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FERNALD LIVING HISTORY PROJECT
Transcript

Name: Elmer Riestenberg
Date Interviewed: 09/07/99 Date Transcribed: 01/10/00 Tape: 85 Project Number 20012

Tape FLHP0196

04:01:01
Q:
Ask you sort of the same kinds of questions that Molly asked you when she talked to you on the phone and maybe a couple extras.

A:
That's fine, fine. Shoot.

Q:
Great, we're gonna roll, right?

(Cameraman - Mic's on one as usual? We're rolling)

04:01:15
Q:
First of all if you could just give us your name and spell it to make sure we have it right.

A:
Elmer B. Riestenberg. R-I-E-S-T-E-N-B-E-R-G.

Q:
Great, and if you could give us a little background, maybe where you were born and ah, where you grew up.

04:01:32
A:
I was born in 1915 in ah, we lived in Price Hill and I was one of five children. I was the fourth one, two older sisters and an older brother. And ah, I was always ah, more or less athletically inclined to participate in sports. And I played baseball as long as I can remember.

04:02:06
A:
And I always enjoyed it and ah, finally a brother-in-law of mine was at Merchants Cold Storage Company and they needed somebody down there to unload ah vegetables that came in at ah, the right season. So I went down there after that particular seasons over why there I was out of work. And he said would you like to work in a power plant? I was 18 at the time. I said, I'll try anything. So I went into the power plant and fell in love with that type of operation and been in that ever since.

04:02:44
A:
And I ah, started there and worked at there until I got an Ohio State ah, stationary engineer's license. And then I ah, went to ah, um, after I got the license I scouted around to get a job as station engineering. I went to the Children's Hospital and I worked up there a couple of years. And ah, after a couple years experience there, why ah, I went to the American Oak Leather Company.

04:03:16
A:
They were looking for a chief engineer. So I went over to the American Oak Ledger-, Leather Company and ah, then decided well, we'll accept it. So I operated there, was chief engineer for a couple of years. I felt I had sufficient experience to try another job.

04:03:34
A:
So um, ah, a _____ inspector came in one day, and I said I'm looking for another job. And he said what as? And I said I want to be the chief engineer in an operating plant someplace. She said well, there's a paper mill up in ah, West Carollton Ohio, that ah, is interested. In fact they cannot get the plant on the line. It's a new plant.

04:03:58
A:
You might be interested in that. So, when up there and they hired me. So, the plant is a single, was a single operating plant. In other words it was one paper mill and one power plant, it generated its own power and everything else. They could not keep the blower on the line; they could not keep the paper mill on the line.

04:04:20
A:
So, in about six months we got the power plant straightened out and when the power plant straightened out it was able to maintain steam and electricity, why the paper mill decided why they could do it we could do it. Ended up after 2 years the paper mill was top, above expected ah, performances.

04:04:44
A:
So I said well that's enough of that. So I saw a, a water plant, what was the ah, sort of the ah, ah, well he was the man that supervised an outside company, supervised that water ah, conservation. So I asked Jack Sanbroge if ah, he could find me another job. I'm interested in something that may be different than this. I've got the experience here.

04:05:20
A:
So, I went to ah, ah, he gave me the name of George Fuller Company was going to be the ah, ah construction company of a new plant that's to be built down at Fernald. I said what are they gonna do? He said well, we don't know yet. So I said, well I'll go down and talk to 'em. So I come down and put an application in with the George A Fuller Company.

04:05:44
A:
And ah, in about ah, several months my, I got a notice to come down from the National Lead Company. And ah, the notice said that the National Lead signed ah, on to be the operators for the new plant at Fernald, so Mr. Wonder and Mr. DeFazio came down and (clears throat) and I was interviewed by those two gentleman.

04:06:18
A:
And ah, I guess I was in the, I guess about three hours and my wife and three children were out in the car waiting for me and ah, it must have been about 95 degrees that particular day. But anyway ah, it wasn't too long after that why ah, we saw some FBI people come in at the house in Miamisburg, inquiring about me getting the job with ah, the government.

04:06:52
A:
And ah, by that time I knew why it was gonna be a government plant and that National Lead Company was gonna be ah, the operators of the plant. So, in about ah, I guess ah, three months after that, maybe two months that ah, I got a notice from National Lead Company that I was hired. And at that time there was, there was not even a ground broken for a power plant in a sense. So I was there from the very beginning that power plant was ever built.

04:07:26
A:
So I was familiar what they constructed all throughout them plants as far as the utilities was concerned and ended up as power plant superintendent. So I was in from the ground floor to see what went on in the other plants and it was a tremendous advantage for me to get there at the very beginning and I enjoyed all my stay down there for the number of years I was there. Had a good time out of it, enjoyed it.

04:07:56
Q:
Sure. So those early years, was it a little confusing at the very beginning?

A:
Well, it's a tremendous advantage to be doing the erection of a plant. You see the way things are put together where the different facilities will be stationed. Some ideas probably but I suggested to the uh contractor and so forth probably went into affect too.

04:08:33
A:
But it was things that was a tremendous advantage to me to be there at the very beginning when they first built the plant. And then during the installation of the equipment and things like that, if you could see what's going on while they're doing it, it's just very advantageous to be that at that stage when they're doing it. And I was fortunate enough to be there when that was happening.

04:09:06
A:
And I got along real well with the contractors and we you know had no problems and it worked out real well as far as I was concerned. I was there from the very beginning and saw what went in there and was more familiar with it than anyone else I guess.

04:09:27
Q:
So how did that help later on when they started doing the process?

A:
Well if, oh, well if the process started at the Pilot Plant, that was the first plant that started up. By that time we had to have the steam and so forth and the water. And at that time the water plant was relatively small. We used the water from deep wells and then we finally got the water plant into operation where they had the reactivators that treated the water.

04:10:00
A:
And I would say we had probably better water than what was distributed throughout that area. But most of the companies and so forth used the well water. And then we were without our reactivators in the water treatment plant; we were able to produce water that was superior probably to the City of Cincinnati. Very, just good potable water.

04:10:32
Q:
Good. And um, what was it like during those early years before the plant was really built? Was it dusty, muddy, what was it like?

A:
Oh, I would say the average construction site. I think, well I got along real well with all the contractors and things like that. And go into their office and they'd have the blueprints there and you'd go over it with them.

04:11:00
A:
All of them were very, I don't know, just gentlemen as far as answering questions that were confusing to me that was to my advantage as far as operations was concerned.

04:11:15
Q:
And how about the Atomic Energy Commission folks? Did you have much contact with them?

A:
Well, quite a bit, not too much. I think they more or less left us alone. We had little trouble with the state as far as exceeding the limits into a receiving stream from the water plant or the waste treatment plant. And uh we got that straightened out I'd say by better operation and goes from working close with the state.

04:11:48
A:
And we were able to correct and get that straightened out. But we did have problems once in a while with production. When they'd have a little fallacy in the operation, in their operation we'd get a slug or something that was, not, you just couldn't control it to the point where something would slip into the receiving stream.

04:12:09
A:
And the state monitoring, that's receiving stream would come back and want to know what in the world happened. So we'd try to stay on top of that too. But it was, it was interesting to you know cover all those things that we had to do. Made it for interesting. And I was down there what 23 years, or maybe 24, I forget what it was.

04:12:32
Q:
When you started, how much did you know about the process?

A:
Nothing; you mean as far as what, production? Absolutely nothing, absolutely nothing.

Q:
So when did you find out how it all worked?

04:12:51
A:
I guess it was down there 10 years before I found out what they're all doing. They'd call up and say we need more steam so we'd have to give 'em more steam. We need more water, so we'd give 'em more water. But it was, I would say after 25 years; the total process, as far as I was concerned, was four steps ahead of me. I knew what they wanted they'd call up and say we need this and we need that, if we had the utilities, we gave it to 'em.

04:13:30
Q:
Tell us about the steam engine that was set up to supply heat to all the buildings.

A:
Oh, that was early in the process before the power plant was built. They just brought a locomotive in there and a locomotive is a steam generator and uh the steam from the generator normally would go into the, into the engine, the steam engine for the moving of the, of the train.

04:14:03
A:
But instead of that the heat was used to supply steam to the plants to maintain heat until the power plant was built. So that was there a long time before we ever got to the point where we could supply the heat to the plants. It was interesting; I'll say that.

04:14:27
Q:
So the Pilot Plant was the first functional plant on site. Um, how soon after the Pilot Plant was functional that they built the Boiler Plant?

A:
I would say that was in the process, when the Pilot Plant was being built. 'Cause I remember the bulldozers getting in there and starting to move the ground for the power plant. Of course I was amazed at the size of the power plant but it worked out real well.

04:15:02
Q:
That was a neat plant. (Comment – huh?) I've been in that plant; it was a neat plant.

A:
Well one thing I'll say about that power plant, it was one of the cleanest power plants. We used to, we were so proud of the cleanliness, well not me, including me, operators did all the work. But I was rather strict if I saw something out of place that wasn't where it should be I'd go in there and ask what's that for.

04:15:32
A:
Well, we're going to use that tomorrow. I said, it don't belong there now does it. Well we may use it tomorrow. If you may use it, get it out of here, don't belong there. So later on we used to have little field trips to come up to see how we could keep that power plant so clean when we'd burn 2 or 300 ton of coal a day in the winter season.

04:15:53
A:
And they couldn't understand how we could keep that so clean. But the operators kept it clean. 'Course I was a little strict on that. 'Cause I think if you keep a place clean you're going to operate it the way it should be. It worked out real well.

04:16:12
Q:
It was clean all the way up until when I got there. (Comment – it was still clean?) Oh yeah, it was, it was, it was one of the cleanest plants.

A:
Well so many of 'em came in and, salesmen come in and they liked to see the power plant, come up there. They'd look around and they'd say how in the world do you keep this place so clean? I said, I don't clean it, these operators clean it. They did, they did a real good job with it.

04:16:37
A:
But you know, you go around, we had good supervisors. The chief engineer was Ed Richie and he was a fanatic on that too, boy go around and clean that place up. And then we had Leroy Williams who

was supervisor in the water treatment plant and he was a very, very good competent man, very good. And uh, he was very making things the perfection if he could.

04:17:08
A:
And uh with them two plants, one was right next to the other, you probably saw that, that people were just amazed how clean we kept that plant all the time. It helps for good operation too. Nothing would get in our way 'cause certain stuff was got out of there, so it worked out real well.

04:17:34
Q:
So tell us where all the coal came from and how that got to the Boiler Plant.

A:
Well the coal would go out for bid. And uh I can't recall the exact number of tons it would go out for. It would be I would say close to a 100,000 ton a year. And uh purchasing would send out the specification that we wrote as far as the constituents in the coal itself. The sulfur, the volatile matter, the carbon and so on and so forth, the ash.

04:18:13
A:
And uh then when the companies would send in their bids it would have a description, an analysis of the coal. And when they analyze that, recommend this or that or so on and so forth and then purchasing would sign a contract for maybe 75 or 100 thousand ton of coal for that particular period of time. And uh that was all brought in by rail.

04:18:42
A:
And uh, we had coal handlers and bulldozer hoppers on the coal handling facilities. And we'd unload maybe three or four cars of coal a day. And it would go into a bunker over the boilers and it would flow by gravity down through scales and so forth down into the stokers. And then if we had a surplus number of cars that came in, we'd unload it out into the field.

04:19:13
A:
And then we had the bulldozer to distribute the coal out in the coal storage pile. And I guess we'd have 60, 70,000 ton of coal, about 40,000 maybe, close to 50,000 ton that would be sitting out there. We had a strike or anything like that we'd have sufficient coal to keep us in operation for a good period of time.

04:19:38
Q:
Now those big bunkers inside, those big coalbunkers, how much did those hold?

A:
I would guess about 200 to 250 ton. That's a lot of coal. That's a lot of weight too. But did real with 'em. We didn't have any problems with them. We did one time had experienced a fire developed, well when we specified coal we always tried to specify coal that was low in sulfur.

04:20:20
A:
'Cause if we had a high sulfur coal content, high content of sulfur in the coal it was subject to spontaneous combustion and if you put a lot of coal up in that bunker for a period of time, it might catch on fire. So after I guess 20 years we always managed to keep it low enough and moving well enough that we never had a fire in there.

04:20:51
A:
And if we noticed a hot spot we would have, oh who was it, some instrumentation department would come up and put some electrodes down there to see what the temperature was. Well if the temperature was hot on one side, well we'd switch the boilers over and put that, burn that coal up before it got, resulted in a fire. So that went back and forth.

04:21:21
A:
And periodically we'd you know go from one side to the other side. There was 4 boilers and 2 on one side and 2 on the other side. And with operation why, heating the entire project you'd use quite a bit of coal, several hundred ton a day. And in the summer time when it got hot we had 5 turbine driven compressors, _____ compressors that would cool the plants, all we would do is chill the water.

04:22:01
A:
We'd pump the cool water in there, in the winter we pumped the hotter water in there. So it worked out our advantage and theirs too but it was quite an overall good size operation.

04:22:19
Q:
What was your biggest challenge while you were working at Fernald?

A:
I guess uh the biggest challenge as far as I was concerned was hiring personnel. As far as, we had what they called water plant operators and stationary engineers and under them for example on each shift there would be power plant there'd be five men per shift. And in the water treatment plant we would have, now the water treatment plant that was more or less plant-wide.

04:23:06
A:
We had the, the water treatment plant, we had the sewage treatment plant, we had the lift stations, we had the waste pit. We had later on in operations we had the general sump and from the water plant we

would operate the incinerator. So we had quite a overall distribution of people around the plant. And it was a case where there'd be maybe five men in the water plant, which again consisted of the plants all over.

04:23:46
A:
And about at least 4 men in the power plant per shift. And then you'd have four; eight, maybe twelve, fifteen men operating and then one shift would be off on that particular day. So we had, I think there was five stationary engineers and five-licensed fireman. Then we had what we called fireman helpers. They would have to test the water, prepare chemicals for internal treatment to the boilers, remove the ashes, operator the ash system and clean up which we felt was extremely important.

04:24:35
A:
Then in the water treatment plant we had the water plant operator, the assistant operator. We had the outside pump bed and later as the plant expanded we had two pump men per shift, then we had an assistant operator. We had the incinerator operator. So overall it was, they had operators like on a given plant and, shift, he would have five men with him and he would have to direct and see what they're doing.

04:25:09
A:
And the stationary engineer in the power plant would have to govern what took place in the power plant. So we operated 24 hours a day, 7 days a week. Long, long time.

04:25:23
Q:
So tell me what a typical day was like. Like what time did you get there, and what kind of things did you have to do while you were there.

A:
Well, we, I would get there generally about quarter till eight or eight o'clock. And my office was up in the engineering department under Mr. DeFazio and in the engineering department was drafting and so on and so forth.

04:25:49
A:
So anything pertaining to the steam and the water and so forth, the draftsmen would, and the design engineers would consult and can we get this can we get that and so on and so forth. And I worked closely with them while I was up there we worked closely with them to, can we supply this can we supply that. Sure if we can do this, we can do whatever we needed and we would know ahead of time what they were requiring. So it worked out real well.

04:26:22
Q:
So was the steam basically just used just for heat or was it also used for power at all in the plants?

A:
Well I would say primarily it was heat. But we used the steam to operate turbines, air compressor, some electric and some steam driven pumps. We had a lot of almost every utility could be supplied by either steam driven or electric driven motors or the steam turbines.

04:27:01
A:
So, um, if the um, we had a power failure, we'd put the steam turbines on and keep goin'. Now the same way when you operated the boiler, you had a force draft fan, reduce draft fan and so forth and would have turbine driven steam for that for all the utilities for the boiler. We'd use steam from the exhaust steam would then be used to preheat the water before it went into the boiler.

04:27:27
A:
So it wasn't the case of wasting the steam, we would try to control the amount of steam driven equipment used would depend on the demand for the exhaust steam for the turbines. So we would never try to use all electric because all that would do is send the power of the cost of electric up and with the steam turbines, why, we would reuse the exhaust steam into the heating system.

04:28:00
A:
And, of course, which saved us money and got the power out of it too. So, that was an efficient operation.

04:28:10
Q:
So the turbine building, is that, was that an out building right next to the turbines, the turbines were they the three sort of silo looking things next to the Boiler Plant or those were separate from?

04:28:25
A:
No this was all in the one building.

Q:
Right in the one building, because I remember there were three, two or three to the side of the Boiler Plant and I was wondering if that was where there were.

04:28:36
A:
Well probably its changed a lot since I was there (laughing). I've been gone a long time, over 20 years.

04:28:44
Q:
So what year did you retire?

04:28:51
A:
Oh, I wish you hadn't asked that. Let's see, I started there in (Jerry, when did I start at Fernald? Response from Jerry - fall of 1951). Fall of 1951. And I retired in 79'. So it was about 28 years I was there.

04:29:22
Q:
Good, okay, we're going to switch tapes right now, take a break.

Tape FLHP0197

05:01:09
Q:
So how did your responsibilities change the longer you were at Fernald?

05:01:16
A:
Well, when we first started up we had the Power Plant and the Water Treatment Plant and then we got the sewer plant into operating and the state came in said that were not, were violating a receiving stream. So the sewage plant wasn't operating the way it should so we had, uh, a good supervisor was Leroy Williams, and we finally got that one straight.

05:01:53
A:
And then we would, um, the plant would generate, not generate, the plant would handle a lot of wastewater that was always pumped to the general sump, from the general sump was pumped out to a waste pond. And um, we in the Water Treatment Plant would sample what was discharged from the general sump, the waste treatment from the, um, the um, waste from the plants.

05:02:39
A:
But anyway we would sample all of that and the state would come back and contact us and say that we are exceeding the limits for receiving streams. So what do we do, well, we have to clean it up some way. So we get on the general sump, it was always operated by production so I guess they get tired of us complaining about it, so they say, well, you run it

05:03:03
A:
Okay, we'll run it. Then we had the pit (Comment - did you see the red pit out there?). So we'd get water from that, well when we got control of that and the general sump, what we could do was control how much we could pump to stay within the limitations as specified by the state. So that was to our advantageous and the company's advantage. So that, um, well, eventually we had to get some additional men to operate the general sump.

05:03:38
A:
And then I think we had several men that would out in the area to more or less check the plants in operation. If someone was trying to stick a hose down into the sewer, into the receiving, not the receiving, but into the drainage system, we'd find it come back and trace it back to what plant it was and get on them. We were kind of a watchdog operation which wasn't too (laughing) prosperous as far as human relations was concerned at the time.

05:04:14
A:
But we got along fine and we continued to expand as far as our operations was concerned, when we put that general sump, that was all the waste from all the plants went into that general sump. And then when we got it we always controlled what went out to this manhole 175 which was the main one before the river and we knew how much was going in there and how we could pump it at times was to the plant's advantage plus our advantage.

05:04:47
A:
So as far as meeting the receiving stream requirements, so it worked out real well for all of us.

05:04:55
Q:
So, since you were sort of the watchdog group of the plant occasionally, um, did you see some things that bothered you as far as environment that you kind of stopped, you kind of mentioned running things into the sewage lines and those kinds of things?

05:05:15
A:
Well, um, I think a lot of times it um, especially in the early operations to get rid of some thing you kind of stuck a hose out the window to get rid of it. I mean I don't have the sufficient capacity so I'll just open a valve and drain some out in a yard or some place like that. Eventually that penetrates down into it and we had deep wells. We had three deep wells and each one had a capacity of 1000 gallons a minute.

05:05:56
A:
So if you contaminate a 1000 gallons of water that we need for sanitization and process equipment and contaminate that, you might have to shut the entire operations down. So we had to stay on top of something like that. And if we would see our operators, men in facility would see somebody sticking a hose out the window we'd go in and kind of get on them and lot of times, you know, they didn't care for that (laughing).

05:06:24
A:
But we were kind of the watchdogs on something like that, it was always interesting. But we got along well with them all, they'd ask for our help, why of course we were more than willing to help them

because we were the utility group in there and we figured we can help stop it, cleanup something, that's our job too.

05:06:46
Q:
Now as far as utilities too, this was sort of a one-of-a-kind plant, I mean there was Mallinckrodt, and a couple of places that were processing uranium, but um, were parts easily found or did you have to machine parts for all these machines that were running at the plant?

05:07:08
A:
We, sure, we ended up with uranium slugs, you probably know that better than I do and, uh, Plant 6 had a lot of machining facilities there. Well you started with the Pilot Plant and then you had Plant 1 of the sampling plant and then you had the refinery and then you had Plant 4 the green salt plant, and you had the fabrications, the metals plant, Plant 5.

05:07:47
A:
And all the process waste and all the machining and Plant 6 where they had the machining and the rolling mill and you had waste from that. So, but eventually it was all cleaned up and we got along real well with the state. We had our problems at first, but I think we worked with the state's satisfaction.

05:08:11
Q:
Now as far as the state, was there some kind of agency for the state that you were working with for that?

05:08:14
A:
Well, they sampled receiving streams, like, um, we went into the Great Miami River so whatever our outfall would they'd come down here maybe once a month, once every two weeks, I don't know what it was. But if they found something they may come back and say well how long is that going to continue, so then we'd hear from them.

05:08:39
A:
And, um, we had a guy by the name of Leroy Williams who worked very closely with the state and he was our water plant supervisor. And he was a very, very capable, capable man, worked with them and we tended to get cleaned up someway one way of another. So finally, we worked out real well with the state (laughing).

05:09:02
Q:
So, of course, that's pre-Environmental Protection Agency, right, I mean Environmental Protection Agency didn't exist back then, EPA, those kinds of things?

05:09:16
A:
I remember EPA.

Q:
Did they?

A:
Yes, Oh yes.

Q:
Did you have to work with them too?

A:
Oh, I didn't recall working too much with them, no.

05:09:23
Q:
Good. Um, you ever have anything kind of funny or unusual kind of happen to you while you were working there?

05:09:35
A:
(Laughing) Anything funny? Oh, boy, you should have send me a little questionnaire on that that I could of happened of think of something. I would say this, more or less; we had a very, very cooperative group. And, uh, I think some of the, we didn't in operations like the steam plant, water plant you just could not stand a lot of anything too comical because you're taking too much of chance of contaminating something.

05:10:28
A:
And um, like the steam plant goes down in the winter for some foolishness, you had a 1000 people out of there and if the state got on us for something that we discharged into the receiving stream. You got to do something, it might cost you a million dollars to put something else in there to clean something up so we didn't stand for a lot foolishness, I'll say that.

05:10:52
A:
I think we got along real well. But it wasn't hardly, hardly any foolishness like. Like once in a while somebody likes to play a trick on somebody else, something like that, something minor might have occurred but taking too much of a chance on, too much foolishness let's put it that way.

05:11:21
Q:
So in those years, um, in production, how important was it to make as much uranium as possible?

05:11:28
A:
Oh, boy. I would have no idea, no idea. All we did, if Plant 6 needed more steam, it was our job, we had the capacity to supply them. Although we started out with reactivators as far as in the treatment of water, 1000 gallons per minute. And we got as high as 1200 and we had to install another, a second reactivator. But it was our duty and job was to supply what was required in the plants and, um, I think we did that pretty well.

05:12:11
A:
(Laughing) I guess they kept me that long.

05:12:20
Q:
Was there ever a moment when you were just kind of panicked because things weren't working?

05:12:24
A:
No.

05:12:27
Q:
So it always went pretty smoothly?

05:12:29
A:
Well, we had problems, but, let's get on this one or let's get on that one and we'd work on and I think we solved just about all our problems that we had. Worked closely with the plants and they worked with us, if we traced it back to Plant 5 we'd go see Tony Mangold or one of them over there, what's Happy's first name, he was superintendent of 5. Whatever it was.

05:13:02
A:
You'd go over there and talk to them and try to work something out. Well you can't do this; this is what your problem is, so I think we worked just about all of them. I thought pretty smooth, I don't know about Sam, whether Sam did or not (laughing).

05:13:22
Q:
So outside of work were you friends with the gentlemen that you worked with?

A:
Oh yes, as far as what?

Q:
Oh, did you know their wives, their families, did you see each other socially?

05:13:34
A:
No. No. Why, Leroy Williams was our supervisor in the water plant, I met Mrs. Williams, I met Mrs. Hoffman, who was supervisor in the power plant. I would say very few of the hourly people did I know them at all. Oh, we had a ball team that I used to play ball with them once in a while. Even in the plant I don't think we socialized with hardly any of them.

05:14:11
A:
I knew Mr. Defazio and his wife. Maybe once of twice a year we'd see them, I wouldn't say I socialized with them, but I knew em, pleasant with em, but nothing close.

05:14:32
Q:
Back then, when did you realize that, uh, a lot of materials out there were radioactive?

05:14:39
A:
Well, I guess from the very start cause I remember Bill Shaw, I think he was one of the original ones over in the Pilot Plant that, um, they were saying that the product they were handling was radioactive. And then as the plant progressed then you found out where it going to Plant 1 is sampling plant, stay away from this or that. Then you'd see the green salt, stay away from there, away from that. Then you'd get near the metals plant, but uh, I never was too concerned with that.

05:15:24
A:
Of course we wore our, what do you call it, radiation badges but ours never, the lab after they were tested I was never called in that I got too close to contact or received any radiation. So I was in pretty good shape, maybe I light up any way, I don't know (laughing).

05:15:52
Q:
Now you had mentioned you had a Q clearance to work there, tell us a little bit about the process of getting a Q clearance and why you needed one?

05:16:01
A:
Well, the, at the time the processing of uranium, I guess what would you call it, restricted information and the capacity that I had I could go into any plant any time. Because if I had to find out why something wasn't right pertaining to the water or the steam I could go in there. And with the Q clearance I was permitted to go in there and that was why I had Q clearance.

05:16:39
A:
But, we didn't have very, very few incidents like that. And then the Leroy Williams, I mentioned him a couple of times in the water plant; he would be more into them than I would because they would call

him before I would even know what the problem was. And then Lee would say that I had to go in there and see what happened there, so on and so forth.

05:16:59
A:
But that's the reason we had Q clearance and the reason we were restricted at times. If they had something that was totally secret you couldn't go in there at all at a given time, whatever that was, I don't even know. But, uh, it, we weren't restricted as far as getting in there when we had to be.

05:17:24
Q:
Tell me a little bit about security in those years, what was that like; was it different than it was in later years when you first got there.

05:17:29
A:
Well, I think the, when we first got there they hired more or less key personnel and there was just certain things that they did in the Pilot Plant that was very well restricted but at that time as far as I was concerned there was no problem. But I think any outsider that came in couldn't go to the Pilot Plant or couldn't go into the Laboratory or things like unless they had a Q clearance, but I mean there was no problem as far as I was concerned with that.

05:18:21
Q:
So you mentioned earlier that the FBI investigated you, did they ask your, go to your family and friends, what exactly did they do?

05:18:31
A:
(Laughing). The reason why I had to laugh on that one after I went down and got the application down, why then the FBI investigates you. And, um, we lived in Miamisburg at the time, the front doorbell rang, and Shirley can tell you this better than I, but she opened the door there's two men standing there. We're from the FBI and these are our credentials, and she said what did he do now (laughing).

05:19:10
A:
But anyways this is what happened so that was the real incident that we had as far as that's concerned (laughing). But it kind of shocked her.

05:19:19
Q:
Yeah. I know they ask some pretty in-depth questions, we've talked to people who they say the FBI agents even went back and talked to their schoolteachers.

05:19:30
A:
Oh yeah. I can imagine they did to find out any problems. But I mean I was pretty clean, I never had any problem with it that's for sure. But a couple of them we hired I think couldn't get clearance, I remember one or two that they couldn't get clearance. FBI checked them and whatever they found, I don't know, just couldn't hire them. I'd see a few after a long period of time down there they couldn't catch up with me I guess (laughing).

05:20:15
Q:
Let's see, um, couple of other things I wanted to cover. Were you always at Fernald for the whole tenure there for NLO, did you always hold the same title?

05:20:38
A:
Um, Um,

Q:
So you were always power plant superintendent?

A:
Um, Um.

05:20:43
Q:
Wow that's great. Now, how did you have to work sort of hand-in-hand with Fire and Safety to make sure that your workers were safe while working?

05:20:49
A:
Say that again.

05:20:51
Q:
Um, oh, actually I don't know if you had to work with Fire and Safety. Who did you have to work with to make sure your workers were safe while they were at work?

05:21:03
A:
Oh, I guess the corresponder's responsibility because if they didn't operate the way I wanted them to operate we'd find out why and tell them this is the way we're going to do it. I don't think too many from health and safety could understand what our men were doing in their operations whereas I could. But we worked very closely with Fire and Safety, I mean we had what you call utility engineers later on. And the utility engineers were around the clock operations that would be out in the plant more than they would be in the power plant.

05:21:48
A:
They'd be out in the plant to see how the utilities were going and anybody that had a complaint as far as utilities was concerned would get a hold of the utility engineers and he'd go right over there and see what the problem was. But as far as our operation, as far as safety was concerned I think that was my responsibility this is what we're going to do and we're going to do it this way.

05:22:16
Q:
Can you give us a few examples of when you had to lay down the law and say this is the safe way to do it?

05:22:23
A:
Well, I think maybe in some of the startup operations and turbines that some of the fellas didn't have experience with it and we had to show them how to operate it. In other words if start it up cold, it'd turn hot steam into it was liable to crack a casting, things of that nature. But as far as I'm concerned that was part of the learning operation and not, um, not something I would call a safety problem; it was be educational wise any part operation of the power plant.

05:23:22
Q:
So, um, safety was just kind of a part of a general operating good operation procedures.

A:
That's right, that's right.

05:23:27
A:
That was always included, always included.

05:23:33
Q:
Now did you have written procedures for everything? Tell us a little bit about, you must have written those from the very beginning since you were there from the very beginning. What was that like coming up with those processes?

05:23:48
A:
Well, like um, starting up a boiler what do you do when you start up the boiler? Well you have to put some water into it, you have to check this valve, this, valve, this valve and then you start out with a relatively small amount of water in the boiler just so you can see that there's some in there. Because as you start to the heat the boiler it expands, the water, it expands and then that water gets too high and its carried into steam line.

05:24:20
A:
It creates a slug in the steam line that can blow out a steam line so you have to, well; they should be educated in that process before they really start up. But I mean this is part of the procedures that we had written up and the same way that the fireman as far as how to clean a fire. In other words some ash would accumulate in the stoker and there would still be coal coming into it, clean coal.

05:24:51
A:
So you had to get somebody like, clinker would form and if clinker would form, let's just say two foot diameter of clinker would form in there, the air can't get through to burn the coal, so how do you get that out of there, things like that. It takes a little experience how to do so these are things that you instruct them in, in the operation. Even to open up a fire door.

05:25:15
A:
Even to open a fire door, you never open a fire door like this (gesturing with hands) you always get behind the door because you get a flashback once in a while and if you're opening like this (gesturing with hands) you're burnt. That type of operation you mean? It's all part of the game.

05:25:43
Q:
What were some of the things on the Boiler Plant that could have been dangerous to people who were working in there?

05:25:51
A:
Broken steam lines, or bad steam leaks, or opening a steam valve too fast because a lot of times if something is cold and eventually you turn steam into it, what'll happen is it can blow out the water accumulative. You blow out an elbow like that at the end of the line, or a casting, or a steam turbine, if you don't warm up the casting of the turbine. The turbine is much too wheel, not as big as I am and on the end of it you got blades.

05:26:40
A:
And the steam comes in and the nozzles hits the blades, the steam hits the blades to turn the turbine. Well if you got water in that steam line instead of steam you'll burn the blades out of there. So this is what you have to watch as far as operation is concerned. These are just operational things you have to instruct operators on how to do that. Yeah we wrote up operating procedures on all the equipment; how to operate the heaters, turbines, the boilers; like how to bring them up on the line.

05:27:18
Q:
Now something I've always been curious about, how did you get the coal from the coal piles into the bunkers?

05:27:29
A:
(Laughing) Well, what you had is a conveyor system and the conveyors would operate about, oh, I guess. Well let's start at the beginning. Unloading coal we could unload about 50 ton of coal an hour and, uh, it would drop into a belt on a bucket elevator and then the coal would drop into the bucket elevator and go to the top of the building at the top of the building we had where the buckets would dump onto a belt.

05:28:09
A:
And the belt conveyor would then take the coal right on to the bunker. The men operating that would open the chutes that would permit the belt to empty at a given opening. So you'd fill the bucket proportionately whether you wanted on three, four, five, whatever vault you wanted it in.

05:28:34
A:
And that's how they would operate. So they had a _____, that would make sure they didn't operate over capacity or you'd plug it. If the coal got too wet they had to be overly cautious because it would stick and then you'd plug up something. So these are things that they had to watch.

05:28:54
A:
So its, its all in the standard operating procedure, how to stay on top of that and we wrote that. Have to re-write 'em occasionally, of course. You'd run into a problem and then change the procedure a little bit.

Q:
How many boilers were there?

A:
Four.

05:29:10
Q:
Four? For the whole plant, wow!

A:
Each one would burn about; we could operate uh, at a capacity of 75,000 pounds per hour for each one. So if it got good and cold in the plant seems quite a bit of steam would, have as high a three on, that's the maximum to use. We would always have at least one spare.

05:29:31
A:
In the event, in case something happened internally to a boiler. A boiler consists of a lot of tubes and as water, steam generated in them. So if a tube blows due to scale build up or some malfunction of something in the boiler itself, the tube blows and all you're blowing out is hot water and steam. So

you've got to get another boiler ready and put it on quick as you can to maintain the steam supply necessary.

05:29:57
Q:
Wow. We're gonna change tapes here again.

Tape FLHP0198

06:01:00
Q:
A lot of people don't quite understand how the Boiler Plant works.

A:
Oh, I know that. They think you build a fire in there like a gas burner and that makes the steam period.

Q:
Oh, yeah.

A:
But they don't know you need an awful lot of water treatment and an awful lot of chemicals. It's a big process.

06:01:22
Q:
It is quite amazing.

A:
Then the uh.

Q:
Yea, I'm ready. I'll have to ask you that question. A lot of people think that the Boiler Plant was a simple kind of thing to do (Comment: Oh, yes). Tell us a little bit different, all right?

06:01:39
A:
Some of the uh, smaller plants, you know where you get down into those and they got package type boilers and there's hardly anything in there. But uh, when you get into the larger plants water treatment is a major problem, because if you don't have good water treatment, scale builds up inside the boilers.

06:02:04
A:
And then you can burn out tubes because the heat can't transfer through the scale. So you've got to keep the water treatment at very concentrated to exact levels to maintain the proper treatment so that

this scale does not build up. When you elevate these temperatures, like coal in the furnace, you might be up to 2300 degrees in that furnace, and that's pretty warm.

06:02:31
A:
If the uh, goes right against the metal, if the water don't move through that rapidly scale will build up and you'll burn out a tube. And if you burn out a tube, why of course, all the water is gonna come out.

06:02:48
A:
So, I mean, you got 150 pounds of pressure, I don't know what pressure they operate at now, or did, but uh, 150 pounds coming out of that tube, the guy in front of you is gonna get out of the way pretty fast. So you want to make sure that doesn't happen. But it's a uh, guess like in water treatment we uh, in the boilers itself we would analyze the water every four hours, what's in the boilers is being used. We would sample that water, we had uh, samples there, and the operators would sample this water to make certain that we had the right amount of compounds being fed into the boilers.

06:03:27
A:
They'd have to make certain that these chemical pumps were supplying the proper treatment or you'd run into a problem.

Q:
Now was your group responsible also for all the piping that went all over the site?

06:03:42
A:
Well, what we had, what we called utility engineers. And we had five, one on each shift. Utility engineers had uh, transportation, and they would, I would say survey that at least once a shift. To see if there was anything leaking, the outside traps were working; a trap again is nothing more than condensation getting down into the line.

06:04:10
A:
Make sure that boiler got out of the line. Uh, we had, uh, uh, various uh, manholes, pump houses that they would check, but they uh, these utility engineers were uh, well any problem that developed in the plant with a utility, they would call a utility engineer in there. We can't get gas, we can't get steam, the hot water's not going, or something of that effect, why they would call our group and the utility engineer would get in there to see what the problem was.

06:04:45
A:
So, we worked fairly closely with production and all the plants, and I think uh, we all cooperated real well with us, we got along very well with them. That makes for a good operation. We'd go the other way too, we'd catch 'em sometimes and you're putting this in the storm sewer, we are not. So they'd go back with a sample and come back and say here's what you put in the sewer, oh we didn't know that.

06:05:16
A:
Well, you'd better stop it – so, we were kind of what'd they call us, the snitches on it. But uh, most of the time that would work out real well. But they were capable men that uh, mean they went back with one idea in mind and that was to help operations. You're helping operations by not discharging this into the sewer.

06:05:44
A:
So, we worked real close with the production operation and the plant superintendents. If they had a problem, why they'd call us right away too.

06:05:56
Q:
Now you worked there pretty much during the height of the Cold War – can you tell us a little bit about the typical American, what were you thinking about as far as the Cold War went? Were you worried about Russia? I mean, because the whole reason that the plant was there, you know, was to make uranium for that whole process.

06:06:19
A:
Well, I was uh, at a good age to be drafted, and uh, the possibility of being drafted at my age was, I guess, quite high. But fortunately, my uh, I guess National Lead decided well maybe I would be better at the plant down there and producing whatever we're going to be produce at the time, than I would be in the service.

06:06:56
A:
So that's the reason, I think, I got all the deferments. And every time mine would come up, I think it was every six months, I would get another deferment for six months. But I think I had to go down there once for an examination, they accepted me but it was canceled. So, I wasn't in the service.

06:07:19
Q:
Not in the military at least.

A:
Uh?

Q:
Not in the military at least.

06:07:27
A:
Well, that's right. No, I enjoyed my stay down there. We had very, very cooperative operation understanding, I think the supervisors and plant superintendents really worked well, in a unit, rather

than, you know a lot of times there's petty jealousy and things like that, but I don't think that was at Fernald. I think it was a very cooperative group.

06:07:58
Q:
Something they've been sort of talking about a lot in the last couple of years, since we're getting to the 50-year mark, the site will soon be 50 years old. There's a lot of people that worked there during the Cold year, the Cold War, they're sort of referring to them as Cold War Warriors. How do you like being called a Cold War Warrior?

06:08:22
A:
Never heard of it. Never heard of that.

Q:
Do you feel like you were serving your country while working at Fernald?

06:08:34
A:
Well, I think uh, Shirley and I talked about that any number of times, and she was always worried. I just felt that with this operation they would never take me. Because I felt like I was on the bottom floor of it. And uh, to bring somebody else in there it would uh, well with the understanding that I had of the original construction, the original outlay of the plant, and things like that it would have been hard to replace me.

06:09:12
A:
Not to say that I couldn't be replaced, I know I could have. But, I mean with the uh, I was extremely fortunate in being in there at the beginning of it to see really what took place, what went on. So, I really didn't think that entered my mind too much.

Q:
And, of course, what they were making at Fernald was for national defense.

06:09:38
A:
Oh yes, oh yes.

Q:
So how do you think that Fernald kind of furthered America's goals at that period of time?

06:09:45
A:
Well, I think it's uh, as far as the end product, and I guess went out to whatever, shipped out to reactors and things like that was very essential as far as the overall operation and the protection of the country; primary plant as far as defense was concerned.

Q:
Have you ever heard that Fernald may have been a target for the Russians?

06:10:22
A:
Oh yea, that was mentioned as a possibility, but I don't think it was one that preyed on my mind at all. Too interested in keeping the plant in operation rather than to think about something like that.

06:10:45
A:
But I never thought too much about that. But I know it was discussed a couple of times, but I never paid too much attention to that.

Q:
Now they're taking some buildings down pretty quickly. Plant 7 is gone, Plant 1, Plant 4, Plant 9, the Boiler Plant, what would you like to see done with that land once the plant is gone?

06:11:10
A:
Well if we can't get a good manufacturing plant, if the county or the state or the area needs one, why uh, I just think uh, that's good soil there. Because I don't believe that ground is contaminated like a like of people believe. I don't believe it is.

06:11:45
A:
I don't think there's that much contamination down there. Somebody else that's maybe more familiar with the situation would say there is. But from my experience, and from what I've seen take place there, I just don't believe that.

Q:
Were you aware of any of the various lawsuits going on in the late 80's? There was a lawsuit where the surrounding community members sued the Federal government.

06:12:19
A:
Oh yes, I mean, I saw it in the papers.

Q:
Yea, and then also the same happened with workers, a lot of the workers sued (Comment: Oh, sure). How did you feel about that?

06:12:30
A:
Well, I would say the majority of times, majority now I don't say all the time. Most of the people sue because they can get something for nothing, my opinion. Maybe I'm wrong on that, but I don't know what the circumstances were with each individual. But, uh, I don't know of any, I know so many people that worked there for years and experienced absolutely nothing.

06:12:58
A:
Why would an individual experience something that contaminated them and nobody else did? Why is that or is that possible? I don't know.

06:13:10
Q:
Did you ever feel like you were in any danger while you worked there?

06:13:16
A:
No. No, I felt we were protected real well, very well. I think we had a good medical staff there and, uh, I think we had good personnel that, uh, and I think for the amount of product that was handled there and the way it was handled, they did a tremendous job. I may be wrong, but that's my opinion.

06:13:50
Q:
Are you in the medical monitoring program at all?

06:13:52
A:
I'll have to ask my wife, I don't know.

06:14:01
Q:
They had some kind of thing where the workers, but it may have been since you had been retired for about 20 years, that may not have a part of the paperwork that happened. Where a lot of the workers go to Drake Hospital and get checkups.

06:14:18
A:
Oh yeah. I still go get a checkup. I just got one in July.

06:14:21
Q:
Okay, what do you think about the medical monitoring program, what do you think about the checkups you get once a year?

06:14:26
A:
Wonderful, in fact, I'm going to a doctor now, what have I got now? I'll have to ask Shirley. But they found something and they recommended that I see the doctor and she didn't know what kind of doctor we went to, Dr. Mangoles the doctor. But anyway, went up to him and I have to go back in about a week, I guess, but it was through this, uh, one of the monitoring programs down here that found that.

06:15:09
A:
I didn't know I had a problem, I don't feel I've got a problem, but they found something. Let's say there's a possibility of something. So, I went to the doctor to find out if there're indications of something. Let's hope there is isn't.

06:15:28
Q:
So that was through the Fernald Medical Monitoring and then they sent you to somebody else (Comment - Right, right). I've heard that from somebody else, a couple of people have told me that and that's happened for them and its been very helpful. Well is there anything you'd like to add anything we didn't cover anything you didn't get to say.

06:15:45
A:
You got questions; I'll try to answer them (laughing). No, I think the group as a whole was, they, I think was totally interested in what we could do to help the American people. In other words, let's get this war over with. What we going to do after the war? Don't worry about that let's get this one over with. And if we made a project that helped end that war, that's what we wanted to do; my opinion.

06:16:20
A:
I think the people cause as a group I think so many times in a small group, not a small group, a large group there's a lot of petty jealousy. I don't think they had that at Fernald, I may be wrong. But, I didn't experience any, let's put it that way. But I think the group as a whole were very cooperative. Initially no, because it was things that a lot of people had to change, like so many times you know something's done through it out the door.

06:16:55
A:
No, uh, uh, you don't do that down there. What do you mean? And then start an argument. But, down there, I think you go in there and tell somebody, they may not like it, but they'll take care of it. And they did. I guess, maybe, you call our group a monitoring group as far as trying to find some of this stuff. But I think the cooperation was very, very good.

06:17:28
Q:
Well thanks so much for doing any interview with us. I appreciate your taking your time to do it with that

A:
I enjoyed it; it makes one think about what we did down there.

Q:
That's right makes you remember things. Right now we're going to do something called nat sound, we just need quiet on the set for about 15, 20 seconds. This is nat sound.