History

of the

U. S. Food and Drug Administration

Interviewee:	Kenneth A. Hansen
Interviewer:	Robert G. Porter
Date:	June 13, 1990
Place:	Colorado Springs, CO

DEED OF GIFT

Agreement Pertaining to the Oral History Interview of

KENNETH A. HANSEN

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INTRODUCTION

This is a transcript of a taped oral history interview, one of a series conducted by Robert G. Porter, Fred L. Lofsvold and Ronald T. Ottes, retired employees of the U.S. Food and Drug Administration. The interviews are with persons, whose recollections may serve to augment the written record. It is hoped that these narratives of things past will serve as one source along with written and pictorial source materials, for present and future researchers. The tapes and transcripts will become a part of the collection of the National Library of Medicine.

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GENERAL TOPIC OF INTERVIEW: History of the Food and Drug Administration

DATE: June 13, 1990 PLACE: [redacted] LENGTH: 225 Min.

INTERVIEWEE	INTERVIEWER
NAME: Kenneth A. Hansen	NAME: Robert G. Porter
ADDRESS: [redacted]	ADDRESS: U. S. Food and Drug Administration
[redacted]	Denver, Colorado

FDA SERVICE DATES: FROM 1959 TO: 1986 RETIRED? Yes

TITLE: Director, Seattle District
(If retired, title of last FDA position)

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BP: This is another in our series of recordings for the FDA oral history project. Today I am interviewing Ken Hansen, retired director of our Seattle district at his home in [redacted]. The date is June 13, 1990. My name is Bob Porter.

Ken, I think it would be well to start our interview by asking you to give a thumbnail sketch of your education and experience and your career in FDA, and then we can go back and pick up other things as we go along. So, with that, if you'd take over.

KH: I was born in Monmouth, Illinois in 1923, spent my youth in Monmouth, and entered the U.S. Army in December of 1942. After nearly three and one-half years with Uncle Sam, I was discharged in late March of 1946. I entered the University of Cincinnati the fall of '46 and graduated in June 1949 with a degree in pharmacy with a major in chemistry. I began my working career as a medical service representative for Parke, Davis and Company in Denver, Colorado. After a little over a year with Parke Davis, I resigned and went to work as a pharmacist in Denver. I worked as a pharmacist in Denver until 1959 when I entered duty with the Denver District of the U.S. Food and Drug Administration as a GS-5 Chemist.

BP: Where did you practice pharmacy in Denver?

KH: I worked for York Pharmacy for about three and one-half years, and then until August 1959 with the Medical Center Pharmacy, located at Eighteenth and High Street.

BP: Yes.

KH: I began my Food and Drug career in the Customs Building downtown Denver in August of 1959. The initial interview was with the chief inspector, Leo Cramer. Leo, after talking to me and learning my background said that perhaps I would also like to interview with our chief chemist. So he took me back to the laboratory and I talked to the chief chemist, Don Taylor. Don and I had a good talk, which of course took place several months before I actually started with the agency--I was still work-

ing at the pharmacy at the time--and I had almost given up hearing from him when in July of that year he called and asked if I was still interested. And I said, "Yes, I am." I went down and had a second interview and resigned my position with the pharmacy and started with the Food and Drug.

BP: Good for you.

KH: At the time I entered, I was sworn in by Ralph Horst, the district director. We had, at that time, ten or eleven chemists in the Denver laboratory--Don Taylor was the chief chemist. We didn't have supervisors per se at that time, but Lefty Klayder, T. J. Klayder, was Don's assistant and the training officer. And so I and another chemist, a fellow by the name of Bob Munns, who I think is still with FDA . . .

BP: Yes, he's still here in Denver.

KH: . . . went under Lefty's wing and learned the ins and outs of being an FDA chemist. The laboratory was on the fifth floor of the New Custom House in downtown Denver.

BP: Yes.

KH: There was no central air conditioning or anything like that. We had some window air conditioning units so that during the really hot summer days we could get some relief, but for the most part it was not an air conditioned building. But it was a laboratory in which there was a great camaraderie between all the people. It was a small group. We got to know each other very well and worked well together. So it was a good experience for the beginning of a new career. At the time as I mentioned, Leo Cramer was the chief inspector. Our Food and Drug officer was Lester O. McMillin.

BP: Right.

KH: I don't remember a lot of the clerical staff, but I remember Eloise Straussner and of course Bobbie Kelley, who later became Bobbie Kelley Porter.

BP: Right.

KH: And Bobbie just retired here about three years ago as I recall.

BP: That's right.

KH: And our storekeeper was an old black fellow by the name of Sid something (William S. Sidney). Sid was a delightful old guy. I really enjoyed him; and when he retired, we had a party for him. Some of the other chemists in the laboratory were Al Stone, who left FDA early on; Adrian Bird, who left and returned to Idaho or Utah; Bob Stanley, who retired in Montana, I believe.

BP: Yes, I knew him in Chicago.

KH: Sam Hart was a chemist, as was Jim Haigh, who went on to Detroit and Philadelphia, and I believe he retired just in the last two or three years from FDA, and Tom Dunn. Bob Graham was transferred to Dallas when that district was established. Sam Hart stayed with the agency for a while and then went with Product Safety.

BP: He was with Product Safety for quite a long time.

KH: Quite a long time, yes.

BP: He was in Chicago, too, for them after that.

KH: Many of the chemists when I started with the agency either stayed in Denver and retired or else they left the agency. On the inspectors side, I don't remember a lot of them, but I remember Paul Hile as an inspector in Denver; an old fellow

named Ralph Davidson, a real character; Gordy Thompson; Ollie Goldbaum; and Morton Applebaum.

BP: I didn't ever know him, but I've heard of him.

KH: Leroy Gomez began as an inspector and is now district director; Adam Trujillo and his brother Chris Trujillo; Victor Ignatovich, who went on to Dallas district when it opened; and George Goers was in Denver. Keith Shostrom, who went into BEDAC and then went into DEA. While I was in Denver, Mr. Horst retired from the agency and went on to work for the state of Florida.

BP: That's right.

KH: After Horst, Sam Alfend became our district director. Sam had been a chemist with the agency. I really enjoyed and learned a lot working for Sam Alfend. He knew the agency; he knew its laws. And although he was probably a pretty severe taskmaster for the people under him, he did a lot for Denver and for FDA. After Sam retired, Fred Lofsvold came in as our district director. Here again, we had a man with a lot of knowledge of the agency and its laws and I respected and enjoyed working for Fred. After Leo Cramer retired, Joe North came to Denver as chief inspector. Then John Cox came, and I don't remember just how long John was with us.

BP: I applied for that job when Johnny got it, and I was pretty upset, because I thought I'd make a lot better chief inspector than he. I still think that.

KH: I was going to say, I think you're right. (Laughter)

BP: But that's just a little bit of history. (Laughter)

KH: It's interesting, in those days the chief inspector's office was directly across the hall from the district director's office. Being in the first laboratory room, if we had our doors open to the front hall, you could frequently hear Sam Alfend screaming, as

it were, across to Cox about something or to come in and see him--he needed an explanation on this; why did this happen? It was quite a liberal education as to what was going on. I think under Sam's tutelage, Don Taylor just couldn't take some of the--I don't know; I hate to call it verbal abuse--but apparently some of the incidents where Sam would stomp back to the lab to question a worksheet about this or that . . .

BP: Sam drove him crazy. (Laughter)

KH: Sam drove him crazy.

BP: I can imagine.

KH: So Don became our Food and Drug officer, and Louis Weiss arrived from Atlanta-district as chief chemist. Louis and I have kept in touch with each other for many, many years, and still do--one of my favorite people. Before Don became Food and Drug officer, there was Ted Christiansen. Ted was a real gentleman, too. I enjoyed Ted very much. I guess that pretty well covers most of the personnel of the period that I was there. I spent seven years in the Denver lab, from August 1959 until February 1966. Probably one of the more rewarding times of one's career, I guess, is when you start out, because you have a lot of fond memories of things that happened, particularly in the old days when Food and Drug didn't get into the limelight with Congress and with the GAO and we more or less could do a lot of our own things without a lot of interference.

BP: We had our own little private organization, didn't we?

KH: Sure did. We sure did.

BP: And did good work, I'm sure.

KH: Oh, I think so. I think the agency did damn good work. I remember when Sam Alfend was our district director. Sam always ate his lunch in the laboratory. When

he first arrived, he came to Don and said, "Could you give me a drawer in the laboratory where I could store a hot plate and some things?" I was working in the lab room that was closest to the inspector's room, and Don asked if I could clean out a drawer so that the district director could store a few things in it. So every noon Sam would arrive and pull his hot plate out of the drawer, get a beaker, fill it with skim milk from a bottle of skim milk he kept in the refrigerator. He'd pull out a box of graham crackers and have graham crackers, warm milk, and a piece of fruit, an apple or whatever I suppose was available at the time. And that was his routine every day.

We didn't have a lunch room per se in the district at that time, so most of the chemists who brought their lunch ate right at the desk. It was a usual routine for several of us to be eating in the lab when Sam came back to have his lunch, so we'd have a visit every day about things going on.

BP: It was a big change from when I was in Denver when Wendell Vincent was chief.

KH: I'm sure, I didn't know Wendell.

BP: We'd all walk down to the Oxford and drink our lunch.

KH: Oh, is that right? (Laughter)

BP: Not all, just a bunch of inspectors.

KH: Yes, well, I don't know if Sam imbibed at all. Did he?

BP: He still comes to Food and Drug parties, or he has recently anyway, and I've never seen him take a drink.

KH: No, I haven't either.

I remember when Denver district had the southeastern section of Idaho as part of our territory. Our investigators were trying to build a case on low butter-fat butter against a dairy in southeast Idaho.

BP: What outfit was that?

KH: I can't remember. I wish I could. I've racked my brain, but what I remembered about it was when they brought in the INV samples, collected in the plant, we were asked to do a fairly quick analysis so they could get an idea as to whether they had anything to go on. I was doing the so-called quick AOAC method for butter fat. The Book of Methods of the AOAC does not contain the names(s) of the analyst who developed the method nor the collaborators that had worked on it. But as I was in the process of doing this sample, Sam came back and said, "Did you know that's my method?" And I said, "No, I didn't know that." He said, "Yes, that is my method." So he stood and looked over my shoulder while I was doing the analysis. Of course, this is a little unnerving, but he did provide some pretty good hints as to what I could do to keep from losing anything from splattering and this sort of thing. He still had some good techniques to pass on.

As I recall, that INV sample was low in butter fat, and we went out and collected some official samples, which resulted in a seizure. But I cannot recall the name of the outfit. It just didn't stick with me.

BP: Probably one of those Salt Lake outfits that could have been there.

KH: It could have been. I was thinking it was in the Cache Valley area of Idaho.

BP: Oh, yes.

KH: But the names have completely gotten away from me.

And I remember, too--this is not necessarily in any order--but we were doing a lot of pesticide residue analyses. At that time, we were doing most of the extractions with benzene, a very flammable solvent. The determinative step for the pesticide residue was by paper chromatography. But anyway we were using benzene almost exclusively for extraction of the crops and then concentrate it down on a steam bath. Frequently we'd have to store those extracts in the refrigerator overnight, because we just wouldn't be able to complete the entire analysis in a day's time. One week-

end there were a number of flasks stored in the refrigerator there in the lab. Apparently when the refrigerator cycled on, it set off the benzene, and it blew the door of the refrigerator off. And, of course, all those bottles either broke or tipped over and the benzene poured out. We came in . . . Well, I don't remember whether it was discovered beforehand. It probably was, but my recollection was we came in that Monday morning and that whole lab was black with soot, and it took us days to get that cleaned up.

BP: It's a wonder it didn't burn up, isn't it?

KH: It really is. But apparently, the force of the explosion blew the door off, and the benzene burned up quickly, and there wasn't anything else inflammable close by, so it was confined to the refrigerator. Soot was all over everything: the glassware, the benches, the cabinets, you name it, the paperwork. What a mess. I remember Jim Haigh, Bob Graham, Bob Stanley, I, and a couple of others must have spent the next week trying to clean up everything. It was a mess.

I started in Denver in August of '59, and it was that fall that the cranberry episode hit with the amino triazole, and we had cranberries stacked every which-way in the laboratory. Of course, being a trainee chemist, I was not ready to do analyses. I remember (Laughter) that phrase coming up that they didn't feel that the trainees should be doing the analyses.

BP: That occurred about in November after you were hired.

KH: Right. November '59. And of course the lab was working around the clock. But they did put Bob Munns and me to work preparing samples and cleaning glassware and assisting the others in doing the analysis. That's an episode I still remember quite clearly, because it was the first, I guess, crisis-time situation that I had been involved with, and to see what the reaction was and what happened, how things worked and so forth, was very educational.

BP: Kind of a watershed crisis. For the first time the department got deeply into FDA affairs, and that was the beginning of a trend in that direction.

KH: That's right.

BP: Which I think is a very unfortunate trend, but it was the cranberry episode that kind of started it.

KH: Started it. That's right. And, you know, this was a time when we didn't have gas chromatographs and liquid-liquid chromatographs that are used in these days to do the analysis. The determinative step was colorometric using the spectrophotometer. It was a fairly long analyses, and the results were sometimes a little slow in coming. But it was quite an experience being in the lab and seeing how the whole district reacted to it.

Another pesticide incident that occurred when I was with the agency in Denver was the Misokami (Bros.) spinach. Do you remember Misokami spinach?

BP: Well, only because Einar Wulfsberg and I are good friends and I've heard him tell about his part in that.

KH: These were growers down in the San Luis Valley, and their field of spinach was sampled by FDA. We got the sample in the lab and it was analyzed, the first indication by paper chromatography appeared that we had a residue of I believe it was heptachlor, or heptachlor epoxide. It appeared to us from our sample that it was a violative level of the pesticide. The district determined that the spinach had been boxed and shipped to New York City. So New York district was told what our preliminary findings were. Of course, you had to have a sample that had moved in interstate commerce before you could take any action. New York district went out and sampled the boxcar of spinach.

(Interruption)

KH: The New York district laboratory analyzed the spinach and their determination also indicated the presence of a pesticide and they submitted a seizure recommendation. In the meantime, in Denver we had done more work on the spinach and felt that there was something wrong because we really couldn't duplicate our findings.

New York, I'm sure, was notified; I know they were notified of our failure to duplicate our first work. But the seizure recommendation went ahead. While all this was happening, the carload of spinach was embargoed and spoiled on the siding and the seizure . . . I believe either the seizure was contested or else the recommendation was not approved by headquarters. I don't remember what really happened back there. But I know that in the end it was shown that there probably wasn't any pesticide on the spinach, and the Misokami Brothers collected from Uncle Sam some $120,000 or something like that for a carload of spinach that spoiled on the siding.

BP: I remember that they collected; they sued us, I suppose, under the tort claim act, or something like that.

KH: I think so, yes. We finally figured out that the problem was some sort of an artifact from the plant itself that was providing us false readings in our determination. This hadn't been the first time in which we had had an indication of a pesticide present by paper chromatography and couldn't prove it by using some other more lengthy colorometric procedure. We felt that it had to do something with the plant material itself.

As a result of the spinach case and some others, I discussed with Louis Weiss the possibility of getting some crops grown in a pesticide-free atmosphere, as it were, whereby we could then analyze those particular commodities and determine if and what plant artifacts might be naturally present that would interfere with our normal analysis. So we journeyed up to Colorado State University in Fort Collins and talked to some of the people there. We finally entered into an agreement where they would grow some crops for us in what they call virgin soil. They very carefully brought in some new soil, sterilized it, and worked it into the soil present. It was analyzed, found to be free of pesticides, they planted the crops, harvested them, and sent them down to the Denver lab, where I analyzed them for pesticides. Actually I was looking for whatever plant materials might be present that would interfere with the analysis.

And we gained a lot of good information from that, and Louis wrote me up for a cash award. I got a $300 cash award.

BP: That was a lot in those days.

KH: That was a lot of money in those days. I felt pretty good about that. I also have a letter signed by George Larrick which congratulated me on the work I had done and the granting of the $300 award.

BP: Did it result in a change of the method?

KH: Actually, it brought about an improvement in our cleanup procedures. This was when . . . I think everything kind of came together at once. Mills was working on methodology in headquarters and came out with his procedure. We got away from the benzene extract and began using acetonitrile and the florisil column for cleanup. I don't know whether those changes were brought about by the fact that we were having problems with earlier methods--that was part of it, I'm sure--or by the fact that I could show on pesticide-free crops that there was plant interference, or whether they would have occurred just in the normal occurrence. I don't know.

It was a period of time when methodology was changing rapidly and eventually went into what they call thin layer chromatography, and then, of course, gas-liquid chromatography came into the picture and provided us much more sensitive and better determinative steps for our work. But I think it was a time in which I remember quite fondly as being a period when I felt that I had contributed to the development of better methods so we could do more definitive work in the laboratories.

BP: Well, it sounds like you did.

KH: And so it was a good feeling. And of course getting the award didn't hurt matters either.

Along these lines, I spent a lot of the time when I was in Denver in pesticide work. We used to have a lot of lab tours, you know, school kids coming into the lab. One of the things that I prepared to assist the kids in understanding some of the procedures that we did was a series of charts, or actually little cartoon figures on a chart, that demonstrated how we could find a small amount of pesticide on a crop and the procedures we went through. It turned out that one time Granville Lipscomb, who

was then the chief chief chemist, visited Denver and I had these charts up on a counter. Granville saw those charts and asked me a little bit about them and was kind of intrigued and asked if I would mind sharing them with other laboratories so that they could use it. So, as a result, all those charts were photographed on 35 mm. slides and copies of the slides were sent out to all of the districts. I don't know if anybody ever used them.

BP: Well, I'll bet they did.

KH: But I thought that was kind of nice to be recognized in that way, too.

The only research paper that I ever got published in FDA was when I was in Denver, and this was for a colorimetric procedure for a compound called Dilan. The paper was published in the Journal of the AOAC, and it's the only time I've ever had my name in print.

BP: That always looks good.

KH: Yes. I still have some reprints. Of course, Dilan never became a popular pesticide. I think it was used very sparingly and it died out very quickly, I think, as far as any commercial use of it.

BP: Your fame was fleeting.

KH: My fame was fleeting--that's for sure. It was during the time I was in Denver that the agency got into doing radioactivity work. This was when the United States was doing atmospheric testing and followed by the Soviet Union, and there was quite a lot of interest in the fallout from these experiments. So the agency entered into a rather strenuous and elaborate testing program for the presence of radioactivity in foods. I was selected from the Denver lab to undergo the radioactivity training. I spent six weeks in headquarters in the South Ag. building where the old labs were, working with Jacqueline Verrett. Did you know Jacqueline Verrett?

BP: I know the name, but I can't . . . I don't think so. When I was in Washington I might have met her in a meeting or something.

KH: Yes, quite a gal. She was quite a character, but a very brilliant chemist. I spent a period of time working in her lab with, there were several of us including Gale Wyer. Do you remember Gale Wyer?

BP: No.

KH: He was a chemist in Seattle at the time that we underwent the radioactivity training. This was in 1961. I was trying to remember some of the other people that were involved in that training at the time. One was Bob Stevens who was in Philadelphia. A big black guy.

BP: Oh, yes. I've met him.

KH: They didn't have all the districts in at one time because they didn't have the space to handle them. I think there were four or five of us involved when I was there. It was a very extensive program, and we were to return to the districts and be the expert to do the radioactivity samples. At that time the method required large muffle furnaces to completely reduce the food product to an ash. That ash was extracted for its strontium content. Actually, we measured the yttrium in the sample using counters, beta counters.

Once you've placed the little disk or planchet of yttrium into the counter, its release of radioactivity is measured, and to get an accurate count, you did it for many hours and then converted that back to the total amount of radioactivity present. It required coming down to the lab on Saturdays and Sundays and changing your samples and the counters. You know, you never gave it a thought. You never put in for overtime.

BP: No.

KH: You never put in for comp time. It was part of the job, and you did it. I remember in later days, you ask people to do that, and they want to make sure that they got their overtime.

BP: Oh, yes. Times have changed.

KH: Times have changed.

BP: Before we get away from it, spell, did you say planchet?

KH: Planchet. P-L-A-N-C-H-E-T.

BP: Is that kind of a tube or a . . .

KH: It's a little flat disk, actually made out of plastic, disk. There were two parts, and you put your little extracted sample inside that planchet, and then that would go into the counter.

BP: I see.

KH: So the counter, the instrument itself would not become contaminated. The sample had stayed right in that little planchet. Then once you finished completing the counting on that particular one, those are just destroyed and not reused or anything. I had notoriety in that program, too, because the *Denver Post* came down and ran an article in the Sunday Empire. Do you remember the Empire section of the *Post*?

BP: Sure.

KH: So I had my picture placed in the Empire section of the *Post* doing radioactivity analysis. So that's another little piece of trivia. (Laughter)

One of the few trials that I was ever involved with occurred in Denver district. And here I'll have to use your memory to recall the name of the guy over in Utah who was processing turkey reject eggs.

BP: It was Salt Lake Egg Company, wasn't it?

KH: Salt Lake Egg Company, yes. But the fellow involved.

BP: I remember him, Del Bryson.

KH: You were one of the inspectors involved; and because he had claimed that he had never been involved with Food and Drug in the past, you walked into the court room to identify him, and he saw you, and he capitulated right then and there.

BP: I didn't even walk into the court room. He saw me in the hall.

KH: Saw you in the hall.

BP: They had to prove it was a second offense, and in order to prove that, they had to prove that this man was the same one who had been involved in a first offense case which I had been involved in many years before.

KH: That's right. The analysis for decomposition in eggs was quite lengthy, because you had to determine all of the acids involved, such as butyric acid and the other acids of decomposition. I was using a method of a fellow by the name of Fred Hillig, who was in headquarters, and for this trial they brought Fred out. Fred came on the train all the way from Washington to testify at the trial that his method was proven and had undergone collaboration and all this sort of stuff. Of course, I was there to testify what my findings were on these samples. We didn't get anywhere, because . . .

BP: You didn't have to testify. (Laughter)

KH: We didn't have to testify. (Laughter) We went through all the motions, you know. Went in there with the attorneys and we went through the practice runs of how our testimony would be given and so on and so forth, and that was as far as we got. But it was good experience for . . .

BP: I was on a vacation, and they caught up with me in Austin, Texas on that trial.

KH: Oh, is that right?

BP: I remember well. We were visiting my wife's mother in Austin, and so I went to Salt Lake and she just extended her visit with her mother for a while.

KH: In 1964 I was selected to take the advanced drug training in New York City. New York at that time was supposedly the big district for drug analysis. I spent a month in New York City doing drug analyses. They were located then in an old laboratory on Varick Street. We were on the top floor of that building and there were skylights. This is in January of '64. About the second week I was there, New York City experienced one of those heavy snowstorms. I was staying right in downtown New York, like on Fiftieth and Seventh Ave., something like that. So there was no particular problem getting down to the lab. Most of the people in the lab that came in from the outlands, didn't make it in.

BP: Yes, I imagine.

KH: And man, it was a mess. But what I remember was all the skylights were covered with snow, and some of the snow had drifted in, and when the snow started to melt it dripped in. We had water dripping every which-way in that lab. When you walked into the lab in the mornings, you always went through and slammed the desk drawers and the cabinet doors so the cockroaches would scurry away so that you wouldn't reach into a drawer and pick up something that was moving. It was quite an experience.

The trainers at that time for the drug analysis were a fellow by the name of Harry Rogovitz. Do you remember Harry Rogovitz?

BP: Well, I've met him.

KH: And an old gentleman by the name of Fred Sinton, who was an old-time FDA chemist.

KH: Also in New York district at that time as chemists were Tony Celeste, who went on to become one of the higher-ups in the agency for several years, and Marty Goldstein, who became the chief chemist in New Orleans district. On the other side of the office, Lloyd Clayborn was one of the supervisors in New York at the time, and Arnold Morton was the Food and Drug officer, and I think Fred Lofsvold was in New York at that time. I'm not sure whether he was there or in Philly, but I remember Fred was in the office one time and I was introduced to him. That was the first time I had met Fred.

BP: I don't think he and Arnold were there at the same time.

KH: He may not have been there at the same time. I was a little disappointed with the training. It probably was all right for most chemists, but having gone through a fairly rigorous education in pharmacy which included drug analysis and drug testing, it appeared to me that the training was a little elementary and I felt I didn't get as much out of it as I could, and I tried to relay this to the trainers back there that I wanted to get experience in some of the more difficult types of analyses, but they had their training program set up and they would not deviate.

BP: They might have learned a little bit and changed it as they went along in that direction.

KH: Yes, but anyway, it was a good experience because it was the first time that I had the opportunity to work in another district office and see how they were set up and some of the things that went on. So it was a good experience irregardless of my feelings toward the training itself.

I have very pleasant memories of the days in Denver district. It was an old lab, but there was a lot of good companionship and we did a lot of good work the years I was in Denver. I progressed there from a GS-5 chemist making about $4,000 a year up to a GS-11 chemist when I was transferred. It was a good career advancement in those days to go from a five to eleven in seven years.

BP: Yes, it was.

KH: And since I was a pharmacist, remember those were the days when you didn't have to throw everything away. It was before the policies of destroying everything.

BP: Oh, you mean reserve samples.

KH: Reserve samples.

BP: Yes.

KH: And we were doing a lot of drug analysis for other districts, and so I worked out an arrangement whereby the reserve samples, when the sample was NAIed, I took those reserve samples which I thought would be of value and I had a little pharmacy going. If anybody in the district had a prescription for an antibiotic or some other drugs, why they'd bring it back and I would fill the prescription. You couldn't do that anymore.

BP: No, they stopped that, but I recall my sister was having kind of serious problems and was having to take expensive antibiotics and was going to have to take them for a whole year or something. During that period I wrote to the Division of Antibiotics and sent her prescription and got her what supply she needed for that whole year. It was a tremendous help. In those days you didn't have health insurance that covered that or anything. Hardly anybody did.

KH: That's right.

BP: So it was a tremendous help. But it's been stopped and probably rightly so.

KH: Oh, I think so, too. You know, it's the same way with food samples. A lot of the canned foods when we were through with the analysis and the sample was NAIed, you know, we'd bring them back out to the lab and we'd split them up, take some of those things home.

BP: It seemed all right then, but looking back, it seems like it was really wrong.

KH: Yes, but we did it and, you know, didn't think anything about it.

BP: Besides that, the distribution was always unfair. (Laughter)

KH: (Laughter) Oh, absolutely. Absolutely.

BP: Back when I was in Denver, ten or fifteen years before you were, and Chernoff was the chief chemist, I remember that when there was going to be a distribution of reserve samples, that for a few days before that, he carried bags of stuff home. And it was obvious, he picked out all the best and took it home and then he made a big display of making an equitable distribution.

KH: Distribution to everybody else.

BP: He always used that word equitable, and it was only equitable after he had gotten the cream off the top. (Laughter)

KH: (Laughter) Yes, the so-called good old days.

BP: Well, those things were . . . It certainly would be wrong now.

KH: That's right. And I don't have any problem with that either, because I think it was probably wrong, but at the time it seemed like a prudent way to do it rather than just to throw things away.

BP: Yes. I'm not sure that they even give things to charity anymore.

KH: No, no, that was stopped, too.

(Interruption)

BP: Now we're on.

KH: In late '65, I was called into Fred Lofsvold's office--Fred was then the district director--and Fred said that he had good news for me. I said, "What is that?" And he said, "You've been chosen to be a supervisory chemist in Dallas district," and how soon could I report? I was a little taken aback at the time, but I told him that I appreciated the honor; I felt that it reflected on work that I had done, and I would accept the assignment. When I came home and told my wife and family that we were moving to Dallas, Texas, I thought the place had fallen off the edge of the earth, because nobody was ready to move. But it was resolved, and in February '66 I reported for duty in Dallas.

At that time Sam Fine was our district director, the chief chemist was Norm Foster, and the chief inspector was Jim Anderson. In the laboratory, the supervisor chemists were Jess Roe and Dick Edge, and the supervisory microbiologist was a fellow by the name of Jimmy Hyndman. In the inspector's staff we had Tucker Lightfoot, Boland Shepherd, Owen Lamb, and John Rynd. The Food and Drug officer was Billy Hill. The Dallas laboratory at that time had thirty-eight chemists and microbiologists. So it was a much bigger laboratory than what I had experienced in Denver. And Dallas district was in a brand new building and laboratory, being one of the so-called Rayfield buildings that was constructed and opened in 1960.

BP: It was about the second of the new buildings, as I recall.

KH: I think Detroit was the first one.

BP: Right.

KH: It was located not too far from downtown Dallas. It was, of course, a little different operation than what I was used to, and moving into the supervisory ranks was strange, because you became a supervisor in those days really without having much training or anything in supervision or management.

BP: Right, I understand; I went through it. (Laughter)

KH: There was, I think, a little resentment from some of the local folk who had aspired to becoming supervisors themselves and here they were bringing in some dumb outsider, you know, to take over. But it worked out, and Dallas was another growing point in my career. Norm Foster was a unique individual. Norm probably should have been in public relations, because he really liked to get out and talk to the outside world about the agency and what it was doing and what it had done and what it was going to do.

BP: Not a typical laboratory director.

KH: No, no. Certainly wasn't.

BP: I remember him well.

KH: And then in Jess Roe and in Dick Edge, we had two people who had had a long time in the agency and at the time that I arrived there, both of them took me aside and under their wing and gave me a lot of help. I think I got more help as far as the management of a group of people from them than I did from my chief chemist. And that was good. Then, of course, I got exposed to staff meetings, which I had never really participated in before, where we met with the inspectional staff and the district director and went over investigations that were ongoing, what was coming, what kind of samples we expect from the lab, etc.

So it was an educational time and a time when a lot of changes were taking place in the agency; because shortly after I arrived in Dallas there was the big shake-up, and George Larrick left the agency and Goddard came in and, of course, Rayfield was gone and a lot of the old-timers from headquarters left the agency.

Later on, Sam Fine was selected to become the first, I believe they call it associate--was it associate commissioner for field coordination or assistant commissioner for field coordination?--some title similar to that anyway.

BP: That's right, ACFC.

KH: ACFC. And with Sam leaving why it was . . . It's interesting, I had worked for Sam Alfend in Denver, not as a part of management per se, but at least under his wing, and then going to Dallas and working under Sam Fine, and I learned a great deal from both of those gentlemen. Sam Fine I felt probably was a difficult individual to come to know, but an excellent person to learn Food and Drug from. Early on when I was in Dallas, he brought me down for a ninety-day detail as Food and Drug officer, and although I worked with Billy Hill as a Food and Drug officer, Sam took a personal interest in a lot of the things that we trainees were doing at the time. Sam sat in on several hearings that I held and critiqued me afterwards.

BP: Pretty rough experience, wasn't it?

KH: Yes, it was. I'll tell you the first one I went through, I didn't know whether I was going to make it or not. (Laughter) I'm sure the poor individual that was in for the hearing could detect that I was somewhat on the nervous side, but I survived and survived very nicely. Anyway, Sam left to go to Washington and we had a gentleman by the name of Joe Durham come into Dallas. Joe was a southern gentleman who had grown up in Louisiana, still carried the southern accents, and always the gentle person, very pleasant. And I really enjoyed Joe.

Then during the Nixon era, we witnessed the establishment of the ten regions of HEW and Food and Drug coming more under the wing of the department, and the position of regional director was developed or created. Louis Weiss came in as our first regional director. He had been in Seattle. Joe Durham was put into the position of the deputy regional Food and Drug director. Later, Louis retired and returned to Seattle. I remember the time when Louis announced his retirement, and at the same time, he said that he and Patty were moving themselves back to Seattle and he invited all those who were interested to come over on Saturday and help him

load the U-Haul, (Laughter) and so many of us did. He had a lot of hands, and we loaded up that . . .

BP: There were stairs in that apartment, as I recall. I stayed at his house one night.

KH: Yes, yes. But we got him loaded up and sent them on their way back to Seattle. I had had Louis as my chief chemist in Denver and then he was my regional director in Dallas and we were quite close. His wife, Patty, and my wife became very close friends. It was just a beautiful personal relationship which I've cherished.

BP: Great people.

KH: Oh, great people is right. Of course, when Louis retired, there was a lot of speculation as to who would come in to take his place, and I remember our great inside information man--he probably still is--was Ray Mlecko. Ray always seemed to have pipelines into wherever those pipelines went. He came in . . . I carpooled with Ray, and one morning I got in the car, and he said, "Well, I know who our regional director is." And I said, "Who's that?" He said, "Well, I'm going to give you a name and you just keep it under your hat." But he said, "If I'm right, why you've got to take me to lunch." He said, "It's a fellow by the name of Phillip White." I said, "Phillip White? I've never heard of Phillip White." He said, "Well, he's up in headquarters. He's going to be the one." And I said, "Okay." Well, sure enough, about two weeks later it was announced that Phillip White was our regional Food and Drug director.

Phillip brought a lot of changes to the district because he was of a younger school and a different management style, but it was an interesting time.

BP: Not all of his changes were for the good, were they?

KH: No, they were not. No, they were not. Of course, Joe Durham had stayed on as deputy for a while. I think Joe had a hard time dealing with Phil and eventually took retirement. But it was quite a period of time.

One of the chemists I had in the Dallas laboratory was a young black by the name of Caesar Roy, who later went on to bigger and better things, such as the Bureau of Foods and then up to New York as one of our regional directors.

I remember also during this early part of that time in Dallas we had the reorganization in HEW in which that organization--and you'll have to fill me in--I think it was called CEPHS.

BP: Yes, CEPHS.

KH: It stood for Consumer Protection and Environmental Health Services. When that organization came to being, which didn't last too long, they created a number of, I guess they called them regional assistant commissioners--RACs?

BP: Correct.

KH: And the RAC in Dallas was a fellow by the name of Bill McFarland. Do you remember Bill?

BP: Oh yes.

KH: And Bill still had a lot of ties with FDA so, even though his office was downtown with HEW, he used to spend a lot of time out in the district, because I think he felt more at home with Food and Druggers.

BP: I expect he did.

KH: But it was an interesting period. And CEPHS kind of phased out. I don't think it lasted not more than, what, a year, two years? I can't remember exactly.

BP: Not much over a year, I don't think. It didn't ever really . . .

KH: It didn't ever take off.

BP: . . . take off. We fought it tooth and nail in Washington.

KH: Yes, I remember.

BP: Winton Rankin did as much as anybody to keep CEPHS from really taking off, I suspect. Although, he later personally lost the battle. He kind of . . . If he didn't win the war for us he did a whole lot in that direction.

KH: Yes, I think he did.

BP: And I think there were some political changes and the whole thing just . . .

KH: Just collapsed.

BP: . . . just collapsed. That's right. And they hadn't gotten really a strong man to head it up.

KH: What was his name? Johnson, I think it was.

BP: Yes. I attended a few meetings with Rankin dealing with the CEPHS organization. Supposedly they'd kind of integrate us into CEPHS. The reason I went with him was because my job at that time was in planning and manpower allocation, and I had developed a lot of charts and maps and things for use in my work that just fit in with what Rankin wanted to discuss.

KH: Right.

BP: So he took me along and I just sat there and put the maps up and used the pointer while he did the talking.

KH: Yes, well, of course, on it's collapse, Food and Drug inherited a lot of the PHS programs, such as radiological health and the milk and food program and the shellfish program and product safety. And I remember there was the desire to house

those Public Health types in our district office building. So there was a lot of squeezing and pushing and some gnashing of teeth, because some of the supervisory inspectors had to give up their offices to some of the Public Health types, which didn't settle too well. Most of the supervisors ended up out in the bull pen with their troops, and they had fought for years to get out of the bull pen and they ended up back in there. The fellow with product safety was a fellow by the name of Burris McGuire; and then we had the shellfish man was Vic Casper; and the rad. health guy was a dentist, a Dr. McTaggert. But it was an interesting period because they were not Food and Druggers--I mean we didn't look upon them as Food and Druggers--and I think it was a little difficult time. I'm sure it was a very difficult time for them.

BP: They all came in kicking and screaming.

KH: That's right. And I think their reception in Food and Drug was not too cordial, but I remember working fairly closely with Vic Casper in particular-because of the shellfish program. He used to come up to the lab, and we worked out an arrangement with him for the micro lab to do some analyses for him, particularly in the stuff from Louisiana, because even in those days we were having problems with Louisiana shellfish. So we got to know Vic pretty well, and he was a pretty sharp guy, and I worked well with him.

In the fall of 1967--I had only been in Dallas just about a year and a half, I guess--Sam Fine called me down to his office and said, "I want you to accept a ninety-day detail in Atlanta as laboratory director." He said, "I think you're lab director material. I want to get you some experience." And he said that the lab director in Atlanta was Curtis Joiner, and Curtis was going into the executive development program, if that's the title of it.

BP: That's what they called it, right.

KH: To be groomed for something bigger. And he said, "He probably will not return to Atlanta, so," he said, "they need to have a laboratory director." And he said, "I'm pushing for you." He said, "If you'll accept it, I think I can get you over there."

So anyway, I did accept it, and I went to Atlanta in early September, right after Labor Day, in 1967. I got there on a Sunday evening and was told to call John Sanders, who was the district director, and tell John that I was in town. I called John from the hotel after I got in, and he said, "Where are you staying?" And I told him. He said, "Well, tomorrow I'll fix you up with a better place." I'd never met the man. So Monday morning I reported to John, a distinguished, white-haired gentleman. He took me around and introduced me to a number of people. And Curtis was there that morning, so John introduced me to Curtis. Then Curtis took me around and introduced me to everybody in the laboratory.

We had two supervisors at that time: a fellow by the name of Lloyd Johnson, who had been a chemist in Dallas and then had transferred to Atlanta as a supervisor; and the other one was an old-time Food and Drugger by the name of Dave Williams. Did you know Dave Williams? May have heard of him.

BP: Yes, I've met him. I think in Atlanta I met him.

KH: Probably. So, anyway, that afternoon, John said, "Let's go to lunch. Then we're going to move you." And so we went out and had lunch and then he took me down to kind of an apartment hotel, where he was living. He said, "I've talked to the manager here, and he says we can get you a little apartment here." He said, "It's much better than a hotel room. You'll have a little kitchen. A little nicer quarters." And he took me down to the hotel and we packed up my few belongings and we moved me into the Peachtree Hotel on Peachtree Avenue, and I was about three floors down from where his apartment was. Frequently, why we would walk together in the morning to work. So I got to know John fairly well--I mean, I thought I did. I enjoyed working with John Sanders. He was another hard taskmaster.

BP: I played poker with him. He and Shelby Gray were good friends. When I was in Chicago and Shelby was the director, Sanders would come to town once in a while and then Shelby always had a poker game.

KH: John frequently called staff meetings at 4:30 in the afternoon, and there was no question that you would attend. Whether you were expected home for a dinner

party with wife and friends or not, you were expected to be there. That was a frequent occurrence, and afterwards you could hear the mutterings going on between everybody. Of course, with me it didn't matter, because I had no place to go anyway.

BP: You know, that's a good idea, I think. I used to have my staff meetings in Washington at the end of the day--not after working hours, but during the last hour--because it was my experience that if we had them in the morning, which was customary, they would last on and on almost to lunch sometimes and a lot of it was just talk.

KH: That's right. Yes, I think it was . . . I don't know if it was a good idea for after hours per se.

BP: Well, you wouldn't get away with it now.

KH: No, you wouldn't. But at that time we had Hayward Mayfield was our chief inspector, and Kelvin Keith--do you remember Kelvin?

BP: Yes.

KH: He was our Food and Drug officer. It was a good crew. It was an interesting experience in there, because here again, it was another district with a little different type of operation, a little different management style perhaps, and of course, being a neophyte in the management of the laboratory, where I had the whole laboratory under my wing, it was a learning and growing experience for me. I probably experienced my most difficult personnel assignment in my whole career when I was in Atlanta, because at that time we didn't have any supervisory microbiologist, and the more or less head microbiologist was a young man by the name of John Lanier, who later went on . . . he was with Minneapolis and also was with the micro-research center up there in Minneapolis.

BP: Oh, yes.

KH: But anyway, John was a microbiologist--I think a good microbiologist. But anyway the micro-lab was under the supervision of Dave Williams, and Dave thought he knew microbiology, and I think he didn't. He probably knew enough that it got him into trouble. But he and John sometimes would have "lengthy discussions." I put the quotes around that because there were times when it became very heated, in a shouting match frequently. I decided that, even though I was a short-timer there, I could not live under that situation. And so I pulled them in and I told them that I was not going to live under that condition and I didn't care who was right. I said, "Probably both of you are right to some extent," but I didn't want to hear all of the arguments that they each had. So I arranged with John Sanders to have Dave go on assignment downstairs and put one of the other chemists in as acting supervisor.

(Interruption)

BP: Okay, we're back on. We were in Atlanta.

KH: Okay. Yes, anyway, the situation between the two individuals did resolve to some extent, because when Dave came back to the laboratory, we put him in charge of another group so that he didn't have the microbiologists under his wing. But it was a situation which became a very tense time for everybody. It just reflects, I think, upon everybody in the lab, because they know what's going on and there's a lot of talk and scuttlebutt, and it was not a situation which could have lasted too long without more serious happenings.

Toward the end of my tour in Atlanta, John Sanders brought us all into his office and announced that he was being detailed to the state of Illinois in a capacity to assist, I guess it was the state health department--I've forgotten what the title was at the time. And shortly thereafter Les McMillin came in as district director in Atlanta. So I had Les there for . . . Well, it was just a matter of a few weeks before I returned to Dallas. Les is an entirely different individual than John Sanders.

BP: (Laughter) I should say so.

KH: And I don't know how the district fared under Les and his management style, but I guess it survived.

BP: It did survive, yes.

KH: Les brought in a fellow by the name of Sol Cohen as his chief chemist. Sol had come from Minneapolis.

Anyway, I returned to Atlanta five years later, in 1972, on a thirty-day detail when Maurice Kinslow was the RFDD. Sol Cohen had taken ill and was on rather extended sick leave, and it was at this time that Atlanta region was being, or had been, developed into a three-district region, with the opening of a district in Orlando and another district in Nashville. The Atlanta laboratory then became a regional laboratory to serve three districts. The laboratory had taken over the whole FDA building, and the investigational and compliance and clerical staff had been moved to leased office space a couple of blocks away on Peachtree Street.

So, I was detailed as the regional director for science, a newly created position. There was a regional director of investigations, who was Dick Dawson. This reorganization created some difficult times in the laboratory because we had samples coming in from three different districts. Each district felt that their samples should take the priority, and it was initially kind of a management nightmare, because we didn't have the organization quite in place to handle that situation. I mean, we're in the process of trying to expand the laboratory. We had some new chemists training and then had samples coming from three different districts, and we were getting conflicting orders as to which sample should take priority over another, et cetera, et cetera.

Of course, Maurice Kinslow was a different type manager than I had ever worked under before, too. So it was a good experience. Mary K. Ellis had preceded me on the detail, and Mary K. of course had some very definite ideas as to how things should be run. And of course, when I came in I probably rescinded some of those and put in some of my own. I think often of the poor chemists and microbiologists who had to suffer under some of those different management techniques while at the same time undergoing growth and expansion and what have you. But it was a good experience.

When I returned to Dallas, Phil White wanted to duplicate the management scene at Atlanta in Dallas, whereby we created a Houston section with a section chief and we had New Orleans district. The chief inspector in New Orleans was answering to the regional director of investigations in Dallas, who was Jim Anderson. And the laboratory director in New Orleans was under the regional director of science in Dallas, which position I was occupying. Of course, this was later on in my tour in Dallas, but it was an experiment that really didn't work.

BP: Didn't work, yes.

KH: It was not quite the situation that we had in Atlanta where Orlando and Nashville were created out of a region. New Orleans had always been a district.

BP: That's right.

KH: One of the old well-established districts with its traditions and history and so forth. And it was an experiment that just didn't work. It was quite a revelation to me, and of course, at the time I didn't fight it because it meant a promotion for me.

BP: Sure.

KH: And so we lived with it. When I transferred to Seattle, the position of regional director for science was abolished and went back to its old format. Of course, Bob Bartz came in as district director in New Orleans and so forth. Dallas was a big district for pesticide residue analysis, particularly on imported food stuffs from Mexico. We had a lot of problems with the Mexican imports. Two of the biggest incidents that occurred while I was there was with Mexican cantaloupe, coming in through particularly the ports of El Paso and Laredo, were found contaminated with pesticides. The pesticides, as I recall, we were encountering included both Dieldren and Endrin. It required that we set the laboratory up on a twenty-four hour basis, and we were running samples around the clock because the products were being held in boxcars and in trucks and what have you at these border stations.

It was probably the first experience I had with kind of an international-type crisis, because we had calls from the importers and calls from the Mexican government demanding release of their cantaloupes, and et cetera, et cetera. But we did get it finally under control. The growers stopped using those pesticides and the products were cleared, and their shipments began again. Of course, we were fortunate with the cantaloupe in the fact that they are not as perishable as a lot of other things.

BP: That's right.

KH: They can sit around for days and not suffer too much. So we were fortunate in that regard. But then in 1973 we had even a bigger problem, and this was with strawberries, Mexican strawberries. And that developed into such a problem that we eventually had New Orleans and Dallas labs both on twenty-four hour duty. We brought in chemists from other districts. We had chemists from Minneapolis and Kansas City, as I recall, and also Denver working in the Dallas laboratory, and also there were some of them went into New Orleans laboratory. Because strawberries were so perishable, it was a situation which we felt we had to get as much manpower assigned to it as possible.

A few weeks into the incident we had requests from several of the private laboratories in Texas who had been doing work for several of the importers, and they wanted to do the strawberry analyses so they could get the shipments taken care of more quickly. This initially was rebuffed everywhere in FDA almost. But as the situation grew, we finally resolved it by setting up a certification program, and we had some of the private laboratory chemists up in the Dallas lab, and we put them through a little quickee training on FDA analysis and FDA procedures. Some of the samples that the importer collected were then sent to the private lab and analyzed, and then they would issue a certificate of analysis so that the product could be released.

Every once in a while, we would stick in a sample that we knew was violative and see if they would catch it. At one time there were five private laboratories involved. I think we eliminated one of those labs, and we told them that they could no longer handle the samples because we just did not feel that they could do the

work. The others performed very well. We also had the Agricultural State Lab of Texas doing samples for us.

It was a time when it was unbelievable the amount of strawberries that were being analyzed. I never realized how much of that produce came across the borders of Texas, and they're shipped all over the United States. This, of course, occurs in the winter months. This was during January, February. And it was a heavy time for the laboratories.

Eventually it was resolved so that, with the Mexican government agreement, we sent investigators down into Mexico and they sampled the fields, and those samples were airlifted to Dallas where we analyzed them, and then by the time those strawberries reached the ports, we had completed the analysis and could say, "They're okay." But for about, I would say for about six weeks, it was a madhouse.

BP: I can imagine.

KH: It was a madhouse. But we lived through it, and I think out of that came the establishment of the kind of a working agreement between the Mexican government and the FDA whereby we held yearly conferences to discuss problems, methodology, try to work out communication snafus, and it led to the establishment of the Mexican liaison desk in Dallas. Ramon Longoria set that up.

BP: I remember now.

KH: And we had a program whereby government chemists from Mexico came into Dallas laboratory and we trained them, not only in pesticide residue analysis, but also in drug analysis and some other food work. And we had FDA chemists from particularly, chemists who could speak Spanish, who went down and assisted the Mexican chemists in their laboratories in Mexico.

BP: Oh, yes.

KH: We had Burt Guerrero was one of those that went down on that assignment and a couple others from the lab. It was, I think, very definitely a time of growth for

us, particularly in handling large numbers of samples and the coordination with another government entity. I also might mention that it was shortly before that incident occurred--it may have been during the cantaloupe time--when FDA purchased mobile laboratories. Remember the large mobile laboratories?

BP: Oh yes. I do.

KH: Dallas received one of the large pesticide mobile labs which eventually was put on a permanent basis down at Laredo, because so much of the fresh produce came in through Laredo. It was there during the strawberry crisis. But the problem with the mobile laboratories is the fact that, with a limited space, you could only handle a few samples at a time, and with the crunch on imports, there was just no way you could handle the volume of the samples that you needed to do. But it was an interesting experience. We detailed chemists down there. Even during the normal periods, we had chemists on thirty-day details in Laredo running samples. During normal times it worked out pretty well, because they could handle a lot of the perishable stuff fairly quickly. We also had one of the small trailer labs that were equipped for filth analysis. We had one of those in Houston. We had a permanently assigned entomologist at Houston. All she did was run import samples: coffee, sesame seed, and whatever food products came in down there. And that worked out pretty well, because it saved a lot of time, for the importers in particular, but it also eased the shipping samples to Dallas and getting the word back to the importers.

BP: Time is of the essence in dealing with imports.

KH: That's right. FDA has always taken a beating every time GAO or somebody else takes a look at us on the import: the percentage of imports that we look at, and the time that it takes to get them released, et cetera, et cetera. It had its good points, but I think for handling samples of any magnitude it just wasn't made to cover much territory.

Getting back to the coordination between the Mexican government, those agencies that were responsible for foods and drugs, et cetera, we (FDA) had regular conferences with them. I participated and attended two of those: one that was held

in Dallas and another that was held in Los Angeles. These conferences drew some of the headquarter folks to participate. Sam Fine came and participated in one of them I know and Paul Hile in another. In the intervening years they also had conferences in (Ciudad) Juárez and in Matamoros and some of the other Mexican cities. It was difficult to get permission to travel a lot of FDAers into Mexico. So we tried to get them to come up here or to hold their meetings in border cities whereby we could stay on the U.S. side but then travel over there each day for a meeting. Of course, after I left Dallas I lost contact. I don't know whether those types of interchanges are going on these days or not. I know the Mexican liaison desk was dismantled.

BP: I don't know.

KH: Yes, so I don't know what happened to that aspect of our work. I thought at the time it was an essential element. Many of the Mexican government officials speak pretty good English. The conferences we had with them I think cleared up a lot of the misunderstandings that were happening. They understood more our procedures and what we were trying to achieve. I would hope that that type of coordination hasn't completely disappeared.

I think it was when I was in Dallas that the agency went into its voluntary compliance mode, where we had, as I recall, General Delmore. He headed up the unit that pushed for voluntary compliance. One of the aspects of that push was to hold workshops, and when I was in Dallas we had a lot of workshops. An inspector by the name of Dale Hunter, who is still part of Dallas district, was named as our workshop coordinator. We had probably four to five workshops every year dealing with whatever.

BP: Now what do you mean by workshop?

KH: These workshops were where we invited the industry to come in. It was usually held in a location where say the industry was maybe concentrated, like in Fayetteville, Arkansas, where we'd bring in a lot of the people that operated the cottonseed mills, for example. And we'd have a sanitation workshop. We'd have speakers from the agency, from the laboratory, for example, talking about filth analysis--how

we analyze a sample for filth. We'd have people from our compliance branch who discussed what FDA guidelines were in regard to the amount of filth that could be present in a product, and what the stages were, like what it meant for seizure of a product, how they could then apply to recondition the product, and et cetera, et cetera. It was an educational process for the industry.

I was surprised at the--after we got these going--at the response from industry. We had excellent attendance at some of these workshops. We held them down in Brownsville for the shellfish industry; and we'd have microbiologists present and would give talks. We had them in San Antonio for the pecan industry, pointing out the problems with e. coli, which is a bacteriological indices of filth and unsanitary handling of the product. Also we had workshops for medicated feed manufacturers. We had drug workshops; particularly we had a couple of them in Austin, Texas, where we discussed our compliance programs and what FDA expected of the drug industry as far as quality assurance procedures in their plants and in their manufacturing procedures.

It was a time when we spent a good many man-hours in this sort of an educational effort. I think we achieved some good results. I think we saw some improvements in many areas. I don't think that you can substitute voluntary compliance work without also using some of the regulatory tools we had available to us, because unless you apply those also, the voluntary efforts are not going to be successful. I think it was a good program, to a point. I think the agency got to a point where there was perhaps too much stress on that aspect of it and we might have better spent some of those man-hours in doing more regulatory inspections. It's a hard balance to achieve. I think that it was a time when we were able to turn industry a little bit towards us and not strictly being the adversary role at all times. I think it opened up some channels of communication that we hadn't had before.

BP: It caused some new thinking among FDAers which I think by and large is good.

KH: It was very positive. Yes, I really do, too. I think to a certain extent that has carried on in later years, but I think the amount of time we spend in voluntary work, at that time was probably a little overbalanced toward that end. But I was not making decisions in that regard.

(Interruption)

BP: Okay, we're on.

KH: Okay. You know, one of the things that occurred when I was stationed in Dallas was the Bon Vivant incident with the botulism in canned soup in the Vichyssoise. And this happened, this first came to light, while both Louis Weiss and Joe Durham were out visiting some of the state officials. I was acting at the time when the red phone rings and informs us of the Bon Vivant problem and what's going to be required as far as getting samples and checking on the recall, et cetera, et cetera. It was quite an episode. We had a lot of inspectors to get out on the road and a lot of places to contact and, of course, the information on shipments was coming in almost by the hour, and the logistics of getting everybody out and getting the word out to the resident posts. I remember we worked that weekend almost continuously.

We had a big Campbell's soup plant in Paris, Texas, and after the Bon Vivant recall was underway, there was a push to take a look at all the soup plants and how they were retorting their product and handling the product. I think that this was one of the first big, major recalls of a product. One of the first ones that came along where we had a nationwide recall of a product. There may have been others.

BP: Yes.

KH: But one of the few that I remembered. There were a lot of man-hours devoted to that situation and, of course, a lot of publicity at the time. I know we had interviews with local papers about it and so forth. But it's kind of interesting to think back and remember that you were sitting in the chief's chair as it were when the whole thing started.

BP: Well, you had a lot of things to do that you weren't completely familiar with.

KH: That's right. That's right. Because I had been upstairs in the laboratory and was not accustomed to getting a whole office organized to do something else.

Another incident that occurred in Dallas when I was there was a family in New Mexico, the Hucklebys--it was a large family--and one of the young sons became blind. And a number of the family became very ill, disoriented and a number of things was occurring to them, and the doctors finally determined that it was mercury poisoning. The State Health Department in New Mexico asked for our assistance.

We had a resident in Albuquerque, who I think at the time was Carl Reynolds, but I'm not sure of that. Anyway, he went to Alamogordo and collected samples of everything they could think of, and one of the things that they found in their freezer--I believe it was in the freezer--was pork. All of this material was sent into the lab and we analyzed it for mercury. And we found high levels of mercury in the pork. Well, of course, this brought a lot more investigation, because where had the mercury gotten into the pork from?

Well, it turns out that the family raised their own pigs, and they were feeding the pigs screenings that Mr. Huckleby had collected from a feed mill. Apparently, he would go over to the feed mill and when the bins were empty he would sweep out the bins and take all those sweepings and screenings home. Well, it turned out that the feed mill also produced seed grain, and the seed grain was treated with mercury to control fungus. And so he was taking home a lot of mercury-treated screenings, feeding them to his hogs, and then butchering the hogs, and the family was eating it.

BP: Just to think of enough mercury getting through that whole chain to harm people.

KH: That's right. But surprisingly, there was a lot of mercury in those screenings we found. We went out to the feed plant and collected some screenings and there was a lot of mercury present.

BP: I suppose kind of the outside parts of the grain were what collected in that chaff.

KH: Yes, and of course the hogs would concentrate it to a certain extent, too, on eating it.

BP: I suppose.

KH: Anyway, one of the children became blind, and I believe it was irreversible. The others I think suffered, some from some temporary paralysis, from mental problems, but I think most of the family pretty well recovered except for the young boy who went blind as part of that. It was one of those unfortunate incidents that occurs, and yet it's something that teaches a lesson, too, because I know the firm involved was much more careful with what happened in their plant after that. The State Health Department, I think, and also the Ag. Department in New Mexico were much more cognizant of what could happen when something that you never consider could happen from something like that. But it was an experience that I remember because we had lengthy interviews with the family and trying to determine what they ate or where they had been and what they had got a hold of and so forth. Of course, it was along this time when the mercury in tuna hit the fan, and the district was highly involved with running . . .

BP: You had experience in running for mercury.

KH: Yes, you betcha. We did a lot of canned tuna samples for mercury. It was one of those things in which the episode turns up because, as I recall, there was a high school or college teacher in San Angelo, Texas, who bought some canned tuna and was using it in some class work and uncovered mercury in his analysis of the tuna?

BP: Was that the way it got all started?

KH: He notified the newspapers, and the newspapers called Food and Drug, and we said, "No, it's not possible," that sort of thing. And it turns out to be it was quite a problem. It seemed to me it was . . . I may be wrong on the location of it, but my memory says it was either a high school chemistry teacher or a college chemistry teacher. But that's the way it started. It's interesting how all those things lead to work of great magnitude for the agency. It's not programmed, not planned for, as it were.

BP: You'll have to remind me: how did the mercury get into the tuna?

KH: This was a naturally occurring thing. The tuna in their feedings in the sea, and of course they eat the plankton and the small fish and going down the chain, and apparently there's enough mercury in some of the waters, particularly off the coast of Japan and some of those places where industries were dumping into the ocean. And that went up the chain into the tuna.

BP: Was it corrected through closing off certain areas for fishing?

KH: I think it was, yes. I've kind of forgotten.

BP: I've forgotten, too. I'm sure I knew more about it at the time than I can remember now.

KH: At the time, yes. I've forgotten, too. But you know they had quite an occurrence of mercury poisoning in Japan that turned out to be from industries dumping their waste products or something in the waters off the coast of Japan, and of course they were finding it in a number of fishery products, and of course their diet is heavy in fish.

BP: Yes.

KH: One of the things we initiated while I was in charge of the laboratory in Dallas was a check sample program with the state laboratories in our district. FDA had for some time had a check sample program for the Food and Drug laboratories, where samples were sent out to see if all the labs would come up with similar results. Our earlier situation with some of the pesticide problems in the state had indicated we had some problems with the state laboratories as far as their experience and their abilities to analyze samples. So we shared a lot of our methods with the state laboratories and also had their chemists in for training. As a follow-up to this, we started initially in Texas and enrolled the Texas state health labs and the feed lab down at Texas A & M and their Ag. lab in a round robin check sample program. It proved to

be fairly successful, and so we expanded it and eventually had at least one lab in all of our states involved with the program.

I felt that this was a good accomplishment on our part that we were able to increase our communications with the state people as well as to, we thought, bring them more or less up to speed on some of the methodology that Food and Drug was using in our regulatory work. The program evolved eventually into an annual get-together, so that we would have some of our chemists and some of their chemists, we'd get together and just discuss what had happened in the labs during the past year and what some of the problem samples they'd encountered and methodology problems, and we had a little exchange sessions as far as giving papers on things and so forth. As far as I know, that program to some extent has continued down there. I think it was very beneficial to everybody concerned because of the increased cooperation we achieved and also we got more uniformity in analysis. And we had no compunction or reluctance to call on the state lab to assist us if problems occurred where we couldn't handle a sample expeditiously or something and they could. So it worked out very well.

I guess that about covers the situation in Dallas district. During the spring of 1976 Paul Hile asked me to have an interview with him and Jim Swanson about a position in Seattle. I met with them up in Denver, and as a result of that meeting in April of '76, I accepted a lateral transfer to Seattle district as district director. So we move on to . . .

BP: Okay, now we've got a new era.

KH: New era. This is July. In July 1976, I reported to Seattle district as district director. The regional director was Jim Swanson. Our director of investigations, and still is, is Jim Davis. The director of compliance at the time I transferred there was Ray Mlecko, who is now in Chicago as district director. The director of science branch, or laboratory branch, was Max Gibson, who has since retired from FDA. It was another change for me that I found very exciting and also very enlightening. Seattle's workload is a lot different than Dallas. Although we had a lot of import work, it was a different type of import load, because we were looking at products coming primarily from Asia and not fresh produce from Mexico. We were looking at

a lot of seafood products, because Seattle is an area where a lot of fish--salmon, halibut, and so forth--are processed and shipped out to all parts of the country. So it was a different environment, different type of workload. Almost at the time that I went on duty in Seattle, we had the Teton Dam collapse in Idaho.

BP: Yes.

KH: And although there were not too many of our regulated industries involved, we sent over a number of investigators to assist the state people in seeing that food and drug products that may have been caught into the flood that resulted from the dam break were properly destroyed and taken care of. It was a time when a lot of people underwent a lot of hardship, and a number of our investigators spent many, many hours involved in supervising the cleanup work. The supervisor in charge of the effort over there was a young man by the name of Jerry Eastwood, who I think is still with Food and Drug.

BP: I think so.

KH: I think so. I don't think he's retired yet. Anyway, the group that went over there did an excellent job. We received congratulations or appreciation letters from the state, and as a result the group that worked that episode received a commendation from the commissioner also for their work involved, which always makes you feel good when some people that you work closely with are recognized for their efforts.

BP: Yes, that's right.

KH: Whereas in Dallas we had a large mobile laboratory for pesticide work, in Seattle we had a microbiological mobile laboratory. Whereas I think a lot of the districts that received these mobile units probably didn't use them too much, we put that unit to work in Seattle. In fact one summer--I think it was the summer of '77--we loaded it onto a barge and shipped it to Alaska.

BP: Oh?

KH: To Kodiak Island, and we parked it there on Kodiak for two months, and we did all sorts of bacteriological analyses on fishery products and so forth that were being processed there on Kodiak. I don't think it resulted in any legal actions per se, it gave us a lot of information as to where we might expect problems to occur in processing lines. They were processing a lot of shrimp and crab, canning crab meat and so forth. So it was an informational session that I think it helped us later into pinpointing where we might expect some problems in a similar-type operation.

The lab was also used over in Idaho and, lets see, actually Washington, Idaho, and Oregon. It was a time when the Bureau of Foods wanted to develop I guess you'd call it microbiological standards, and they needed baseline data. This was for the potato industry, processed potatoes--you know, potatoes that were going into hash browns, french fries, what have you. All types of processed potatoes. We collected in-line samples all through the whole operation. This was part of a survey program developed by the Bureau of Foods. I think we did about fifteen plants that first year. A very costly operation, by the way, because we had to have microbiologists over there, and it was a lot of shipment of materials and so forth. But anyway . . .

After the first year--we were supposed to do this for two years, to collect two years data--and after the first year there were a lot of complaints from industry and also from the National Food Processors Association, who apparently got to their congressmen, so we used to get letters from congressmen asking what the purpose of this was. Of course, we referred all these communications back to headquarters. As a result of a number of inquiries from political sources primarily, the program was killed. And I think the whole idea of microbiological standards for products that are processed in that manner that were then expected to be further treated--I mean were going to be cooked or whatever, going to receive some additional treatment--I think that kind of went by the wayside, because I never saw or heard any more about microbiological standards for products like that. But we spent a lot of man-hours in looking at potato products.

BP: You were right in the hotbed of the antigovernment sort of . . . The political climate in Idaho would have been very much . . .

KH: Oh, absolutely. And it was a lot of communications back and forth. And of course, I think even in the district, we weren't completely convinced that it was a viable program, and I think then when the pressure came from various sources, industry and political, that it was agreed that maybe this wasn't the route to follow. So it was given up.

And while we're still on the subject of the mobile lab, I think the last project that we used that for while I was with the agency was, after we had established the research center in Seattle, the Seafood Products Research Center, we used the mobile lab to make a survey down the west coast in which we sampled all the estuaries and places where seafood was not necessarily commercially produced but where seafood was grown or could grow. This included sampling the waters and also some of the product that we could collect in each of those places. It was over a period of two years. We went from the Canadian coast southward to Oregon the first year and then the second summer we went from Northern California clear down to almost Tijuana, Mexico.

This was not a regulatory-type program; this strictly was a research program which was worked in conjunction with the Bureau of Foods. In fact, we had one of their microbiologists participated both years. Part of the work was to develop a data base for those waters, because they had a similar data base for a lot of the East Coast waters and some for the Gulf Coast, but they had nothing on the West Coast. So it was a very energetic undertaking, but I think from it we produced a lot of good information and data that would, is of benefit for future use. I know the research center published a number of papers as a result of that work. I think it was, although an expensive operation, I think it was a good job for the agency to develop some good data bases for the future.

One of the things I like to take credit for was the establishment of the research center there in Seattle. Although I think there were seven of these centers established throughout the country, we were very fortunate in Seattle that we had, I think, excellent backing from the Bureau of Foods for the research center. Doctor Pete Reed was an initial supporter and a good backer all the way along, and we were able

to recruit a gal by the name of Dr. Marlene Wekell, who was with the University of Washington, as the director of that unit. She was . . .

BP: How do you spell her name?

KH: W-E-K-E-L-L. She was a biochemist in background, but she had a lot of microbiological background.

(Interruption)

KH: You know there was probably a lot of controversy over the establishment of these research centers, but as I mentioned I think the one in Seattle was very successful and still is as far as I know. We had an excellent relationship with the bureau, and the development of the various research projects was worked out in conjunction with them with very little animosity being created. A lot of good research came out of it. Quite a number of papers have been published. It was a unit that did both chemical and microbiological research. Our unit there in Seattle developed a chemical procedure for determining PSP, paralytic shellfish poisoning, which up 'till 1974 or whatever it was, was strictly a procedure in which mice were injected similar to test for botulism for determining the strength of the poisoning.

The chemist that was assigned to the research center came up with a chemical method which has been adopted; at least at that time it had been adopted by three or four states for their shellfish survey work for PSP, and it may have been spread farther by now. It was something that the bureau accepted as being a suitable method: much faster, much more sensitive, much cleaner than the old mouse assay.

So I think it was a unit that served us well and is serving us well. The research centers were not designed to do regulatory work, and yet we used them occasionally because the people assigned to those units were some of the best chemists and microbiologists that the agency had. I recall when we had the listeria problem in California--listeria in cheese.

BP: Oh, yes.

KH: We assisted Los Angeles district in doing some of the work there and trying to improve the methodology for determining listeria. That's what a research center should do. I think it's proven out that it was very effective. At the time I left the agency the unit was busy developing a data base for Surimi. Surimi is a product made from so-called trash fish, the bottom fish, and they remove all of the objectionable odors and tastes from that by processing, and the end product is a pure protein that's called Surimi, which is then blended with say 10 percent crab meat or some shrimp extract or lobster extract, and they can produce a high protein product that has the flavor of say crab that can be used in various products. It's commercially available all over now and used in seafood salads and that sort of thing.

BP: Is this the stuff that I call imitation crab and so on?

KH: Yes.

BP: Supposedly looks, feels, and tastes like crab?

KH: Yes.

BP: But doesn't quite.

KH: Doesn't quite, right. But it's healthy--good, healthy food. And it's a high protein. Anyway, the agency knew or knows very little about Surimi as far as how it withstands this treatment, whether there's any transformation taking place during the rough processing they give it to remove all of these odors and tastes. And so this is a project that the research center had taken on about the time I left was to develop a data base and more information about Surimi. So this is the sort of thing that the research centers do.

Along these lines, Seattle district was probably the authority for seafood decomposition. We had a chemist, Dick Throm, who is probably the nation's expert on decomp now. And then I think Dick is probably in more ways more of an expert than the one you often hear about, who is Al Weber of New York, who is the big nose man for years and years. Dick has a nose for decomposition, but he's also very

knowledgeable in the chemistry of decomposition and is in demand all over the world just for speaking at seminars and workshops and conducting training sessions for various international agencies. And it was while I was in Seattle that we were able to convince the regional personnel office and our own headquarters that Dick's expertise ought to be recognized, and as a result of that we were able to develop a position description and get him a GS-14, which is an unusual grade for a working chemist as it were in the field.

BP: Yes, it's too bad. It should be higher than that for somebody that has that capability.

KH: It was something that, I think, gave Dick the recognition that he should have, and that grade survived a couple of later audits, so apparently we supported it well enough. But Dick, I felt, has done a lot for the agency. I don't know how much decomp work the agency does now, particularly in fish, but I think it's still a criteria that's got to be checked on and followed.

You know the whole time that I was in Seattle, nine and one-half years or so, I served on the field food committee, which worked with the Bureau of Foods on food compliance programs. I think, in my view, it was probably the most successful of the field food committees. We were able to accomplish I think a lot more in getting improved compliance programs out to the field than almost any of the other bureaus did. I think it was because we always had good cooperation with the Bureau of Foods, when Taylor Quinn was there. He came from the field and recognized that the field people had a lot to contribute and it was easy to work with.

BP: Yes.

KH: So, to me it was an excellent committee to be involved with. I really enjoyed being in that arena. Seattle district is probably most known in the field for its involvement with canned salmon.

BP: Since World War I.

KH: Since World War I. You know, historically canned salmon has been a problem to some extent off and on for years and years, and the problems with canned salmon has led to the downfall of a few people associated with it.

BP: That's right. But that was before your time.

KH: Before my time, yes. When Mr. Monfore and others met with some problems. But in the early days almost all of the problems with canned salmon was with decomposition. This was where the canners were canning poor quality fish and then selling it. This of course led to the canned salmon control plan, which was still in effect and I'm sure it still is today, which is kind of a joint venture between the salmon industry and the National Canners Association, which is now the National Food Processors Association, and FDA. And it more or less detailed what a salmon packer had to do to get to pack a good product, and it also included a program whereby samples were submitted to the National Food Processors Laboratory in Seattle where they did the analysis for decomposition and so forth. And FDA was there to run checks and to assist and so forth. The involvement of NFPA in this relieved the agency of a lot of work, because there's a lot of canned salmon was coming out of Alaska at the time, particularly early on when I was there. Nowadays, it started later on in my tenure, that more and more of the salmon was being gutted and flash-frozen and shipped out of Alaska in the round. So the amount of canned salmon was dropping each year and the number of canners.

BP: And the canning is done on the mainland?

KH: Well, most of the, still there's a lot of canners up in Alaska, but I think a lot of the product now is being either fresh or frozen shipped.

BP: I see, okay.

KH: So you know, you can go down to the stores now and buy salmon right in the fish market here, wherever you might be. And so the canning, the amount of salmon

being canned has dropped almost every year for the last several years. I don't know what the ratio is now. But it was still a problem when I was in Seattle.

We had not only the decomposition problem, but then we had the problem that started in Europe as a lot of the canned salmon was sold and shipped to Europe: to England, to Belgium, to France, et cetera. There was an incident where a plant in Ketchikan, Alaska, the Whitney Fidalgo plant, shipped canned salmon--these are one-pound cans--were shipped to England, and one of those cans was purchased by a family and eaten without any further cooking, because it's assumed that canned salmon has been cooked after it was put in the can and therefore should be suitable for eating. However the salmon had botulinum toxin, and one member of that family, as I recall, died from botulinum.

This started a series of events that shook Seattle and FDA in total, I believe, because of the repercussions that came out of it. It was determined . . . The health department in England recovered the can that was involved, and it was determined that there was a small triangular cut in the can, which apparently allowed the salmon to become contaminated. That hole probably resealed with the salmon juices itself. Anyway, it became resealed providing an air-free, oxygen-free atmosphere for the toxin to be produced and subsequent poisoning of the family. As a result of this, a massive recall was eventually more or less demanded by FDA of the industry, and all of the canned salmon was pulled off the market and required to go through a very extensive examination program.

The canned salmon out in the market had to have the labels removed and then either examine the cans visually for any breaks or punctures or else put it through a machine that's called a dud detector. This instrument was capable of measuring the amount of vacuum in the can. And if the vacuum had been lost then the can was kicked out of the line and could be examined later.

Seattle district naturally became very, very involved with this. We had many, many meetings with industry and with the National Food Processors Association. And of course the Bureau of Foods was involved and EDRO; the field headquarters was involved. It was an episode which I think taught everybody a great deal in realizing that the canning industry at that time, although it had progressed probably leaps and bounds over the early industry, the problems existed because we were try-

ing to push as much product through the canning lines as possible; care wasn't being taken to check and make sure that the equipment was working properly.

As to the cause of the triangular puncture in the can, one of the engineers, engineer inspectors in Seattle, spent considerable time at the plant in Ketchikan and determined that if the stacks of can bodies and the lids, as they were being fed into the line to be filled and then sealed off, if that line became jammed, one of the mechanical parts could make a small puncture in the can body without really stopping the line.

BP: I see.

KH: And that can went on then to be filled with salmon, the lid was applied, and on it went. The recall of all the salmon, we examined many, many thousands of cans, and although it doesn't seem like many, that examination uncovered not only punctures from the plant in Whitney Fidalgo but punctures from other packers in Alaska with a similar-type problem, which was the reason for the national recall of all canned salmon at that particular time, because it appeared to be not isolated to one plant; it was in many plants.

I'm sure it took the industry a long time to recover from that episode, because there was a great deal of publicity all over the world concerning the problem, and I'm sure a lot of people refused to buy canned salmon for quite a while. But it taught us a lot of lessons about handling of the product and what needed to be added. As a result of that, a large section was added to the Canned Salmon Control Plan that dealt strictly with can integrity and required much more frequent examination of the cans as they came from the packing line. It required installation of dud detectors on each processing line that would catch those cans that had improper vacuum. One of the problems of course with the machinery was that if a can was overfilled, it frequently would kick those out too, because the vacuum was low because of overfill. But this is a problem for the canner to overcome.

But it's an experience that I wouldn't ever want to wish onto anyone, because the outcome of all of that was, of course, we had a GAO audit of our handling of the situation. I think we survived that fairly well, but it's rather a . . .

BP: It's traumatic.

KH: . . . traumatic situation to have to go through all of the questions and try to explain your actions months or years later as to why you did this or why you did that, when in the moment of panic, you're moving as quickly as you can to try to correct the situation or to find the problem. Hindsight tells you, well, we probably could have done better in some cases. But I think the canning industry benefitted even though they had a lot of trauma from that episode. I'm sure they lost a lot of money. But it resulted in better canning techniques.

Now a number of the canners have gone to what they call the one-piece can, the extruded can, where only the lid is applied to the can. Previously the cans were sent to Alaska flat. All of the bodies were flat and you had ends and tops. And they went through and applied the bottoms to the can and then they would go into the packing line and then apply the top. This saved a lot of shipping costs and shipping space. But I think now they're realizing that there are better techniques and the extruded can is an advancement that needed to come. Those are like the tuna cans you see now. A lot of canned salmon is now put up in that type of container.

We had some further incidents with canned salmon after the major one. It didn't develop into the magnitude of the others, but we had some isolated incidents with some other packers where there were some problems also with botulism, and it resulted in some recalls, but it was limited to just a few packers at the time. This was a couple years after the major incident.

I think the botulism in salmon was, while an unfortunate happening, I think it strengthened the industry; it strengthened our working with the industry. And particularly within NFPA, I think--although there's a lot of animosity and there were a lot of words spoken at the time--I think looking back, it was probably an episode that everybody came away somewhat strengthened because of it.

We had another, speaking of the salmon industry, we had an incident with the Larson Bay Company in Alaska. And this was strictly a filth problem whereby the plant had a lot of fly maggot problems. On inspection the investigator saw and photographed a lot of infestation with flies and fly maggots that were not being controlled. We proceeded to consider the plant for prosecution. However, there was a

problem in that regard because it was an NMFS certified plant--a National Marine Fishery Service certified plant.

BP: Oh.

KH: NMFS had an inspector supposedly on duty supervising the canning, and so this developed into quite a flap between two agencies, because NMFS wouldn't back down and say that their man hadn't seen the problem, and we wouldn't back down because we said that the problem existed. It drug on for some time, and the plant never reopened the next year. But we went ahead with our prosecution, and the prosecution recommendation sat at headquarters for a long time.

BP: I can imagine.

KH: And I don't know . . . It was still there when I left. Of course, the plant was out of business, but the people involved were still in the salmon business elsewhere. We felt that they should be called to task for the things they were allowing to happen in that plant. But whether they ever are or were, I don't know.

BP: I bet it got deep-sixed. (Laughter)

KH: It may have. It may have. I know we had all of the wheels from NMFS out to see us. Jim Swanson I'm sure has related some of this in his discussion, because we had people from field headquarters as well as the Bureau of Foods, plus NMFS, plus the industry, plus National Food Processors all sitting around the conference table in Seattle going over this and looking at photographs and poo-pooing this. It's something that looking back on you find humor in, but at the time it was serious business.

BP: That's right.

KH: Let's see, I guess one of the things I remember, too, from my time in Seattle, not dealing with Seattle district problems, but it was a time when the field as a whole was making noises about the fact that they felt there was a lot of, too many head-

quarters people doing duplicate tasks and not having to account for their time, like the field was having to account for their time. So Mr. Healton, who was then the EDRO, and Mr. Ottes, who was the deputy, appointed a committee of three district directors. It was called the Three H committee, because it was composed of Tom Hooker from Baltimore, Al Hoeting from Detroit, and Ken Hansen from Seattle.

BP: I see.

KH: We spent much time in headquarters interviewing all of the division people and determining what their job was and what percentage of their time was spent doing this particular job. I don't know that we made any friends in headquarters. (Laughter)

BP: I don't imagine you did. But you must have had bureau directors go along with the thing to some degree to allow it.

KH: To some degree, yes. Yes, well, you know, this was strictly in EDRO headquarters. It didn't include any of the bureaus.

BP: Oh.

KH: Strictly the headquarters folk: field science, field investigations . . .

BP: I see.

(Interruption)

KH: The Three H committee was appointed to determine if there was a measurement factor for the various positions in the field headquarters. As a result of many interviews and much discussion with all of the management in headquarters and between the committee members ourselves, we came up with a fairly lengthy report which discussed what we felt was a lot of duplication of efforts in some of the divisions within headquarters. But I don't think that we ever arrived at any man-hour

figure for a headquarters person, such as we have a man-hour figure for a chemist in the field and a man-hour figure for an investigator and so forth. Their work is just not suitable for that sort of a calculation, I guess you might say. We did make some recommendations, and I don't know if any of them were ever instigated or initiated, but it was an interesting assignment.

BP: Did you go over into my old outfit? Keith Dawson's outfit?

KH: Oh, yes. Yes, Keith and Sterk Larsen and all those good folk. We talked to all of them. I remember Tony Celeste at the time was heading--what do they call it? It was a group within EDRO, but I can't think of the title of it. Anyway, Tony asked for a meeting with the committee and kind of raked us over the coals for some of the questions that we'd been asking his people. It was an interesting assignment that I don't know that it led to anything particularly, but I think it kind of softened some of the concerns the field had because they felt that something was being looked into, something was being tried. I'm glad I was involved with it; it was . . .

BP: It was educational for you.

KH: Educational, absolutely. I think another thing that I spent a lot of man-hours in Seattle was on our search for new space. We were located in the old Federal Building in Seattle, and here again the laboratory's on the fifth floor, the top floor of the building. Not suitable space for a modern laboratory, because it didn't have the ventilation that you need. There's no air conditioning, and so the solvents used in chemical determinations of course were taken out of the building through exhaust fans, but not totally. The building was not designed for that type of operation. However, to find new space and to live within GSA's guidelines for location of space at that time was a problem. We looked at a lot of different places. In fact, we had almost entered into an agreement with GSA to move out to Federal Center South.

BP: I remember that.

KH: And we had plans drawn up for that place. We had a lot of the construction folk for headquarters came out and went over it with us. But fortunately it didn't pan out, because it was not good space. I mean, it probably could have been renovated, but at a high cost. It was the last year that I was there that we finally got GSA to agree that we did not have to stay within the boundaries of Seattle itself, and the site was located out in northeast Seattle for the location of the new building, which subsequently has been built and now occupied by FDA.

BP: I understand it's very nice.

KH: It is very nice. I had a tour of the building, and it is a beautiful facility. The labs are nicely designed, and it's not like the old days when I was in Denver when your desk was located right next to the workbench where the fumes were all around you. Now the chemists' desks are located away from the laboratory environment entirely so that they can work on their worksheets and do their reading, their research reading, methodology reading away from the laboratory atmosphere. So, a lot of improvements. A lot of changes.

And that takes me up to the time when I retired in January 1986, after almost twenty-seven years with Food and Drug.

BP: Well, I think you had a good career--one you can be proud of.

KH: You know, people often ask me if I regretted my career with the government, and I say, "Absolutely not." I think it was an enjoyable career, one that I got a lot of satisfaction out of and still enjoy talking about, as you can appreciate.

BP: Well, that's good. Well, you know, I really appreciate your being so prepared and just having a chronology that you could go through. I haven't had to say much, and that's fine.

I guess one thing that as you went along you did some of but maybe not as much as I'd like and that's to discuss the people, what we might call the important people, the people in higher positions that you worked for and with as your career unfolded. Could we go back now and either you bring up some names or I'll bring up

some names, and I might ask you something about their management style, something about what you would conceive of maybe what were their accomplishments, but also what were their weaknesses, and personality. I don't want to push you into saying things you don't want to say, but just to talk about some of these people.

KH: Okay.

BP: I suppose if we went back to the beginning, we'd maybe start with Ralph Horst, I would think.

KH: Yes, of course Mr. Horst was the district director when I started in Denver. I really had little contact with him, except that he did do the swearing-in ceremony when I came into the agency, and we had on occasion conversations in the hall and so forth. My recollection of him was that he was an individual who had difficulty making a decision on his own. I base that primarily on some of the conversations that I overheard from others, because I was not involved with him that closely.

BP: I see, yes.

KH: And he was not there that long after I started. I don't remember exactly when Sam Alfend came in--what year he came into Denver. But Sam of course had a completely different management style. He was a hands-on manager. I don't think he liked to delegate a heck of a lot, because I remember that he used to read all of the EIRs (Establishment Inspection Reports)--I think almost all of the EIRs that came through that office. And he would frequently call in the individual or inspector to question him on a particular point or two. Sam was an individual who expected results. He was not timid in saying so. And it applied to no matter who you were. He would come back to the lab and want to know where such-and-such a sample was, and why it wasn't out, and when were we going to get it out? So he demanded results and yet I thought was very fair. He knew what we needed to proceed with a case, whether a regulatory action or whatever. I gained a lot of respect for him. I think there were times that I felt that it would have been better off, say, that he went

and discussed his views or what he wanted say with Don Taylor than going directly to the chemist.

BP: But that was his style, wasn't it?

KH: That was his style.

BP: So it was probably easier to work for him as a worker than it was as an intervening manager.

KH: Oh, absolutely. Absolutely, yes.

BP: That was like Wendell Vincent when he was here years before.

KH: See, I didn't know Wendell at all.

BP: No, but it was that same way. He considered chief chemists and chief inspectors just to be a nuisance, between him and the people really doing the work.

KH: (Laughter) Doing the work. Yes, yes. I think Sam was a little bit of that mode. But anyway, I enjoyed him. He was quite a gentleman, quite a man.

Then of course, Fred Lofsvold has a completely different style. Fred was very easy going, I felt. He depended on his managers to get the work pulled together and to get it done and to present him with a package that he'd say he would want to review or concur on a recommendation, whatever it might be. He was not one to--at least I was never around when he pounded on the desk or yelled across the hall for this or that. I think he was very effective. Sam was effective in his way, but I think Fred was also effective, and I think he made better use of his management staff.

BP: Yes, I would think so.

KH: Don Taylor was a very quiet, easy-going guy, and a wealth of knowledge in chemistry, and I really respect his background. A good person to work with, but here

again, he would take a lot of things personally. I mean I think when Sam would come back with what he felt was a problem or an area that had not adequately been addressed or whatever, Don would take it personally. And I think it was eating him up.

Louis Weiss was pretty easy going except that he did have a temper now and then. He would let you know it if he didn't think you were doing the job right or working up to snuff. He was a good chief chemist. Very supportive of his people and would defend you to the last man if he agreed that you were right in what you had done.

BP: He probably stood up to Sam at times.

KH: Absolutely.

BP: I've heard from other people that Sam respected that. You got along with him if when it was justified you stood up to him.

KH: That's right. Absolutely. Oh, Louis would stand up. Yes, no doubts about it. And he was the regional director in Dallas later when I was there, and here again, he was a good delegator. But he demanded certain things and expected them to be done and I think that he, and later on, toward the end of his time there, he was becoming pretty frustrated with what he felt the way the agency was going. And I think this may have participated in his decision to retire and get out.

BP: Yes.

KH: But I remember once that Louis called a meeting. I can't remember whether it was all . . . No, I don't think it was all-district; I think it was all-management staff meeting. And he raked everybody over the coals for a situation he said was just intolerable, and that was that he innumerable times came to the district office and found the garage door open. (Laughter) I don't know whether he would ever admit to that or not. But we had a building where you drove down a ramp and into the garage. Of course, we were in a neighborhood that was not that great, so anybody

could walk right down in there, too, if you wanted to. In fact, there were times when we found people down in the garage area. And that was a situation that Louis, for some reason, it just got to him.

BP: Didn't they have a similar set-up in Kansas City, and hadn't they had some kind of an incident or something?

KH: They may have.

BP: And I'm just wondering if Louis didn't have, you know, information or pressures or something from outside that brought that about.

KH: There could be. Oh . . .

BP: But there had been security problems somewhere.

KH: Yes, I'm sure that there must have been something.

BP: Something similar.

KH: Yes, I'm sure something must have occurred somewhere to bring that about, but it's something that kind of sticks in my memory because everybody was prepared for some regulatory problem that we had dropped the ball on.

BP: Something you considered important.

KH: Yes, that we'd dropped the ball on. And it turned out to be the garage door, and he laid it on the line to us.

I think Phil White was probably the poorest manager I ever worked for. Phil had no concept of people. Sometimes you would meet him in the hall, he would just ignore you. I can't imagine that he would have that much on his mind that he couldn't notice people when he would pass them in the hall. He was not that way so much I think with management as he was with the staff. He treated . . . I mean, you

got the feeling that you were of a different class than Phil was and, therefore, you know, not up to his level as far as being treated cordially and all that sort of stuff. I've always felt that whether it was a storekeeper or the district director that I would treat people the same way; they're human beings.

BP: Sure, sure.

KH: Phil didn't work that way, and it was maybe just his personality, but that's the way it came across to me. He was not very good at explaining what he wanted, and you had to try to read into his sayings or his orders or his memos or whatever you might say, you had to read into it what you thought he might expect, because you could even go back to him and ask and he sometimes would get real upset that you couldn't figure out from what he said that that's what he wanted.

BP: Do you think his background was such that he didn't really always know what he wanted himself?

KH: I'm sure. I'm sure that's probably it. But it was very disconcerting at times in dealing with him. He's a very aloof person. His office door was always closed, and he expected you to check with his secretary to get in to see him--the only manager that I ever worked for that was that way. All the others had an open-door policy, and if they were busy and involved with something they didn't want to be disturbed, they'd just say, "Catch me a little later." That's fine. I don't have any problem with that. But here, we always had to go through his secretary, no matter what, to see him. That style I just was not used to.

Of course, I worked briefly with Maurice Kinslow. And I got along very well with Maurice. He had a different type of management style also. He, I think, was a pretty good delegator. But I had the feeling sometimes that he really didn't know what he wanted. So here again, you were trying to anticipate or figure out exactly how he wanted something done or presented and so forth. I was in Dallas as supervisor of the pesticide lab when Maurice came into the agency. He came from GSA or somewhere, I believe.

BP: I've forgotten now, but . . .

KH: But anyway, he spent a month with us in Dallas on kind of an introductory training type session. For about a week he worked up in the laboratory with us, and he asked, I felt he asked good questions. He . . .

BP: He's intelligent.

KH: Very intelligent. He seemed to soak it up and retain it pretty well, too. So when I went over and worked with him over in Atlanta, I felt very comfortable with him, didn't have any problems working with him. The only thing I could say was I felt at times that he didn't know exactly how to request what he wanted or whatever that might be.

Of course, the last manager I had was Jim Swanson, and Jim and I had very good chemistry. Seattle being a single district region, it's very difficult for the regional director not to become closely involved with day-to-day stuff . . .

BP: It's about impossible, isn't it?

KH: Absolutely. And I think this was part of the problem that he and Leroy had.

BP: I expect.

KH: Because Leroy felt the district was his and Jim couldn't quite let go of it, et cetera, et cetera.

BP: The fact is under that setup there wasn't really anything for . . . If there was a good district director, there wasn't much left for the regional director to do.

KH: That's right. I realized this early on, and of course I think Jim, you know, he wanted to be involved and know what's going on in the district, and yet Paul was giving him a lot of assignments in headquarters.

BP: Yes, I know that.

KH: So he was kept pretty much involved with a lot of stuff in headquarters. But I made a practice of briefing him on everything and anything. You know, if Mary Jones was, I learned that Mary Jones was going to have a baby next week, all that sort of thing I tried to feed back to him so that he wouldn't feel that he was left out of the family, as it were, because he wants to be involved with things, which is fine. I can live with that.

BP: Sure.

KH: I had no problem with that. He didn't interfere with me as far as dealing with the branch managers. I thought we had good rapport. There were times when we disagreed on a regulatory approach, and I would expect that no matter who you worked with.

BP: Sure.

KH: We were always able to talk it out and work it out. And we were very close personally, too. So it was very pleasant for me; it was a very pleasant situation to work in and under.

BP: Yes. Now how about any of the commissioners or people like that, people of . . .

(Interruption)

KH: In dealing with the higher levels of management in the agency, I guess the one that I would have dealt with the most and the longest was Paul Hile and Ron Ottes. I have a lot of respect for both of the gentlemen. I enjoyed . . . Of course, Paul I knew as a new chemist, and Paul was an inspector in Denver. I always accused him of stealing away our best secretary when he married Helen and took off. I never had any particular problems with Paul. I know sometimes that he could get pretty upset with folk.

I remember one time when I was the laboratory director in Dallas, and apparently, Louis Weiss and Joe Durham had gone to lunch and had not designated anyone, either Jim Anderson or myself or Bob Hatfield as the individual to contact, you know, for the secretaries and the receptionists. And the red phone rang, and it was Paul, and Louis's secretary answered the phone, and he just said, "Could I speak to Louis or Mr. Durham?" And the girl, not too sharp as I recall, said, "Well, they're not here now." And he said, "Well, may I speak to whoever's in charge." And she said, "Well, there's nobody in charge." (Laughter)

Of course I didn't know all this had happened. I was upstairs. And my phone rings and here's Paul, and he said, "What in the hell is going on in that district?" (Laughter) I said, "You'll have to clue me in." I said, "I don't know." He said, "I called on the red phone and wanted to talk to somebody." And he said, "And the girl told me there was no one in charge." (Laughter) I'm sure that Louis caught it later, but it was kind of funny.

Of the commissioners, except for the times when they visited the district offices, I had very little dealings with our commissioners. When I was in Seattle Don Kennedy and Mark Novitch came out to participate in a physicians' forum at the University of Washington. This was at the time when Jim Swanson was in headquarters, either attending a RFDD meeting or on assignment or something. So I entertained the two chiefs. Paul didn't feel comfortable with them coming out there without someone from headquarters, so he sent Tony Celeste out.

BP: Oh.

KH: Dr. Kennedy was coming to Seattle from Idaho where he was going to be on leave fishing. He called me late one afternoon and said, "I'm coming in on Flight so-and-so from Boise." He said, "Could you have someone meet me?" I said, "Well, I'll be glad to pick you up." So it was kind of late in the afternoon, probably 4:30 or 5:00, and I picked him up at the airport and took him to his hotel. We had a real pleasant visit. He was in his grubby fishing clothes, and I think he felt he just wanted to visit informally and relax a little bit. And I really enjoyed chatting with him. Mark came in the next day, I believe it was, and they both participated in this physicians' forum

and then we took them on kind of a district tour--they wanted to see some of the industry. So we did some unusual things.

We got a boat, small boat from the Coast Guard, and took them across Puget Sound in the boat to Domsea Farms, and Domsea was growing pen-raised salmon, where they had pens out in the Sound where they were raising the salmon. They would harvest them when they were about maybe a foot long. And they had the processing and freezing plant on site. It was a small operation at the time. I think since then it's been bought out by Campbell Foods or somebody.

But anyway, we visited there and we took them to one of the medical device manufacturers: Physio Control out in Redmond, Washington. And we had them, Jane and I, had them over to our house for dinner one night with some of the other people from the district. And I felt I . . . We got a nice note from Mark Novitch thanking us for our hospitality and so forth. And I talked to Dr. Kennedy after that, and he always would recognize me and come up to me and always thank me for the cordial visit to Seattle I'd provided him.

BP: Well, that's good.

KH: So, he was probably the only commissioner that I really felt that I knew at all, yet I know there's a lot of folk that didn't feel that he was perhaps our best commissioner or anything like that. But personally I think he was just a delightful person.

BP: I think that some of the people in headquarters had some problems with him because in his management style he tended to do things a little behind closed doors . . .

KH: That may be.

BP: . . . and with people he had brought into the agency as his close . . .

KH: *Advisors.*

BP: Advisors, rather than to use the people who were accustomed to advising commissioners, you know.

KH: Right, yes, I think it's . . .

BP: So I think for people in those positions it was an awkward time.

KH: Yes, yes. But my association with him at the time we had together there was very pleasant, very cordial. We had set up this forum out at the university, and he was most appreciative to us about the way we had set that up and who we had gotten together to participate and to be with him on the panel discussion and so forth. So I felt good about that.

BP: Well, that's good.

KH: The other commissioners that I had known would be briefly during a visit to the district or when we had gone in for a DD meeting or something and the commissioner would come down and talk to us for a little bit. You know, you don't really, don't know much about them.

BP: You don't know them, no.

KH: So most of your knowledge is hearsay from what others have said. I remember one time we were back there for a meeting and Ron Ottes had all the district directors out at his house for a cocktail hour, and Jerry Goyan came over for a little while, and I got a chance to talk to him a little bit. And particularly the fact that he was a pharmacist and my background was in pharmacy, we talked about some of the things going on in pharmacy at the time and so forth, but nothing particularly about Food and Drug per se. Next?

BP: Okay. It sounds to me like we're just about through with this tape.

KH: Yes.

BP: Do you have anything that we might characterize as a closing statement or a general remark that you haven't already made?

KH: Oh, I think I would like to just wind it up by saying that I've never regretted the career with Food and Drug. I've felt that it's an agency with a definite purpose and one that has accomplished a great deal with small manpower over the years. I think that the agency, maybe not so much these days as it was in the early days when I was with the agency, is that we have some very dedicated people, people who believe in the agency and what the agency is to do. And I don't regret being with it. In fact, I'm very pleased to have been with it and to have been part of it.

BP: Well, good, Ken. Well, I certainly appreciate your taking time to do this interview.

KH: I hope that it's been somewhat informative.

BP: It will be a worthy addition to our collection.

KH: I hope so.

BP: Okay, and with that then, I'll say that this ends the tape.

(Interruption)