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FERNALD LIVING HISTORY PROJECT
Transcript

Name: Don Dunaway
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Tape FLHP0114

21:01:03
Q:
Okay and the first question is always the hardest question. We just need you to give us your name and spell it.

A:
Okay, my name is Donald L. Dunaway. I go by Don. Last name is D-U-N-A-W-A-Y.

21:01:20
Q:
Terrific, and we usually start with a little bit of background um just where you were born, where you grew up, um where you went to school.

A:
I, I've lived all my life in Franklin County really. Uh, I was born in a little town called Raymond, which is about 12 miles from here, just out in the country. Went to school, high school, Springfield Township, small country school that's no longer in existence.

21:01:54
A:
Uh, went to Miami University got a bachelor's degree and an MBA. The bachelor's degree in 1956 and that's when I started at Fernald. Uh, then worked on an MBA and got that in 1964. Uh, that's the extent of my schooling. Uh, except I did get quite an education at Fernald. I think as a lot of people have said you know you get most of your education after you get on the job and that's certainly true of my experience too.

21:02:35
Q:
Terrific and you had mentioned to me that right out of high school you were interested in getting a job at Fernald. Tell us about that.

Q:
Well, Fernald had the, the reputation I guess of hiring a lot of people at that time and so on. And they said they were paying you know good wages and all that. Uh, I was interested in a summer job not full time employment because I intended to go to Miami University in the fall. But I was only 17 years old at the time and they told me I had to be 18 and come back when I was 18.

21:03:09
A:
Well, I didn't do that. I didn't come back until I graduated, or was about to graduate from Miami and I did come back then to apply and was hired. And then it worked out pretty well.

21:03:25
Q:
And uh, you told me earlier that you have some recollection of what that area actually looked like, uh, before the plant was built.

A:
Well my father, as I mentioned to you, was a milk hauler who picked up milk from farmers and hauled it into Cincinnati and came home through Venice as we called it then. And, uh, State Route 126, we went by that particular entrance and on up the hill and looking out that way you could see that there was something going on.

21:04:11
A:
Where before there had been cornfields as I remember it and farm fields. They were clearing the land and taking down buildings and moving houses and barns and that sort of thing. Both there on the, particularly on the Paddy's Run side they moved a lot of buildings, and so that was sort of interesting at that particular time. I had never, I guess heard of moving buildings. As it turned out I moved this house as I mentioned to you in 1966.

21:04:47
Q:
And uh, when you were a young man you saw a lot of Fernald being built?

A:
Well, uh Fernald was pretty well built by 1956 but there was a lot of expansion that went on and there was always something new being added or an additional pad being built. So in that sense there was a, always a lot of building activity going on but nothing quite so major.

21:05:24
A:
I think all the, all the major plants 1-9 and the Pilot Plant and so on were already there. Uh, there were some additional perhaps dust collector facilities and storage pads and warehouses and thing of that sort. But I don't recall anything major so it was peripheral operations really.

21:05:56
Q:
While the plant was being, well I guess you know in the earlier years like in your high school years and those kinds of things, when they first started building the plant um, what did you and your friends think the purpose of the place was going to be?

21:06:24
A:
I think we just knew that it was a government plant. That, uh, the plant did work for the government. I think people that I talked to said that you know they weren't supposed to talk about it. I think the general attitude was one of, of not really going into any detail at all about what they were doing. And so I'm not sure just how much I knew at the time I went there other than as I say, it was a government plant and they were doing special government work and it was sort of secret what was going on.

21:07:07
A:
And uh, so perhaps I may not have realized that uranium was being processed until I actually got there. I don't really recall that particular detail. I guess we just sort of accepted that it needed to be kept secret what was going on. And we didn't really challenge that. Quite a different view of things, particularly the government and so on, in the '50's as opposed to after the Vietnam war and all those days. So we accepted certain things and didn't question them so much.

21:07:55
Q:
And uh tell us about your interview, the one that you had when you actually got hired after college.

A:
Well I was interviewed by George Smith I remember that. George later became a division director of the Personnel Division. I think that they were interested in my education and uh I don't recall it being a very in depth interview. I think perhaps it was one to get impressions from what was said on the interview form.

21:08:43
A:
And uh, I was made an offer then, sometime after the interview. As far as how long it lasted and that sort of thing I don't really recall. That's been a long time ago. Uh, that was 1956 probably in the early spring or late winter, 43 years ago.

21:09:16
Q:
Now tell us a little bit about your various responsibilities while you were at Fernald.

A:
Well I had a number of different jobs or positions at Fernald. I worked the first 4 years, nearly 4 years in the Analytical Laboratory and was an analyst there. Uh, in the spring of 1960 I was transferred to the Nuclear Criticality Safety Department and I was in that department for 21 years. Most of the time I was head of the department, after about 1965 for all practical purposes.

21:10:00
A:
And then uh in an acting capacity then by 1968 I think or thereabouts I was called Chief of Nuclear Safety. It was very interesting work. I had the opportunity to meet a lot of interesting people in the course of visiting other sites and we had a technical association within the American Nuclear Society.

21:10:28
A:
This was all very helpful in being able to have a Nuclear Criticality Program there at Fernald. Uh, I had good support from management there and I think we were fairly successful in finding ways to, to uh process enriched uranium safely. I found the work to be challenging and very interesting. As I say, I met a lot of interesting people. And enjoyed particularly that phase in my career.

21:11:12
A:
After that uh I was in the production group for nearly seven years. That was the period when NLO was moved out as prime contractor and Westinghouse brought in. Was also the period when production shut down. Production shut down 10 years ago this, this month in July of 1989. But while in the Production Division, various titles but the substance of it was I was manager over the chemical plants, which was Plants 1, 2/3, 4, 8 and Pilot Plant.

21:12:05
A:
Following that I was manager of Materials Control and Accountability which is responsible for maintaining and accounting for all the nuclear material on site. And that's where I ended my career. I was about 8 years in the MC&A group. And so I had an opportunity to do quite a few different things. Incidentally which I was in the Nuclear Criticality Safety Department I also was responsible for the Emergency Preparedness Program.

21:12:47
A:
Uh, that was sort of a sideline. But again, I visited a lot of other sites and conferred with counterparts who had similar problems and that sort of thing. And that all was very interesting, challenging to get that going too. So I had a good career at Fernald, just two months shy of 40 years.

21:13:14
Q:
Can you explain to us what a nuclear criticality is?

A:
Nuclear criticality? It's a, it's a sustained chain reaction. Basically a criticality uh is where the supply of neutrons in a chain reaction is sufficient to keep the chain reaction going indefinitely. It's not a super reaction necessarily such as you have with an atomic bomb as they're called. But it's one where for example in a nuclear reactor you have a criticality.

21:13:51
A:
That's what makes the process generate heat. But in the process of generating heat it also generates neutrons, which contribute to the process, the criticality. Uh, in a process plant you don't want a criticality. Because accompanies with a criticality you have gamma radiation and other radiation harmful to humans. Alpha, beta, gamma and neutrons, all this detrimental to the individual.

21:14:33
A:
So we had to be sure we did not have a criticality at Fernald. And we accomplished this by limiting the amount of nuclear material in a mass, in a given place. Or by limiting the dimensions in some cases. By limiting concentration in some cases. And later on when we got to certain stage we even built certain so-called safe geometry equipment, which allowed processing.

21:15:09
A:
In a system that could not work, criticality could not occur. So the first form where you're limiting by weight or dimension is generally called administrative control. And the others, safe geometry control which is the preferred method because it's a little more fool proof than the administrative control although there were criticalities involving safe geometry equipment at other sites. As you probably know we never had a criticality at Fernald.

21:15:48
Q:
So there was enough nuclear material on site for it to happen though or they wouldn't have had a department for safety right?

A:
There was, there was many times of what would be required for a minimum critical mass. It was necessary to limit as I say by mass or slab height or some other dimension. There was certainly enough nuclear material there but we were always sure that conditions were not favorable for criticality. And uh, primarily the methods that I mentioned.

21:16:30
A:
So much nuclear material in a drum. So much uranium enriched uranium material in a drum. Or uh the concentration of the solution was limited. Or in a case of large metal pieces perhaps what we called safe slab, by limiting the thickness of the array. So there are a number of ways of accomplishing criticality safety. And uh, it was really much more involved than that but in a very simplified way that was what we did.

21:17:09
Q:
Now when you first started working at Fernald did you need to get a Q clearance? (Comment – yes) Tell us a little bit about that process.

A:
Uh, about all we knew about it was that it took about three months even if you were hired it took about three months before you could be brought in because you had to have this security clearance. And the individual virtually had no involvement with this as I recall. I don't think I was ever interviewed by an FBI man or anyone of the sort.

21:17:43
A:
But people who knew me and I presume I probably put certain references on the application were interviewed by FBI people. And so I did apply well in advance to the time I was going to graduate before I expected to be hired. And that's really about as much as I know about it. Then later on we were, I think re-evaluated every five years and uh so that process was repeated.

21:18:28
A:
Here again, I don't think I was ever interviewed on my own behalf but I was used for reference in a few other cases. Interviewed whether or not there were any problems I felt with a certain individual and that sort of thing. So, so that was my only involvement with any FBI people in that regard.

21:18:51
Q:
And it took about three months when you first got hired? (Comment – yeah) That's a long time to wait.

A:
Well, like I say, I went there well in advance of the June graduation. So, I think I graduated from Miami early in June and started at Fernald the 25th of June so. And I had employment the last year of my college, I guess the last two years more or less, but working in a filling station there in Oxford. Not the kind of thing I want to do permanently but it helped keep things going.

21:19:38
Q:
Tell us what those early years were like, was it busy, what was the site, the physical plant, what was it like?

A:
Uh, yeah, it was busy. We worked three shifts. I had to work shift work particularly my first four years. When I worked in the laboratory I worked a lot of second shift and some third shift. And I worked rotating shift for awhile. I wouldn't recommend that to anyone, that's just really difficult. Because you never feel, you never really feel good.

21:20:19
A:
Your always tired you know. But fortunately after that four-year stint in the lab I was able to be on day shift after that. But we had a lot of cars in the parking lot particularly on day shift. Day shift was the big shift. But they operated the cafeteria around the clock. We had, there were a lot of people, here again I was in the laboratory and in those days in the laboratory if that's where you worked, that's pretty much where you stayed.

21:21:00
A:
You didn't go somewhere else. There was only on a couple of occasions where we had a special opportunity to go out into the plant and that was a special arranged tour for us. But even on that first or second shift we, we didn't circulate around the plant we stayed in the laboratory.

21:21:26
A:
And as I recall you know there was overtime and might be called in early at times or held over late. So yeah those were busy, busy times. It was, there was always sort of an urgency about getting, getting the work done.

21:21:58
Q:
And why was that urgency such a big part of what was going on at Fernald?

A:
Well, I have no idea. Uh I think they had certain production commitments that were probably the reason for. We initially had, our big customer was the Hanford Washington plant and I don't recall off hand how many reactors they were running in those days but there were a lot of reactors running.

21:22:34
A:
And that was before the days even that we were involved with Ashtabula where they do the extrusions so we had a Rolling Mill at the plant at that time. And uh, uh, in our particular case, the laboratory, if they had a particular shipment to make then if they had any problems with it and had to do some additional material to make up for some material maybe that didn't make specifications than that was probably the reason we, we were held over or called in.

21:23:11
A:
Or perhaps someone didn't, didn't, was not able to come to work so we were filling in or whatever. But those were sort of boom times for the plant. It was before things started slowing down in the '60's I believe when they started shutting down reactors. In the early days there were a lot of reactors running at Hanford.

21:23:38
A:
And, but when they started shutting down reactors and uh changing things around, then things slowed down. And we started, there were layoffs periodically from maybe late '60's, I don't recall exactly. There might have even been some layoffs, light layoffs before 1960. But some of the big ones were in like the mid-60s and that sort of thing when they started cutting back.

21:24:16
Q:
So during your years at Fernald how did you explain your job to your friends and your family?

A:
Uh, we were given regular doctrinations particularly at times by man named Clyde Bingham who was head of security. And I think we had a pretty good idea of what we could say you know. And he was an old military man and tended to be somewhat dramatic about the penalties for telling too much and all that sort of thing.

21:25:06
A:
But I think at least in my criticality safety days I uh, I probably was told them that you know in those days we processed uranium and that there were concerns for safety and I was involved with those kinds of things. I didn't really go into a lot of details; it's a very technical subject unless you have a little background you don't really appreciate too much what it's all about anyway. But did talk perhaps about being involved with safety issues. But not in any depth.

21:26:01
Q:
And what was the big secret at Fernald?

A:
Well, uh the, the big secrets initially were production quantities you know. The production capability and the production amounts that we actually processed. Those I think were secret. And a lot of the other aspects were confidential. And where secret was concerned there was a need to know and if you didn't need to know, then you didn't, you weren't told.

21:26:43
A:
And uh, a lot of the confidential aspects just sort of for the most part everything else. I mean we didn't, as I say talk a whole lot about it particularly in the earliest days. I guess we wanted to stay on the right side of Clyde Bingham.

21:27:13
Q:
Now how could Clyde Bingham know if you were talking ever?

A:
Well I think he was, he was telling us what we needed to do to stay in compliance. I think most of us felt that that's what we should do. It wasn't a matter of, Clyde was just kind of the symbol of the, of the system that we were, we were concerned that we comply with the government's requirements on security.

21:27:52
A:
There was, you know that was the period of the Cold War. There were, I guess there was always the possibility that some Russian could be out there somewhere with, gathering information and that sort of thing. We didn't, I don't think we got highly concerned about it we just, we accepted, you know that was part of the job. And we, we just lived according to that particular method of thinking.

21:28:34
Q:
Okay. We're going to take a break here and change tapes.

TAPE FLHP0115

22:01:05
Q:
You mentioned the Cold War and uh the kind of affects, the local affects that were going on here, um what was the typical American's mindset during the Cold War?

A:
I think the most part particularly in the earlier parts of it and so on, I'm not sure we called it the Cold War then. I think that's a later term. I'm not even sure that there was a lot of focus on that. We had been through the second World War then the Korean War and in this period, mid-50s and on, Russia had just sort of replaced some of our earlier enemies so to speak.

22:01:56
A:
And so it was kind of continuous situation in our thinking where we had some adversary. Uh, I don't think it was, it was a high profile thing with most of us. It's just you know the Russians were out there somewhere and you know our government was making nuclear weapons. We were part of that process; we just sort of accepted it as a necessary thing.

22:02:38
A:
Uh, something that had to be done. And we were part of it and I don't think you know I don't think there was a great deal of flag waving feeling so to speak either. But nor did we feel you know at that time any great concerns about the fact that we were part of the nuclear weapons program. You know we were a very small part of the overall picture.

22:03:10
A:
And we just accepted that. Like I say, this was all before the days late '60's and all the soul searching and so on which went on then in much later times. For the most part the people worked there I think felt it was a good place to work.

22:03:42
Q:
And how did people react to say around the Cuban Missile Crisis years?

A:
Uh, we were pretty I think detached from it all. I don't think we had a great deal of, of either concern or relief. I think, here again, it was a period when people had a lot more confidence in the government than what maybe they have today. Uh, certainly John Kennedy was much admired in those days and I think we had confidence that our government would handle things. So we weren't apprehensive about it

as I recall at all. We believed our government was strong and that somehow we would meet whatever challenges there were.

22:04:46
Q:
And how did Fernald in particular help American meet its goals in the Cold War?

A:
Uh, well there was this, this situation where, whatever you want to call it, nuclear arms race or whatever, uh that's what it finally got down to after a number of years. It became clear that it was sort of the matter of who could have the most long-range nuclear weapons and all that.

22:05:25
A:
Fortunately there never was a war where any of these were used but it was, well it's an old system where one government against another tries to, to get the advantage and so that was just being played out like, well the same thing happened in World War I with great ships between Germany and Great Britain. Basically the same thing.

22:05:58
A:
And we just happened to be caught up in the nuclear arms race with Russia and I guess it's one of the things that helped break the Russian economy. That uh it tremendous drain of resources and eventually helped bring down their economy and you know fortunately we won so to speak but at a great cost too.

22:06:39
Q:
Tell us about your years in um the Materials Control and Accountability Department. How on earth do you track all that material?

A:
Uh, we had clerical people in the process plants who maintained an account on the nuclear material much like a bank account. They kept track of the material that came in and material that went out. And we had periodic inventories to basically count the material that was there in their area.

22:07:20
A:
And so it was like a lot of bank accounts, one for each plant. And we did this at one time they had; they had inventories once a month. But by the time that I think I got involved we had like semiannual inventories and maybe even later on annual inventories. Particularly as things slowed down to the point where we weren't really processing any nuclear material. But we were still maybe moving material around or shipping nuclear material and that sort of thing. So it was an accounting process.

22:08:06
Q:
Did any material ever come up missing?

A:
Well, uh it was at times. Uh, particularly in the processing days there were certain, what they called uncertainties and uh, if you had material such as uranium ingot as it's called you know massive of uranium metal that would be one thing. Because you could have a you know a fairly exact weight and you knew what the analysis was.

22:08:43
A:
But when some of the by-product residues and that sort of thing are involved then some of the, the assays of the material, in other words the uranium content might be, it might vary from batch to batch and that sort of thing. So it was a little more difficult to give an exact accounting in situations like that. So sometimes you ended up at least on paper with more, even maybe more nuclear material than you started with or in some cases less nuclear material.

22:09:16
A:
And uh these were the kinds of things then that they had to investigate and find out you know what the problem is if they were not within certain limits. Statistical values based on experience. And if a particular piece was missing or something then sometimes you had to make search to find that piece. But for the most part we generally accounted for everything.

22:09:42
Q:
And how did they track the material that they sent off site, I mean the actual final product?

A:
Uh, well they, they being the customer so to speak, would verify that the nuclear material was received. So we said we shipped a certain amount and then they should verify that they received a certain amount and those two should agree. If they didn't then sometimes there had to be some reanalysis done or something of the sort.

22:10:18
A:
It was not always solid uranium material we were shipping. Sometimes we were getting returns, as you may know from other sites where they had reprocessed our material. They had, they had used the nuclear material we had shipped in reactors and then we reprocessed that material taking out the, the high-level radioactive material portions and they shipped us uranium oxide which we would reprocess then.

22:10:52
A:
There was a so-called recycle program at the site. And so and shipping and receiving materials of that sort then often times there were differences in the accounting of what they said they shipped versus what we said we received. Because we not only weighed it but we analyzed it.

22:11:15
A:
And a lot of these materials were hydroscopic, they absorbed moisture and that would, that would change the uranium assay. So it could be a little bit complicated at times in it was not all just cut and dry.

22:11:34
Q:
Sounds like a lot of work.

A:
Well, that's why we had quite a few people at times to do these things.

Q:
How long would it, do you want to wait for the siren? (Cameraman – yeah)

22:11:44
(Cameraman – I think we're going to be)

Q:
I think we'll be all right.

(Cameraman – Everything seems to be fine and we're getting picture to play back)

Q:
We're getting picture and sound then we're in the right direction. We should just go ahead and roll with it. Really.

(Cameraman – Rolling, speak)

22:11:56
Q:
Okay. Um, we were talking about Materials Control and Accountability and um how many people did you have in that department?

A:
It seems to me that when I first got involved with it in 1988, maybe there was only thirty people roughly. Uh, that uh dwindled some I think in later years to maybe on the order of twenty. But most of it was clerical people in the process plants who worked with the process people in maintaining the inventories.

22:12:51
A:
Uh, tracking the nuclear material. They, when they transferred nuclear material from one process area to another they made out paperwork and uh perhaps supervised the weighing of the nuclear material and that sort of thing to ensure that everything was done according to the book.

22:13:18
Q:
Now when you talk about paperwork and changing hands and those kinds of things can you, can you address the idea of chain of custody just a little bit?

A:
Well, a particular plant for example Plant 9 more toward the end of the process might receive materials for further processing from Plant 5. And in doing so the clerk at Plant 5 would transfer those materials on paper and they'd be physically transferred by the transportation group.

22:14:03
A:
Uh the, the clerk in the incoming plant, Plant 9 as we're saying here, would verify that the weights and the quantity, number of pieces and all that were as specified on the paperwork. And uh, some cases they would perhaps have certain weights taken of the material for any discrepancies they had to be resolved.

22:14:34
Q:
So it was a huge paper trail?

A:
Yeah, right. Uh, it's comparable to a bank account to where you have a, a perhaps a bank clerk that is responsible for a certain amount of money and has to verify at the end of the day that they've got that money or what they've done with it. And same as, same is true of our nuclear material clerical people.

22:15:10
A:
We also had nuclear material accountants in the department who maintained a certain larger accounts. Might involve several areas or at least maybe even the whole plant but uh in some cases, think in later years particularly we had maybe only three or four nuclear material accountants and one might do a whole particular area. Maybe like the metals plants and another might do the chemical plants and another maybe some of the peripheral operations like the laboratory and the Pilot Plant and that sort of thing.

22:15:50
A:
So uh there was that check and balances system against what was going on in the, in the process plants. Of course they got their information from the plants but it was done in somewhat of a different accounting method, actual accounting methods, real official accounting methods. But uh the principle is about the same. As I say a lot like a like a bank account.

22:16:20
Q:
Now you also worked in the Health and Safety area?

A:
The Nuclear Criticality Safety Department was in the Health and Safety Division. Uh, I worked from 1960 to 1981 in Health and Safety.

22:16:42
Q:
How safe was the plant to be in, um in those days?

A:
I thought it was a very safe place to work. Uh, we hired people in from other process plants there in Cincinnati and so on and you know we were told that it was the cleanest place they've ever worked and safest place they ever worked. There was a great deal of attention given to the safety of the people you know, wear your safety equipment, wear your safety glasses, your respirators and you know protect particularly your sight and your respiratory system.

22:17:30
A:
And whatever other special safety requirements whether it be gloves in many cases of course. For the people actually working with the material and there were showers and sometimes special uh showers before the end of the day. If someone was contaminated with nuclear material then they might be required to go to shower room and put on clean, shower and put on clean clothing and return to work and that sort of thing. So I think we had a good program.

22:18:17
Q:
Great. Now in the mid-80's there was a lot of attention given to um an incident in Plant 9 with the dust collector and that's sort of when um gosh there was so much media attention (comment – yeah) focused on Fernald and everything that was happening. At the time you were working in Materials Control and Accountability Department?

22:18:38
A:
No. At that time I was in production. I was the superintendent of the chemical plants. Uh, Plant 9 where this occurred and if I'm not mistaken it occurred on December the 7th which happens to be Pearl Harbor Day. And that turned out to be sort of the Pearl Harbor for Fernald really. Although it was a much bigger picture overall than what any of us realized at the time.

22:19:07
A:
But uh, as of that time the DOE very much changed their relationship with the contractor. And the contractor at the time was NLO and they were very much on probation from that time on. And it wasn't too long until they were replaced by Westinghouse. So you know it was a very serious matter that particular leak and the way it was handled.

22:19:44
A:
And it precipitated a great deal of change at Fernald. Not only the bringing in of a lot of DOE people to be there and uh maybe observe in a lot of cases and be involved in a lot of decisions and that sort of thing. But uh, it was the beginning of the end so to speak for that particular contractor. It was an unfortunate incident but one which marked the change in attitude where nuclear processing was concerned. Not only at Fernald but other places as well.

22:20:38
Q:
Tell us a little bit about the transition, well first of all let's talk a little bit about when they decided to shut the plant down. What were your reactions to that?

A:
Well I think we were all uh very uh disappointed to see this happen. A lot of us had been there through the very worst of times. Uh, when I hired in, in 1956 there were I think 2800, something over 2800 employees. Uh, in the '70's, late '70's particular I think uh we were down to like 550.

22:21:18
A:
So there was a tremendous change during that time. And then in the just before the '80's and the early '80's there were promises of new operations going on. We, we built a new 6-4 as it was called 6-4 process facility where we reduced uranium hexafluoride, uranium tetrafluoride, made hex as it was called which is a gaseous form of uranium into so-called green salt, uranium tetrafluoride.

22:21:58
A:
And I was highly involved, that was one of the plants in my group. And you know these were very encouraging times and we saw Fernald was coming back at that particular time. But then as we got to the mid-80's, uh we had this incident which caused a shut down of operations particularly in the metals plants. And there was a great deal of scrutiny from that time on and heightened scrutiny really as more time went on over what we were doing.

22:22:38
A:
And a great deal more concern about what at one time was considered maybe minor process blips or minor process problems suddenly became reasons to shut down operations and find out what happened and what was required to prevent it from happening again. So it was a total change in thinking as to how you would operate the plant.

22:23:11
A:
So quantity, you know production output became less important than safety concerns and particularly anything that could amount to an off site release. Or be viewed as possibly affecting the public in any way.

22:23:34
Q:
And being a supervisor of all those plants at that time um, how did they come to the decision to go ahead and shut the plant down without like taking everything out of the lines or doing like what they would call a cold shut down I guess, they did more of a hot shut down?

22:23:53
A:
Uh, yes, I think there had been a series of incidents which uh, we had to report loss of certain amount of nuclear material and it was a rather small amount. I forget whether it was like a pound or, or if you had a spill, I didn't mean loss, but if you had a spill of nuclear material so to speak. Whether it be from a drum or a warehouse or within a process plant or whatever then you had to shut down.

22:24:31
A:
And that had to be reported. And you had to get approval from DOE then before you started up again. And I think it got to the place where the feeling was that there was so many of these little incidents happening that we, we just couldn't keep operating for any practical purpose. And the management at that time, which I think was Bruce Boswell was the overall plant head, decided we should shut down and clean up.

22:25:12
A:
And that was for the start of clean-up operations and we never started up again. Uh, one thing lead to another and not only the situation at Fernald but the overall thinking about the need for the nuclear material was being evaluated and so on. And so there was a slow down in government's requirements. There was a incident at Hanford involving the so-called N-reactor.

22:25:48
A:
I forget the year that that occurred but that of course had a big impact on our situation. The Chernobyl incident I think caused further feeling that the N-reactor should not be operated because basically there were very similar. Uh, so it was just a series of situations where the public and the media and particularly the media were focusing a great deal of attention on Fernald as far as our area was concerned and other plants in the, the DOE chain.

22:26:38
A:
And this lead to uh, a great deal of concern on DOE's part that we not have any incidents of any kind. And finally got to the point I guess the feeling was that we better shut down. We couldn't, we couldn't operate according to the strict limits. So as I say we shut down in July of '89 and through a series of further developments just never operated again.

22:27:18
Q:
What was it like the first day that you came in and you didn't hear the jolters going and all the, all the machinery going in the process side?

A:
Well I guess our feelings at first was we had been through, by that time we had been through a lot of minor incidents where we had temporary shut downs. And we didn't anticipate at first that this was going to be a permanent thing. Uh, it sort of you know after you've been at a particular place for so long and something's been going on for so long, by that time it had been going on for about 40 years.

22:28:03
A:
Let's see that's not quite 40 years but we felt that it probably would start up again but it turned out not to be the case. So I guess no special panic or anything at the beginning of this but then later the realization that things were changing. Of course we changed contractors and that was a great deal of culture change because even though Westinghouse was managing the same operations, they were not the same.

22:28:40
A:
They had different ways of managing and different ways of looking at things. And of course they came into the situation with a great deal of anticipation of what had taken place and they wanted to make a good impression. They were, they were hoping to get more involved in the nuclear business and as it turned out they did for a while. They had quite a few of the DOE process plants including Hanford and Savannah River. But later that changed too.

22:29:20
Q:
Okay. We're going to take a little break and switch tapes one more time. I just have (tape ends).

TAPE FLHP0116

23:01:07
Q:
Um we were talking sort of a little about the shut down years, um, can you give us a little feel um of what it's like, actually how do the cleanup years and the process years differ?

A:
Well the process years, that was very interesting work. Uh, we had certain goals and perhaps tonnage's that we had to process and that sort of thing and of course that was a challenge. I thought the green salt plant, Plant 4 as it was called, was a very interesting plant where we converted UO_3 uranium oxide to UF_4 uranium tetrafluoride.

23:01:55
A:
And uh there were some process chemicals involved there. Anhydrous HF, and hydrogen fluoride. Some of the by-products the dilute HF and so on these were, these were serious health concerns if they should be spilled or released. We used anhydrous ammonia so I thought Plant 4 was very interesting plant. We also had the Pilot Plant where we had added a new 6-4 process, conversion of UF_6 to UF_4.

23:02:36
A:
Uh thought that was well you know very interesting, very challenging and so on to get involved in the building of a new process and to see that process start up and so on. Uh, whereas clean up is another matter. It wasn't nearly so interesting or challenging although shipping waste to Nevada, there were a lot of problems in the early days just as there are still problems.

23:03:13
A:
You're still having occasional leaks and results in a long term shut down and that sort of thing. While you know it's still you know the job there to do I think the process operations were a lot more interesting, a lot more challenging. Might be a matter of opinion what was challenging but we certainly had a lot of goals to get rid of our nuclear material to get rid of our low-level waste materials and that sort of thing.

23:03:47
A:
And you know we were heavily involved in that in the MC&A group there in my last eight years. I think we actually started shipping waste off site probably around 1985 if I remember correctly. And Bob Gardner was involved in that, you mentioned Bob. He was successful in some of the early attempts at shipping nuclear material to Nevada.

23:04:26
A:
And uh I got involved a little bit with that later for a while in connection with the MC&A group. We had a few other things we worked on at times that involved us with those people out there. We were hoping to barcode the waste and use that as more of a quicker method of inventorying of moving material from one account to another, we worked on that.

23:04:51
A:
But these were different kinds of problems of course. As far as I'm concerned the very best days, the glory days of the plant were when things were running in the process areas and we were doing what the plant was built for. It's a little sad so to speak to see the plant being shut down and realize that it's being dismantled particularly if you spent your whole career there. And uh, it's like a lot of things though you know times change and it's not needed anymore. I certainly hope it's not needed.

23:05:36
Q:
So what group did you spend the very last couple of years you were at Fernald, what group were you in?

A:
Uh, the last eight years was in Materials Control and Accountability.

23:05:50
Q:
Okay. So uh during your, your career at Fernald, um do you have any anecdotes? People that you worked with, funny things that happened, unusual things that happened?

A:
Oh, I'm sure there were a lot of things. I haven't really thought of anything uh, I think that there were a lot, you know as far as anything funny; I can't really think of anything funny off-hand but there were a lot of, of really good people to work with. I had a lot of good friends there. I had good supervisors, people that I worked for.

23:06:34
A:
Uh, I thought it was a very good experience working there for nearly 40 years. I'm certainly not sorry for any of it. I think I was very fortunate to be able to stay there that long. A lot of people were laid off and I was one of the fortunate ones that was able to stay on. I moved to various jobs over the years so I really didn't get bored with what I was doing. And that was good.

23:07:09
A:
So I had a fairly wide breadth of experience. Lots of interesting things to do. At least initially I think it was a place where if you worked hard and studied and so on that you would progress. So I was able to work my way up into the company so to speak and you know I appreciated that.

23:07:44
Q:
Tell us about this last contractor and the transition between Westinghouse and Fluor Daniel when they came in.

A:
Uh, I felt that Westinghouse was a company that had a great deal of interest in the people and they uh at least when they came in you know their intent was to operate the plant. They didn't come in to shut the plant down. Fluor Daniel came in with the intention of closing the operation. So it was a very different situation.

23:08:30
A:
Fluor Daniel was a very different kind of company than Westinghouse. Westinghouse I think actually got closer to their people whereas Fluor Daniel felt well we're only going to be here a short time and they weren't quite so close to you know the people that had been there forever like myself and a lot of others.

23:08:58
A:
So it was, and it was also a time when I think the culture in the whole country had changed. When I hired in at Fernald under NLO I think there was a certain two-way loyalty whereas if you know if you worked hard then they would appreciate that and reward you accordingly.

23:09:25
A:
And you would have a job at least as much as they were able to control it due to production requirements and that sort of thing. Uh, by the time Fluor Daniel came in I think the, I think the whole picture even on a national scale had changed quite a bit. I don't think there was that kind of loyalty by the employees to the company nor the company to the employees.

23:10:04
A:
And you might remember in those days particularly with a lot of unions there was a lot of take-backs as they called it you know. Uh, a lot of the union people I think lost benefits and in some cases even lost some of their salary winnings. Maybe particularly in the automobile industry and some of those but that was the days where seemed to be marked by a change in the two-way loyalty system.

23:10:39
A:
Uh, and I think today it's viewed very unlikely that anyone would go to a plant and work 40 years. Uh, I think particularly young people now think in terms you know I'll work a few years here and then I'll move on, I'll get some good experience and then I'll move on somewhere else. And a lot of us didn't think that way in those days. Well I interviewed for a few other jobs I for whatever reason never went somewhere else, I stayed at Fernald my entire professional career.

23:11:18
A:
And I'm glad I did. It worked out well for me. Uh, in those days I think the, sort of the standard wisdom was though if you want to move up in the corporate world than you have to move around. You have to be willing to move. And a lot of people that came in with Westinghouse had move a lot of times. But there were a lot of us there at Fernald that had been there all our lives.

23:11:44
A:
And we were really you know local people. I've lived in this county all my life and commuted for 40 years about a 35-minute drive from Fernald to home and home to Fernald. It was like 25 or 6 miles and that was just part of my day, I didn't think too much about it.

23:12:12
Q:
Great. Um, now that they're tearing Fernald down and all those buildings on that land will be gone eventually, what would you personally like to see done with the land?

A:
Well, a great deal of public opinion and concern is going to figure into this. A certain amount of politics I think. I think probably certain portions of it are going to have to be fenced off and just kept under surveillance for a long time. I hope that the what they're being what's going into this cell never causes all the concern that say the pits have.

23:13:11
A:
In hindsight putting those pits out there over the Miami Aquifer wasn't too good of a decision. I would hope that this burial cell does not come into that kind of controversy. I hope, by the same token I don't think that with Love Canal and all the other things that have happened, I can't really see that they're ever going to let people build houses on that.

23:13:44
A:
I think that would be probably a mistake so the safest thing from both a practical standpoint and, and a political standpoint I guess would be to keep a certain part of it off limits. There have been some off the wall things like maybe make a golf course there or something. I wouldn't have any problem playing golf there. But uh, the idea of making it a residential area or anything of that sort I think would probably be a mistake. So it's going to have limited, very limited use.

23:14:31
Q:
And is there anything that you wanted to cover we didn't cover, anything you would like to add?

A:
Well I've enjoyed the opportunity to meet with you all. And I can't imagine who's going to sit down and look at all this 100 interviews that you have. But it's been fun and I hope I added a little something to it. So thanks for asking me and I've enjoyed it.

23:15:12
Q:
Great. Okay we're going to do something now we call natural sound which we have plenty of here. Just need to have quiet on the set for just about 30 seconds here and this is nat sound.