would mean?

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A Would you repeat that question?

(Question read.)

BY THE WITNESS:

A Yes. Quality control would mean specifications and analyses of every batch against those specifications. We have a very vigorous control of everything we ship.

BY MS. OLIVER:

Q So quality control in your understanding is the final product, the specification of physical properties of the final product?

A And more. We have a very specific and I believe excellent control system, not only materials going out to customers, but materials that we produce and ship from one department to another and even raw material that we bring in from the outside, they are all analyzed for their quality.

Q So you would have a quality control program for the manufacture of Aroclors that are used as raw materials in the Pydraul?

MR. FEATHERSTONE: Were used?

BY MS. OLIVER:

Q Were used.

A Yes.

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Q What did that quality control of the Aroclor substance consist of?

MR. FEATHERSTONE: If you know.

BY MS. OLIVER:

Q If you know.

MR. FEATHERSTONE: Was it part of your job, first of all?

THE WITNESS: No, it wasn't.

MR. FEATHERSTONE: Tell her what you know anyway.

BY THE WITNESS:

A I remember that for the chlorinated biphenyl used in formulating Pydraul, there were specifications on such things as specific gravity, refractive index, which is a measure of purity, and perhaps some others. There were things of that nature.

BY MS. OLIVER:

Q Was the Research & Development Department in charge of quality control for raw materials such as Aroclor?

A No, the Manufacturing Department was.

Q Who if you know developed the specifications for the Aroclors?

A Aroclors predate my joining Monsanto. I don't know who made the initial specifications of

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Aroclor.

MR. FEATHERSTONE: May I have a minute, Roseann?

MS. OLIVER: Just a few more.

BY MS. OLIVER:

Q If you will look at Exhibit 4, that refers to Douglas Aircraft Company?

A Yes.

Q Did you work together with anyone at Douglas Aircraft regarding --

A I personally?

Q -- yes, regarding either the formulation of any Pydraulic fluid or labeling?

A I personally did not work with Douglas Aircraft.

Q Who did, if you know?

MR. FEATHERSTONE: On what topics now?

MS. OLIVER: On either formulation of Pydraul fluid or labeling.

MR. FEATHERSTONE: Labeling?

BY THE WITNESS:

A Oh, on formulation it would have to be whoever was in charge of the Research Group at that time. On labeling, being a commercial question or policy question, Mr. Parham.

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BY MS. OLIVER:

Q Mr. Parham?

A Parham, yes.

Q Did you ever meet anyone from Douglas Aircraft who was involved with Monsanto in their enterprise?

A Yes.

Q Who were the people that you met, if you recall names?

A Bob McCord was involved, and I met others who were not involved.

Q Do you know what Mr. McCord's involvement was, what he did?

A I remember it as a point of contact, a liaison between our companies. Most of this predates my involvement.

Q Predates your involvement in what?

A Developmental work and thus predates my involvement with Pydraul. Pydraul was already in existence when I joined that business.

Q But you met McCord while you were Supervisor of Pydraul Sales, I take it?

A Yes, that's true.

Q You also mentioned there were some distributors

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of Pydraul, Socony was one?

A Yes.

Q Were there any others that you recall?

A Yes, several oil companies.

Q Do you recall names?

A Yes.

Q What were they?

A Shell, Sohio, Standard of Indiana.

Q Was there a point in time when Monsanto became the main distributor of Pydraul?

A Would you explain that question, please?

Q When there were no other distributors besides Monsanto?

A For Pydraul fluids?

Q For Pydraul fluids, yes.

A Yes.

Q When was that?

A Both before and after the oil companies distributed Pydraul and I believe when I joined in 1965 that Socony, Mobil was a distributor. The others were not yet.

I believe in 1968 when I left, and this is somewhat previous to that, the oil companies were not distributing Pydraul.

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Q Were you involved in the oil companies' marketing or distribution of Pydraul fluids?

A Was I involved?

Q Yes.

A Yes.

Q What was your involvement?

A To provide them with information and literature.

Q What type of information did you provide?

A Information that we provided primarily in our literature on fire-resistance and what it meant, proper use of seals, safety in handling.

Q Did you provide the oil companies with a chemical composition of any Pydraul fluids?

A As I recall, I did, not in detail of percentages, but as I recall we told them what the fluid consisted of.

Q You did.

If you would look at what has been marked as Davis Deposition Exhibit 14, which is also Richard Deposition Exhibit No. 2, please.

MR. FEATHERSTONE: He has it.

BY MS. OLIVER:

Q Mr. Davis, you testified that Exhibit No. 14 was your response to Mr. Richard's inquiry.

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A Yes.

MR. FEATHERSTONE: Dr. Richard.

MS. OLIVER: Dr. Richard, pardon me.

BY MS. OLIVER:

Q And you advised Dr. Richard in that memorandum that, "The major entry of Aroclor into sewers and streams from industrial fluids applications is in industrial hydraulics."

I think you testified that you reviewed the applications for Aroclor to make that statement, is that correct?

A I believe that what I said was I read from Dr. Richard's memo saying people were looking for Aroclor in the environment and if it were there, were we ready to take steps to reduce or eliminate, and my response was if it were there, most likely the candidate for its appearance amongst the various fluid applications would be hydraulics.

I said I reviewed the answer which was dielectric, heat transfer and hydraulics and tried to see the differences between them.

The difference is that hydraulics operate at a higher temperature while all closed systems, this is the high pressure and would be the

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most prone to leakage.

Q Mr. Davis, your statement here is not if there is entry from industrial hydraulics. Your statement is that entry is in hydraulics.

Didn't you have knowledge at the time you wrote this memo that in fact industrial fluids had found their way into streams and sewers?

A No, I actually did not. Dr. Richard told me there had been reports that Aroclor might have been identified, but that it was not yet certain.

I did not use the word if which is probably an error in the context of what he was saying. I was saying the most likely candidate was hydraulics, but I didn't know in fact -- in fact, they had not been reported, certainly, to be found in the environment.

Q But from your position as Manager for Pydraul Sales and your visits to the plants and your discussions with salesmen, weren't you aware that industrial hydraulics, the Pydraul fluids were to some extent at least finding their way into streams and sewers?

A No. I was aware that there --

MR. FEATHERSTONE: Well, you have answered the

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question.

BY THE WITNESS:

A No.

BY MS. OLIVER:

Q You also say in this memorandum that you are prepared to design, install and start up effective fluid recovery systems which remove Pydraul from plant effluent.

Mr. Davis, weren't you aware when you wrote this memorandum that Pydraul was in plant effluent?

MR. FEATHERSTONE: He has answered that question.

MS. OLIVER: I am asking --

MR. FEATHERSTONE: He has answered.

You can answer it again.

BY THE WITNESS:

A Yes, I guess we need to define what plant effluent means.

BY MS. OLIVER:

Q What did you mean by plant effluent in your memo?

A I did not mean entering the environment. I meant leaving the direct area of a die casting machine or the building in which it is.

Q So you used plant effluent to mean leaving

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MR. FEATHERSTONE: Well, I see as he used the term plant effluent, it included leakages, but go ahead and answer the question.

THE WITNESS: Okay.

BY THE WITNESS:

A Two points: One, as I stated earlier, Monsanto had encouraged customers to recover and reclaim Pydraul and reuse it and somewhere we saw to it that Findett was available if they wanted an outside firm.

24 In the context of this memo, I was saying if Aroclor is found in the environment, the likely candidate application is hydraulics. I said it as if it were a fact here, but I don't know it to be a fact.

By the same token, if it were entering the environment by a hydraulic plant, it must be leaving the hydraulic plant, but I didn't know that it was.

BY MS. OLIVER:

Q Was your understanding of Aroclors that if it was in the environment it would be persistent, it would be there indefinitely? Did you have that understanding?

A I didn't have that understanding.

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Q Did you participate in preparing any news releases for the development or for the marketing of new products?

A The products of which I was involved at those times, I would be involved.

(Davis-OMC Deposition Exhibit
No. 19 marked for identifica-
tion, 1/29/81, TLU.)

BY MS. OLIVER:

Q Take a minute and read what we have marked as Exhibit No. 19, Mr. Davis.

Have you read it?

A Yes.

Q Do you recall having seen that document before today?

A Yes.

Q When did you last see it?

A I saw it yesterday.

Q Have you reviewed that before your deposition?

A Yes.

Q Did you participate in the drafting of that press release?

A As I recall, I did.

Q That is dated 1959, is that correct?

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MR. FEATHERSTONE: It bears a date.

BY MS. OLIVER:

Q And it --

A Yes.

Q -- it refers to oncoming of A-200?

A Yes.

Q The press release refers in the third paragraph to the fact that A-200's extreme stability prevents it from decomposing so that with occasional filtering for atmospheric dirt, the fluid should last indefinitely.

Is that a correct reading?

A Yes.

MR. FEATHERSTONE: Up to the comma?

MS. OLIVER: Up to the comma.

BY MS. OLIVER:

Q Did you help prepare that statement?

MR. FEATHERSTONE: The one you just read?

MS. OLIVER: Yes.

BY THE WITNESS:

A I don't recall whether I helped prepare that statement.

BY MS. OLIVER:

Q Who else participated in the preparation of

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that press release?

A Someone from the Public Relations Department, whoever it would have been at that time.

Q Where was the information obtained that went into that press release?

A It could have been obtained from me or from Research.

Q Did you give the advertising person information that A-200 would last indefinitely?

A I could have, but as I said earlier, I don't recall whether or not I did.

Q What does that statement mean to you?

A It means to me that the Pydraul A-200 is stable against temperature, water, et cetera, and can be cleaned up and reused which is a phrase familiar to lubricating people.

For example, petroleum oils are used in turbines, can be used five or ten years if they remain stable.

Q Based on the statement that it would last indefinitely --

A It doesn't say that. It says should, that it should last indefinitely.

Q -- would it be correct to say that if it

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found its way into the environment, it would remain indefinitely or could remain indefinitely?

MR. FEATHERSTONE: Are you asking Mr. Davis whether he knows that?

MS. OLIVER: Sure.

MR. FEATHERSTONE: Do you have any idea?

THE WITNESS: That stability has nothing to do with its existence or performance in the environment. As I mentioned, petroleum oils have that stability.
BY MS. OLIVER:

Q In Exhibit No. 14 again, your memorandum of May 23, 1978 to Dr. Richard, you discuss the design, installation and start-up of effective fluid recovery.

MR. FEATHERSTONE: Discuss it?

BY MS. OLIVER:

Q You refer to it.

What was the design, installation and start-up referred to there?

A It referred to the service that Findett was offering to the industry in fluid recovery and reclamation.

Q As I understand it, Findett was already in business?

A Yes.

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Q What did you mean by, we are prepared to design effective fluid recovery systems?

MR. FEATHERSTONE: You are limiting that to install and start up?

MS. OLIVER: Install and start up, but I am focusing right now on design.

BY THE WITNESS:

A As I say in the next sentence:

"We have demonstrated this capability through Findett."

BY MS. OLIVER:

Q What I am asking is what does design mean in the context of that memo?

A Design means to organize, lay out, plan.

Q Is that what you mean, that you intended to design a program for customers and bring in Findett? Originally what were you intending?

A We are not discussing, I am not intending to design a program so much as design a facility and I am saying that Findett offers this service and we are prepared to give the service to our customers through Findett, or if the customer prefers, we will take the responsibility and subcontract to Findett.

Q Are you aware that at some period of time

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Monsanto attempted to do its reclamation services without Findett?

MR. FEATHERSTONE: You mean to the customer?

MS. OLIVER: To the customer.

MR. FEATHERSTONE: Are you aware of that?

THE WITNESS: I don't believe so. When are we talking about -- I don't --

BY MS. OLIVER:

Q You are not aware of it?

A No.

Q The last paragraph of that memorandum states:

"If and when more customers are pressed to keep Pydraul out of the streams due to Government legislation, we are prepared to act..." et cetera.

When you wrote this memo, did you have any understanding that there would be Government legislation to keep Pydraul out of the streams?

A No. Again, I was referring to Bill Richard's memo that said people are looking to see if Aroclors are in the environment. And "are you guys ready in case it is?"

I was not aware of any pending legislation or action.

Q Did you consider advising your customers at

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this point in time, as of May 23, 1968, that there might come a time when Government legislation may keep Pydraul out of streams?

A All I can say is we considered this information and decided the thing to do was find out whether it was true or not.

Q So your answer is you didn't consider advising your customers at that time, Mr. --

MR. FEATHERSTONE: Mr. Davis.

MS. OLIVER: Yes, I'm aware, Mr. Davis.

BY THE WITNESS:

A That's correct.

BY MS. OLIVER:

Q Do you know if any group or department or person at Monsanto at this time considered advising the customers of the possibility of Government legislation?

MR. FEATHERSTONE: Do you know? Do you know of anyone in Monsanto -- the problem --

MS. OLIVER: Read the question, please.

(Question read.)

BY THE WITNESS:

A The answer is no.

BY MS. OLIVER:

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Q Mr. Davis, did you become aware in 1971 that Johnson Motors was having problems with phenol levels in the plant effluent?

MR. FEATHERSTONE: 1971?

MS. OLIVER: Yes.

BY THE WITNESS:

A No.

BY MS. OLIVER:

Q Were you aware of any sampling that was done at Johnson Motors to the effluent of --

A No, I'm not aware.

Q By Monsanto, I mean?

A No.

MS. OLIVER: I don't think I have anything else.

MS. STEIN: I have a few more.

REDIRECT EXAMINATION

BY MS. STEIN:

Q Mr. Davis, did Monsanto have a Pydraul recovery program at Sauget, Illinois?

MR. FEATHERSTONE: Pydraul recovery program?

MS. STEIN: Yes.

BY THE WITNESS:

A Not that I am aware of.

BY MS. STEIN:

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Q Didn't you have a Pydraul reclamation program at Sauget, Illinois?

MR. FEATHERSTONE: Are you aware?

BY THE WITNESS:

A Not that I know.

BY MS. STEIN:

Q In response to a couple of questions from Ms. Oliver concerning visits to Johnson Motors, you indicated that you had gone to assist the salesperson at Johnson Motors.

Can you describe to me what you mean assist the salesperson?

A Yes. I was prepared to provide technical information if it was needed, information on the use and handling of Pydraul.

Q At the time that you made those visits, Johnson Motors was using Pydraul F-9, is that correct?

A That's correct.

Q Were these two visits in conjunction with the introduction of Pydraul A-200?

A As best I recall, they preceded that.

Q Were the visits motivated by an information of the sales staff at Monsanto that Johnson Motors might switch to some hydraulic fluid other than

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Monsanto's F-9?

MR. FEATHERSTONE: Would you read that back?

(Question read.)

MR. FEATHERSTONE: You mean Mr. Davis' visits
or the salesman calling on the account?

MS. STEIN: His presence at these particular
visits.

MR. FEATHERSTONE: Your presence, was that
motivated by a fear?

THE WITNESS: No, it was not.

BY MS. STEIN:

Q Or a concern of any kind?

A No, it was not.

Q What was the purpose of the visit?

A As I had testified earlier, it was to
introduce me to the account.

Q That was the first visit, that is right,
but you indicated there were some subsequent visits.

A Yes.

Q And you had already been introduced.

A Yes.

Q What underlay those later visits after you
had already been introduced to the account?

A Merely to be with the salesman as I said.

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There was no major purpose of which I am aware.

The account was very happy with Pydraul. They told me they knew all about using it and it was just a sort of social, a sort of staying in contact with the customer.

Q During the time that you were involved with Pydraul Sales, who was in charge of the Aroclor specifications in the Manufacturing Group?

A I don't recall.

Q Do you recall whether there was a title of someone who was charged with product specifications within the manufacturing component of the Organic Chemicals Division?

A There would be a manager of the department in which Aroclors were made and the levels above him in the manufacturing plant, but I don't remember who they were; several levels.

Q With respect to questions concerning the OS designation, I believe you indicated that OS meant outside samples, is that correct?

A Yes.

Q Where were the records concerning the source of that outside sample kept, would they have been kept at Monsanto, the OS-95 --

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MR. FEATHERSTONE: Records concerning the source?

MS. STEIN: Well, he said it was an outside sample. Does that mean it was generated outside of Monsanto?

BY THE WITNESS:

A No. It means it was sent outside of Monsanto.

BY MS. STEIN:

Q Where would the records relating to where it was sent outside of Monsanto be?

MR. FEATHERSTONE: If they still exist, is that your question?

MS. STEIN: Right, if they haven't been destroyed.

MR. FEATHERSTONE: Or if they haven't been disposed of in the course of normal business routine and policy at Monsanto?

You can respond to the question, if you know.

BY THE WITNESS:

A Either with the Research Department or the Development Department.

MR. FEATHERSTONE: If there were any documents generated.

BY MS. STEIN:

Q Would there have been documents generated

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relating to where that OS-95 went outside of Monsanto?
Would that have been the normal practice?

A While it was a research or developmental product, there would have been at least a temporary record of where the samples were sent.

Q Was there a separate Research Department and a separate Development Department in the Organic Chemicals Division during the time you were in Pydraul Sales?

A Part of the time.

Q What was that time when they were separate?

A It was Exhibit No. 1 and it went up until whenever.

Q Until 1968?

A Yes, that is correct.

Q On Exhibit No. 1, you have Director of R&D. Does that mean then there were two boxes underneath Director of R&D or two lines going off?

MR. FEATHERSTONE: Off the record. I think he is not understanding what you are asking.

MS. OLIVER: You said there was a separate Research Department and a separate Development Department? Was the research function separate from the development function?

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THE WITNESS: Yes.

MR. FEATHERSTONE: Off the record.

MS. STEIN: Off the record.

(Discussion off the record.)

MR. FEATHERSTONE: You can clear it up by saying when he said development, he meant Commercial Development. Is that correct?

MS. STEIN: That is what I was trying to clear up.

MR. FEATHERSTONE: I thought I would help you.

MS. STEIN: You're such a swell guy.

MR. FEATHERSTONE: I try.

BY MS. STEIN:

Q Are you familiar with the Monsanto publications entitled The Aroclor Compounds?

A I recall a technical bulletin by that name existed.

Q Have you read any of those publications?

A Many years ago, yes.

Q Did you have any role in taking Pydraul F-9 and Pydraul A-200 off the market?

A No, I did not.

Q Do you know what the products were that were competing with Pydraul A-200?

A Do I know --

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(Mr. Schink entered the
deposition room.)

MR. FEATHERSTONE: She said do you know what they
are?

BY MS. STEIN:

Q Could you tell me what they are?

A They were water-oil emulsions, water-glycol
solutions and phosphate esters.

Q Do you know who the manufacturers of those
were?

A Some, yes.

Q Could you tell me those that you know?

A Water-oil emulsions were made by several oil
companies. Water-glycols were made primarily by Union
Carbide, although others offered them, and phosphate
esters were made by Celanese and Houghton.

Q I believe you mentioned earlier that several
oil companies were distributors for certain Pydrauls.

Can you tell me which Pydrauls those
were?

A I believe all of the Pydrauls were commercial
at the time they were distributors, which would include
F-9, 150, 625, AC and A-200.

Q Do you know what the purpose was behind

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entering into the contract with the oil companies to be distributors of Pydraul?

MR. FEATHERSTONE: Read that question.

(Question read.)

MR. FEATHERSTONE: You mean other than having somebody to market the product?

MS. STEIN: I want to know what all the purposes were, what motivated Monsanto, if you know, to enter into those contracts.

MR. FEATHERSTONE: If you know anything about those contracts.

THE WITNESS: I was involved.

MR. FEATHERSTONE: Answer the question.

BY THE WITNESS:

A The oil companies requested the distributorship on Pydraul fluids in order to have a more complete line of products to offer customers as they sold industrial oils of all kind.

BY MS. STEIN:

Q This was even in the case of Shell, for example, that may have had their own hydraulic fluids and that would be in competition with Pydraul A-200?

MR. FEATHERSTONE: You are asking him whether that makes sense for Shell or whether that makes sense

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for Monsanto?

MS. STEIN: Whether that makes sense for Monsanto.

BY THE WITNESS:

A I don't recall whether or not Shell was a distributor. I don't believe I listed them earlier.

BY MS. STEIN:

Q You did, that is why I asked.

MR. FEATHERSTONE: Okay. We are up in the air on that.

BY MS. STEIN:

Q Were you involved in preparing the descriptions of the intended applications for the Pydrauls that appeared in any of the technical bulletins or the sales literature or the range of intended uses?

A Was I involved with that?

Q Yes.

A I believe I was.

Q Can you tell me what your role was?

A As I recall there was nothing new for many years that Pydraul was in use and it was just a matter of continuing to repeat what our customers' applications have been and continued to be.

MR. FEATHERSTONE: Did you say customer or customary?

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THE WITNESS: Customer applications.

BY MS. STEIN:

Q Do you know whether the sales force of Monsanto limited its sales efforts of the Pydrauls to the applications described in the Monsanto literature?

THE WITNESS: Would you repeat that?

(Question read.)

BY THE WITNESS:

A I'm quite certain that they did.

BY MS. STEIN:

Q Would that have been the Monsanto literature relating solely to the Pydrauls?

MR. FEATHERSTONE: I don't understand that.

What do you mean?

BY MS. STEIN:

Q You have been referring to Pydraul literature and the applications in there.

A Yes.

MR. FEATHERSTONE: And the question was did the sales force market Pydraul in accordance with the applications described in there and he said yes. And I don't know what you are asking there.

BY MS. STEIN:

Q Do you know whether they did in fact market

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it?

MR. FEATHERSTONE: He just answered that.

MS. STEIN: Never mind.

BY MS. STEIN:

Q Who else was involved in determining the applications of the Pydrauls other than you?

A If a customer had an application which he thought Pydraul might be useful, the matter, if it was discussed with Monsanto, would then be discussed with Applications Research.

But really I said as far as I know, these were the classical uses over which it was used for many years.

Q Do you know of any uses other than the classical uses for which the Pydraul was employed during the time you were involved in the Pydraul Sales?

A No.

Q I believe you mentioned that there was a film that you saw regarding the Johnson Motors recovery of Pydraul, is that correct?

A That was a small part of the motion picture. Yes, that is correct.

Q Were there other customers' Pydraul recovery systems displayed in that film?

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A There were not.

Q What else was in that film?

A Pictures of hydraulic machinery that was operating on Pydraul in die casting shops and steel mills.

Q Anything else in those films?

A Not that I recall. I've not seen the film for many years.

Q Do you know how long the Pydraul recovery system displayed in that film was in use at Johnson Motors?

A No, I don't.

Q Do you know what the percent of Pydraul recovered by that system was?

A No, I don't.

Q I believe you testified in 1969 and 1970 you were involved in Pydraul updates, is that correct?

A I don't recall what updates means.

Q I wasn't sure either. That is what I was going to ask you.

MR. FEATHERSTONE: I don't think the term was used by the witness, anyway.

BY MS. STEIN:

Q Did you have any involvement whatsoever with

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Pydraul after 1968?

A No.

Q Did you have any involvement with Therminol after 1968?

A Yes.

Q For how long did you have some involvement with Therminol after 1968?

A I had no involvement with Therminol from after 1968. I was involved with a potential business and systems equipment within Therminol in general, regardless of what chemistry it was, and I later was involved with a Therminol fluid again of a totally different chemistry.

Q I believe you stated that Monsanto encouraged customers to reclaim its Pydraul, isn't that correct?

A Yes, we did.

Q Wasn't that counter to maintaining or increasing the volume of sales of Pydraul fluids?

A You might say so.

Q Nevertheless you know Monsanto had a policy of encouraging customers to reclaim Pydraul?

A Yes.

Q Were you personally involved in any way in informing customers of the Pydraul recovery system,

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any of the various systems?

A It was always, it was in our literature, I believe, the suggestion and discussion of it, yes.

Q Did you personally have any contact with any customers concerning Pydraul recovery?

A Recovery, all that I recall is that on occasion when I would join a field salesman on a sales call, he would encourage the customer to reclaim and recover fluid.

Q I'm going to show you what has been marked as Davis-OMC Deposition Exhibit 17 and refer you to the page that is marked 612.

In the second paragraph of that memorandum, the first sentence is:

"Trends and average shifts noted in the control charts indicate that the process could be tightened in some instances if the causes were known."

Is that correct?

A Yes, that's what it says.

Q Could you tell me what you understand the phrase "the process could be tightened" to mean?

MR. FEATHERSTONE: I think he may have to read the first paragraph to do that.

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BY THE WITNESS:

A To me this means that there is a constant flow of comparing what the plant can make and what the customers require.

If the plant can make something to a tighter more narrow specification and it is of value to the customer, then we tighten specifications to cause that to be the product that we make.

If on the other hand the plant is having difficulty meeting a very narrow specification in viscosity or gravity, we like to see if it is for the customer, if it can be that narrow or can we broaden the specifications and the customer still gets good performance. If he can, rather than make dramatic changes in the plant, we will close the specification. It is a constant flow back and forth with plant engineers and customers.

That is what I read in terms of this memo.

MR. FEATHERSTONE: In terms of product specifications?

BY THE WITNESS:

A In terms of product specifications and these are very, very minor specification changes.

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BY MS. STEIN:

Q But you don't read that to mean anything related to chemical purity?

A No, I do not.

Q Of the product produced?

A No.

Q In response to a question from Ms. Oliver concerning proper and profitable sales of Pydraul fluids, I believe you responded to proper, you meant following Monsanto procedures.

Could you tell me what the Monsanto procedures were that were being followed for the use of Pydrauls used in Ms. Oliver's question?

A It will be difficult but if you allow me, I will try.

MR. FEATHERSTONE: Do the best you can.

THE WITNESS: Okay.

BY THE WITNESS:

A In the case of literature, were we sure that the literature that went out was approved by the Law Department, approved by the Medical Department and we just didn't send out unapproved information to the customers.

If we had a distribution system that was

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satisfactory to the customers and satisfactory to us, an example: Should we allow the oil companies to distribute Pydraul in addition to our Pydraul, in addition to our selling it. That would be a consideration that was a proper marketing consideration and it goes on and on.

It is not a very tight specific thing.

BY MS. STEIN:

Q Are these procedures written down anywhere?

A I don't believe so.

Q Would the Director of Marketing be responsible for seeing that those procedures are followed?

A Yes.

Q Could the Director of Marketing have knowledge of what those procedures were?

A Insofar as there was a procedure for each thing, there was a procedure for literature, a procedure for other, maybe not for distribution, but there was a general understanding that distribution of product must be sought and for Monsanto and for the customer. And I don't think that is written down anywhere.

Q Were there specific procedures for the sales force insofar as what is determined to follow, insofar

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as instructions of how to approach customers or the substance of their conversations or communications to them?

A As best I recall they were told that if they were asked by Product Group to convey information to the customer, they must. They obviously were trained that you don't fix prices or any of these things. Insofar as the basis of policy, the question was, was there anything written down?

Q Not this question.

MR. FEATHERSTONE: That was your question, ma'am. We are going all over the place now, Elizabeth. It is late.

MS. STEIN: I was asking about the instructions to the sales force with respect to Pydraul sales, and I asked what the components of those procedures were.

THE WITNESS: I didn't catch "with respect to Pydraul sales," and I too went very broad.

MR. FEATHERSTONE: That was because she didn't ask that question.

BY MS. STEIN:

Q With respect to industrial fluid sales, what were the Monsanto procedures for the sales force?

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MR. FEATHERSTONE: Which didn't report to you, by the way, but to the extent you can give them, go ahead.

BY THE WITNESS:

A The examples I gave are really the best I can give. I am not aware of a manual of instructions.

BY MS. STEIN:

Q Who would know whether or not there was a manual of instruction?

A The Director of Marketing.

MS. STEIN: Thank you.

Do you have any more?

MR. FEATHERSTONE: Yes.

CROSS EXAMINATION

BY MR. FEATHERSTONE:

Q In Santotrac 50, was that an industrial fluid?

A No.

Q Earlier today you testified that in about 1959 the State of California and possibly some other states passed laws relating to labeling.

Do you remember that testimony?

A Yes.

Q At that time you said that to the best of

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your recollection, the State of California and probably other states required that products containing chlorinated hydrocarbons carry a label. Do you remember that?

A That is correct.

Q There was some questioning about the use of the phrase "chlorinated hydrocarbon" versus the phrase "chlorinated biphenyl" on the label itself.

Do you remember that question?

A Yes.

Q Did the California statute that talked in terms of chlorinated hydrocarbons, did that play any role in the selection or the choice between chlorinated hydrocarbon and chlorinated biphenyl being put on the Pydraul labels?

A Yes, that is what the state recommended and that was a significant factor, and I decided to go with what they recommended.

Q In order to use chlorinated hydrocarbon instead of biphenyl?

A Yes, that was an important consideration by the state.

MR. FEATHERSTONE: I have no further questions.

MS. STEIN: Thank you, Mr. Davis.

(Witness excused.)

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FURTHER DEPONENT SAYETH NOT.

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

THE UNITED STATES OF AMERICA,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	No. 78 C 1004
	)	
OUTBOARD MARINE CORPORATION	)	
AND MONSANTO COMPANY,	)	
	)	
Defendants.	)	

I hereby certify that I have read the foregoing transcript of my deposition given at the time and place aforesaid, consisting of Pages 1 to 257, inclusive, and I do again subscribe and make oath that the same is a true, correct and complete transcript of my deposition so given as aforesaid, as it now appears.

Richard J. Davis

Subscribed and sworn to
before me this ____ day
of _____, A.D. 1981.

Notary Public.

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UNITED STATES OF AMERICA)
 NORTHERN DISTRICT OF ILLINOIS)
 EASTERN DIVISION) SS:
 STATE OF ILLINOIS)
 COUNTY OF COOK)

I, Thea L. Urban, a notary public in and for the County of Cook and State of Illinois, do hereby certify that RICHARD J. DAVIS was by me first duly sworn to testify the whole truth and that the above deposition was recorded stenographically by me and was reduced to typewriting under my personal direction, and that the said deposition constitutes a true record of the testimony given by said witness.

I further certify that the reading and signing of said deposition was not waived by the witness and his counsel.

I further certify that I am not a relative or employee or attorney or counsel of any of the parties, or a relative or employee of such attorney or counsel, or financially interested directly or indirectly in this action.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Chicago, Illinois, this ____ day of February, A.D. 1981.

Notary Public, Cook County, Illinois.
 My commission expires December 15, 1983.

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