THE DEPARTMENT OF ENERGY ORAL HISTORY PRESENTATION PROGRAM

OAK RIDGE, TENNESSEE

AN INTERVIEW WITH FAE MONTCALM

FOR THE OAK RIDGE NATIONAL LABORATORY ORAL HISTORY PROJECT

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STOW: Today, we're visiting with Fae Montcalm. Fae came to ORNL in 1978 in the Stable Isotopes Program, grew up in the Knoxville area, and has a lot of stories that she can tell about the history of that program and its survival, as well as her involvement in the program over the years. Fae, you joined the Laboratory in 1978. What was it that attracted you to ORNL? Why did you come out here for a job?

MONTCALM: Well, two or three of my friends who worked at Plasti-Line had all applied for the positions out here and they were saying that you could make more money. (laughs)

STOW: Okay.

MONTCALM: So, I decided to follow suit.

STOW: Well, now you grew up in the Knoxville area. Did you know the history of what had gone on out here in the '40s and '50s?

MONTCALM: I heard a little bit in high school, but I don't think I knew anything compared to what I learned once I got here.

STOW: Did you have any second guesses once you got here about working over at Y-12, which is where you were located, I think.

MONTCALM: Well, actually I started here at X-10. I was located in Building 3036, between Buildings 3037 and 3047. I worked in 3036 first as a secretary.

STOW: But that was in the Stable Isotopes Program.

MONTCALM: I started in Stable Isotopes working for Joe Ratledge and Chuck Ottinger, and I loved everything about it from the first day I went there. It was so interesting.

STOW: Well, that's great. There are not a lot of people who can make a statement like that.

MONTCALM: I know that. Now, I have to admit, when I first came I was scared, because they had a new type of typewriter that I was going to have to use. And, I hadn't been sent for the training. One thing you can do here is get plenty of training. I had an old typewriter that I had to use. And, I got the first sort of stencil-type thing I had to do, and there was a secretary there. Well, actually, she was in an accounting position, but she had been a secretary here for a very long time. And, she had moved into a position in accounting in our isotopes area. And, I went all to pieces. I didn't know what to do. It was the first time I had seen anything quite like it, and I think I was just overwhelmed with the entire facility. I mean, it's huge. And, she helped me. She helped me get through those first few hours and days, and after that I loved it from that time forward.

STOW: While with the Stable Isotopes program, you transferred from ORNL to Y-12. You were physically over at Y-12 most of your career, were you not?

MONTCALM: About half of it.

STOW: Okay.

MONTCALM: What they used to do is physically carry the stable isotopes to Building 3036 at ORNL after they were chemically processed at Y-12. The isotopes would be ready for use and sale, or lease. And, we did a lot of leasing of large quantities of stable isotopes.

STOW: Sure.

MONTCALM: I was not doing that at first. I was first a secretary and then later a data assistant or data clerk. At that time, I learned the ins and outs of the paperwork and what all is involved in moving the material. And then, I later moved and worked for about 16 or 17 years actually shipping the stable isotopes.

STOW: So, you had to weigh the isotopes, didn't you?

MONTCALM: I sure did, day in and day out.

STOW: Now, was that done here at ORNL or over at Y-12?

MONTCALM: It was done both places. About halfway through, probably about eight years I worked here, we had the facility for me to weigh them. Management later wanted to move everything and hide it in one place at Y-12, where the calutrons are located. And so, they moved us. It was a big move. We had to package and ship every bottle and meet all the restrictions for the Department of Transportation guidelines for transporting items over the highways.

STOW: Tell us a little bit about the importance of the Stable Isotopes Program.

MONTCALM: Well, the isotopes are used for research in many areas. Apparently, the research is so wide and varied that there was a case where a sample I had to load went to NASA and was put on the space shuttle. I have no idea what they did, with it, but I remember that it was just one milligram in a little cone bottle and that I had to be very exact and careful in weighing it.

STOW: Do you remember what isotope it was, by any chance?

MONTCALM: I wish I did, but I don't. I do not remember what the isotope was.

STOW: Did you work at all with Chris Keirn, or did he kind of precede you in this program?

MONTCALM: He must have preceded me.

STOW: Because, we talked to him as part of this interview process a year or two ago.

MONTCALM: Okay.

STOW: And, did you know Scott Aaron?

MONTCALM: Scott was my last boss working here.

STOW: Okay.

MONTCALM: My last supervisors. The ones that I worked with initially were Joe Ratledge and Chuck Ottinger. And, of course, I weighed isotopes for people like Russ Knapp. He does research using different isotopes and has published a lot of very important papers. And sometimes, his

research deals with radioisotopes, but most, if not all, come from a stable isotope that has to be enriched first.

STOW: When you were at Y-12, were you physically in the Beta-3 building, where the calutrons are located?

MONTCALM: Yes, it was the Beta building. I was in what they called the bay area, and they had some offices in back of it. It's a huge building.

STOW: How did you like working in that building?

MONTCALM: Well, at first, it was strange.

STOW: A little bit intimidating?

MONTCALM: It was, yes. We had made visits from X-10 over to the calutrons, even when I was first working over here in Annex 10. Before I was moved there physically, we had gone over to the Beta building and they had taken us up the stairs, and we walked across the catwalk over the calutrons, which were running at that time. It was fascinating to look down and watch the ion beams. But, yeah, when I actually got moved over there, aside from all the security that's involved, it's an overwhelming building.

STOW: I've been in there four or five times, I guess, and it's just a fascinating walk back in time. Do you remember the old TV program Twilight Zone with Rod Sterling standing there?

MONTCALM: I do remember that. Yes.

STOW: You expect to see Rod standing there as you walk in the building.

MONTCALM: (laughs) Right.

STOW: You literally are going back six decades.

MONTCALM: Yes, and you know the history of the calutrons. That's where they enriched the uranium for the atomic bomb that helped end the war. You can't help but walk in there and just be overwhelmed with expectancy – it's just incredible.

STOW: Well, they enriched stable isotopes at Y-12 for decades, but the calutrons are shut down now.

MONTCALM: Well, they're actually in "standby."

STOW: Standby. Okay. And, there is only one other place in the world -- somewhere in Russia, I think -- where stable isotopes can be produced.

MONTCALM: Yes, that's correct.

STOW: Do you know anything about that?

MONTCALM: Well, I just know that they didn't have the calutron capacity of Oak Ridge at one time, but as you know, they've become more modern and everything. I don't know exactly where

in Russia it is located, but I do know that they have it operable now, and they're functioning, and they're actually in competition with us.

STOW: Were we, as Oak Ridge National Lab, able to compete with the Russians in any way? Do you have any insight on that?

MONTCALM: I'd say that we competed as far as purity is concerned and that we possibly got even higher enrichments, but the Russians are underbidding us price wise, which distresses me.

STOW: Okay. Well, looking back, you started work here in 1978, and you retired from the Laboratory in 2003.

MONTCALM: 2003. December 31st.

STOW: Okay, so, that's about a 25-year span of time at ORNL.

MONTCALM: Right, right.

STOW: What would you say is your most rewarding experience in looking back over those 25-years?

MONTCALM: I mentioned the weighing and shipping of that isotope that NASA put on a space ship. That was an exciting reward. On the other hand, every isotope that I shipped I knew was a good grade and a good product. I knew that they were going to be using this isotope for nuclear medicine and that, even today, researchers may come up with another incredible medicine, and it may involve another isotope. So, I felt a reward in being exposed to this important program. I mean, never in my wildest dreams when I was growing up, and even as old as 30 years, would I have ever envisioned that for me.

STOW: Well, what did you like most about your job, as long as we're talking about rewarding experiences?

MONTCALM: Well, people are going to say I'm weird, but I loved weighing those isotopes and making sure the weights were accurate. I'm a very detailed person, and they used to kid me and say, "You know you could do this on one balance." And, I'd say, "No, I want to make sure the weight is correct. I don't want to make a mistake because they depend on us."

STOW: So, you used two balances?

MONTCALM: I used two balances.

STOW: Explain to us how you did that.

MONTCALM: Well, I would first weigh the bottle and get a tare on it. And then, in some cases, if I were going to do a large quantity, we would use a little paper with a plastic covering so the material wouldn't stick.

STOW: Yes.

MONTCALM: And, I would weigh the material on that. If I were doing a smaller quantity, I would just take the bottle after I put gloves on and put the material in there. And, over a period of

time, you learn the difference between one milligram and twenty milligrams. So, I could hit the right weight quickly sometimes because each isotope is just little grains of powder.

STOW: So, would you weigh it on one balance and then take it over and double check it on the second balance?

MONTCALM: I would take the bottle and weigh it and tare it on that one and tare it on the other one. And, then come back over and put the material in and weigh it there. And then do addition and subtraction to find out exactly how much was supposed to be in there. And, if it wasn't the correct weight, I'd remove whatever portion needed to be removed and then check weight it again, and then take it over and weigh it at the other balance.

STOW: But, the procedure didn't require you to do it that way, did it?

MONTCALM: No. I actually wound up writing the procedure, but that's the way they had done it, I think, for years.

STOW: Oh, okay.

MONTCALM: So, both balances were there, but my coworkers felt like it was an overdone deal, that maybe we didn't need to do that. And I said, "No, I really think we do."

STOW: You know, you were working with isotopes of a wide variety of elements.

MONTCALM: Oh, yes. Yes.

STOW: Some elements are quite toxic and dangerous to us. Did you have any worries or any concerns about your personal health?

MONTCALM: Well, they did. The Lab is very careful and had people come in that actually did air testing to make sure I wasn't picking anything up. But, I never was really overly concerned about it. No, not really.

STOW: Over the years when you were doing this weighing, did you see a change in what the Laboratory did to try to protect your health? In other words, in later years, did it get a little bit stricter?

MONTCALM: Oh, I'm sure. Yes. I'd say that prior to my arrival, there wasn't that much thought about it. I think in the years when I was weighing, they were very conscious of possible exposures to toxic materials because they were very concerned about our safety and our health.

STOW: Did you wear a mask?

MONTCALM: Only if I was weighing or working with lithium. It pulls oxygen out of the air, so I would wear a mask then.

STOW: That's interesting. I had never heard that about lithium.

MONTCALM: Well, it did.

STOW: It's supposed to be a tranquilizer, though.

MONTCALM: Yes. But, it was in the powder form. And some was in metal form, but I never had to cut any of it. I generally just packaged it and shipped it.

STOW: Did you go down to the calutrons, physically, and work around there at all?

MONTCALM: No, I really didn't. I never had the opportunity to do that.

STOW: Well, if weighing the isotopes was really one of your most rewarding experiences, what was your most frustrating experience? Can you think of what that might have been?

MONTCALM: Well, I noticed that after Russia got involved in stable isotope production, our business went down. That was very frustrating to me because I like to be busy. When I heard talk about shutting down the calutrons, that was very frustrating to me. Because there are only two places in the world this work is done -- Russia and the United States. And, I just don't think Americans should ever be dependent on other countries for oil, medical isotopes, or anything else.

STOW: Well now, if I recall correctly, when we had the threat of shutting down the Oak Ridge calutrons, you took some fairly drastic action, didn't you?

MONTCALM: Well, yeah, I have to admit did (laughs) on my own time and on my own computer at home. I wrote some letters to some of our congressmen and I did get some response.

STOW: Can you expand on that and tell us what went on?

MONTCALM: Well, I got a couple of letters back from Congressman Jimmy Duncan, who was one of the persons that I wrote.

STOW: Now, is this the current Congressman Duncan?

MONTCALM: Yes, it is. And, he's still in Congress watching my calutrons. (laughs)

STOW: Okay.

MONTCALM: And, he was out of town but he sent one of his aides and he came out to see me at Y-12. I guess that was the most exciting time that I had. Of course, I met a lot of DOE people because they would come through the Beta building. But, the aide took a real interest and he sent back information to Mr. Duncan, and he in turn spoke with other people, and it got back to the department that I work for. (laughs) So, I guess I was -I had a tool.

STOW: What was your supervisor's reaction when he found that you stirred up Congressman Duncan?

MONTCALM: I think he secretly was happy. (laughs) He never reprimanded me. I think he's also concerned and really believes that there's a future for the ORNL calutrons, even now. And, in fact, I just spoke to him before I came over here and was asking him how things were going.

STOW: And, that would be who?

MONTCALM: Scott Aaron.

STOW: Oh, Scott. Okay, Scott's a fine fellow.

MONTCALM: He sure is. In fact, all of my supervisors were great. Earlier I worked for Joe Tracy. When I was moved to Y-12, I fell under his care and then when he retired, Scott Aaron took his position.

STOW: But, Joe Tracy still works over there on occasion, I believe.

MONTCALM: I think he's a consultant. He's actually going through papers dealing with the past and making sure that nothing from the past is destroyed or lost.

STOW: You know, this is a little bit off the subject, but I ran into Joe Tracy a few months ago over there. My current job is director of the American Museum of Science and Energy in Oak Ridge.

MONTCALM: Yes.

STOW: And we had a very elderly lady come through and she found her picture. You've seen the famous photograph of the young women sitting in front of the calutron control panels, and she identified herself as one of those calutron operators.

MONTCALM: Oh, how exciting!

STOW: Sixty years after the photograph was taken.

MONTCALM: Wow!

STOW: And she never even knew the photograph was taken. So, we arranged for her to come back to town, and we did a one-hour interview with her.

MONTCALM: Oh, that's wonderful.

STOW: And, then we took her into Beta-3 and let her sit at the control panels.

MONTCALM: Oh, that's great.

STOW: And Joe Tracy was over there at that time and got just an incredible thrill out of it.

MONTCALM: I'm sure.

STOW: I think Scott was involved, too.

MONTCALM: I'm sure. That's very interesting.

STOW: Well, what did you like least about your job then?

MONTCALM: You almost got me there.

STOW: Or, was there anything? Maybe you liked everything.

MONTCALM: I pretty much did. You know, I had a good variety of tasks. I didn't just weigh stable isotopes. I was also in charge of the leasing of isotopes, and that job allowed me to have a lot of contact with the customers. Whereas, when I had been the secretary and the data assistant, I had communication with the customers only when they placed orders. But, when I went into the

capacity of weighing the samples, that type of customer contact went down some. I enjoyed the customers that I talked with. I mean, we're talking about people from all around the world, from Dr. Yates of the University of Kentucky to whom I handed an isotope, to people with different companies in Europe.

STOW: Did you follow up or have any knowledge on what these customers were going to do with the isotopes?

MONTCALM: I didn't really have a lot of time to do that. Of course, I would get papers that would tell that the authors were going to do different types of research, but I'm not well informed enough to state exactly what they did with them. But, I know that in one case, thallium-201 was going to be used for nuclear scans in hospitals.

STOW: Okay.

MONTCALM: So, I know that it wasn't all just research. It finally paid off for people with health problems. Another example is radioactive iodine, which is used to diagnose thyroid problems.

STOW: Right.

MONTCALM: I know that the University of Kentucky borrowed a lot of our isotope samples, and UK students would do research using the samples. And then after they finished with the samples, they would return the material.

STOW: Is that the lease program that you referred to?

MONTCALM: Yes. It used to be called the old loan program. And, they used to send material out and it would be out for years. Even Oak Ridge personnel would borrow samples, we would keep tabs on it, and they'd pay a fee each year to use the material. They were not allowed to cause the isotope to get irradiated, making it no longer usable. And, then it would be returned, and when it was returned, it would go out for a new analysis. Sometimes researchers would accidentally destroy the material because they caused it to lose its enrichment capacity by diluting it in some way. And, then they had to pay for it. But, in other cases, we would keep the altered material as is. Sometimes an isotope would go out to a company in a powder form and come back as a good metal piece that was usable.

STOW: You talked about an isotope as low in weight as a milligram. What were some of the larger amounts that would be weighed and sold?

MONTCALM: Well, big bottles containing an isotope in powder form could be shipped in kilograms.

STOW: Any recollection of which isotope or which element that might be?

MONTCALM: Strontium, probably.

STOW: Now, what sort of costs are we looking at? You've talked about selling them and leasing them. Are we talking about five dollars or fifty thousand dollars?

MONTCALM: Anything between and then some. An isotope of mercury used to cost $13,000 for a milligram. It doesn't take much salt from a salt shaker to make a milligram.

STOW: No, you're right. That's a pretty small amount. But, that's an incredible price to pay, too.

MONTCALM: It is. And, that's why, in many cases, researchers borrowed an isotope sample, conducted their research with it, and then returned it.

STOW: These stable isotopes were sent through the U.S. Mail, right?

MONTCALM: They used to go through the mail. There again, we modernized as we grew smarter and we don't do that anymore. There are hazards. So, we had to take classes and make sure we knew exactly how the Department of Transportation required us to ship these materials. Whereas, when the program first began, yes, we shipped the material through the U.S. Mail.

STOW: Let me get something straight on dates. You came here in 1978 in a secretarial capacity and then moved after a few years. Do you remember how long it was before you moved into this capacity of weighing and leasing isotopes?

MONTCALM: I started weighing isotopes in about 1987 or 1988 and left this type of work in 2004 for a different job.

STOW: What do you think the future of the calutrons is right now? They're in a "standby" capacity.

MONTCALM: They're in a standby capacity. That's a problem when we start to run out of an isotope. Scott told me, "We're getting low on nickel." And, I don't know if that means the Lab will purchase the material from Russia or ask the government to get serious about producing stable isotopes again in the U.S.

STOW: Low on nickel, you say? What do we use nickel for? Do you have any idea?

MONTCALM: I wish I did, but I really don't. I'm sorry.

STOW: Well, it may be classified information. You'd have to shoot me if you told me.

MONTCALM: I might. (laughs)

STOW: Okay. You were in the Chemical Technology, or Chem Tech Division, right?

MONTCALM: I began in Chem Tech, yes.

STOW: Okay. And, you stayed in that division all those years until it got reorganized a few years ago.

MONTCALM: Right. That's correct.

STOW: And, what do you remember about the supervisors you worked for?

MONTCALM: Well, Joe Ratledge started when he was probably about 18 ... when he got out of high school. So, he was real close to being …

STOW: A real pioneer.

MONTCALM: Yes, during World War II. He retired just a few years before we did.

STOW: Was Don Ferguson your division manager when you joined the staff at Y-12?

MONTCALM: Yes.

STOW: Did Don ever come over and pay much attention to the Stable Isotopes Program?

MONTCALM: They all came over at one time or another to see different things that were going on. I think they were curious about the isotope powders. (laughs) So, I've met a lot of different managers that came through.

STOW: Where are those stable isotopes stored now? Do you know?

MONTCALM: Well, they're actually back here at X-10.

STOW: That's what I was thinking.

MONTCALM: Yes. After the decision to put X-10 and Y-12 under separate contractors, we were moved back to ORNL just a few months before I actually retired.

STOW: Okay.

MONTCALM: Another person has picked up the jobs I had. Her name is Eva Hickman. She is weighing the isotopes and leasing them to researchers, as I did. Everything is still going along if they'll just not run out of material for making isotope powders.

STOW: Well, at the time that you were doing the isotope weighing and so on, was there anybody else doing that job or was that solely your responsibility?

MONTCALM: That was solely my responsibility for a very, very long time. But it was Scott Aaron who recognized that we needed to have a backup. So, they brought someone in to back me up. Eva Hickman was the last backup I had. She is carrying the job now, but she has help from a young man whose name I forgot.

STOW: Do you miss that work? You seemed to have enjoyed it an awful lot.

MONTCALM: I miss it a lot, but I have to admit, I'm enjoying retirement.

STOW: What are you doing in your retirement now?

MONTCALM: Well, the big thing I'm doing is taking care of my great grandbaby. He's going to be a year old in February, and I get to keep him a couple of days a week, which is nice because then I can do other things. I'm pretty involved in my church.

STOW: And, do you get back out here to Oak Ridge National Lab at all?

MONTCALM: This is my fourth trip since I retired -- a couple of times I came just to help out with answering a couple of questions for the woman who took over. And then once just to visit with some people.

STOW: Things have changed a lot around here, haven't they?

MONTCALM: Yes, they have! Well, it's probably very much the same in the building I was in, because they had improved it from the time that I was in it. I can remember that there was a dent in the floor, and I bet it's still there.

STOW: Now, you're talking about the building here at X-10.

MONTCALM: The building I was physically in when I first was weighing the isotopes. There were no windows. But, there was almost like a big "hole" underneath and you could walk on the floor and it would go down. And I asked, "What is it?" And the answer was that this was the place where they had stored old waste of some type, maybe even radioactive waste. Anyway, that dent is probably still there, but that's about all. I mean, it's fixed up nice there now.

STOW: What building was that?

MONTCALM: 3036. It's close to Buildings 3037 and 3047. The buildings are all a part of Isotope Alley. I used to go from the building and take the boxes up to be shipped to where they would be picked up.

STOW: Sure, I know exactly where you are. Lord knows, what may be back in there?

MONTCALM: That's true. But, of course, I'm sure it's safe.

STOW: If you had to go back and relive your professional career out here at Oak Ridge National Lab, is there anything you would do differently?

MONTCALM: I probably would seek more education. I wish I had taken advantage of that more, but other things kept me from doing that. I got a few hours of college in, but not much. But, I really, really, really liked what I was doing. Even when I was a secretary, everything about it was fascinating -- sending letters out to customers and receiving letters from them dealing with the Isotope Program --right down to the last time I weighed the last bottle, probably the last day I left.

STOW: Did you shed a tear then?

MONTCALM: After I left. (laughs) I sure did.

STOW: But, I suspect that you enjoy interacting with people pretty much, don't you?

MONTCALM: I do. While there wasn't a whole lot of that with the weighing, I would talk with customers on the phone in dealing with the isotope loans or leases, as they later were called.

STOW: Who were some of the Lab's biggest customers? Can you recall? You mentioned the University of Kentucky as a customer that did a lot of leasing.

MONTCALM: They did a lot of leasing of our isotopes. All of the universities borrowed samples. Well, I guess, Trace Sciences purchased a lot of stable isotopes from us. But, they also purchased quite a few from Russia. And, New England Nuclear was more into the radioisotope [business]. Some big names are E. I. DuPont and Mallinckrodt. These names go back to the beginning of Y-12 and X-10 operations.

STOW: What are you most proud of, as you look over your entire career?

MONTCALM: I got a nice technical recognition -- distinguished award -- in 1989 from Richard Genung. Joe Tracy was involved in the award. That was quite exciting. It made me very happy. I still have that plaque. (laughs).

STOW: Did you make any mistakes along the way?

MONTCALM: Oh, no, of course not. (laughs)

STOW: You wouldn't admit it anyway, would you? (laughter) But, seriously, did you "miss-weigh" an isotope ever that you're aware of?

MONTCALM: I actually shipped an empty box one time.

STOW: Okay.

MONTCALM: And, the isotope stayed with me. That was pretty embarrassing. I spilled some material once. That was interesting. Do you know what I did when it happened?

STOW: No.

MONTCALM: The first thing I did was look at the paperwork to see how much the isotope cost per milligram. It was a nickel a milligram. Then out of hysteria I started laughing. I had a blouse on with little buckets [tassels] that hung down [from the sleeves] and knocked the bottle over. Then somebody knocked on the door to come in the lab. After I got my wits about me, I gathered what I could [of the spilled isotope] and got it on the paper so they could reprocess it. I went to the door and it was Chuck Ottinger, my boss. And, you won't believe what I did only to find out later that my predecessors had done something similar. And, I guess another funny one is ... you have a large bottle with material in it. And, then you're going to weigh the material into the second bottle.

STOW: Yes.

MONTCALM: Some bottles were small. They would be real small and real thin, so we'd need to put them into these little cubicles to keep them safe from one another. Well, for most of the bottles, you could just tilt the larger bottle [over the scale], let that smaller bottle fall out, and just weigh samples from it.

STOW: Okay.

MONTCALM: Just imagine if one time you pick up one of those bottles and there's no small bottle inside. Only material is inside.

STOW: No bottle.

MONTCALM: And you tilt it over. Guess what happens? The material falls out.

STOW: Dumps out all over.

MONTCALM: (laughs) Yes, that happened to me and I later found out it happened to my predecessor. I let my mind wander for a minute. But, I only made this mistake once.

STOW: You don't forget it.

MONTCALM: You do not forget.

STOW: Well, tell me, you said you had tassels on your sleeve that knocked over a bottle ...

MONTCALM: They weren't tucked under my lab coat well enough. After that incident, Rocky Cline, one of my supervisors, said, "From now on you wear a bathing suit."

STOW: (laughs)

MONTCALM: I said, "No, no, no." (laughs) But, yes, I did. It's just something you don't think about happening, and it just happened.

STOW: You said you wrote the procedure as far as the weighing goes.

MONTCALM: Well, yes. They didn't really have it in writing. And, as you know, the Laboratory through the years improved in a lot of ways. As a result, we had days of procedure writing. So, I wrote the procedure for how to weigh the isotopes.

STOW: I was going to say, I'm surprised they didn't have a procedure already in place.

MONTCALM: They had one but it was not on paper. I trained with another woman and that's how I learned to write procedures. Later, the Laboratory called for written procedures.

STOW: As you look back again with people you've worked with, is there any one person or couple of people who have really influenced you the most over your career?

MONTCALM: Rocky Cline. When I was a secretary, he encouraged me to bid for the position of the data clerk. He said, "You're doing part of the work half the time anyway" because the data clerks would ask me to help them when they got covered up. We used to be really, really busy in that office. I mean it was incredible. The material went out, just one right after the other. Then Rocky and Mitch Ferrin encouraged me to get into the technical field. And, that's when I went over to Y-12 to work with the ORNL stable isotopes program.

STOW: What direction were you going when you started some college classes?

MONTCALM: I really thought at the time that I was taking those courses that I wanted to be the next accounting clerk in that office and do the accounting. So, I went into the first, second, and third accounting courses. But then I veered into the technical field. And, in that field, I also was taking care of the paperwork on californium and the leasing of californium, which, as you know, is a radioisotope.

STOW: Yes.

MONTCALM: And so, I had to take a lot of the courses here at ORNL that were offered and required. I took both courses that dealt with radioactive isotopes so I would be more familiar with that field. So, I guess I would have probably taken more courses that would have helped me better understand isotopes.

STOW: Are there things you feel you need to say as part of this interview that we haven't covered yet?

MONTCALM: Well, I just hope that if anyone is reading or listening to this, they'll be aware that I really think some calutrons should be moved from Y-12 to here at X-10. They need to keep that program going. I understand they're going to take that building and turn it over to Y-12. And, they're getting it all cleaned up for that transfer. I know that the money situation is tight for all programs, but I am just very passionate about this. I hate to see our country become dependent upon another country for our stable isotopes.

STOW: Well, it was only about two years ago that we almost lost those calutrons. They came within a hair's breath of draining the oil out of them.

MONTCALM: They sure did. I don't take credit, I'm just thankful that Congressman Duncan and some other people were aware of it in Washington.

STOW: Would you be willing to get involved again with Congressman Duncan and others?

MONTCALM: Oh, absolutely. When I talked to my boss and he was telling me what they were thinking about doing, I told him that I'm ready to go home and write a letter today. And, if he's in town, I'll go visit him.

STOW: You're talking about Scott, right?

MONTCALM: Yes, Scott Aaron. I visited with him.

STOW: Well, I don't know if we'll ever move the calutrons over here, but maybe we can keep them from getting junked at Y-12.

MONTCALM: Well, there's a possibility.

STOW: Is there?

MONTCALM: Yes. Just get the money. It can be done.

STOW: Well, you know those calutrons are part of the signature facility.

MONTCALM: Well, they wouldn't bring the entire set of calutrons. They could just move a portion.

STOW: Oh, just a few of the calutrons.

MONTCALM: Oh, absolutely. It would take too large of a building to move them all to X-10. I think it's something they should seriously think about. I believe that there are some isotopes that are going to make a difference [in diagnosing or treating] Alzheimer's disease and cancer because many useful radioisotopes are formed from stable isotopes.

STOW: Well, it is a resource that is unique, as you pointed out. And with only one other source in Russia -- that may not be the most stable place in the world to have that resource.

MONTCALM: Well, we know that they're trying, but I'm sure there are times when they have not gotten their material as purified -- as clean -- once they take it out of the pocket. I mean, our chemistry department has a lot to do about -- once it's highly enriched -- doing a good job and keeping it clean and everything. That's important.

STOW: Sure.

MONTCALM: So, everything is kind of at a standstill right now, but I am hoping and praying that it will get back online.

STOW: Is there anything else that we need to touch on during our chat here?

MONTCALM: Not that I can think of.

STOW: We've covered most of the items that I have here.

MONTCALM: Okay. It's a real honor to do this.

STOW: You've got to be struck when you come out here with all the new buildings, and you probably have followed the newspaper articles about the Laboratory.

MONTCALM: Oh, yes.

STOW: For instance, the Lab just earlier this week announced that they got an outstanding rating for the year from the Department of Energy.

MONTCALM: Something to be proud about.

STOW: What are your thoughts as kind of an "outsider looking in" now, about the future of Oak Ridge National Laboratory?

MONTCALM: It just looks like it's just going to grow tremendously. Obviously the new facilities are going to be an enhancement. And, I understand that they're involved in some of the Homeland Security research.

STOW: Yes.

MONTCALM: And, then they've got the Spallation Neutron Source -- I mean that's got to be a draw for scientists.

STOW: Oh, yes. It cost $1.4 billion to build.

MONTCALM: Right. And, then they've got the humungous computer capability. And, I'm just thrilled to have ever been a part of it. I've got to get back over here and get me an ORNL jacket.

STOW: Let's make sure that we find one for her. (laughter) No, I think ORNL has a tremendous potential right now.

MONTCALM: Oh, absolutely.

STOW: It's been a strong organization all through the years. But over the last four or five years, it has really done a turnaround, if you will.

MONTCALM: It has. It has. And, it's a safe place. I mean, that's important to people, you know. They stress safety here and I appreciated that. I appreciated it when my back was bothering me and they had somebody from ergonomics come in to help me. I mean, it's a safe place, and it's

just a good place to work. And, I think anybody would want to work here. I think it's got a wonderful future.

STOW: Well, that's a pretty good way to wind up the interview, isn't it?

MONTCALM: (laughs) Well, it's true!

STOW: Well, it is true. I share that thought very much.

MONTCALM: Yes, absolutely.

STOW: And, is there anything else we need to touch on? We've gone close to an hour.

MONTCALM: Well, we can just say that I'm happy to be retired, and I'm happy to be taking care of a great grandbaby. That's quite an accomplishment too.

STOW: Well, do you want to say hello to the great grandbaby?

MONTCALM: Hello, Dylan!

STOW: You'll get a copy of this videotape. He's only one year old, or less than one?

MONTCALM: He'll be one year this Sunday.

STOW: Okay. But, if you have any message you want to pass on to him, now's the chance to do it.

MONTCALM: Me-maw loves you! (laughs)

STOW: But, looking back again, if there were some words to describe your professional career out here -- your legacy, for instance -- what would you want those words to be?

MONTCALM: Overwhelming opportunity. I mean, I loved what I was doing, but I think that they give you educational opportunities. I could have gone and done more if I hadn't been so happy where I was. And, I was kind of preoccupied too. I had responsibility at home, which slowed down educational things. But, I've worked a lot of places, and this was just wonderful. It was just a wonderful 25 years. I don't think I could have been happier anywhere else.

STOW: Well, if say 30 or 50 years from now, somebody says, "I wonder what the Stable Isotope Program was like back in the last century" or whatever, "And, there was this lady, Fae, who used to weigh stable isotopes." How would you want to be remembered?

MONTCALM: Passionate! (laughs) Passionate for the program.

STOW: Passionate in your job.

MONTCALM: Yes. For the whole program, because I just think it's incredible. I hope you have somebody that you interview that could give you the details. I'd recommend Joe Ratledge to give you the details. And, certainly Joe Tracy knows a lot.

STOW: He does, yes.

MONTCALM: And Scott Aaron. I wish I could have been more informative on that end of it.

STOW: No, you've been great. This has been an interesting interview.

MONTCALM: I hope so.

STOW: And, I appreciate your enthusiasm and your passion.

MONTCALM: It's a real honor to be asked. I appreciate it.

STOW: Well, thank you very much.

MONTCALM: Thank you.

STOW: Thank you for coming out today.

MONTCALM: Thanks for having me.

----------END OF INTERVIEW ----------