NOTICE

This transcript contains a Living History Interview conducted and prepared as part of the Fernald Living History Project. The narrations, descriptions, perceptions, opinions and beliefs expressed in this interview are solely those of the interviewee(s) and are not to be attributed directly or indirectly, to the United States Government, to the U.S. Department of Energy, to Fluor Daniel, Inc., to any Fluor Daniel Fernald teaming partner company, to any of their officers or employees, to the Fernald Living History Project or to anyone associated with the Fernald Living History Project.

FERNALD LIVING HISTORY PROJECT
Transcript

Name: Jerry Green
Date Interviewed: 8/17/99 Date Transcribed: 11/17/99 Tape: #70 Project Number 20012

Tape FLHP0161

21:01:11
Q:
Okay. All right. We're rolling right now so the first thing we need you to do is if you could just give us your name and spell it just so we know we have it right.

A:
Jerry D. Green. J-E-R-R-Y D initial, G-R-E-E-N.

21:01:26
Q:
Great, and if you could just give us a little bit of background, uh where were you born, where did you go to school, uh what kinds of jobs?

A:
Uh, I was born in Aurora, Indiana and I uh what I'd do? What'd you want to know, where I lived?

Q:
Yeah. (Cameraman asks to stop)

21:01:43
Q:
That' s all right. Okay, so you were born in Aurora. Where did you go to high school?

A:
Went to high school, well grade school and high school all in Aurora and that's it. I lived in Aurora 'til I got married and lived four years in Aurora and where I worked at Schoenling Distilleries, they shut down in 1952 so I applied for a job at Fernald. That's where I worked for the rest of my working years.

21:02:17
Q:
So how did you get your job? How did you know that Fernald was hiring at the time?

A:
Well, when the plant shut down Schoenling was in poor shape and everybody knew about them hiring out at Fernald. And I believe the person that was the personnel director or something down at Schoenling's where I worked uh went up to Fernald and he was up there when we went up there. So it seemed like everybody that worked at Fernald that was an operator didn't have no problems getting on. I think his name was Bob Selby but I'm not sure. That was one that was there all the time.

21:02:53
Q:
Tell us about your first impression of the plant, what was it like when you first saw it? What did you think?

A:
Well it was more of a construction type thing. Most of the buildings they were still building and when I applied for a job there they put us down K-65 until they got the plant that I was hired for, Plant 2/3; they didn't have it built. Well there was about four plants that wasn't built and I believe uh 5 and 6 were the only two that were really in production I remember there at first.

21:03:30
Q:
Tell us about working at K-65, what was that like in the early years?

A:
Well it was different for me because I never had worked in restricted clothing and shoes and all they furnished and it was really different in that way. I wasn't used to the prog-, that they were producing there or dumping ore and it was all new and different really. And we really didn't know what we were confronted with in a way as far as uh hazards and that. And we slowly learned I think through the process.

21:04:09
Q:
Did you know what they were doing when you first started there?

A:
No, well they were supposed to process ore but I didn't know uranium. Uh, they were had the finished product over there in 5 and 6. And we could go over there after we worked during the day if we wanted to and work about four hours overtime. I learned a little bit about the, they had the ingots and uh slugs and they had the rolling mill going there so I seen a little bit but other than that I didn't know too much about anything.

21:04:45
Q:
What kind of training did you get before you started your work there?

A:
Well they gave us some orientations about what they were doing there. But one thing that stuck in my mind, they said the process probably wouldn't last for five years. And uh I thought well 5 years is 5 years. And they told us a lot about what it was supposed to do and kind of well later on I got working there to my way of thinking they kind of brainwashed ya to how great the uranium was going to be in the regular system; power plants and things of that sort.

21:05:29
A:
But they always denied knowing anything about nuclear warheads or anything to do with the war. It was going to be for the makings of your heating systems. And they stressed heavy there for about 5 years after I worked there how they was going to run out of coal supply and everything. And everything was going to have to go uranium.

21:05:55
A:
So I know in fact, I guess I was there about 5 years, that they had to bring in these coal trucks in straight from Kentucky and they'd have them out there in the parking lot ready to unload. Well in line 'cause they were running out of coal they claimed and some of this stuff I had a hard time believing. And that was another reason why they was going to convert all the uranium and that was going to be it really. But that kind of fell through.

21:06:30
Q:
So they told you that the product you were making was for, not for the defense of the country (Comment - no) but.

A:
No, we never heard anything other than that submarine about that. So that was just something minor but.

21:06:47
Q:
So when did you find out that the uranium you were actually producing was being used for war?

A:
Well, I'm trying to think of a war there that we were in actually.

Q:
Probably would have been what they termed the Cold War.

21:07:04
A:
But I don't remember any war really. It's just all these things that well we were going to be the savior. Keeping the country going 'cause they was going to run out of gas and oil and well everything was going to be the main supplier, uranium. Which I believe they made a good story but then later on when you found out other things and they didn't.

21:07:35
A:
I think other fellows was there my time and everything felt that even though there might have been something harmful but our process or what we were doing was good enough to make us want to do it.

That kind of got changed later on 'cause they converted some of the atomic plants back to coal. Well the one down at Madison, they never did finish it.

21:08:04
A:
They, I think they converted that to coal before they got it done or I don't know for sure. There was, well like we had orientations on it all the time and they'd tell us how all the plants got to be; Paducah and Oak Ridge and I can't think of all the names. There was at least ten I know of around that we were shipping to or getting material from them. So it was getting to be a bigger process so I really thought that was what it was going to be.

21:08:41
Q:
Tell us a little bit more about K-65; tell us about the process of getting the slurry into the tanks and what exactly was the material that was going in.

A:
Well the material that was going in uh, Joe Carvetti was the head of it when I come to work there and he uh, he had where it was from but he didn't really done know what you know what percent or how enriched it was or anything.

21:09:09
A:
I guess it was a low enrichment but anyway we had it come in 30-gallon drums mostly. And we had a little building down there by K-65 which it was just a cement around the bottom of it then the building was made out of the stuff that later on was found out that it had asbestos in corrugated. And they were going to paint everything at one time that was later on though to try to stop it.

21:09:45
A:
But anyway the building was corrugated material and stone cement up the first floor and we worked behind the wall there. In that building that had a roller conveyor and it was built up about five feet so the fork truck driver could put the material on it, the drums. And they'd come in there by us and we were in a little booth, a metal booth that we would take the lids off.

21:10:18
A:
And it had what we called a skip hole, which would lift the drums just like a elevator. Lift them up this here about 3,000-gallon slurry tank back behind this cement wall and uh we would uh I'm not sure what amount but I think about 1,500 gallons of water we'd put in there and then we'd dump this dry ore in there and slurry it around. I think we dumped about 30 gallons in a batch we called it.

21:10:51
A:
And we'd slurry it around for maybe a half-hour or hour. We'd get done, then we had a pump line going out to the decant tanks or you call them I think they call them surge tanks. We used to just call them just tanks and we'd pump it out to them tanks through a two, we had a two pumps underground about halfway in between the building and the tanks.

21:11:20
A:
And these tanks, I don't know how much they held, 30,000 gallons or about that I think. But we started out by using regular water and dumped 30 drums in there and then pumped it up into those tanks and these tanks both had decants on 'em, which was a bullseye. You could look in there about every 2-foot apart I guess and you had a big valve that you could open up at the height to bring the water off the top of the tanks back into the surge tank.

21:11:58
A:
So that was the process and then after we got going we got up to where we'd get up to them decants where you'd see the water settle out on the solid and you could use the water off the top. You could take it back into the slurge tank, wait a minute that was the slurry tank, and uh reuse it with, you'd keep doing that in the process to where that's the way we started.

21:12:26
A:
Then eventually we got to where we could toll the, somehow we had it where we had a continuous system where we didn't have to shut down. We just kept dumping and pumping all the time. And it worked up from I'd say about maybe for 40 drums on a shift. I think we ended up getting about 130 was the record on a shift. And it run three shifts a day and uh that was about the goodest we could do, about 120 or 30 I think.

21:13:05
A:
But it got to where, it got pretty sloppy I'd say, our pumps pumping the material out of the slurry tanks up into the decant tanks. Uh, the tank would run over behind the wall when we was on that continuous system, especially we didn't have that good of control on the uh the top level of it and it run over back in this room back there.

21:13:30
A:
And we have a spill or something like that we just uh, I think they had a little sump pump back there but it ended up going out the back door there and we usually washed it off the pad. The same was true with the uh delivery of the 30-gallon drums or when they bring it down on fiatbed truck they'd spill some for some reason or other.

21:13:53
A:
And we had a fire hose out on the pad that we'd just wash it off the pad. Which wasn't SOP but, and as far as them tanks under the ground there, they'd get flooded. 'Cause for some reason they'd leave a seal of water on a pump over the weekend when we'd be down and it would fill a pit up with water. We had it from the slurry tanks.

21:14:22
A:
Somebody'd leave a valve open and it'd go out to the pumps and leak through the sealed water line into the pit again. So we had pumps replaced several times on those. And we also had in dumping the ore we had a, drums when they went up the skip hoist we found we couldn't get all the ore out of the drum. So we'd bring it back down and we had a straight-handed or a hoe anyway that we'd scrape the tanks out as good as we could and send them up.

21:15:00
A:
We had a slurry area, water spray up there would spray and help a little but you had to bring them back down and try and get more of the solids out. And then we found too that we needed something up there to hit the drums while they was up there, so we put a little arm up there on a shaft and we had a rope down the bottom. We had that we'd stay back and then when the drum got up there we'd pull the rope to beat it.

21:15:29
A:
Well, for some reason we couldn't set the timing 'cause we didn't have no kind of control tells when it was really up there. And we'd just go by the sound of the drum that it stopped and we'd pull the beater and sometimes it wouldn't be up there. So we'd break the beater out of there and we had problems with that but that's just a lot of little problems starting up you didn't know about.

21:15:52
A:
But overall that's the main thing I think about it was a hazard. Nowadays, when we washed the pad down and washed the material off and when they had a tank gone over in the back room, that slurry tank, that was actually material. So, and when we flood that there pump room. Those types of things I can see where it wasn't too healthy I guess. I don't know any other thing we did different.

21:16:28
Q:
Tell us a little bit about the actual extraction process that you worked in Plant 2/3.

A:
Well, the extraction was really a take the material, the uranium out of the aqueous or the water. That's from digestion, we'd get the ore from digestion in a slurry form. They'd take it upstairs to the fifth

deck. That's where the A col-, well you had A, B, two A columns, one B column and two C columns when we started the plant on both sides.

21:17:06
A:
The north side was the hot side and the other side was cold material, it wasn't enriched that much. And uh, well you have to go back to digestions. When the ore come in the hot material we called it, it'd go into the hot side digesters, it'd be 7, 8, 9, 10 and 11 and then F-26 would be the big hole tank. But anyway that had to be behind, I think it was about at least a foot thick cement walls to protect you from radiation and everything they said.

21:17:43
A:
And those tanks were covered with a cement type thing about oh 8 inches thick I think and it was permanent on the tank. Whereas you had that cement wall all the way to extraction and then in extraction you had to keep it behind the walls until it got out of the A columns. When it got in the B columns they didn't have to have the wall there.

21:18:09
A:
So therefore it wasn't that potent I guess. But anyway the cold side now they didn't have no walls or nothing on the tanks 'cause it wasn't that hot of material. But it was the same setup as the feed tanks and that and uh then it was in liquid then, then it'd go over in extraction. Now when I first worked there we had a c-, what did we have, we had control valves that you had from your feed tie.

21:18:45
A:
Well take the hot side, from your feed tank that was F-12, we'd pump everything out of the digesters, one at a time to the end of the tank and feed from there. And then when it'd get over in extraction we'd pump it up the fifth floor and from there we had control valve that controlled the flow and they had what they called an orifice in the feed line.

21:19:11
A:
And uh that was supposed to be smooth enough or the material was supposed to be clean enough that it wouldn't plug up but that didn't happen. We had plug ups and had to run up there on the fifth floor and try to get that line opened up and had to shut down and it created a lot of problems. But then later on they got that converted to where they had like a, I don't know what they called that box.

21:19:38
A:
We had a box up there with it'd go up into the box from the F-12 tank, the feed tank from digestion. And when it'd go up there it had a wheel in there that held the level so deep and then it had an overflow that'd go down into the F-12, F-11 and F-l, no, hot side is F. Wait a minute I'm, A-3 and 4 extraction columns.

21:20:11
A:
And then that feed then we had a slow type uh wheel that ah, with cups in it like, that would rotate the speed we can set down on the panel board that they feed could be fed in and out of that overflow or through; what was that? Paddle wheel like and it takes some much and put it into the line down to the columns. And then otherwise it just flow back into F-12; that overflowed go back as recycle.

21:20:44
A:
And that worked a lot better (laughing) I'll tell ya. It simplified that, but then ah, the feed that ah, come in the top that was aqueous, so it was water and we put organic in the bottom, come in the bottom of the A-columns. Well we had, had to put, turn the pulse generators on, which were up on the third floor, and the pulse had to be a certain rate to get, we had ah, I can't say for sure how many ah, ah, perforated plates in, about every 6 inches apart.

21:21:24
A:
I think there's about 20 something, in the columns, and you put the aqueous in the top and this pulsation, it was about an inch and a half, what it'd pulsate. And we had bellows, flexible down on the third, or down at the bottom, on the bottom side there where they'd go down into the bottom. And that'd pulsate the material.

21:21:50
A:
So when the aqueous come down through it kind of stop on these plates and then when ah, you had organic solvent coming up through the ah, up 'cause it was lighter, so it'd come up through the columns and the aqueous would go down through in that process. The organic would pick up the uranium out of the aqueous and that was mostly ran at 30 percent ah, TBPM kerosene.

21:22:21
A:
We had big hold tank outside that held, held the material 5-12, held the material come back into the, it recycle, back into the A-columns. And as it, the organic would come in at a certain rate; it was about 15 gallons I think a minute and the aqueous come down about 3 gallons a minute. And then ah, that organic would take the uranium out of the solvent and you'd go from uranium coming in the top and nothing, no uranium going out of the bottom.

21:23:01
A:
'Cause the organic would ah take it out of there. And that was the process really of separating that and you had a interface down in the bottom of the A-column that I had to maintain with a flow chamber and everything to see where, 'cause you had to maintain it. Too much of a flow of ah, solvent or ah, too much of aqueous either one would flood the columns.

21:23:25
A:
Therefore you had to ah, really have controls to maintain that. And ah, well when they said that feed, it had to be ah 150 degrees too. What a minute. Yeah, I think it was 150, well, you had to have it at 150 degrees when you put the aqueous in the top of it. The organic was just recycled, it was warm but it didn't make any difference on that.

21:23:50
A:
But anyway, you got the organic out of the top with ah uranium in it then and as always we had to maintain it around ah, ah, .998 about as high as we'd go. 'Cause you get up around 1.0 gravity's too great and, and it didn't work right. So you had to really maintain that to, but then you go from the A-column and then ur-, the uranium and the organic, you'd go in over to a saturator, suppose to catch any excess water that got in there and you'd drain that into a slop tank when that occurred.

21:24:29
A:
But you'd get out of, the ah aqueous tank and then you'd go into the raffinate mixer/settler. And that was ah, oh boy. The raffinate come off of the bottom of the column and they had the tanks up on the fifth floor, raffinate mixer/settler. Well the material, waste material would come out of the bottom with no uranium in it then.

Q:
Hang on just a second, we're getting some noise here. This guy's heading our way.

(Tape cuts out and begins again with Mr. Green talking)

21:25:02
A:
And then we ended up with everything, and just me and Paul Savage running it. 'Course we only had a third of it running then.

Q:
Yeah, 'cause it wasn't the whole thing.

A:
But boy when they was running full blast it was really something to.

21:25:14
Q:
Oh wow, that would have.

(Tape cuts out and begins again)

21:25:16
Q:
Great. (Cameraman - Great) Okay.

(Cameraman - and we are rolling)

21:25:19
Q:
Okay, you were telling us about.

A:
Well, then from the saturator, the solvent with ah, uranium in it goes over into the saturator where it; well where it picks up water, we drain that off into a slop tank. From there then ah, we go downstairs and the material comes off of the A-columns, goes into a raffinate, which is pumped up to the fifth deck next to the settler tanks.

21:25:45
A:
And ah, up there it settles out and we have ah, or we have a kerosene wash we add to the raffinate to get the ah, TBP out of it. Which is in the solvent. They don't want that over there 'cause there's more chance of explosion. But anyway ah, we wash the raffinate in ah, kerosene and that comes into a mixer which has an agitator. It's mixed with the kerosene and then it settles in a settler and the kerosene it pumped back into the mixer, keeps recycling and reusing it.

21:26:29
A:
And the raffinate is pumped over to ah, hot raffinate where it's ah, used as more of a waste material. But then we get, the solvent out of the saturator and that goes over into ah, back to start with, we had a large B-column. Which is the largest one it ah, held maybe ah, 1,100 gallons where the A-columns held about ah, I don't know, 6 to 800 gallons I think apiece.

21:27:03
A:
But anyway, in the B-column, that's the largest column and that's where the solvent was scrubbed and you just put a little amount of water, about 3 gallons of water into the top of the B-column and it also, well B, all the columns had pulse generators on it. So the B-column ah, the water slowly comes down through the solvent, and you got a interface at the bottom of the B-column, which is maintained with a pump.

21:27:33
A:
And ah, maintains a level down in the bottom, I think. It's been so; we hadn't run that B-column in about 10 years so didn't use that lab for about 30 years. But anyway the solvent goes out of the top of

the B-column and from there at one time it was pumped up to a splitter box up on the seventh floor. Which was, all that done was split the flow when we running two columns.

21:28:05
A:
The amount had to go through two C ah columns also, as, so therefore you had to split the flow. And one C-column was larger than the other C-column. I don't know what their ah gallons was, but ah, around 800,000 gallons. One of 'em was smaller ah, than the other one, so you had to have a split to get the right amount into each one.

21:28:34
A:
And I think a C-4 was the largest one and C-3 was the smaller one. But up on the seventh deck, this B material ah, solvent would pump up to there and then the flow would automatic go in the box which had ah, a split, had a, it'd go up into one chamber and then it'd overflow and there would be two different chambers. A splitter, which is larger amount, would go into C-4 or C, C-2 1 think. Well, one of 'em was larger than the other.

21:29:11
A:
And it'd split the flow so it'd be right. 'Cause you could only put so much strip water, they called it, water coming into the C-columns otherwise you'd flood as you tried to ah, if you had the split wrong. But anyway that's what the splitter box was to split ah, BP product going into the C-column. And then ah.

Q:
Hold that thought we have to switch tapes.

A:
Oh.

(People laughing)

TAPE FLHP 0162

22:01:03
(Cameraman- and speak)

Q:
Okay, so you're at the splitters.

22:01:08
A:
Yeah, I was splitting PB and a splitter box which makes the right amount going to each ah, C-column, which they're different sizes, that's why you had to split it further to get the right amount in the right

ah column. But anyway you go into the C-column, you go into the bottom, again it's all organic so it comes up through the column and you put strip water, what they called it when you're in the C-column.

22:01:38
A:
And that's deionized water. Ah, they started using deionized water in the B-column. So the B-column had deionized water and the C-column does ah, for impurities and that, keep pure. But anyway, and then in the C-column you put ah, water in at 150 degrees ah, in the top of the column. And ah the interface in the C-column is down at the bottom.

22:02:10
A:
And ah, you put, well, when we were run both A-columns, we were running about, I think the best we could do - I don't know, well I know we got up to 13 gallons on each column. Ah I think we may at one time got up to 15 but we pushed as hard as we could.

22:02:32
A:
But anyway, ah, the C-columns, uh I lost what I was thinking about now. C-columns ah, you put a different amount of water in one. I think one I could run up to 21 gallons, that's about the capacity, other than that you get higher than that you get the columns flooding. And ah, you can't have that because it brings ah, interface up from the bottom and it overflows too much on solvent.

22:03:03
A:
So you had to maintain that interface down at the bottom with controls, we had cont-, controls for all that, control valves for all that. But anyway, the water come in the top of the C-columns at 150 degrees and ah, C-2 you could run about 21 gallons a minute, and C-4 was 17 something I think. And then they both ah, the material come out of the top would go out into ah, solvent creak railing.

22:03:40
A:
That was a different process, it cleans up the solvent after you run it and the CP that come out of the bottom, had ah, you had to transfer of the, the yeah, the uranium from the solvent to the aqueous. 'Cause you put such a large amount of water in it, that is scrubbed the uranium out into the bottom. And then the bottom, the CP that come off the bottom it had ah, uranium in the aqueous now, and you'd put that through, we called them dela-valve.

22:04:18
A:
These, like a cream separator, we had four of those ah, that separated impurities and ah, carbon or anything we ah, picked up through the process. This more or less filtered it through these dela-valves. And ah, you put it through the dela-valves; we had four of 'em. We usually ran three at a time when we was in full production.

22:04:43
A:
And ah, that went over to OK-Liquor tanks in denitration. That was the end of it for us. We, and we ran that, CP was about ah, can't say how, I think it was up around 100 grams per liter, we had it up to, when we pumped it over to these OK-Liquor tanks outside in denitration. Two, there were three tanks and two of 'em were about 30,000 I think and the other close to 50,000.

22:05:17
A:
And that was the end for extraction. That was uranium and aqueous and ah, then the solvent went off the top of 'em, come off the top of the C-columns, C=2 and 4. We pumped it into ah, a hold tank ah, slop tank. I'm forgettin', no we'd run it right to the dela-valves and that clean the material up and then from the dela-valves it go out into the 5-12, a large cylinder surge tank like.

22:05:55
A:
And that held, well we never did fill that up, that held 50, 50,000 gallons I imagine. But we never run that much in there. We'd run it where we'd run between about 5 and 30 gallons or inches in that, the barometer told how much was in the tank. So we never got it very full in there. But anyway, when it got out into 5-12 it was ready to come back and go through the process, back into the A-columns again.

22:06:27
So it was just reprocessing ah old, extraction really was to do was to transfer the ah aqueous feed, get the uranium out of the aqueous feed and transfer it into solvent and carry it over into the C-columns. And then ah strip it out back to the uranium in the aqueous form and send it over to denitration.

22:06:54
A:
They did that, the next process, they'd ah, that was in preparation to ah, put it, put it back to orange oxide or orange, yeah, we called it orange salt. They did that through a process of drying it out to powder form and ah, like, and the raffinate which come off the, out of the raffinate settler, we pumped that over to hot raffinate and they'd have to process that over there. And they had a large drum that they filtered it over that. But ah, and that goes on and on. But so.

22:07:38
Q:
What were some of the hazards associated with working in extraction? What were some of the things you saw that you felt were dangerous?

A:
Well, when I first started there, they were really cautious about ah, and ah, you couldn't even have ah, regular tools. You had to have a beryllium, I think is a brass type, so wouldn't be no sparks at all. Well I think that lasted about, well they were so heavy and bulky and everything and ah, they discontinued using 'era.

22:08:10
A:
I don't think remember every getting any authority to do that, but the maintenance man working in other plants and everything, they'd just bring their tools and do the job. But ah, and ah, the hazard was mostly, I think ah, walking in the material. We had acids and caustics and uranium solution on the floor and there's been times when I know my shoes didn't lasted only about 4 days.

A:
They just eat 'em up. Well we had 4 days off ah, we worked a days off schedule which was 4 days off, then 2 days off, and then 1 day off. And when I got on that 4 day off and I'd leave my shoes in the locker, well when I'd come back they'd done be caustic or something got on 'em. They weren't good shoes there later on, they kind of cardboard in fact I thought [(laughing).

22:09:03
A:
'Cause of, but they changed shoes type about five different times and then they tried the rubber boot or ah, high top shoe, and they'd sweat so bad that nobody would wear 'em. But ah, yeah, a lot of different, but as far as hazard, I think the most hazard to me in there would be explosion like I was sayin'.

22:09:32
A:
Ah, 129 slop tank blew up on me one time and I got I it on me. But other than that I think sulfuric acid was really, we kept it outside, in a tank outside, outside of extraction. It wasn't too large a tank, only hold about 300 gallons, but it was ah, it would eat worse when it got mixed with water more. And it seemed like we had a lot of trouble with that.

22:10:07
A:
In fact one time, they left the lid off the tank outside and we only had about oh, maybe 50, 75 gallons of caustic, or ah sulfuric acid in it and we was off that weekend and it rained that weekend. Someone left the manhole off, which about that big around, and ah, rainwater got in there. Well when we come back well they had to replace the tank. It ate so bad it ruined it.

22:10:35
A:
And ah, but sulfuric had a reverse action, like most acid when they're stronger they're worst. With sulfuric you had to get it down to a lower content of acid and then it'd start working. And it eat, well we had a pump from that sulfuric acid tank into our, into my ah, deionizers. I had to regenerate them all the time.

22:11:00
A:
And they ah, had a process in the process that you had to ah, use sulfuric, sulfuric acid with ah, something, water. Yeah, had to add water with it. And ah, one weekend ah, what happened there, oh

the sulfuric pump, these little ah pulsation pumps, leaked back into the water or wait a minute. How'd that, yeah, the water leaked back from the deionizer back into the sulfuric line and that all ate up and. Yeah, get that on ya or anything, it was worse than nitrate. But ah.

22:11:42
Q:
What are some of the accidents that you saw while you were there?

A:
Well, I seen, got there right after it happened where ah, Elmer Stienmetts died. Well, I worked a job too, when I was over in Plant 8, we had a drum washer outside that you ah, washed 30- and 55-gallon drums. You just turned them over and put them in this thing and it was on a wheel that rotated around, never did stop long.

22:12:10
A:
You had to get 'em out of there pretty fast. But ah, he was working one day and I guess the temperature was 104 they said and ah, Bob Goutch was working with him and he said, he went out there and Elmer was out there laying on the sidewalk. You had a little platform you got up to feed the drums and that, but I, I didn't know, really know what he died from. But maybe a stroke or whatever, but he was still in his 40's I think when that happened.

22:12:40
A:
But I seen him, and then ah, like I say, myself when I got in a acc-, explosion and Howard Lidell, he about got his ankle taken off over in the NF, S tank. That's ah, where right plant, next to Plant 1 that time. And they ah, had higher material they put in there and we to real, really be careful with that. But he was unloading a tank truck there, and you had a ah, a little platform, you had to drop down onto the tank truck and he was, had it finished.

22:13:16
A:
And they called for the fork truck driver and I guess he thought he was done, or told him he'd be done, I guess he wasn't yet. And he was up there and he got his leg, foot in between that, he about lost his leg in there. He ended up in the hospital and that but they, you surprised me 'cause I thought that ain't gonna be too bad to say.

22:13:37
A:
But ah, there was a lot of incidents where a guy, well I, and when I was over in Plant 8, I got down from pneumonia, ammonia, I was ah, receiving from Plant 4 and the tank. Somehow it overflowed on me and I, well I got it shut off, but ah, I had to crawl away from that and go over and get oxygen. And ah, this ah, Russell Craig, a kiln blew up on him, the shoot. Material they use to put down into the kiln over in Plant 8.

22:14:13
A:
And it kind of got like shrapnel in one of his arm, the material was fine stuff that they received from Oak Ridge and ah, but ah he recovered. But then a lot of things can't think of right now. But I seen, well Archie Stephens, a fellow I worked with about the first 2 years I worked there. He had a son that went over to Plant ah, 9 to work and him and another fellow was up on a tank I believe and blew up.

22:14:48
A:
And it really blew, they said they could see his fingerprint or footprints in the cement and that from, so his boy got killed in that. But ah, (chuckles) made me think of one incident, we got ah not, ah, maintenance men were over there putting ah, ah, exit signs on wooden doors in extraction and digestion. And one day, the foreman told the maintenance man to go over and put them signs on the door.

22:15:21
A:
And here he had one at that time, new type of pistol gun that shot that rivets in there. He went over and shot and it (laughing) went right through the door, and another maintenance man was coming in from, and he shot him. But ah, they discontinued that right now (laughing). But ah, it's just something that shouldn't have happened, but it did.

22:15:41
A:
And I know we had ah, well other than where I worked at like, ah, I was on the Fire Department too, we were for about 12 years I think, Plant 2 and 3. We worked 7 days a week, so they ah, had us be the firemen at that time and ah, we had a big fire over in the Pilot Plant. Well it wasn't a fire it was a release and it was a gas, a gas. A line broke going into one of the, I don't know what it was.

22:16:11
A:
But I can remember the guy, can't think of his name, that got it shut off, but ah, they couldn't get it shut off or the valve broke. And uh when I run over there in the Fire Department run over there and Doc Quigley's out there and he said get more Scott Air Packs and they had a whole pile of 'em up there they done used. And that was a serious fire. But, and a lot of guys got overexposed to different things.

22:16:39
A:
They had me overexposed one time they said. Uh, Beckelheimer, my supervisor told, well, you got overexposed so you go over to the Pilot Plant for a week. But I couldn't see that move 'cause I went over there and was in acid and everything the same as, I think he just needed a man over there to clean up a mess. But anyway I got in on that.

22:17:05
A:
And then I was also with Charlie, he died now, he was a fork truck driver. I got over there in a building back of the Pilot Plant that they were storing material. I think it was enriched in 55 gallons and we was stacking 'em double. They put five clams down and we'd, or ten drums really in a line, or not in a line but five and five and then they'd put 4 x 8 sheets of plywood on that and they'd put more in there.

22:17:41
A:
And they was filling that whole warehouse and they said now this is contaminated area and when you go over there you only have to work in there four days, that's all you can work. Well me and Charlie Gulley was his name, he was my fork truck driver and we went over there and worked in there and uh Harry McDaniels was the boss and he told me to go over there.

22:18:02
A:
So we went over there and we worked and then I come in Monday and we'd been away from there 2 days and he said well you and Charlie go back over there. And me and Charlie still had to go. Just things, they don't stick by the book really. And I always wondered about that, just how bad it was but.

22:18:23
Q:
In your opinion just generally how safe was Fernald to work?

A:
Well I'd say on going in there and just looking at the place it, they had all good equipment, I'll say that. Well, it wasn't either when I went in there, their air respirators and things weren't that great. Well they improved all over the country but they weren't too good at the start.

22:18:46
A:
But uh overall they had equipment there but they sure didn't stress you using it. That's like I know what we got out when we was in Plant 8. One day, I remember this, they put alarms, a button you had to push in each area there and it started a siren, you was supposed to get out right then. Well we got out, in digestion area over at Plant 8.

22:19:12
A:
We got out there and we was over sittin' on the wall was in the summertime and our foreman comes out and he says, "What are you guys doing sittin' out here?" We said well who sat that alarm off we wanted to know. He said we did 'cause they told us anybody set that off get them out of there. And so he walked in there, he said well everything 's okay, we still not orange exactly we had colored fumes going around.

22:19:40
A:
And you could smell it real strong. He said well that's not going to hurt ya, get on back in there. And he said, at the time he said don't anybody press that button anymore. Well it wasn't about the next week they had a thing only to be pushed by the foreman. So you know it takes authority or the emergency equipment away from a regular person. But they did a lot of things like that, that weren't right I thought. But uh.

22:20:08
Q:
Now a lot of the times you probably have seen pictures and your son works at Fernald now (Comment - right) um and in the very areas that you were not wearing any protective (Comment - right) gear, he's wearing a lot. How does that make you feel now?

22:20:22
A:
Well it makes me feel like everything else, they go from one extreme to the other and I think a lot of that is 'cause they can't get the money to do anything they want to make it better and they kind of over do it. 'Cause well all people who worked in there as long as I did we all say boy, they got it, course my boy tells me it takes him most of the day to put some of that stuff on and take it off.

22:20:48
A:
As far as working in it, but they still got that problem too. We went up to Niagara Falls one weekend. We had to go up there and clean up, they'd done shut it down. We was trying a new process, covering up some raffinate material and it didn't work, but we had to wear them darn plastic suits and boy it was in the middle of July and you talk about, well we had them tore off of us half day. But that's what they, Brian says they're still terrible to wear but. Yeah, some things just don't get no better.

22:21:32
Q:
So tell us a little bit about um the um, I'm going back to K-65 again, um the material that was going into K-65, did you know where it came from, did you have to keep track of it when you put it in the tanks?

A:
No, we didn't. Well in my, no we just dumped whatever Carvetti put up on the conveyor for us to dump. We had a chart, marked down how many drums and when we get that many we pump it.

22:22:06
A:
And uh but he told me, I talked, well there was four of us started there, he pretty well briefed us. And he'd tell us it was from Belgian Congo and Canada, well he was up to Canada and he said that he canned some of that stuff himself. So we figured he knew a little about it. But I don't think anybody

back then knew the actual extent of the enrichment or whatever you want to call it was. We kind of had to learn I think.

22:22:42
Q:
Which leads me to my next question. Did you have any idea when you took the job with Fernald that you'd be working with radioactive material at all?

A:
No, I didn't know what it was to start with and they didn't say much about it until, it didn't take long when I got down to K-65 and had to put these, they called them something. They were a little tube like thing, monitor of some sort, then when we quit at night we'd have to go up there and he'd go over us with a monitor of some sort.

22:23:12
A:
And then sometime we had to go over to medics. I knew something was uh getting around. But you forget, well we did, after so long of working there what they say don't mean a hill a beans the way. They can say go back in there and all that, we knew we had to take the responsibility partly on our own I guess, 'cause they wouldn't give us any verification.

22:23:45
A:
Like when Joe Beckelheimer says I was overexposed he didn't say how much and didn't say how long, he just told me to go back. The next week I think we got the job done. And uh, all the charts in digestion area and they didn't have none in extraction, well I worked in digestion too, we had them bag houses. Oh boy, I don't know how to explain that other than they just may as well not been there.

22:24:20
A:
They uh, the biggest day dust collector up there on the second floor in digestion, that was the one we kept running to dump most of the ore back there and it had them blow rings on it and bags. One time I remember they got bags that weren't really long enough or something and the maintenance had to go in there and they got 'em attached though and it wasn't too good.

22:24:44
A:
Then we had the blower rings that would go up and down and blow air on them. And uh, bins down underneath of them had little rotary valves and those keep, you opened up a vent line on them and turn those rotary valves on and then line went back into the digester on the hot side. And them things would plug up, well they plugged up so bad, them bins were pretty big and them bins would fill up and the ore would be up in the bags even when we had to go up there and beat the bags by hand with a stick.

22:25:22
A:
'Cause the blowers didn't work, but we knew what part of the trouble was. I mean, and then as far as the controls we had, they finally put stuff in the stack. And Ray Root, he was our Health and Safety man, I remember he'd go up them every day and have to check that. And shoot, they'd run without even starting the bag house up.

22:25:47
A:
It got to where, nothing they didn't do really at one time. Then they come up later on in the '60's I think, they got going with this, we better do this or that or Oak Ridge will put us out of commission and they give us yellow tape there. And boy that was a good thing to have around there 'cause the drums out of the pad in digestion, you'd go out there and they'd be leaking or anything. And they'd have you put yellow tape on it then get a can of black paint and paint over it so it'd look all right.

22:26:25
A:
It just, you know you weren't doing right. It didn't do you any good to complain there at one time. And I'm sure everybody I worked with like I say if guys worked there, Lydel was the best guy they had in digestion and he knew all that, did all that. That yellow tape got so bad they started using it wrong places really.

22:26:55
A:
I know over in hot raffinate they had a, the scrubber system, acid towers and that, well it had a scrubber acid that went through them. I don't know which way it went but the acid tanks started leaking. If you didn't put a certain beryllium or something, them was two types of stuff, if you didn't put that your raffinate when you got it from extraction and you tried to put it through this tank it'd work on stainless steel which you're not supposed to do.

22:27:26
A:
But we got to where we didn't do it right and this one tank started leaking, well he's dead too Bill York was my boss then and I pleaded with him because he had me over there and I was afraid to get samples up there by that thing. 'Cause it was spraying and well, wear your safety glasses, we're going to get it fixed. That went on for a year and they never did get it fixed.

22:27:52
A:
We finally shut down. But just things like that uncalled for. And we'd go to safety meetings, we'd have them safety meetings and that was a waste of time too 'cause they, it got so bad, we got on 'era so bad they finally said all right we'll write everything down and we'll get it done. Well that didn't work, they didn't get nothing done. We turned it in different placed and it didn't do no good.

22:28:20
A:
So it got pretty bad there. I don't know what years that were that we had to use yellow tape and we didn't get no parts or nothing there for a while. They took about everything away from us. You'd just scrounge and do what you could to keep production going.

22:28:36
Q:
If you could go back a couple of years, say 20 or 30 years and tell somebody from NLO something what would you tell them about safety especially?

A:
I wish I had that list. We'd go to them safety meetings and we'd have two pages of stuff they were going to do. Uh, well repair leaks on everything. That yellow tape, they got to where we had to use that on about everything we could, acid lines or anything to stop the leaks. And ore, dry or and all that, like I said the drums out on the pad.

22:29:14
A:
And any kind of leak you had where the metal was wore out we'd have to patch it any way you could. That was all you had really, last resort I guess. But there was, well things we did like one weekend they said anybody volunteer to go over to Plant 1 pigeons, they couldn't get rid of pigeons over there. They used to have the guards over there on weekends and shoot 'em with shotguns.

22:29:41
A:
And then they give up. They had a owl up there on the things but this one weekend it got so bad, it was about 30 years ago, that they asked for volunteers to come out there and they was gonna clean up the pigeon dirt. Well we thought they had some process of doing, we went in and put a respirator on and go up there with a broom and a shovel and throw it down any way. We got 5 1/2, 55-gallon drums that day and I always thought about that 'cause I didn't know about this pigeon.

(Tape ran out)

TAPE FLHP0163

23:01:00
Q:
Before you say this let's go ahead, is that okay if we go ahead and say this on camera?

A:
Yeah. What are we on now I forgot?

Q:
Well we can go ahead and just talk about what we were talking about. You were gonna tell me a story.

A:
Okay. What's the story?

23:01:12
Q:
(Laughter) What your story was you said I'll never forget.

A:
I done forgot. Must have been a lie, uh.

Q:
Uh, we were talking about shutting down work and not wanting to do certain jobs because they were dangerous.

23:01:31
A:
Oh well yeah that really didn't, it didn't help to do things. Well I remember one case Joe Beckelheimer, I was over in digestion, me and Howard Lydel that day or I was working in little tanks. And we had such bad vacuum on that. And we'd put acid in these tanks and uh put uh lids with iron and you'd heat them up and that'd melt them down, dissolve them.

23:02:04
A:
Well we were over there and we couldn't get over four at a time going we'd get a reaction too violent. So they worked on it, the vacuum and thought they had it better so for about 10:00 Beckelheimer said, well close to lunch time he said I'm going to lunch he says you get them kicked on and have them going when I get back. So I went back there and come back from lunch and went back there and started adding acid to all of them.

23:02:34
A:
I got 'em all going and the vacuum on and everything and I started, I knew I'd get a overreaction boy them things started a reaction. And orange acid fumes started coming out. And here come Don Dunaway and the guy that was a supervisor over there in Plant 5 and another Health and Safety man and they walked in there when I was doing that and they said you got that running7

23:03:04
A:
And I said yeah. They said well you're not supposed to run that until you get this new SOP. I said Beckelheimer told me to start it up and I started it up. And oh, Beckelheimer come in about that time and you don't know anything about him, he would be a really kind of spicy guy and boy he come in there and before they could say anything, I know they was going to tell him to shut it down.

23:03:28
A:
And he started a cussing and saying, I knew it, I try to do any production and you guys come over here and you try to shut everything down and how can I get anything, and he went on and on. To end up well it's one supervisor over there at five that time, he was pretty easy going and uh they backed down. Well that's the way he was he'd make ya back down if he could. Production was it.

23:03:58
Q:
Speaking of that, production was it, you were telling me uh earlier how there were like races to get stuff done.

A:
Oh yeah back down there in K-65.

Q:
Tell us a little bit about that.

23:04:07
A:
Well, well we were all new and we got like I say I think it was about 40, 30 or 40 drums on a shift when we started. We had three shifts going and the boss would come down I guess about every other day and say well you know get a little more, do more. And one guy, well we was all new people and wanted to you know kind of get production up and it just worked up to where it was a race.

23:04:35
A:
And George Fivler was the oldest lead man there. Well I was on the second shift and he was on the day shift, well we rotated back then. But anyway, I said George you hold the record, you get 120 or 30 today and that'll be it, nobody's going to try to pass you anymore. 'Cause we was really working hard and, but we give it up, that was the end of it.

23:05:04
A:
And then winter came there too and we shut it down. I don't think I had to go back down there 'cause I had 2/3 going, some other guys worked down there though. So it was something else.

23:05:15
Q:
So what do you think of the cleanup that's going on at Fernald now?

A:
Well, I guess they know more about than I do as to what's really there or not. But to me there's so much stuff there that we run out of limits and uh washed off on the, well we used to wash the road off

even. When somebody'd get green salt or yellow, orange ore on them and they'd have it on their shoes and walk over to medics or something, they'd get out there and wash it off and that.

23:05:49
A:
And uh all that in there I guess. But I guess they got a good system now. They have to have they got so much safety equipment and so many rules I hope they go by now that we didn't go by. And so I'd say it's a good process now but I feel like they're overdoing it now 'cause they's talking about digging up dirt and gee whiz you'd dig up the whole plant.

23:06:17
A:
'Cause when I worked, well everywhere I worked up there, like one time I worked over in Plant 4 one summer for about six months. And I had to go over there one time, me and Tater Knox. They sent us upstairs, they said take the vac portable vacuum cleaners, get up on the roof there, and get that green salt off there 'cause they had a bag house broke during the night and they had green salt all over the roof.

23:06:63
A:
So we had to get up there and vacuum that and could have fell over the roof, we didn't have no kind of safety equipment with us. But that's just the way it was. We hold a vacuum cleaner and take turns and kind of ridiculous. Well there was a lot of things hazards there about well I was back over, about 15 years after the place started, maybe 20, they decided that their asbestos shingles or whatever, corrugated stuff on all the buildings was, had asbestos in it and they had to paint them.

23:07:26
A:
And they started that, they got Plant 8 started maybe Plant 2 a couple plants but they quit doing it and then they shut up about it. Just things are, and I don't know how they're doing it now to tear them down.

23:07:43
Q:
So you were speaking about dust collectors earlier, um when that all happened in 1986 there was a dust collector that leaked, um how did you react to that whole, all the media attention and everything that was going on at that time?

A:
I don't remember, oh 1986?

Q:
Uh-huh, there's like '84.

A:
Wait a minute, that's after Westinghouse took over isn't it?

Q:
Right, yeah.

23:08:08
A:
Well they shut us down in 1980 something; we didn't have nothing going much. I was out in, where was I when they shut us down? I was working out there in the metal dissolver building that time. Drums, and they'd react bad. There's another incident. This new Health and Safety man come out there and you know where uh metal dissolver is outside, wait a minute I forget, Plant 8.
(Comment - uh-huh Plant 8).

23:08:39
A:
I was out there, we had a dumping station out there and you could only dump these drums so fast 'cause acid solution and I had a temperature recorder right there by me. And I had to watch that usually just dumping the ore and that it'd get up to 150 degrees but then we'd heat it the rest of the way up. The hotter you get it the better it dissolved.

23:09:05
A:
Get up about 180 but I was out there working one-day, this guy, new guy hired in Westinghouse, he come out there and stand behind me. I had a respirator on and I was, you have to dump it real slow and it'll react, the vacuum system won't take the acid fumes away when it gets so strong. And then puff up there every once in a while and I knew he was scared 'cause he'd back off.

23:09:31
A:
And pretty soon that thing, you couldn't control the drum dumping it just slid out there and a bunch slid out and black orange fumes come out of there and boy he jumped out of that place. And he didn't see me coming; when I got out there I didn't tell him or didn't know what he was thinking. But I had to turn that bag house off otherwise they go up in the bag house and catch a fire or react too violent.

23:10:03
A:
So they always said you have to turn that bag house off so I had to reach back to the wall and turn it off. But then when I went out there he said boy you don't work in stuff light do you he said, that's not right. Tell me about it. But 'cause we worked in it all the time.

23:10:22
Q:
Now they're tearing that place down and you worked there for 30 some years.

A:
Thirty-five and a half years.

Q:
Thirty-five and a half years from 1952 to 1988.

A:
Right. Really '89. I stayed.

Q:
Oh you were there 'til early '89?

A:
Well, what happened we had a strike that year in '88. And I had my vacation on the end of it so, and they called 'em back but I didn't get called back I was still on the vacation. And then they uh Paul Savage told me, he said you know they're retiring us guys if want to take an extra pension. I said no? He said, well you better get up there.

23:11:00
A:
'Cause they didn't call me or anything. But I got up there and got in, there's 15 of us that retired then. But I never did go back after October 'cause our contract they got it settled but I had the vacation on end so I never did go back. But always something different.

23:11:20
Q:
Once they tear all the buildings down out there, what would you like to see done with the land?

A:
I really wouldn't, I think they was talking about amusement parks and things. I wouldn't want people on it really if it was me. I wouldn't want to go up there and make like a campground or something out of it. I just don't think it's, unless they're lying I mean, it can't be as bad as they say.

23:11:50
Q:
And um can you tell us a little bit about the class action suits that were filed later on in the '80's and uh the differences between the class action suit for the folks who lived around and the folks who worked.

23:12:07
A:
Inside and outside. Well to start with the first thing I heard that I sure didn't like, well they had about six lawyers, what's that big shot name, he was the head of it? But anyway, uh they told us we was going to get a pretty good amount for being working in the plant. Well then wasn't about a year we listened to all this stuff they was telling us they said we're gonna include the office help too.

23:12:38
A:
Well, that's well and good in a way but I have to bring up the thing that people that worked over in that office, they wore street clothes and none of them ever wanted to come over in the plant. I don't blame them for that but then when they come over they just took a tour through there they ask you well how do you stand this place, I wouldn't work over here in all these fumes and everything.

23:13:01
A:
And all these stories over the years I heard, people telling me, I always told them well work in or go out the gate. 'Cause back then I had five kids, I'd say I gotta work. But uh, it was really depressing when they told me the people over in the office was going to get the same thing as you get out here wading around in it and breathing and everything else.

23:13:29
A:
And then when Lisa Crawford come up with this outside stuff, there's something I don't know about, how they're you know saying what you get. But uh.

23:13:43
Q:
Did you think the money was distributed fairly or not?

A:
Well like I say, I'd say no but that's just my opinion. I feel like a great difference between working over in the office and working, 'cause I rode with some guys that work in the office too. They'd tell what they did during the day, just think what I did, had to do. Yeah, it was something else. Well to me like working in two different places.

23:14:12
A:
They didn't work under no condition like we had to work under. Course they didn't say well you don't have to but I feel like we did in a way. Some of them foreman was either well if you don't like working here you can leave. Now that they got all this here what job discrimination and everything like that they couldn't get by with that I guess.

23:14:38
Q:
Do you worry about your health now?

A:
Yeah, more so now than, 'cause about, well I had angiogram and I was on aspirin for about 2 years or 3 and then now they put me on, well in the last 5 years I'm on six different pills now. Blood thinner all kinds of stuff, yeah I, always thought about my throat.

23:15:04
A:
I had, I know when I worked there I had to go to doctor and things for more or less to me it was acid fumes and caustic and things like that. I actually knew was in the air, ammonia, ammonia fumes and all that. Yeah, when I worked in extraction we had ammonia converts liquid into gas, well we had it for the process going into the columns and they had it right back in the control panel and that's where I worked from all the time.

23:15:39
A:
And then we'd get acid fumes on the floor and they'd mix and that'd just make a blue haze. I'd go in there in the mornings and I'd say about, if another guy didn't do it on his shift, about every two or three days I'd have to get Chem Wipes and wipe my panel control plastic covers 'cause I couldn't see them just for the fog on them.

23:16:02
A:
Yeah, it just, and well along that line as far as bad fumes and things, I know we had a panel board by the time clock in the digestion and they'd come out and put papers up there about this and that, just regular paper and in a couple of weeks you could just touch that paper, squeeze it and it'd just fall apart from the fumes and stuff. And they finally put 'em behind glass things but still it was bad.

23:16:37
Q:
Are you on the medical monitoring program?

A:
Yeah.

Q:
How do you feel about that?

A:
Well it's like everything else. You go to the doctor and they say something about what's the matter with ya but nobody really wants to do it. And I've been to several specialists about different things and uh they don't do me no good really.

23:17:00
A:
I guess all they're waiting for is still to get bad enough that they're going to have to operate. It, not the end I want to hear about. Course I hear about people older than me or my age I talk to them everybody's getting things wrong with them. That monitoring program is alright but well according to our suit they said we got so much for Drake Hospital. They got 800 and some dollars for every physical we took.

23:17:35
A:
And now when I go up there well this year you get this and this and next year you'll get the nose, throat and eye or something. But they don't give you everything and I don't know whether they're still getting the same amount of money and if they are it's to me, the back of my head I think well it's a rip off part of it. I don't know, and every time I go they usually have different people.

23:18:00
A:
It's not no like you talk to your doctor where he knows a little bit about your past history. No, I don't have too much; it's a good thing I guess but not that great really.

23:18:16
Q:
How do you feel about the government after having worked so many years at Fernald?

A:
Well, I can't really blame the government, I can blame the, well National Lead, they liked to brag and say they' re running the place but when it come right down to it, what was it AEC, they had the final word. And then too when OSHA and what's the other one, them two government programs, OSHA and DOE, I think DOE isn't it.

23:18:52
Q:
NIOSH?

A:
No DOE or something.

Q:
DOE, oh Department of Energy.

A:
Yeah, they come in there and they'd do some stupid things. Like they replaced all the water fitting which in a way was a good thing but we had steam, water, air and another one; four things and they put different kind of outlets on it.

23:19:14
A:
And we had good hoses and we could use them hoses on steam or water or anything usually. But uh, one of the operators took care of that. He put them all up, hung them up there real fancy and everything well about a week later I think he went over to maintenance shop and well we were in with maintenance they'd do anything we wanted them to.

23:19:36
A:
And they made a thing with four different fittings on it we could just go around and put the water hose on any of them. And then about the stupidest thing I saw that OSHA thing was up there then I was back in extraction and we have spills and the best thing to do when you had spills up on the fifth floor or any of the floors you had this iron grading, or not grading, decking, iron decking.

23:20:07
A:
And we'd just go up and get a water hose and tell everybody to stay out and back there I'm going to wash it down. So to wash it all down decks and they'd go in the floor sump and turn everything from the floors went into slop tanks nothing went outside or contaminate anything. We'd just wash it down back up there.

23:20:30
A:
But they come in; one of them got the idea we're going to stop anything going off of the decks. Well they said their idea was us kicking anything off the decks that would go off easy but then we get up there to wash down the deck we'd have a spill, we couldn't wash it off and that boy. And we couldn't, most thing we didn't like somebody'd do something they'd take them down but no I didn't care much for that part of the government.

23:21:00
A:
They wouldn't come to you or even sometime you even mention then they'd come up with something altogether or they wouldn't do nothing. 'Cause I know one time I complained to them I said you're wanting to fix things up or make them safer, get these here pumps, I don't know we had about 20 pumps on the main floor there; I said get them, look at that, it's not water coming out the seal, that's product.

23:21:27
A:
I said they can't get the right packing to hold that acids and uranium and that and therefore it leaks out. But they never did do anything about that. But just a lot of things that was more important is what they was looking at. That's the government, so I never did care for them much really trying to help us. 'Cause they always come in there and seemed like they do what they wanted to do and that was it.

23:22:00
Q:
Well, we've gone about an hour and a half is there anything else that you wanted to tell us about? Anything else we didn't cover? Anything you can think of?

A:
Well there are a lot of other operations around there that like I said that drum digestion system wasn't in when we started back there in digestion. And they put that uh Mexisettler system up there in

extraction after the first ten years I think, or no about five years, I think Oak Ridge owned that to start with.

23:22:34
A:
We got it through something, they put a new floor up there acid brick and everything. Oh, there's a thing when we first started there that metal in extraction didn't have nothing upstairs it was open. And then foreman would have us wash that floor down and it was just cement back then. And we'd mix it with nitric acid, we'd get nitric acid and we'd get that cement white but we'd etch it all the time and it kept getting worse and worse.

23:23:01
A:
So uh they had the acid brick the whole thing finally. Well when we got that Mexisettler system up there they had to do that the same way. But that's things they had to correct later on after they started. And everything like digestion, that's where I started that, they had everything, a lot of stuff oversize and you probably never heard so many stories or I have about how construction come in there, built them silos over there by 1.

23:23:38
A:
And then we put uranium material in there and it was heavy. And they constructed this underground we had a big screw conveyor I think they were, that come over 2 and 3 then they was supposed to lift up into the skip hoist up the top floors where it come down through digestion. Well they got them all set up and Joe Carvetti spent oh a couple months over there explaining that.

23:24:07
A:
It had weight scales and a whole setup out there that we'd operate push buttons and then go onto the floor and over the digestion and uh we started that up. They couldn't get it over there, they wondered what was wrong and here the material was so heavy it wouldn't even pull it. And they did get one tank, well Bud Billingsley was our foreman, and we got one end of this one tank over there.

23:24:38
A:
It was V-shaped and it had a screw conveyor in the bottom of it, which was supposed to take the material out. Well they got it over there and got not too much in there and we ended up have to get down in there and dig it out. And that old system went down and then in digestion we had the control valves for the acid bringing it in from F-123 and 24 tanks outside the digestion there.

23:25:07
A:
And that uh we'd had little surge tanks upstairs. It had two tanks and you put it one and another and then drop it down into the digesters down on the second floor there. And we tried that and come to

find out they couldn't keep good enough control on it. So they uh, the man told me he said they don't do nothing right. They over them way too big them control valves.

23:25:37
A:
So it ended up we, we come through the surge tanks up there and left the line open and opened up the valve in the digesters, which was too big we'd open up the bypass. Then we'd go outside then you'd have to stand out there in freezing weather, whatever kind of weather it was. And it was 70 gallons or 160, I think it's 70-gallon.

23:26:03
A:
So you'd stand out there in this rain or snow or whatever and turn the pump on and just kind of guess. But you know we had everything automatic to start with then at the end nothing was automatic. Well uh, digestion you had screw conveyors bring it in from the skip hoist. Had two sets of them and they had slide valves which was air powered, automatic from down the control room.

23:26:35
A:
And after we operated a while that ore was so heavy that uh and the darn, found out the slide valves would hold them up. They'd show open by the buttons we had, lights we had and we'd start the digester and the first thing you know, we'd go out there and see a little dust come down through there. And here it override, well it wasn't nowhere for it to go in the conveyor and this screw would pop the lids off the top of the thing.

23:27:04
A:
And uh then later on, they never did fix it they just said go up there when you open the valve and make sure it opens. And to do that you had to go up there and they got kind of bent or something we had to go up there with a hammer and tape those things make sure they were open. And then it got so bad that wasn't good enough.

23:27:23
A:
We had to, they put plates on the top of the screw conveyor over the holes that you, and put wing nuts on 'em, we had to go up there and open up all them wing nuts, and look down in there and if they weren't open we'd have to beat 'em open or whatever way, take a broomstick or what.

23:27:39
A:
It just, everything got to be manual and that's really just disappointing when ya, ya know, ya could make a mistake and not even know it. But uh, that was bad, and they might uh, tell ya about Q-11 on the hot side in digestion.

23:27:55
A:
Boy there was a case. I don't know if you whether he's even living or not, uh Glenn Blue he was working in there, well I, like I say, I worked in there too. But this Q-11 was real violent material. Well that's why the hot side was uh, had the cement walls and the tanks insulated with cement, too. Well anyway, we had uh, 7, 8, 9 and 10 were digesters and we started this Q-11 which they quit doing.

23:28:28
A:
I guess it was too violent or something. But uh, we get that in there and we start dumping in there with, I forget exactly how much it was, about a 1,000 gallons of water uh, maybe 300 gallons of nitric acid. Turn the agitator on and then start dumping ore in there.

23:28:47
A:
That stuff would get so violent that (laughter), Blue one day he come a running out there as fast as he could run and here, that came out behind the wall right after 'em, black orange fumes and foam like. And them things practically blowed up. But uh, I tell ya it, there's some things there that scares me to remember them. But uh.

23:29:12
Q:
Well, we're at the end of this tape.