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**FERNALD LIVING HISTORY PROJECT**
**Transcript**

Name: Charles Porter
Date Interviewed: 6/22/99 Date Transcribed: 9/07/99 Tape: 40 Project Number 20012

**Tape FLHP0084**

14:01:00
Q:
Great. First of all, could you give us your name and spell it, just so we know we have it right.

A:
(Pause) now?

Q:
Um-hmm (giggles).

A:
(Laughs) Charles R. Porter. Now, I've always gone by "Dick". My middle name is Richard. Dad's name, first name was Charles also. He went by his middle name, so I've always gone by Dick Porter. That's what all the fellows at Fernald knew me as.

14:01:28
Q:
I thought you were someone else. Now I know who you are! (Both laugh) I didn't realize that. (Still laughing) 'cause I was thinking Charles, uh-huh, okay. Sure, that's good. Well, if you could give us a little bit of background, where were you born, tell us a little bit about your family.

A:
I was born in Springfield, Ohio, March 24, 1915. And uh, we lived in the city of Springfield. In June of 1924, we moved out to the edge of town, and we lived there until uh, I was married in uh, January 7th of 1940. So we'll celebrate 64 years this January.

14:02:19
Q:
That's great. And you spent some time in the Merchant Marines?

A:
Yes. I was in the Merchant Marine from early '43 through, May of 1948. And that's when I left, and I got an ultimatum; either her or the ship, and you see who won. (Laughs) She couldn't take the loneliness any more, and our daughter was ready to enter school, so I separated and here we are (laughs).

14:03:01
Q:
Tell us about some of your various travels while you were in the Merchant Marines.

A:
Well, I got around the world. I made I think 14 trips across the Atlantic Ocean, North Africa, England, Spain, Scotland, Ireland. And then in April of '45, we left for the Pacific. We quit carrying

aviation gas and carried Bunker C, which is the fuel that is burned on destroyers and so on like that; it's burned in their boilers. And we went through the Panama Canal and out to, our first stop was either Eulithy (?) or Eniwetok, I forget which.

14:03:58
A:
And then from there, we went down by Guadal Canal into Tory Straits into uh, not Durbin Australia, that northern port down inside o' of the loop of Australia. And then uh, (ha) we left there at, at 5 o'clock, no, 2 o'clock in the afternoon, headed for the Persian Gulf.

A:
And uh, all of a sudden, the ship just smoothed out, and I run to the lower engine room and uh, two coils of the main motor, a big 30-foot diameter motor, 8000 horse power, two coils had burned out on it. And uh, we got all the crew together to go to work on it.

14:05:02
A:
It's the only time I ever saw in five years that I saw the skipper down in the Engine Room. He called for the chief, the chief said, To hell with him. I'm busy. (Laughs) So the skipper came to see the chief. We got moving at 2 o'clock the next morning (laughs).

A:
Even had the Navy lieutenant down there working. But then we went on to the Persian Gulf up to Abadan, up in Iran, and we got in there I know, it was the 4th of July. And uh, that's when the mail came aboard. And it just reminded me it's the land of Ur, where Abraham came from, and they lived exactly the same way.

14:05:50
A:
Dugout boats, crude, primitive, and that Tigris Euphrates River stunk like a sewer. Damascus up above, I don't think they even had a sanitation plant. Everything was dumped into that river. And that river is almost as big as the Mississippi, and oh, it stunk.

A:
So we were there for 4 or 5 days, and left and came back through. Retraced our, our trip through uh, passed Australia, and up through the islands, and into the Philippines, we'd been gone so long, we run out of food, and for 3 weeks, we lived on Spam, dried potatoes and Jell-O, three times a day.

14:06:49
A:
For 25 years, I couldn't taste Jell-O again after that; made me sick. But I can eat it now (laughing).

Q:
Understandable (laughing).

A:
We got into Subik Bay where the Butan death march ended, in '42, and a bit refer, refrigeration ship came in, and um, we had permission to get a load of food off, and um, the skipper and the chief

engineer, a couple of other the deck apes went over.
14:07:29
A:
The Navy furnished an LCI, that's Landing Craft Infantry, to haul the food back. They hadn't checked the bottom, and they had a hole in it. Halfway back, the ship sunk, (Laughing) and had to get another, get another LCI, and go back and get another load. But then we only got about three fourths as much as we did. But we had enough to get home on.

Q:
And it wasn't Jell-O (laughing).

A:
Hmm?

Q:
And it wasn't Jell-O (laughing).

A:
No. We even had fruit cocktail; it was very good.

14:08:08
Q:
So when you got back to the States, and you chose your wife over the ship, (laughs) what did you do then? Did you go straight to work to, for, at Fernald right after the Marines, or what?

A:
Oh, no. I came back, the first job I found was engineer at the old Freckling Dairy down there on Front Street. Ancient old place. And I was there for, oh, a little over a year. And then I went, I was called and went to the city power plant, and I was engineer there for a while, and um, I had read about Fernald being developed, so I thought that would be a nice place to work.

14:08:47
A:
It'd be diversified. Power plants can become monotonous almost, and uh, you don't actually see anything, you hear it. And everything is running under cover. And so I went to Fernald, and after an FBI investigation and so on like that, they called me and I went there and, they, in 19, what, 1952, I'll get it in a minute, (laughing) and then I retired from there in March, of uh, '80, 28 years later.

14:09:31
Q:
Now you mentioned having to get an FBI, actually, it was a Q clearance, right?

A:
Yeah. That was a Q clearance.

Q:
Could you tell us a little bit about the Q Clearance? What was it like to get a Q Clearance?

14:09:39
A:
Well, I can't tell you a whole lot about it, uh, that was pretty much on the quietus as I said. Uh, it was a thorough investigation. And I talked to uh, a couple of friends, well, the superintendent of the city power plant told me later that the FBI had come to him, in regards to me, and uh,

A:
Cliff um, what was his name, was one of the engineers at the city water plant, that the FBI came to him checking my background. And fortunately, (laughing) I musta had a good one, so I stayed.

14:10:30
Q:
So, while you were at Fernald and you had a Q clearance, how did you explain your job to your friends and family?

A:
I didn't. Uh, we were told to clam up, and what we did was nobody's business but Fernald. Though I explained a number of things to my wife that I considered were not super secret. Uh, such as production records, that was the big thing. And uh, the, the power plant had nothing to do with uh, national security.

14:11:11
A:
We furnished all the steam for it, but it was things like that I would explain what it was like and the fellows I worked with. Worked with an awfully nice bunch of men.

Q:
Who were some of your favorite people on site?

A:
Favorite people onsite?

Q:
Just folks you worked with, if you can remember.

A:
Oh, well as I mentioned, Jim Duche was a good friend of mine, Bill Mack who ran the water plant, Howard Kramer who was the first engineer hired. He was hired in January, and he also had been in the Merchant Marine, but he was a diesel man but he switched over to steam.

(Pauses)

A:
Uh, Paul Buckles, mmm, Burt Ledford, Tommy Harold, (pauses) that's about enough, isn't it?

14:12:17
Q:
(Both laugh) that's great, though. And uh, you worked mainly when you first got there in the Boiler

Plant?
A:
Yes, um.

Q:
Tell us a little bit about that, especially, um, actually like the early years. What was happening in 1952 when you started your job?

14:12:33
A:
When I started, they were just erecting, the building was there, was finished and they were erecting the boilers. And uh, it was uh, I went there, I don't remember the date, it was the first part of May I believe, and uh, I know we lit off number 2 boiler the 10th of July. That was when we first put a fire in the boiler to dry 'em out.

14:13:06
A:
You have to dry 'em out slow because that is a heavy mastic that's used for insulation like, like brick. And you can't dry it out too fast or it'll crumble. So we were, oh a week drilling it out burning just trash lumber in it. And then we started to build up steam. And we carried just 10 pounds of steam for a couple o' weeks to heat up all the lines, several miles of steam lines.

14:13:38
A:
Then we slowly brought the pressure up, we operated it at 50 pounds for, I don't know a week or more something like that, and then we finally brought it on up to 100.

Q:
So before the Boiler Plant was up and running, 'cause of course, they built the plant really, the built the plant in 1951, where did they get their heat for that winter?

14:14:02
A:
(Laughing) oh, when I went there, there was a huge, I don't know how locomotives were classed, they've always fascinated me. But this was a huge big locomotive, that was pulled in, they built rails, and pulled it in right next to the Service Building, and uh, the railroad said that railroad employees had to fire the boiler because it was part of the railroad.

14:14:32
A:
So Construction took the drivers off of the locomotive and that made it stationary. It could no longer be used. So then Construction could fire the boiler. And they, oh, they must have fired that for, mmm, 6 or 9 months at least after I was there.

A:
Now it was being fired uh, when I went there, so that when, I don't remember when they started it, but then when they decided to take it out, another big locomotive came in and hooked on to it, and took it out. And um, they took the rails and everything else out with it (laughing).

14:15:16
A:
So those tracks, the originally came down along side of Plant 5. And (pauses) Uh, yeah, all of those tracks to my knowledge are gone, or were when I left. There was one track came to Plant 5 another one came to Plant 6, and they had converted over to trucks, except for heavy ingredients in the work and so on like that. A lot of the ore came in that.

14:15:49
A:
Most of the ore continued to come in, in barrels, as sort of a grayish yellow odor, or (laughs) ore. We originally got our ore, which was the richest of all, from the Belgian Congo. Now it was almost black, and the percent of uranium was the highest in that, and the Belgian Congo owned it.

A:
And uh, those poor blacks that worked in there, most of 'em died of cancer in a short order. They down, those mines down in there, and appar-, the Belgians didn't care, and uh, they were to get, the Belgians wanted the radium, which is a step lower in the, uh, in the scale. They wanted the radium back, so the silos were built. Those huge big silos, I can't give you the dimensions on 'em now.

14:16:51
A:
Uh, were built to contain that ore until the Belgians could take it back. In the meantime, Belgium lost the Congo, and the blacks that were left running uh, the mines, they had never been trained on anything like that, they didn't want it, they didn't know what to do with it, and so we were stuck with it. And um, there it stayed until very recently.

14:17:22
A:
And uh, one of the things that uranium breaks down to is radon. Well, the last couple of years that I worked, they started a rather extensive program to find out about radon, and it mostly is a gas. The fact is, there's a big scare in this whole area about radon coming up outta the ground; a sewer drain or something like that. But it was mostly a scare, nothing really materialized of it.

A:
And uh, I don't think anybody is even working on it, to my knowledge.

Q:
How much did you know about the process when you started there?

14:18:04
A:
Oh, nothing. All I knew was Boiler Plant. I knew boilers and plants inside out. And all of my working years had been around the Boiler Plant, power plants. So I started uh, shoveling coal and ashes in 1935 and ended up at Fernald (laughing).
14:18:29
Q:
And by the time you left, how much did you know about the process?

A:
Considerable. Um, in our position, we were into everything. We were, I guess you would say, troubleshooters for the entire plant. Anytime something was wrong, call the utilities engineers. It was up to us mainly to take care of it, or see that it was taken care of.

14:18:57
A:
And uh, of course, until the last few years, there was hardly ever a dull moment; always something going on.

Q:
Tell us about the production year a little bit, um, how pure was the uranium, and

A:
How what?

Q:
How pure was the uranium?

14:19:18
A:
Uh, the finished product was of extreme high purity. Um, I think it surprised the way that Fernald produced. I think um, many high officials were surprised at the purity that resulted. Fact is, there were two, maybe three other plants built to increase our purity. And they couldn't, they couldn't match it.

14:19:49
A:
One was in St. Louis, one was out around Denver somewhere, and one was at Savannah River in Carolina, and they were all shut down because they couldn't match our purity. And it was the number 1 plant in the United States, as far as purity and the amount of production. We contaminated a lot, but we sure produced (chuckles).

Q:
At the heighth of the production years, how much uranium was coming out of Fernald?

14:20:29
A:
Uh, I could not quote you; I didn't know. I didn't pay any attention to production quotas. You'd have to talk to one of the ex-production foremen. I know it was considerable. Uh, they used to store those heavy boxes, they were made out of one inch planks, on Plant 6 dock. And I forget what a box weighed, but there was hundreds of boxes stacked up for shipment.

14:21:04
A:
Now, some of 'em went to Oak Ridge, some went to Savannah River, I don't know where they all did go. But then the, metal uranium was, was broken down into, the process go to form the bomb.

14:21:21
Q:
And how much did you know about the other Department of Energy sites that also contributed to the making of the bomb?

A:
Well, there was the Portsmouth Project, which was built up to uh, improve our purity, and I don't know how many years it lasted. We used to send uranium up there to be processed, and um, I don't believe it lasted more than, 15 or 20 years, in my memory, I don't recall that. It, it just couldn't match us. But they were a specialized outfit up there that did that.

14:22:09
Q:
And what kind of machines were powered by the steam that you guys produced at the Boiler Plant?

A:
What kind of machines?

Q:
Were they, was that what the steam was for, or was it for other things?

14:22:21
A:
Well, it was, mainly for process heating, and steam was used to uh, heat many of the solutions and, and so on like that. Steam was used through all the buildings for physical heat, especially in the Refinery, Plants 2 and 3, uh, steam was used in uh, when acids are hot, they work much faster, and it was used in those processes.

14:23:01
A:
Uh, a few places there were some uh, steam pistons and cylinders that were used for push rods, but uh, it was only a few places. Most of the steam was simply used for process steam.

Q:
So tell us a little bit about the Boiler Plant. What did it look like inside? I've been in it, so (laughs).

14:23:27
A:
Well, a big empty room, it was five stories high, and there was the 4 boilers, oh, Lord, I don't even remember the power, I used to be able to quote those figures. (Shakes his head) four boilers, they were uh, lord, I can't even remember the name of the boilers. All I can think of is B&W. That's, that's not it though. Huh!

14:24:03
A:
Makes me realize I, But there was four boilers there produced steam of 100 pounds, had all the blowers and so on like that to go with 'em. A very large control panel, and then it was also, produced the compressed air, and there were two, three, very large, 150 horsepower compressors. No, they were

more than 150 horsepower compressors.
A:
And there was a instrument air compressor, which compressed. It used, it used carbon cylinders so there was no oil lubrication could get into the air, where extreme pure air was needed for some instrumentation and so on like that, and oil would ruin it, and there was just one of those.

14:25:08
A:
Uh, well then right akin to the Boiler Plant was the Water Plant. There were three 160-foot wells drilled, that supplied all the water for Fernald, and the Water Plant took that water, at uh, over 100 pounds pressure, and processed it through a clarifier, and it reduced the carbonate content of it, softened it. And split it up into the different types of waters that were needed, and then it was pumped out into the entire project.

Q:
And those were those three big tanks right next to the Boiler Plant?

A:
That's right. Yep. They were clarifiers. Um-hmm.

14:26:02
Q:
I never knew what those were (laughs).

A:
Um-hmm. Yeah.

Q:
Did you ever climb up to the top of the Boiler Plant, up to the crow's nest?

14:26:08
A:
Oh, many times (chuckles).

Q:
What was the view like from up there?

A:
Quite nice. Quite nice (laughs).

Q:
You could see the whole plant from up there (laughs).

14:26:19
A:
Yeah, one time, I won't mention his name, but I was just driving. I had my pickup and I was driving up and I heard, "Help! Help!" and about that time, uh, this other fellow called, and, we wore radios. He said, There's somebody hollerin' for help in the top of Boiler Plant. So up there I went, and that's

a lot o' flights going up there. And the fellow had went to step over the coal conveyer.

14:26:50
A:
It came up in a bucket elevator and was dumped into this bucket or this conveyor and then it was taken out and dropped in to the various parts of the bunker where it was needed. And he had went to step over it and tripped and fell. And uh, well, his glasses were smashed, and he was pretty bruised up, but no broken bones, but he was half scared to death.

A:
And uh, to carry him down, get enough help up there, and he was uh, oh I imagine he weigh better 'n 200, and to carry him down those little flights, I mean that was a job. (Laughs) but that was just one of the things. That was the only real accident that I can recall right off that happened in the Boiler Plant.

14:27:48
Q:
Those ladders are straight up. (Laughs) that would be hard to get somebody down.

A:
Um-hmm. That's right.

Q:
Man. So really your responsibilities grew as the site grew.

A:
The what?

14:28:01
Q:
Your responsibilities grew as the site grew.

A:
Yes.

Q:
And uh, you became a Fernald troubleshooter.

A:
Um-hmm.

Q:
Can you tell us then a little bit about that?

14:28:12
A:
Well, any place there was a leak in the overhead lines, regardless of what they were, acids, gasses, waters, airs, whatever there might be, we were called in on it. Uh, if it was under ground and some of those pipelines underground were 24 inches in diameter. I couldn't tell you just the number of pipelines

underground, but it was an awful lot of ‘em.

14:28:42
A:
They would dig a ditch 8 or 10 feet wide and just fill it full of just various pipelines, and then, when they filled 'em in as construction will do, they didn't fill a little bit and back-pack, a little bit more and back-pack. They just pushed all the dirt in and then ran bulldozers over it. Which left big voids down in between the pipes. Eventually, that weight pushed the pipes down and broke 'em.

14:29:09
A:
There was hardly a, couple of weeks go by that we didn't have a broken water main of some sort, whether it was sanitary water or process water, or whatever it might be. We were always calling out the crew with the uh, backhoe and so on like that, and some of those were 8 feet deep. And uh, it kept ya busy (laughing).

Q:
It would be quite a job. We're gonna pause here for a second, 'cause we need to switch tapes.

A:
Okay.

Q:
Can you believe we been talkin' 30 minutes already?

**Tape FLHP0085**

15:01:00
Q:
Again, and I'm gonna ask you to tell that story again about the man who climbed the east water tower.

A:
Oh (laughs) it was the summer of '52, when a construction man wanted to see what Fernald looked like from up on the elevated water tank. So he climbed up it. And uh, when you get up there to the top, the ladder instead of going on a diagonal, goes vertical, and you have the feeling you're going somewhat backwards.

15:01:34
A:
Well, once he got up there, he was afraid to come back down. And he started screaming and yelling. And it took, I don't remember now how many it was, but it was 3 or 4 men who finally bullied and got him down. (Laughs) but he was scared to death, and it was mainly that section of the ladder that is vertical instead of on a diagonal.
Q:
That's great. Now after you were the Fernald troubleshooter, and later on, you worked on the Fire Department. Can you tell us a little bit about working with the Fire Department?

15:02:13
A:
Well, we were put on the Fire Department very shortly after this job was created. And um, we attended uh all of the classes the Fire Department held, and we learned their ways of fighting fire, what to do and what not to do. And any fire of any kind, we immediately responded to it, regardless of where it was or when it was. And we got into some pretty nasty fires at various times.

Q:
Now why were the utilities engineers asked to be fire fighters?

15:02:58
A:
Mainly because of our knowledge of the overhead and the underground, and how it affected the various buildings. And uh, there could be a fire out some place, or a broken water line, and um, apparently you shut it off and that's all there is to it, but when you shut it off, you kill that plant, so uh, that had to be under serious consideration.

Q:
Tell us about some of the uranium fires that you fought.

15:03:31
A:
I believe the worst fire that I ever fought, and I believe it was probably one of the worst fires that we ever had, was in, and I believe it was August or September of '53. Um, that, machining chips from Plant 6 from the machining area, where the ingots were machined down and cut into bars to go into the reactors.

A:
Uh, they simply machined those chips, put 'em in drums, 55-gallon drums, and they had the machining oil on 'em and set 'em aside. And this big dock on the eastside of Plant 6 was covered with drums as well as along side the railroad tracks. There must have been well over 100 55-gallon drums there. And uh, once it started, all it took was one drum, and raised the temperature just a small amount and the rest of 'em go.

15:04:46
A:
And it was like a wildfire. And it ended up with, I don't know, Jim Duche could tell ya. He was in on it. Uh, we poured thousands o' gallons o' water on that, and it eventually ended up in the Miami River. Direct, right into the Miami River. And that brought about, it was on a Sunday afternoon, and that brought about a lot of changes.

15:05:21
A:
There was a lot of higher officials got in on it along with the Commission as they were called, the Atomic Energy Commission, for pollution. They didn't really know that much about it. Because almost every day, the first several years down there, they were learning. And we had a number of vicious fires out there.

15:05:48
A:
We had some on Plant 1 Pad, which is a concrete pad, of about, it must be 2 or 3 acres there and it was for nothing but storage. And that was where we developed the process of having machining dump their chips into 30-gallon cans. And then they were stored over on the Pad, and if there was a fire, you had plenty of 55-gallon cans, you take a forklift and pick 'em up and drop 'em in the 55 and flood that 55 and you had your fire.

15:06:28
A:
But before that, you could look at a 55-gallon drum, and see it start to glow, a red spot on it, and in 10 seconds, the liquid metal it was pouring out. And if you were on a skid, that set the skid on fire, and the skid would set another can on fire, and it just blossomed from there, until they learned effectively how to do it.

15:06:55
A:
But those things apparently had never been fought before, and we had to learn.

Q:
How much training did you have to fight those uranium fires?

A:
(Sighs)

Q:
I mean, did you have any training about the metal itself?

A:
The tra-, the training of actual practice. We didn't go through uh, maneuvers on it. What would you do if this and that? Uh, our training was actual fires, and the way we fought 'em, and then you learned from that. There was uh, another one Sunday, Russ Gentry, who was one of the Fire and Safety men, heck of a fine fellow,

15:07:36
A:
And we were called on a fire on Plant 1, and there was a new fork lift operator, and he uh, was very uh, timid towards fighting a fire, though he had a big Plexiglas shield in front of him, and this drum went off right in front of him. And he immediately put his forklift in reverse, and run over, backed up and right over Russ's foot.

A:
And I thought now, a forklift is heavy, fact is around the radiator, they got cast iron that thick (shows about 3 inches with his hands) to hold 'em down. I thought, uh-oh, Russ is gonna lose his foot; this is a lost-timer.

15:08:20
A:
He uh, his shoe was a little fattened, or flattened, he took off his shoe, and the blood was seeping out around his big toenail, and he had a badly bruised foot, but it wasn't a lost-timer. It shows the strength of those steel-capped shoes.

A:
They were good. (Laughs) but the, the fellow, 'course he was all apologizing, remember, he was terribly sorry that he had done it, but it was just a reverse action, and it's something you do. Somebody swings at ya, you put up without thinking (raising his left arm defensively). (Laughing) that's the way he did, see.

15:09:00
Q:
That would hurt (laughing). Oh, man. You know so much about the site, um, can you tell us about the secret room under the Lab Building?

A:
(Laughs) yeah. That, not a lot of people knew about that. Some of the instrument mechanics, security, uh, lot of the people that worked in the lab never knew it. You had this, tunnel that went around with all the pipelines in it. Whole rafts of pipelines. And the lab has so many different pipelines feeding it.

15:09:43
A:
Uh, And it made a great big "U" uh, going around uh, the inside basement of the lab. And it must have been, oh, I would say, 150 feet by 50 by another 150, and in the very back was this heavily reinforced room. And uh, they had buckets of water, and some processed food, and security used to come over and check it once in a while.

15:10:28
A:
Uh, I was only in on one or two times that they checked it. But it was supposed to have been bombproof. Now I didn't see them pouring the foundation for the lab; that was done before I got there. But it was supposed to been pretty much bombproof. And then along in the um, middle '70s, I think, they did away with it.

15:10:52
A:
They said the water and the food had been in there so long, that it wasn't safe to leave it in there any more, so they just closed it out.

Q:
So it's sealed off now?

15:11:04
A:
I have no idea. It was just empty the last that I worked there. Just an empty room back in there.

15:11:14
Q:
Did you ever hear about the same type of room under the rolling mill?

A:
I was all alone under the rolling mill. There were two tunnels, separated by a wall. One side was all of the electric, electric side, the transformers, the step-down transformers. The incoming voltage coming into Fernald was 132,000 volts, and then we stepped it down 10 to 1 to 13,200, and then that was sent out through big cables, to the transformers at each building where it was stepped down to 440.

15:11:58
A:
But there was one big motor, a big, the motor that run the big rolling mill itself, uh, operated on 13,200 straight. It had to have that power to take those big i-, ingots which were, oh, some were a foot in diameter, and some were 2 feet in diameter. And I can't tell ya now what they weighed, but they were uh, in a uh, what was called the oven, and they were bright red.

A:
And they were picked out by a crane and set over on the rolling mill, and they started to, the operator started to feed those ingots through the rolls. Now those rolls were solid steel; they were that big around (lifts arms out off camera to show size of approximately 4 to 5 feet). And uh, they kept rolling until they pretty much flattened 'em out.

15:12:59
A:
And then they'd turn 'em the other way and roll 'em the other way until they worked, an ingot which was, we'll say 18 inches in diameter and 3 feet tall; they worked it out into a bar of about 4 inches in diameter and 20 feet long. So uh, that had to be done while it was red hot.

A:
Then from there, it went on to the other mills and was rolled out further, and was re-heated and rolled out again, and it finally ended as bars about a inch and three quarters and some fifty feet long. And then, I remember the fellow that got caught in the bar-straightener.

15:13:54
A:
Now the bars 'd be a little bit out of line, and this bar-straightener was a tremendous number of rollers, and when the bar came out of there was as straight as a rifle barrel. And he got caught in there. And I believe it tore his leg clean off. If I remember, he died from it. It simply tore the leg right off his body.

15:14:28
Q:
What other kind of accidents did you see on site?

A:
The messiest of all, was they were building the uh, Scrap Plant, or they uh, oh, shoot. What was that plant called? Up north of Plant 6, north of Plant 9. Uh, they were under, it was under construction

and this huge big backhoe was digging the foundation. The operator told the, his oiler, do not crawl underneath here, but he wanted to oil the big bull gear on which the whole apparatus turned.

15:15:21
A:
And uh, the uh, he was a young fella, he was married. He was, I'd say less than 25, and he decided to crawl under because he thought the operator was gonna go forward, and instead, the operator backed up. The operator did not know it, until he backed up, and saw the guy's leg. Just his left leg from the knee down, was the only thing that was whole. The rest of him was about one inch thick.

15:16:00
A:
And he jumped off o' that backhoe, and, and they caught him a ways from there, he just panicked. Well then Construction always shuts down for the rest of the day, in case uh, somebody got shook up. And I remember watching uh, Cincinnati, coroner coming in with rubber bags and scoop shovels.

A:
I remember him shoveling what was left of him into those rubber bags. That was the most horrible thing I ever saw. Ooh, what a mess. And (laughing) my good luck, I just happened to be close by to there.

15:16:43
Q:
Always see whatcha don't wanna see. Oh, gosh. (Pause while flipping papers) Can you tell us the story about the plane that landed by the West gate?

A:
Ooh. (Pauses) That was probably in the late '50s. I forget the name o' the guard, it was a little short guy, was in the uh, in the tower. And this plane, we had a thunderstorm that came up. A lot o' thunder and lightening. And I was out in the pickup and I heard this plane that was going around. And then uh, the guards called me and asked me if I heard it.

15:17:32
A:
And, yes, I said, it sounds like it was somebody lost. I used to fly years ago. And they turned on the lights of, the fence lights were sectionally controlled, and they turned on that east section of lights, and here come the guy. Made a perfect landing. One wing tip just touched the fence and just tore it a little bit. And the pilot and his passenger got out and collapsed right there on the ground in that storm.

15:18:12
A:
And, what has happened, he had been a former fighter pilot, and he and this friend decided to take the plane, I don't remember whether it was his or not, and fly down the river because it was such a pretty night. And in the meantime, this storm came up, and he was blinded, he couldn't see. No lights anywhere. Then he saw the inner lights of Fernald and knew there was communication of some sort there.

15:18:45
A:
So he flew around it. And we happened to have a sergeant on, of security that used his head. And uh, knew that there was something wrong and turned the lights on and the guy made a perfect landing. He missed a tree that had a trunk, I don't know, 12 or 13 inches, missed it by about 2 feet. Otherwise, he'd a torn the wing clear off.

15:19:13
A:
But he landed. The FBI was in on it, the local sheriff was in on it. I don't know who else was on it. He had to take the plane apart, rent a big lowboy from a trucking outfit, and haul the plane out. He said if they would give him a chance, he would fly it out. But, no, no, huh-uh. But he was under interrogation for, oh, I don't know, for days.

A:
They finally let him go, it was just purely an accident. He wasn't a spy trying to start something, he was just a scared pilot in a storm (laughing).

15:19:58
Q:
Now speaking of security, what was security like, and how did it change through the years, while you were there?

A:
Security?

Q:
Um-hmm.

A:
When we, when we first started, security imagined that there was a Russian behind every fence post. And we used to attend briefings every so often. I forget what his name was, he was an older man, a big man, and he had been in Army intelligence during the war, and he headed the secur-, the uh, intelligence down there.

15:20:38
A:
And he held these briefings, and uh, what they'd found to a limited access, and what to look for and so on like that. Uh, they really figured the plant could be invaded at any time, since it was so critical. Uh, there were uh, I believe it was seven, there could have been nine, but I believe there were seven guard towers around the various areas of uh, security, the production fence.

A:
The production fence, I think took in 40 some areas, 40 some acres. And uh, I believe, there was either seven or nine guard towers, and there was a machine gun in 'em. And oh, the guards used to hate that because it was quiet, 3 o'clock in the morning, it was hard to sit perfectly quiet, and uh, keep looking out into the dark, (laughing) oh, they hated their turn on that.

15:21:45
A:
But uh, eventually, they took 'em all down because they weren't successful. If anyone had wanted to do something, they realized that they could've done it. But uh, to my knowledge, ah if they ever caught anyone in the act of sabotage, I never knew it.

15:22:07
Q:
And how do you think Fernald's, well, before I get to that, let me ask you about one more, one more story. The substation flood.

A:
The what?

Q:
The substation flood. The main substation flooding.

A:
Oh!

15:22:25
Q:
Can you tell us about that?

A:
Yeah, it was the time we shut down Fernald. Austin Moore who was the electrical foreman. Ah, I forget what day it was, but it was rainy that day. And uh, then we got some regular downpours, I mean downpours. And they had been working, clearing, there was a ditch, run all around the, east side, and around the south side out to a big trench that had run that run down to Paddy's Run to drain storm water.

15:23:04
A:
And in um, rearranging that, they left a blockage in it, didn't think that this storm would come up. And it came up in a matter of minutes almost. And I mean it was a downpour. And I happened to be over around the sub and I saw the water level, it was all crushed stone inside there, and I happened to see the water level, so I got outta the truck.

15:23:35
A:
And I went up to the substation gates, I looked and I could see the water level coming up. And the controls, there were ah, three, big transformers as well as a lot of other electrical transmission abilities. And ah, by the time I got into the control panel, and looked, the water was almost up to, and I knew if it got up there where they controlled ah that high voltage, and it all being under water, I didn't know what would've happened.

15:24:10
A:
So I called Austin Moore, and he came right over, and in a matter of minutes our feet were wet. And ah, I, I said "What do you think Austin?" He said "Let's shut her down." So by golly he just, all he had to do was turn the knobs and they didn't even have time to call the guard house to tell them to send out three fours. Which was a signal for emergency. A top class emergency.

15:24:43
A:
And we just shut 'em down. By that time all of the parking lot was flooded, ah, all the women (laughs), every-, everybody was discharged from the Service Building, the Ad Building and so on like that. And ah they had to wade out to the parking lot. So all the women took off their shoes and (chuckles) waded out. And that was all for that day.

15:25:06
A:
There was a number of investigations, but I mean the next day ah, that drainage ditch was opened up. (Laughs) they never had another problem like that, they had some high water, but nothing where it got up into the substation. That was the only total shutdown that I knew Fernald had. I mean everything was dead (laughing).

Q:
And what year was that? Do you remember what year that was?

A:
That , that was probably around between '65 and '70. Somewhere in there. I don't recall just the date. But it was pretty close to the era 1970.

15:25:52
Q:
Wow. Now of course Fernald is known as a Cold War plant.

A:
That's right.

Q:
How do you think Fernald's work contributed to America's mission of the time

A:
Ah, run that by me again.

15:26:10
Q:
(Chuckles) how did Fernald's work, what happened at Fernald and what was made at Fernald, how did it contribute to America's overall mission at that time?

A:
I fully believe, and I believed at that time, (coughs) that it was critical. If the foreign powers that be, I

think they realized our potential, and you know, if you're gonna fight somebody, and you know you're gonna get worked over real good, you may win, but you, you won't hardly survive it. You're gonna think twice before you do it, and I think that's exactly the way Russia looked at it.

15:26:50
A:
They would've loved nothing better than to whip us, but they knew they couldn't do it. And I think Fernald was one of the big deterrents. That's the reason that we have over 2000 atomic bombs right now, see. Don't know what to do with 'em (chuckles). But I think Fernald was one of the big deterrents, in keeping the peace during those years. I always did think that.

Q:
And how do you feel having been a part of that?

A:
What?

Q:
How do you feel hav-, having been a part of that?

15:27:25
A:
(Pauses to contemplate the answer, looking at the floor) Mmm. (Chuckling) just like I sa-, same way uh, that I did in the Merchant Marine. It wasn't the service, but I did my part. I helped this country, and that's the big thing. To me, that was the most important of all. I'm no super patriot, but I love my country.

15:27:58
(Do you wanna cut - tape goes blank)

**Tape FLHP0086**

16:01:00
Q:
Great. Um, tell us a little bit about the switchover between, um, NLO, well actually, before we do that, tell me a little bit about working for National Lead. What was the company like?

A:
For National Lead? You really wanna know? They were a bunch-a tightwads. National Lead was never known as a uh, a liberal company as far as wages. I, I'd heard that, I don't have proof of it, except from what others have told me that after Westinghouse came in, uh, their pay scale jumped tremendously. And uh, that's the only thin-, well, we also heard that the raises were few and far apart.

16:01:56
A:
If you got a one or two percent raise, every other year, regardless of what was going on, you were fortunate. And uh, I had a minor discussion with uh, Pete Defazzio, who headed the engineering

department. And uh, we didn't look at it (shakes his head), he was of the parent company, and um, we didn't look at it exactly the same (laughing).
A:
Pete was uh, a comm-, a full commander in the Navy during the war and he was in charge of all the roads duri-, in the Panama Canal; that's where he spent his war. Panama Canal's a nice place to go through. Uh, I was gonna take the wife, she wanted to see it so bad; takes 8 hours. And uh, I was through it twice, and it is beautiful country, and to see what went into it.

16:03:03
Gatun, the first lift, is 83 feet, right straight up. Then you go through the big lake and then you got two more locks to go through into the Pacific. And uh, they we got the dog and we decided to "sit". (Smiles) the arthritis came in (laughing) Kind of slows one down a little bit, specially when it's in your hips. Just grin and bear it (still laughing).

Q:
So um, were you there then when Westinghouse took over?

16:03:38
A:
No. No, I left in '80 and they took over in '81. But I've talked to a number, there's a fellow who lives over here on Holiday, about three or four blocks up here. And uh, he comes by on his bicycle and we talk every once in a while. And he said, uh, he just retired two or three years ago, though he was always in the front office. Uh, he said uh, I wouldn't have near what I've got today if it hadn't been for Westinghouse.

16:04:15
A:
Uh, he said their pay scale, he said uh, where I worked with the Westinghouse man, uh, they brought me up to where their pay scale was, which was much better than National Lead. And uh, he said the, from '81 to uh, '95 or '96 he retired, he said I wouldn't have near what I've got. But he said they had one bad thing.

A:
He said they'd put you with a Westinghouse man, and after he learned your job, you were done. They said they just moved you out. And he told me the name, some, some kind of replacement. But that's the way they took over. And that's the reason he was out, see (laughs).

16:05:09
Q:
Oh, I see. Well. And um, in the mid-80s, there was quite a lot of talk about Fernald and when they shut the plant down. Tell me your impressions a little bit of hearing about when they shut the plant down.

A:
In what way?

16:05:26
Q:

Um, I guess mainly uh, I guess like in the mid-80s when there was a dust collector problem and those kinds of things, there was a lot of media attention on Fernald, what was your reaction to that?

A:
A lot of it, they were talking, to make conversation. Uh, it was sensational, so they made the most of it. That's the news media. I don't have much use for the news media. And uh, because they don't write the news, they make the news. But anyway, I saw a lot of the problems coming on. You take a leakage that had existed for a while, and uh, this oughta be taken care of.

16:06:12
A:
Oh, forget it for the time being. And a month later you bring it up again, oh, forget it. And uh, though I resented that, I sortta, I understood it, that everything couldn't be done right at once. And uh, it used to be in the Refinery, after the towers went bad, and they operated on just half capacity, uh, on a windy, usually in the evening or at night, the nitric acid fumes, oh, they'd choke ya,

16:06:57
A:
And they'd just let 'em blow. Instead o' going through those towers and being be condensed, and reclaimed. Uh, and until some o' the farmers around there called, what're you doing over there? Something is wrong. My face is stinging. Then they would cut down on the capacity, so that they wouldn't have all that overflow.

16:07:20
A:
Now I saw that for years. I would say the last 10 years at least that I worked there, that was a common thing.

Q:
Now you've probably seen how folks that go into those same plants where you worked are wearing full-faced respirators and gloves and all these anti-Cs and all that stuff all that stuff to do the cleanup.

16:07:43
A:
Well, everything that is there, is low level. Some of it is exceedingly low level. Uh, from my lack of knowledge, it seems to me that they may be overdoing it a little bit, but maybe it's better than, to do that than wear nothing at all. Which we did. And in very few cases did we wear uh, headgear or something like that.

16:08:13
A:
Uh, one of the worst releases we had, was at the Pilot Plant. Uh, Ed Ritzi, my, partner that I worked with, and I had just started, and Russ Gentry called us, and said, I think we got a problem at the Pilot Plant. Now this was before 8 o'clock. We always started an hour ahead of the regular work time, so we would have a jump on what was going on.

16:08:42
A:

And we went over at the Pilot Plant, and a valve on a tank had broken off, and nitric acid fumes were just flying everywhere. And uh, they ended up, well that was at a quarter of eight, I guess, and it was noon before we got it uh, taken care of. And one guy put on a safety acid suit, put it on backwards and almost suffocated before they got him out of it (chuckling).
16:09:16
A:
And uh, ended up taking the big fire tank truck out on the parking lot and washing all the cars off. Now how many trips they made emptied that 5000-gallon, 5000? Whatever it was. Uh, tank truck washing the cars off, 'cause they always, all had a little yellow film over 'em, and to get it before, it'd attack the paint.

16:09:45
A:
And if you did lose paint, the, Fernald replaced it. Well, there was hundreds of cars out in the parking lot. And they had to wash, wash down every one of 'em. (Laughing) that was a nasty one. That was one of the worst acid releases. We had uh, Plant 4, I was on the night run, and I was just going into the office in the Maintenance Building. Is the Maintenance Building still standing?

Q:
Um-hmm.

16:10:19
A:
Big long building, about two city blocks long?

Q:
Yeah, it's still there.

16:10:24
A:
And I was just going into one of our offices. One of our offices were in there, in the middle of it, and kaboom! Shook everything. At Plant 4, the uh, ammonia disassociators, ammonia is nitrogen and hydrogen together. And to get the nitrogen, which they needed in the reactors, you broke down the ammonia electrically, and uh, you burned off the hydrogen.

16:10:53
A:
Took the nitrogen and it was used in the reactors, and one of those had exploded. And oddly enough, after studying it for several days, they found out that it had been piped up backwards. And that uh, fortunately, that disassociator had been very little used. And it just simply burst apart, at tremendous, took the whole side and roof o' the building off.

A:
The disassociator room and, oh, what's his name, the foreman had just walked through there and closed the door, and uh, it let loose. Fortunately he wasn't hurt. But it was a room about, umm, I guess 15 or 20 feet wide and 30 feet long, and it had 6 or 7 disassociators in it, on each side and you walk through the middle of ' em. But it just disintegrated that building.

16:12:05
A:
If he'd a been in there, he'd a been, Russ, oh, I forget his name. But he was very fortunate.

Q:
My goodness, um, how do you feel about uh, the cleanup that's going on at Fernald right now?

16:12:22
A:
I wish I knew more about it. In some ways I think they're overzealous. Um, part of that pollution, will be there, for the next hundred, two hundred years; they won't be able to get it all. Uh, I saw one o' those pits that uh, they took empty metal drums, all sizes, and some skids that were polluted. That pit was rubber-lined, had a quarter inch rubber in it.

16:13:03
A:
And they dumped all o' that stuff in there and then run bulldozers over top of it, to mash it down. Now that pit, oh, was probably two hundred feet long by a hundred feet wide and 20 30 feet deep. Now eventually, uh, if it hasn't already done it, it has worked it, the product has worked its way through that rubber. And it's polluting, there's no doubt about it.

16:13:34
A:
You can't run um, 10 ton bulldozers over something with sharp edges and not punch through a rubber cover. So with all o' the water and the leakage, I know it's going on. But I don't know if they've ever dug it out or not, but I saw it happening (laughs).

Q:
What else did they put in the pits?

16:13:57
A:
Well, there was uranium sludge, from uh, from denitration, uh, there was uh, the sludge from the Water Plant, that was, the lime and uh, lime and soda, and uh, they used to filter the water, and to lower the pH of it. Uh, that all went in those pits, right along side o' the road. You went through the gate, and the first there was just the one on the left side as you went through the gate,

16:14:32
A:
And they put another one over in back of it. And uh, as far as I know, that second one was never totally filled. When I left, it was, had a ways to go yet. But the to, the first one, from the very beginning, it was totally filled, right up level with the ground. And I, I don't ever remember them ever putting a cover over it.

16:15:02
Q:
And uh, once Fernald, well, they're tryin' to clean it up anyway, once it's done as well as it can be,

um, what would you like seen, what would you like to see done with the land there?

A:
Well, I think it oughta be returned to whatever it was before. If uh, if they can decontaminate it enough, and clean it up enough, it oughta be returned to productive farmland, 'cause that was beautiful land through there.
16:15:35
Q:
And uh, give us your opinions about our project, the Fernald Living History Project.

A:
Oh, I think it's a good thing. At least it won't all be lost. So many other places, they terminate the pro-, productivity and the first thing you know, nobody knows who it was. And I think Fernald played a very important part in the uh, military history of this country.

Q:
Great, is there anything you'd like to add? Anything we didn't cover that you wanted to cover?

16:16:14
A:
Oh, one thing brings on another. My wife said, You oughta have a list. No. Just one thing brings on another. You could have all kinds of lists. You forget to read the lists. (Laughs) but as you talk, uh, I was blessed with a pretty good memory, and I enjoy remembering those things. And the wife and I talk about 'em and so on like that.

Q:
Terrific, well thank you,

A:
So I think Fernald, was a, was a very good thing that happened in this country. I think it played a part in the preservation in this country. Now, if they know what to do with the rest of the product, (laughs) well, they're lucky.

Q:
Great, well, thanks for sharing your time with us. We really appreciate it.

A:
Sure.

(Clock chimes the hour)

Q:
What we're gonna do now is something we call natural sound, and it just means we need to have everybody quiet for a few minutes, and well, just for 30 seconds really. We'll wait for the clock to go. (Laughs) and we just get what we call room tone.

A:
Yeah.

Q:
So it'll just be a second here, for 30 seconds, if we could just be, quiet.

A:
Yep. (Pauses) usually it hits three chimes on the quarter, or on the 3 quarter.