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Transcript

Name: John Blasdel

Date Interviewed: 8/26/1999 Date Transcribed: 12/22/1999 Tape: #78

Project Number 20012

Tape FLHP0179

17:00:02

Q:

Okay. First of all, if you could give us your name, and spell it.

A:

I'm John Edgar Blasedel. J-O-H-N E-D-G-A-R uh, B-L-A-S-E-D-E-L-.

Q:

Great, and if you could give us a little background. Uh, where you were born, where you went to school, a little bit about your early life. And then um, then we'll get into the Fernald stuff.

17:01:23

A:

Okay, I was born in Bright, Indiana, just about a m-, mile and a half north of here. At home. And uh, born in November the 12th, 1928, so I'll be 71 years old in November. Uh, was educated in Bright. The building is, has now been torn down, and, and my friend Loyd Smith who was on the school board at the time, they decided to tear that one down. I was on the school board six years prior to that.

17:02:01

A:

And we hadn't decided to tear it down yet, but uh, the old Bright school was torn down. It was grades uh, one through twelve. And I think the maximum number of students there was about a hundred and ninety students. And uh, but we graduated from high school in 1946, so that's 53 years now. And uh, we have our, every 5 years, our class has a celebration.

17:02:32

A:

And uh, the one thing that was in, until just about a year ago, all, was 19 members in our class, and all of us were still living until a year ago. And uh, so there, 18 of us still living, until a year ago, 13 girls and 6 boys. So uh, the boys were quite outnumbered. So. That's about it I guess.

17:02:59

Q:

So how did you get your job at Fernald?

A:

Well I was working at Schenley. Uh, I worked for Schenley Distillery. I started there when I was 18 years old after graduating from high school. You had to be 18 in order to get a job. And uh, so finally uh, December the 4th, 1946 I got a job at Schenley. And uh, and every time there was an opening uh, for a better job, I would bid on that job regardless of day shift, night shift or whatever.

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17:03:31

A:

I was there to, to make some money. And uh, so they also had the penicillin plant at uh, at the Schenley plant. And uh, and those were higher-paying jobs, so I bid into the penicillin plant. And then in December 1951, they decided to uh, well, they were forced to shut the penicillin plant down. Uh, see, S-, pen-, Schenley made penicillin all during World War II uh, for the Army.

17:04:06

A:

And they, they converted a warehouse into a manufacturing building to, for penicillin and they had the whole operations there. So uh, um, the other companies, which I won't mention their names, uh, major drug company uh, manufacturers, they boycotted Schenley Penicillin off the market. Becau-, if you know, "If you don't buy our penicillin why, then you don't get these other new drugs", see.

17:04:36

A:

So, since Schenley was only making penicillin, why, that normally dried up their sales since the Army no longer had a need for penicillin, so they shut the plant down. And I heard about this new plant being built at, at Fernald, and uh, so uh, eventu-, we all, there was I think over 500 people that worked at uh, Schenley penicillin plant, or S-, Schenley period that moved to the Fernald plant.

17:05:07

A:

And we always pro-, prouded ourselves in the fact that uh, we probably had more operating experience than was, and really were probably the group of people that really put that plant into operation and made it the success that it was. So in, uh you know, (clears throat) it uh, we had to wait for our clearance.

17:05:29

A:

We had to have a Q clearance, and so we did, made application, in January and uh, March the 3rd in 1952, I went to work at Fernald, and into the Pilot Plant. And uh, you wanted me to go on from there or is that?

17:05:47

Q:

(Chuckles) Well, let me ask you this; how much did you know about the process when you started there?

A:

I knew absolutely nothing, about the process. I don't, I don't know a lot o' people that did at that time. So uh, they brought people in from, from all over the United States. There were people from every, every state, I think, that worked there at one time or another.

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17:06:21

Q:

And tell us a little bit about the site when you first got there. It was still pretty much under construction.

17:06:26

A:

The only building that was completed uh, was the Pilot Plant. And uh, within the Pilot Plant was our locker room, the laundry room, and uh, we had a lunchroom also there. And uh, and course in March you know, with all the rain and everything uh, there was mud everywhere. And uh, so when we actually went to work, they issued you a pair of knee boots. That was part of your uh, equipment.

17:07:03

A:

And we would wear that, those out to our cars to get ho-, to go home you know, and all, so. You'd go in every day, you didn't know where you were gonna park the next day because Construction was movin' things ever-, all the time you know, and uh. And of course they were hiring more people all the time, bringing people in there.

17:07:24

A:

And basically, everyone was hired in through the Pilot Plant, even they were, if they were production workers, uh, they still came to the Pilot Plant because that's the only plant was operational, and that's where we were training all, all the workers, in that plant, so ah.

17:07:54

Q:

Tell us about uh, Plant 7, when it was built.

A:

Well, Plant 7 was, wasn't built until later years, and actually we had developed the process in the Pilot Plant. The uranium hexafluoride to uranium tetrafluoride was UF_6 to UF_4 operation that was developed in the Pilot Plant. Actually, they had a laboratory process in, in Oak Ridge, Tennessee. And then it was, was the, Fernald's responsibility to, to do a pilot project with this.

17:08:30

A:

And Bob Spenceley was in charge of that process and uh, so then they, they built uh, after we developed the process and they, they designed and were ready to build Plant 7. And Pla-, of course we were all interested in Plant 7 uh, because we had developed the process, in the Pilot Plant.

17:08:55

A:

And uh, 'course during construction, what fascinated all of us when we'd come on day shift, well, we'd see these, they were actually Indians from, from, in the west. That, they were professionally were steelworkers, and they would uh, walk the beams and so forth and wh-, and right up all seven s-, stories.

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17:09:19

A:

So we watched 'em build that building which was very fascinating to see how these people could, run around. They looked almost like flies flyin' around up there on the steel beams. So then beyond that, even after they got the plant completed then, like many of our, all of our plants that there were there, we uh, had a crew that had developed the process. We went up and trained the operators up in Plant 7, so we saw it from beginning to end.

17:09:53

Q:

So what were your responsibilities during those very first early years?

A:

Um, I don't know why, but I, I always seem to get selected to, to train people. And uh, so as operators, why uh, people would come in and, and for the various plants and different operations, it was casting, reduction, whatever, uh, we would, these people would come in, they'd be hired in, and, and then each day, why then we would, uh, well usua-, we'd have 'em from two to three weeks.

17:10:27

A:

Uh, training on, on all the pro-, pro-, proj-, projects, you know. And uh, so, I think that one o' the most interesting part o' that, I, I can never forget this, there was the one fellow came in, he was, was just hired in. And uh, came in, he was in the uh, rest, the uh, food area where we ate our lunches, and came in and he'd been there just a half a day. And uh, so, he didn't show up the next day.

17:10:07

A:

He waited six weeks for his clearance so he could come to work there, and he quit the second day he was there. He just emotionally could not stand the idea of, I guess he didn't understand what he was getting into you know, working with uranium and so forth. So uh, we had little, actually, we had many incidents occur, you know, while you're training these people. Everyone learns at a different rate you know.

17:11:42

A:

And uh, somet-, one fellow I remember, it was, he just tried so hard. He, all he had ever done in his life was sell insurance. And he was wanting to become an operator, and he just had no operational skills at all, but he wanted to learn so bad, you know, so uh. But eventually, he got on, and, and, and caught on and he became a good operator, but uh, those are the types of thing you run into.

17:12:13

A:

Because people come in from all different uh, work levels, and uh, experience and so forth, so. At the same time too you know, we had the machining group was in that, in there, too. But naturally, we didn't train any machinists in the, in the chemical processing area. They had their own group and training and so forth, but we were all in there together.

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17:12:40

Q:

And what tr-, what types of training and information did the people receive when they came into the plant to be a chemical operator?

A:

At that time? Th-, really there was, was no training. No training at all. I'd say uh, oh, you got uh, the big thing was security. You had to go through uh, security indoctrination. And uh, that was very well done I thought. Because we definitely knew what we were supposed to say and not say outside of that process area.

17:13:23

A:

So, essentially in most all the papers that we were, even, the uh, at that time, anything we recorded as far as operations was, was classified at least confidential. Maybe not secret, but at least was confidential. So you didn't talk about anything outside the plant. So, and, and it was some time, at the time we went in, there was no union, nothing at that time. We were just hired in.

17:13:57

And then eventually, there was enough groups got together and they had, uh, they voted whether or not to have a union. And the union was inserted, and uh, and anyone was, that was working as a chemical operator or whatever, why, whatever craft you were, group you were in, why, we joined the union. At that time, we had 17 different locals; we formed the Fernald Atomic Trades Council.

17:14:32

A:

And uh, one time, I was financial secretary for the Chemical Workers Union. We had almost a thousand uh, chemical operators at one time in that plant. And uh, so I think that the, the biggest thing was once I was promoted then to uh, but they at that time they called it Chief Technician, but it's the same as a foreman. Why, I went on salary, and I could no longer belong to the union.

17:15:03

A:

So we went to the union meeting and I submitted my resignation and the business agent was there and said, "You can't do that." I said, "What do you mean I can't do that?" He says, "Why, we just, you just can't resign. We have to have you." And I said, "Well, I'm no longer a union member. I work for the company. I, I can't, can no longer continue these duties."

17:15:30

A:

So they were, he was quite upset with the fact that he'd have to get someone else to carry on this. And it was quite a bit of responsibilities. Every month, they issued a receipt for your dues. Yeah, and I would have to distribute those through the uh, through the various members throughout all the buildings, you know.

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17:15:55

A:

But the one good thing about that is, uh, my wife would help me, and every month we had to mark these off, and we knew every name of every chemical operator in that plant. And, and to this day, you could probably say a name and she, he would still remember that name.

17:16:14

A:

And so many guys had nicknames, you wouldn't know, uh, out, out in the plant, you wouldn't know their real names. But I didn't know them by, by their nicknames; I would know them by their real name, so. So I think that was in 1954 that I left the union and stayed with the company. And the major reason I left the, the union was I could see no room for further advancement.

17:16:41

A:

I mean you can be a chemical operator all your life you know. And, and so I thought it was a time that I could uh, further my advancement by going to work strictly for the company then.

17:16:59

Q:

How did your responsibilities change from being a chemical operator, or you're actually training chemical operators, right? Into your salaried job?

A:

Well, basically I was supervising those same, those people in, in ah; we had to oversee ah, all the operations that time. And ah, you're responsible for ah, materials and, and actual getting work done, and ah, making accomplishments. Then the biggest thing was that ah, we were working with the Metallurgic Department in the Technical Division.

17:17:37

A:

Which was still within the Pilot Plant, but ah, ah, they had naturally they had, they had a lot of ah, engineers and many of them just out of college; no experience and they knew nothing about the process, so ah. Many times when they were running tests why, as, as chief technician why you, you would, you could almost set up their test for them, you know.

17:18:02

A:

So they could, you would find out what they were trying to, to demonstrate or prove or ah, accomplish and then you could help them with setting up their test so they would come out with results that they could ah, be assured were correct and all.

17:18:22

A:

So ah, that's when I got into ah, more into the ah, the technical side of it. And it's a give and take, I mean I learned as much as I taught them I'd say ah, I mean they knew the technical side of it and ah, I

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knew the work side of it. So ah, but I learned a great deal. You learn something every day; you know when you're working with a different process.

17:18:50

A:

So it was a great experience. So that's when it eventually got into ah, they started; they started building the end reactor. And ah, that we talked about. And ah, so ah, we developed the casting in the Pilot Plant ah, working with the engineers from the Metallurgical Department. Then ah, my main contact at that time was ah, John Schletts, who was ah, put in charge of that entire project.

17:19:20

A:

And ah, so he had several different engineers that worked on the project. But the Pilot Plant basically was doing the casting development and ah, so I handled that. And ah, then they got into the fabrication and ah, ah, they never came up with someone who was satisfactory to, to the metallurgic department management that ah, couldn't, was handling or coordinating all the process on their own.

17:19:55

A:

So ah, I took a temporary assignment to the Metallurgic Department and ah, that was in 1959. So ah, I think 2 years later I became a, department, section leader in the ah, in the, no I was a technologist, Technologist II rating at that time ah, in the Metallurgic Department. And my job was to coordinate the process from, from the beginning casting to ah, ah process through to the final product.

17:20:36

A:

And it's quite an extensive operation and ah, and the big thing was that we had to go off site with excursion, so since we had no excursion. So John Schletts and I traveled to Adrian, Michigan almost every weekend. In 1960 we made 38 trips to Adrian, Michigan to develop this process. And the reason we were ah, doing it on the weekends was, that's the only time we could get the extrusion to settle.

17:21:05

A:

Is they used the extrusion press for another operation at the ah, ah, Bridgeport Brass Company in Nashville, or in Adrian Michigan and this was ah, an old Air Force plant. It had ah, 17 acres under one roof if you can imagine that. They had 19 extrusion presses in there and they had the subcontract then to ah, to ah, develop the process of extruding uranium at ah, Adrian, Michigan. And, and John Schletts was in charge of that and I was the first person, next person next to him that ah, was in charge of the extrusion operation.

17:21:49

A:

So we developed that process along with the engineers at, at ah, Bridgeport Brass Company and they had some excellent engineers who'd been in the, they had extruded brass and aluminum and all those types of materials. But they had never extruded uranium.

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17:22:05

A:

And so, we developed that process and ah, and they I would coordinate it to ah, after extrusion to the machining operations in Plant 6 and then eventually ah, they built ah, they transferred all the machining to Plant 9. Did all the machining in Plant 9 for the end reactor project. So then that lead me into doing the liaison with ah, the people at Hanford. Ah, John Schletts was also in charge of liaison at that time, but eventually I took over all the liaison for ah, the Hanford operations ah, both the small fuel cores and the end reactor.

17:22:50

A:

And then eventually we got into development projects with ah, with Savannah River plant. And ah, we developed, at that time then, I had a group, a whole group in ah, in the Metallurgic Department. Which at, at one time we was up to about 25 engineers that ah, worked on development projects not only for the end reactor; we had the Savannah River plant, and then we had a alloy program for ah, the small reactors at Hanford.

17:23:26

A:

And ah, we developed alloys ah, in cast-, for casting those and ah, so it was quite involved operation all those years. Along with that we developed ah, ah various heat treatments and the reason for the heat treatment in, with the alloys and so forth was too ah, have a stable fuel in the reactor.

17:23:53

A:

What happens is that ah, they would have, when you had pure uranium, why the fuel core, cores when they were in the reactor and they would heat up. They would distort and they would cause the reactor to, to fail. So ah, we developed the various alloys that the reactor people wanted uh, that would give 'em a stable fuel.

17:24:18

A:

And this one case we had five different heat treatments for uh, every different alloy that they had. And uh, so that was quite a very, very extensive operation. Uh, Carl Pohlson who was uh, head of the miller, the Metallurgy Department, eventually became uh, technical director. He was uh, they had a, a working committee they called it.

17:24:48

A:

And uh, and all the reactor sites and um, uh, the operating plants had a representative for these, and they call it the uh, Fuel Element Development Committee, FEDC. And uh, and then he would uh, would go to these meetings and then determine what they needed and what they wanted to do and so forth. So we worked closely with, with those people to provide them with what they wanted.

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17:25:22

A:

Along with that Carl then would uh, he would make presentations of, of the work that we had completed. And sometimes, some of our engineers would go to the meetings and uh, make presentations of uh, where they stood on these uh, meetings. Present technical papers and show the results and from that, just the Fuel Element Development Committee uh, came up with the various fuels that they used either at Savannah River or Hanford reactors either one.

17:25:52

A:

So it was, it was always a learning situation for these people. And many of those reports, I mean, they're all in the, in the libraries naturally. And every now and then, why, I still get calls from Fernald they're wanting to know about a particular process or project, why, those reports were very well prepared and very well documented. So you could go back there and get any information really, that you needed. So.

17:26:29

Q:

Now what was the difference in the rolling mill and the extruder presses that we used in Ashtabula?

A:

Okay, the, the difference with the, from the rolling mill and the extrusion presses, uh, let's see, with the extrusion press, you have a hollow, uh, a hollow fuel element. And uh, we had, actually had to develop the drilling process uh, with uh, Art Cable, LeBlanc Company in Cincinnati.

A:

One of our uh, machining engineers uh, worked with them and they, they actually developed this machine that they could drill uh, large, 11" diameter castings.

17:27:14

A:

And uh, drilled those and uh, in a rolling mill, they're all, were all rods and solid you know, so uh. You'd have like a 31-pass schedule, and you'd start with an 8" diameter ingot. And eventually you'd roll, roll it down to where when it got to the finishing stands, you ended up with a inch, inch and a half diameter rod. And that's the difference; major difference was we had to have a hollow fuel element.

17:27:49

A:

And I don't know whether you've seen pictures of the fuel elements, why some of 'em are solid and some are hollow. Well, all of the hollow fuel elements had to be extruded. So we eventually developed uh, a process for the Savannah River plant was the same way with a, was a hollow fuel element.

17:28:07

A:

And we, we extruded that, did development extrusion at uh, at, well actually, Bridgeport Brass moved from uh, from Adrian, Michigan to Ashtabula, Ohio, and that's why you uh, I think they were bought

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RM-, RMI bought out Bridgeport Brass Company. And uh, and they wanted to move their operation to Ashtabula, Ohio. They had a building up there that was empty.

17:28:34

A:

And uh, they actually took one of the extrusion presses, which belonged to the Air Force, transfert, transferred it to AEC, and moved it to Ashtabula, Ohio. At that same time uh, Fernald made a proposal to move the extrusion operations to uh, Fernald. And John Schletts and I were the main lead on that.

17:29:00

A:

And we also had our Engineering Department involved in that so that the Engineering Department came up with the proposal like uh, where to locate it, building space, and all the equipment that we needed. But uh, due to politics, and strictly politics, my company had more politics than uh, NLO. And the extrusion press was moved to Ashtabula, Ohio.

17:29:34

A:

Which uh, was very disappointing to us because it really was a great loss of uh, tax dollars. A lot o' extra money spent in transportation. And all that started in 1961, '62. And uh, and of course, many, many dollars were spent plus, many, many dollars is being spent right now, as I understand, to clean it up, so.

Q:

We're gonna take a break right there and change tapes. You're doing great.

A:

You think so?

Q:

I've been up to RMI.

Tape FLHP0180

18:01:06

Q:

Tell us a little bit about um, dealing with other people at other sites. I know you did a lot of work with people in other sites. Um, it's sort of an interesting aspect of, of your job probably was working a lot, with a lot of people in the DOE complex, and seeing how it all fit together. Can you tell us a little bit about that?

18:01:25

A:

Um-hmm. Yes, uh, well um, (chuckles) the most interesting part about that was that we were operating, going around the depart-, the AEC at that time. And uh, so um, the people I was dealing

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with I mean, you're dealing strictly on word-of-mouth. And we were processing materials, and in shipping uh, materials and spending all kind of monies.

18:02:00

A:

And uh, many times we didn't have a uh, an AEC production order. They, they would uh, send production orders for "this is what you're supposed to do," and they'd outline and so forth. But this process, with, especially with the when start, the end reactor was moving so fast that uh, there was such a demand to get material processed, that we ta-, we were allowed, we were given permission to talk directly with the engineers at Hanford which was our liaison contact.

18:02:37

A:

And uh, we would process, and we did this for almost the first year. Uh, and finally, the guy who was in charge of us, our contact with the AEC said, "Boys, you gotta stop this." (Chuckles) He said, "We gotta know what's goin' on before ya do it." You know, so. Then we did, and it didn't slow the process a lot because he was very cooperative and, and he wanted to get the job done the same as we did.

18:03:08

A:

And uh, of course it's, it's pretty typical then what you do. I mean, their AEC representatives there had to know uh, they had to request to our AEC representatives what we were resp-, doing you know. So the engineers out there then, they would write up the orders and send it to their AEC, and then they would send it to our representative and they would send it over to us, so.

18:03:34

A:

We always had to be sure that we had backup for all this work that we had done, that NL-, NLO would eventually get credited for all these funds, so that uh, we would get paid for that, so. And there was very little uh, I don't know of any incident where we were ever, had our hands slapped for any o' that, it was always a pat on the back for gettin' the job done, on time you know, and getting the results that we needed.

18:04:05

A:

And, and everyone in the plant, according, including the, this FEDC committee say, they were very involved in that. And so, we were keeping our representative, who was Carl Pohlson, and uh, who, I just lost it. Charlie Bussert.

18:04:23

A:

Charlie Bussert was the production representative from our plant, and Carl Pohlson was our technical representative from, who was in charge of Metallurgy Department. And so, we had to keep them well informed of everything that we were doing. And we did this by writing weekly reports, and monthly reports, and then rep-, uh, technical papers on, on the whole process.

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18:04:48

A:

And those, those are all in, in the archives at Fernald that were written up. The other uh, thing that uh, that had meant so much to me was uh, that once I found out the background of this person I was dealing with, and uh, in most, most, in most all cases, if they were a Christian, I never had to worry about 'em. And uh, you could, whatever you could, a man of their word you might say.

18:05:25

A:

And so, in all of them that I dealt with; the Savannah River, Rocky Flats, any of them, I ah, never had any problems. Once I'd met these individuals and be with 'em why then, you knew that you were on safe grounds, you know, and we always got along well together.

Q:

Which leads kind of to a question about the Q clearance too, um, what kinds of things were the I, I assume it was the FBI that was doing the checks, background checks (Comment – Hmm-mm) for the Q clearance. What kind of things were they asking um, and who were they talking to, to make sure that you were a fine upstanding citizen before you were hired at Fernald?

18:06:08

A:

Well you had to give ah, like three business, businesspersons and then maybe like three other persons that you'd known for so many years. I think it was like 10 years that you had to know these people. Um, you had to naturally give the place, your addresses ah, for the last 10 years or so and ah, and of course I think they actually did investigate those places because people would, I know people that I'd turn their names in, business people would say well, they was checking on you today, you know.

18:06:46

A:

So, and ah, and of course have you had any ah, problems with the law or anything you're suppose to report that and if they found that out, well you're reviewed every 5 years, and ah, naturally you didn't want to lose your clearance.

18:07:02

A:

Your clearance anyway, cause every-, everyone at Fernald at one time and I forget when they finally downgraded and, and you didn't have to have a Q for everything. But ah, then, then came along, later on when we did work for the Army and the Air Force and the Navy, in developing the pen-, penetrators, we did all that work, too, at Fernald.

18:07:26

A:

And ah, then we had another, they had another clearance and ah, so you had clearance for the Army for example. And then you could sit in on the meetings with the ah, Army officials. Usually it was a Captain ah, that you met with and ah, so that's ah, the major thing. I always maintained a Q clearance, all the time I was there.

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A:

I never, there was many that was downgraded but because I was talking with the reactor sites and so forth were they still demanded a Q clearance, they still had to maintain my clearance so that I could go into that plant.

18:08:16

Q:

Wow, so how did they know ah, what kind of, you had mentioned earlier about surface security and indoctrination when you first came into Fernald, what did they tell you about there and what kinds of um, I guess – I don't want to say threats (laughing).

A:

Well coming from Clyde, Clyde Bingham it was threats (laughing). I mean, he didn't pull any punches, you know. If, basically if you don't adhere to the rules that are set down here, then you will quickly become unemployed.

18:08:54

A:

And ah, we never knew about that if it did happen and if also if someone, if you became a felon too, you could not work there see. So ah, there would be many people today that couldn't, that couldn't get a job there because of their background, you know. That's, they just didn't let them in, so.

18:09:20

Q:

And when your friends and family would ask you about your job ah, what, what would you tell them?

A:

Eventually it got to the point where they just never asked. They never, I never really had to tell them anything. 'Cause they knew it was classified project and, and never really was concerned about it.

Q:

Um, tell us a little more also about um, the moving bed reactor project that you worked on.

18:09:59

A:

Well, as you say, said earlier when we was (chuckles) when we were off camera, that, that was Ray Sisson's project and I think, I'm not sure if he was the head engineer on that project. But ah, the idea there was to develop a, they developed a pellet, or a you know, they actually had to develop a pellet that ah, went through that with a mixture of what we call orange oxide.

18:10:27

A:

And ah, we made pellets from that and then we ran it through this reactor um, start it from the top and go down and when it came out why we had ah, we'd go from a brown oxide to ah, from a orange oxide to a brown oxide and then UF₄. And ah, so we had like pelletized UF₄, it was a project.

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Q:

Wow, so was that gonna replace what happened in Plant 4? (Comment – Yes, hmm-mm) Okay, yeah I wasn't sure whether that was part of it or not. Um, in my notes here it say's in 1959 you started a new, a new process, the end reactor, tell us more about the end reactor. I'm curious about how that worked.

18:11:16

A:

Well, the end reactor was the first reactor that was built in the US that was suppose to ah, produce both electricity and plutonium, and ah, using the same fuel elements. And, and it was thought you know, this was something that they could ah, would reduce the overall cost of ah, electricity and they had a big demand in the great northwest for electricity.

18:11:42

A:

And ah, and this was one way thought, they thought of doing it, you know. Which I guess, as far as ah, the reactor itself, it went very well, and ah, until Chernobyl, I mean that reactor was still planned to continue to operate, you know. But it was they same type ah, reactor as ah Chernobyl, so it was shut down immediately.

18:12:09

Q:

And what role did President Kennedy have in that whole process with the end reactor?

A:

When, well of course we were happy that we had produced the uh, fuel to go into that reactor. And uh, when it was to go critical, the uh, the first time, why then President Kennedy was out there and, and pulled the, the uh, or pulled the instrument which would cause the reactor to go critical. And uh, so it was quite a, oh, notable occasion because it was the first rea-, in, reactor that they had done that way.

18:12:49

A:

'Course they were there to take pictures and all. And uh, you can see this yet today in the encyclob-, encyclopedia Britannica. They have a picture of the President at end reactor.

Q:

And that was fuel made at Fernald.

A:

Um-hmm. Right.

Q:

There were quite a few special projects that happened, too. Um, can you tell us about the 4-A project?

A:

4-A.

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Q:

I guess that was, uh, was that the Penetrator Project? Were you involved in that?

A:

Oh, the. Yeah, I was involved in that. Well, we developed the, the original casting, through our group. Uh, developed the uh, the alloy that they wanted and uh. That's why I said they should of had somebody from metallurgy and chemical both, because uh, we had quite a bit o' problem uh, with, with analyzing these various uranium alloys.

18:13:51

A:

And uh, of course you can do that uh, with a Spectrograph, which was talkin' about, I forgot, Cecil Duff. Cecil Duff was the main one involved in that. Uh, analyzing our uranium ingots and uh, at one point, uh, we'd done, we thought we had done everything right, and made the perfect uh, alloy that they wanted and so forth. And the Analytical Department gave us the, said it was wrong.

18:14:23

A:

Come to find out, some way, and they had to develop process in order to, to correctly analyze these uh, various alloys also. And uh, 'cause every time the result would come out exactly the opposite of what we thought it should be. And it eventually ended up they came up with a process in analytical that proved that our, our casting for right on what we had calculated them to be.

18:14:52

A:

And so, I say, you had to, everybody had to work together. And of course, in metallurgic, why, you can also take that and, and look at the various alloys after heat treatment and so forth and uh. Uh, we had a, had a lot o' working together you know, in order to accomplish this, uh. But uh, as far as the penetrators then, that's when the uh, the Army came in, and we had already done some work for the Navy.

18:15:33

A:

And uh, they wanted us to develop this, this uh, penetrator, and we developed a heat treatment at Fernald, also. And, a fellow by the name of Walt Wise was in our Metallurgy Department uh, and he was assigned to doing the, the heat treatment to come up with this. And then, they had a certain green size that they wanted to come up with uh, for this penetrator.

18:15:58

A:

And it had to also withstand uh, a certain hardness test, which we also ran the hardness test in our met lab. So um, eventually we, we satisfied the Army, and Air Force, and the Navy, all with the particular alloy that they wanted, you know, and developed the processes. And we always felt that uh, we at Fernald actually won the war.

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18:16:29

A:

Because when you went, uh, when they went to the uh, over in uh, where was it that they had the, when President Bush was in, they had the uh, the war in uh, I'm forgetting the name.

Q:

The Gulf War.

18:16:45

A:

The Gulf War. The Gulf War, yeah. Well, uh, we saw the uh, tanks firing the penetrators that we had developed at Fernald. And they were piercing right in through their tanks and so forth. And uh, those people, they didn't know what they, they got into. We watched the tests they did, they took movies at the Nevada Test Site? And these penetrators was going, go into these tanks.

18:17:17

A:

And uh, and they just get on fire, and burn everything up, you know. They just explode and burn everything, and they could penetrate through anything because of the hardness of the, the metal that, the uranium metal that we'd been supplied. The ones for the Air Force, ah, I forget the, the name of the aircraft carrier that they used.

18:17:40

A:

They said that actually when they would fire these guns, it would stop the planes in mid-air, you know. It would just stop; they were just so powerful, you know. So uh, when we saw the, these on the TV, you know, we could see all the fire goin' and so forth, why, we knew exactly what was happening. But it was a long time before it came out that uh, that's what they were using.

18:18:10

Q:

And speaking of winning wars too, how did uh, Fernald um, contribute to America's goals in the Cold War?

A:

Well, um, Fernald used, supplied the feed materials for uh, making the uh, plutonium and so forth that they used. And, not just uh, for the Cold War and so forth, uh, they developed also uh, from this many of the uh, cob-, cobal, all the dif-, various materials that used for the medical field, so for medical research, all that has come out o' the, the Fernald project also.

18:18:55

A:

And of course those, those processes have been further defined at places like Oak Ridge and various places like that.

FERNALD LIVING HISTORY PROJECT
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Q:

And how about Fernald as a deterrent? How did that all work? Like, what was the typical American's mind-set during the Cold War about the Russian threat and those types of things?

18:19:21

A:

Well, I uh, I don't, don't know what the American people really felt about it. But uh, we, we knew, people working at Fernald knew that what we were working on, was, was going to, we were always a step ahead, I felt, of, of the Russians, I knew that. In fact, they were trying to get our, development processes and so forth all the time, you know, so that's why it was so classified at that time.

18:19:51

A:

That we had better knowledge of, of how to do all these things. And one o' the big things was the development of all the alloys that uh, that were developed at Fernald to give you stable fuels that they could further produce these in the reactors at Savannah River and, and Hanford.

18:20:16

Q:

How do you personally feel that uh, you contributed to um, America, I guess?

A:

How I personally feel? Like I said earlier, I th-, I feel that the, the people at Fernald won the wars, the Cold War. Uh, and I, unless something else comes along and changes my mind, (chuckling) that's always the way I'll feel about it. You know, I felt it was very worthwhile, and if we had not done it, I don't know where we would be today, you know.

18:20:54

Q:

Okay, um. In about 1984 through '86, up to '89 when um, when you retired, Fernald ran into some pretty bumpy times, because of uh, um, well it started with some dust collector releases in Plant 9. Can you tell us about uh, those years, and how they affected your job, and uh, what that was like?

A:

Well, I, I personally knew the, the fellow that was let go because of the dust collector incident at Fernald. Uh, I don't know, uh, I, I guess eventually it had to, it had to come out, but I didn't think uh, the uh, the, the really the person who was let go was not totally responsible for what happened. It went to higher management than that. But uh, he was a scapegoat. Eventually he committed suicide.

18:22:02

A:

And, and I think that was directly related to that. Uh, he had many other problems, but he would never have. I, I ate lunch with him almost everyday, for years, you know. And he was not that type of person, you know. And my feelings about that? I think everyone was tryin' to do the best job they could.

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18:22:26

A:

And it was unfortunate that happened, but I don't think that was the end of the world, you know. I mean it wasn't anything that was detrimental to, anyone as far as that goes. And none o' that material really went off site. Of course my feelings about Fernald period is that, I don't think there's anything there that would ever harm anyone, uh, to the extent, especially off site.

18:22:56

A:

There was nothing ever went off site that would harm anyone, to affect their health. I think that's all a farce. And we're spending thousands and thousands and millions of dollars unnecessarily. So uh, but, eventually people had to know, and the same thing happens today. You know, you get people who want, want name recognition, and I personally have not been involved in anything after Fernald.

18:23:35

A:

Because uh, I don't wanna be uh, associated with those types of people. Because I think they caused many more problems than uh, what there ever really was at Fernald. And they've cost the taxpayer millions of dollars that never should have been spent.

18:24:01

Q:

So the two class-action suits that were filed, there was one for workers and one for surrounding community. Um, how do you feel about the settlements and how the government handled those situations?

A:

Well, uh, I, like I said, I personally don't feel like anyone, any of the neighbors were ever abused to the point where they uh, should've received a single dime, you know. I, I didn't see that. They all lived around there. They knew what they were living next to. Uh, they saw an opportunity to cash in, and I know many of them collected money that, they, they were not harmed in any way.

18:24:52

A:

Nothing, you know. Their property values didn't go down. Nothing, there was no justification for that lawsuit. Now as far as the workers, uh, I can't say. I, I actually accepted money for the time, for the second lawsuit. Which I accepted it, but I didn't necessarily feel that, that anybody owed me anything. I went to work there at Fernald. I knew what was going on. I worked there 38 years, and I always knew.

18:25:22

A:

I always wore the safety equipment was given to me. Followed all the safety rules that we always did everything that we could. Uh, and you know, you can work, in fact as far as foundry goes, we had a foundry there that uh, at Fernald with uranium foundry, and we had better safety records than any foundry in the United States. We always maintained uh, good, clean, healthy working conditions.

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18:25:55

A:

So uh, that's, that's just the name of the game. And when you really talk about the settlement, it really, it wasn't that many dollars anyway, I mean compared to what they're spending now, you know. What little bit the neighbors got and what the workers got is peanuts, you know.

18:26:18

Q:

Let's talk a little bit about some safety rules that were in place, and the safety culture that was in place while you were working at Fernald. Tell us um, you know, how did they, how did they keep you safe, and what were the procedures?

18:26:30

A:

We had safety meetings. We had weekly safety meetings. And of course, when you're uh, become supervisor, you're responsible for those safety meetings. And so they were always conducted, uh, reports were presented to uh, to the safety division, the health and safety department. Uh, if there was anything new came up, a representative from uh, from uh, health, physics, whatever they called it at that time, you know.

18:27:06

A:

Uh, they would come and make a presentation. And they would show us uh, what was expected of the employees and all. So, uh, if you didn't participate, why uh, of course, we were obliga-, we took, actually took names of, of every meeting, you know. And you had to show who attended and who didn't attend, you know.

18:27:27

A:

And if they would find uh, Health and Safety would check these records and if they'd find a employee was avoiding safety meetings, why, he'd be called on the carpet. And he was instructed that he would attend safety meetings. So uh, and that occurred, almost from day one. I mean we had safety meetings.

18:27:51

Q:

How about personal protective equipment? What kind of personal protective equipment was available on site?

A:

Well, naturally we had coveralls at the time. We had gloves, uh, eyeglasses, respirators. Uh, if you were in construction area, we had helmets, hard hats. Then when we got into uh, working with the, with the UF₆, why, we had air packs, Scott air packs, we had airline respirators, uh. We had asbestos gloves for handling hot materials, just about.

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18:28:41

A:

We always had safety shoes. If you wanted two pair o' shoes, you could get two pairs of shoes, because you wear one pair in the morning and one in the afternoon. So it uh. We never denied that type, those types of things. So.

Q:

We're gonna take a break right there and switch tapes. I just have a few more questions (laughs). That's all.

A:

Okay.

Tape FLHP0181

19:01:04

Q:

I wanna ask you about the um, the fuel for the nuclear submarine. If you could just tell us a little bit about that project.

A:

Okay, um, well we um, it was a much smaller fuel than normally we were dealing with, so we got it, got into smaller diameter materials. And uh, we developed the alloy for it in the Pilot Plant, and did the uh, rolling in the uh, rolling mill, our rolling mill, and developed the heat treatment for that. That's about the extent of it, we, we met with those people lots of times, you know, on the development, so. And I can't remember what alloy we ended up with but uh.

19:01:52

Q:

What year was that?

A:

Gee. Must of been about '84 or 5, somewhere I'd say, yeah.

Q:

And then what year were you working on the penetrators?

A:

Oh, we started that work in, probably, uh, '80, '81, in that area, um-hmm. You see, eventually, the penetrator, the, that was turned over to the private sector. And uh, so um, let's see, I'm forgetting the company that, down in Tennessee that took that over, and it's changed names. But anyway, th-, uh, they developed the casting.

19:02:39

A:

And then after I retired from Fernald, I went down and, and did some uh, consulting work with them on the development of their casting for that project. And met with them, I still have my Q clearance

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for the Army. And uh, we'd met with them down there on the development. They were having some problems uh, with devo-, duplicating our du-, casting process.

19:03:07

A:

And a lot o' time, things with the casting process, is if you don't have the same equipment, you have to make adjustments. And uh, they were trying to do it without having the same equipment that we had at Fernald. And uh, eventually they had to go around and, and get uh, the same equipment that we had at Fernald.

19:03:29

A:

And last I, I knew, they were the last producers for the uh, uh, castings for the uranium penetrators. And they did the whole job there at uh, at Erwin, Tennessee, uh, Johnson City, Tennessee actually.

19:03:47

Q:

So we came up with the process and then they took it from there and then ____ production.

A:

Yeah, they had, you see it had to go private. And that's the way with many projects that we started on. It was, uh, in, in the later years, that uh, we would develop the process and then it had to go to the private sector. Because the private sector was feeling they were being shunned and cut out o' the business.

19:04:09

A:

Most all that work could have been done right at Fernald and probably for much fewer dollars. But ah, the private sector had to get involved in it, so. So that was our so-called competition but we knew eventually it all was gonna go to the private sector. Especially the, all the penetrator business eventually went to the private sector.

19:04:36

Q:

Now Fernald was pretty much closed down the same year you retired, um, tell me about your feelings that day that you found out that they were actually gonna shut the plant down for good.

19:04:50

A:

Well, number one, I couldn't believe it. Most all of us, even we knew eventually it was gonna come, we, we did believe that it was gonna come and ah, and 'course this is hindsight now ah, I think that ah, the ah, DOE actually knew ah, much sooner than they ever told anyone, you know, that they were gonna do this.

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19:05:24

A:

But it never really trickled down to anyone, you know, that ah, they would eventually – there was no need for Fernald in other words. And ah, so ah, I, I guess, well when we went to work at Fernald they said it would last maybe five years, you know. And ah, then after five years, well it might last 10 years, you know.

19:05:54

A:

So then after it had gone on for so many years, after all that, you know, why it was just, it was just hard to accept that ah, it was gonna be closed down. And we knew it was gonna take years to clean up. I personally, once production, the challenge of new processes and new products and so forth were gone, why clean up didn't appeal to me. I saw it was time to retire.

19:06:30

Q:

Now you've done some consultant work since then. (Comment – yes I did) Can you tell us a little bit about um, why did they need to call you (chuckles)?

A:

Well, um, part of it is ah, when I did the early consultant work was they were taking over processes which we had done and they knew I was directly involved in, in the development. Naturally they're gonna want to get the first hand information they can, because they, they had major problems, you know.

19:07:05

A:

They were, they were making major decisions whether to spend thousands of dollars for equipment or not, you know. So, if they could spend a few bucks on a con-, consul-, to a consultant, you know, why it was cheaper to do that than to go out and not be sure of where they were going, you know. And I'm sure I wasn't the only one that they contacted. They, they contacted several others before they would go ahead and change their process, you know.

19:07:37

A:

But ah, eventually a friend of mine worked for the same company and they finally did come around to what our recommendations were, you know that, and of course that's, that's only common sense, you know. If it works, why not use it, you know. And their main thing is, they had to get the information.

19:07:55

A:

And that's the thing it was not classified information, it's ah, process and so as far as the Army was concerned why you could have outside consultants. What was the other part of your question?

Q:

Actually you answered it (both laughing) (Comment – okay). How do you feel about the clean up that's going on right now? I know you've taken some ah, tours.

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A:

Well number one, I've never felt that the buildings had to be torn down, ever. I never, ever felt that. And ah, then of course I could be totally wrong because, but I was there ah, I did consult-, some consultant work on the determin-, determination of how much contamination was there.

19:08:46

A:

But ah, of course the biggest thing was the transite siding was on everything. And I can understand where the asbestos and all, that's why that had to be removed, you know. Well once you tear that off what have you got left, a bunch of steel, you know.

19:09:04

A:

Uh, I was also involved in another project was ah, was a portable foundry and ah, and we actually had developed this process where ah, you could, we could take all these buildings, all the steel from all these buildings and, and melt it down right there on site. And then once this site was done, we was gonna take it to another site. Well, that got into the political log chain, as you know they now ship ah, steel to ah Oak Ridge, you know.

19:09:41

A:

But ah, we had developed a whole program with our engineering division and ah, and ah, production technology to take ah, that scrap metal and melt it all right down on site. We had the whole plans laid out. So ah, to me ah, you know, they're spending a lot of money they don't need to spend they could have set up a portable melter right there on site.

19:10:10

A:

And what most people don't realize, when you melt uranium ah, melt steel all the uranium floats to the top and all you have to do is ah, flux it off, you know. Use fluxes and flux it all off and that's much cheaper than shipping it to ah, Oak Ridge in the, course you know the people in, it's not, it's a private sector at Oak Ridge. Not Oak Ridge itself doing it, it's another plant that's owned by a private individual that's doing that casting.

19:10:39

A:

And they're shipping all that material down there so. Ah, going beyond that why, I, I guess I have to accept the fact that ah, ah we always knew that ah this plant would be returned to green field. They talked about that 30 years ago probably. They talked about green field, so ah, we knew eventually it was gonna happen, you know. It's just a matter of accepting it.

19:11:12

A:

Now, you know, it's ah, and you can see there was ah, tremendous amount of effort put into building that plant, you know. It's ah, always to me how they ah, built that plant so fast, you know. The engineering people came in, did a tremendous job building that plant.

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19:11:37

Q:

And my concern today, if we needed massive amounts of uranium, who would produce it? 'Cause, see no one could produce as much as we produced at Fernald. They couldn't even come close. Oak Ridge would try ah, Mallinckrodt in St. Louis, they, they had a plant, they couldn't compete. And part of that was our own technical division ah, ah; they had what they called the dinget process.

19:12:09

A:

And they were gonna take the dinget, which was a derby, a hard derby, and they were gonna roll that and ah, make fuel cores and send them to Hanford but there was one little catch – they were high in hydrogen. See, when you don't vacuum cash you don't remove the hydrogen and so they had hydrogen brittleness and they put 'em in the reactor and they'd just fracture.

19:12:41

A:

Well, we would be out to Hanford; Mallinckrodt had shipped tons of ah, uranium fuel cores out there, but they didn't put 'em in the reactor because, but they had a contract so they had to accept 'em, eventually they were all sent back to Fernald. We vacuum cast them, made uranium fuel cores out of 'em, you know.

19:13:05

A:

So, but Fernald elected, we tried the dinget process and our ah, metallurgist said, that process won't work. You can't remove the hydrogen, you know and you'll have hydrogen brittleness and that's exactly what happened. And Carl Pohlson was the main ringleader in that, you know, he and Charlie Busser.

19:13:28

A:

In their FEDC meetings they'd tell 'em, well that process won't work and eventually what happened was Fernald got all the work and Mallinckrodt was shut down. Loyd Smith was involved in that cleaning up that sump. I don't know whether he said anything to ya about that or not, but ah, he was down there when they were dismantling some of that.

19:13:55

Q:

So, tell me about the very first tour that you took of Fernald once it was under the cleanup, the cleanup was underway. When was that and ah, how did you feel about it?

A:

That, see the only building that was down in that first tour was ah, was Plant 7 I think yea. No, I don't think Plant 4 was down yet, no Plant 4 wasn't down it was still there. Well, again we always knew Plant 7 was gonna come down because it had set there idle for, it had been stripped out.

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19:14:31

A:

And ah, all the ah, reactors and valuable metals were taken out there years and years ago. I don't know, probably 20 years ago now. It was tripped out and it was basically just used for storage and we knew it was gonna come down but I guess that's the start of the process, you know. Something, there had to be a starting point somewhere.

Q:

And have you been on a number of tours since then, of the site?

A:

Only one, two more maybe since then.

19:15:06

Q:

And ah, tell me about like the last one that you went on. How did you feel about that? Then I guess probably more buildings were down.

19:15:14

A:

Yeah. More, well last one was just about a year ago I think, when I was out there. And they had just started ah, putting material in the pit, the new on site storage thing, you know. Which is interesting, you know.

19:15:35

Q:

Good, um, what would you personally like to see done with that land once the ah, once all the buildings are gone?

A:

I never thought much about that but ah, I always though it'd make an excellent industrial site and, and I still think that I guess. But ah, it would, cause of all it, all of the facilities are there, I mean, all the utilities are there, the water, the electricity. You know that's a big thing, I mean it's still there. They're not using it but I mean the transformers and everything's there to supply all the electricity they could ever want for anything, you know.

19:16:21

A:

'Cause we used a lot of electricity.

Q:

And ah, how do you feel about this history project itself? Ah, going around and collecting the history of Fernald as told by the people that were the eyewitnesses to it?

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19:16:36

A:

Well, my greatest concern about that is ah, there's some, I sure you've interviewed some people that don't know beans about it, what went on there. And this is why I have problems with ah, this ah, the Fer-, Fernald group, you know. That ah, opposed everything and so forth. Those people never knew what went on there, you know.

19:17:03

A:

And of course they had their stories about it and ah, I, I don't think you, they can get into reading some literature and so forth and all of the sudden they become experts. And I don't think they know their, what's going on. I don't think they ever knew what's going on. They just, they have ah, something to accomplish and the biggest thing they have to accomplish is the pad in the pocketbooks.

Q:

Is there anything that we didn't cover that you wanted to cover? Any question that I didn't ask that ah, anything that you wanted to talk about?

19:17:36

A:

Well, I, I, the biggest concern I think that we have for all our employees that worked here is our health insurance and ah, we haven't talked about that any. But ah, I definitely feel you know, if there's an outside chance there was any ah, fault of working with these materials that, that other people wouldn't experience that ah, their health benefits should be maintained.

19:18:12

A:

And I don't know whether that will happen. They keep promising, you know, but as long as we ever worked at Fernald we knew in two weeks they could drop our health benefits, you know. That's, that's what's in the book, you know. And ah, so that's, that's why we informed our, our retiree's group, it's basically a salary group that ah, ah, that we could at least maintain our ah, health benefits.

19:18:41

A:

And I think there's gonna be a problem down the road once the plant is completely closed, you know. How do you force Congress to ah, supply funds to support medical benefits for all these people, you know.

Q:

I've heard from other workers that they have not been able to get insurance because they worked at Fernald. Has that ever been a problem for you?

19:19:06

A:

I think it's always a question, but I don't, I never was turned down because I worked at Fernald, no.

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Q:

And ah, how about medical monitoring, are you on the medical monitoring program?

A:

Hmm-mm. I'm scheduled for a physical in September, I can't, I think it will be my fourth or fifth one.

Q:

How do you feel about that program?

19:19:26

A:

I thi-, that's excellent because they have, there's so many people that won't got to a doctor and there's some people not participating that really need to, that they have found, you know, problems if they would just go to a doctor, you know.

A:

It may not be related to working at Fernald but at least ah, they are finding these things and ah, I think it's, it's probably in lieu of, of ah, health benefits that's the best thing, to me that's that best thing to come out of the lawsuit. The, you know, the money is nothing, you know, that little bit of money that everyone got was nothing but to be, to have the annual physicals so forth is probably a very, that's the best part of that.

19:20:22

Q:

Have you ever had any health problems in recent years?

A:

Yeah, I have a health problem right now. I have ah, pulmonary fibrosis in my lungs, which was caused, no doubt in my mind it was probably caused from ah, breathing uranium. But ah, you know, it's something you can live with.

Q:

Anything else you want to add?

19:20:50

A:

No, that's it.

Q:

Okay, we gonna do this thing now we call natural sound. We just need ah, quiet on the set for about 30 seconds. This is nat sound.