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Transcript

Name: Dick Kasparek

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Tape FLHP0220

04:01:02

Q:

First of all if you could just say your name and spell it just to make sure we have it right.

04:01:12A:

My name is Dick Kasparek, K-A-S-P-A-R-E-K.

04:01:19

Q:

Great. If you could give us a little background, where you grew up, where you went to school, your um, couple of jobs you had before coming to Fernald.

04:01:27

A:

I grew up in southwestern Pennsylvania, started work for Westinghouse at Cheswick in the commercial nuclear business. Um, pressurized water reactor fuel assemblies and so on and uranium pellets. Um, then went to Advanced Reactors Design at another facility in southwestern Pennsylvania. Went to night school at Penn State and got a certificate in Engineering.

04:02:07

A:

Um, worked on liquid metal breather reactors until about '83 when I went over to the Waste Technologies Services Division. First assignment was, um, Three-Mile Island unit 2 defueling equipment where I was a principle engineer on a piece of equipment that was going to go in to defuel unit 2. Then I moved to a development engineer group developing a sure pack, which was a concrete storage container and disposal container.

04:02:44

A:

And then was asked to come to Fernald on a 2-week assignment 13 years ago and still here and loving it.

14:02:53

Q:

A lot of people are very curious about, um, commercial nuclear power and of course _____ Zimmer was happening around here about at that time and all those kinds of things. Can you give us a little feel for how people react when you're saying that, we're going to power your city with uranium, basically?

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14:03:14

A:

Well, of course, I'm very biased with nuclear power I still think it was a wonderful idea; however, the Three-Mile Island incident taught us a lot, Chernobyl taught us even more. We still in this country have a waste handling issue. We still don't have our waste management systems in place that needed to be in place to support commercial nuclear at the level it was planned to be used.

04:03:58

A:

Um, the environment is cleaner than the _____ said it would be if we generated all our electrical power using fossil fuel, but the necessity is the mother of invention, um, we're very ingenious in this country, we find ways to do things better. I'm still kind of partial to nuclear power though, it is very clean, kind of is a lot more environmentally correct in my mind.

04:04:34

A:

Because you don't have the rail cars with coal and all that goes with that. It's a cleaner operation but a very tight controls must be in place for nuclear power due to the potential of if you have a problem you can have a real major problem really quickly. It's a different kind of process than fossil fuel but I'm partial to it, I still wish we had more of it.

04:05:11

Q:

When you talk about Three-Mile Island, I think a lot of people don't have an understanding of what happened there? Do you have a pretty good handle as to what happened there?

04:05:25

A:

That was kind of what I was eluding to kind of in my last little talk. It was amazing to me when we got the first video out of the investigation inside the core of Three-Mile Island. Um, I had, I was sitting in a quiet little room doing, just fact finding on how we would go about to defuel this reactor when the first video became available.

04:06:03

A:

And what I saw what the inside of that core looked like after that incident, I, I know I had goose bumps. We were very lucky. Um, and I guess that's what is kind of scary to me that something that is that hot that critical can really get away from you. Good design kept it from doing that, but pretty scary, pretty scary. Sorry about that.

04:06:47

Q:

No that's O.K., I've flown over Three-Mile often because my parents live up in Pennsylvania, you know, that airport right there you go right over it. I'm always so impressed with those big buildings, the containment buildings. And of course, a lot, I think that whole incident is interesting too in relation to Fernald because a lot of the surrounding community reacted in much the same way the community here reacted to the disclosures that, hey, there's uranium here, those kinds of things.

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04:07:19

A:

That's right, that's right. The uranium that was used in pressurized water reactors, commercial nuclear, was typically about 4% enriched, the uranium here at Fernald was typically from a depleted, which was .20 enriched, actually depleted. There was a lot of normal uranium which is 0.71 U-235 and we had some 1.25 enriched which was still pretty low.

04:08:04

A:

However, there was some material that came through here that was enriched as high as 20%, but very limited quantities, and very tight controls. If you look at the quantity of uranium oxides that were used in the commercial nuclear, we worked with 4% up to probably 60% enriched stuff over some of the experimental reactors we had fuel for.

04:08:37

A:

Um, in geometry control, criticality controls are much more rigorous when you're dealing with those kind of enrichments. But it's the same process, that same philosophy had to be taken into account with all the operations here at Fernald. If you start to concentrate residues in a pipe, um, or in a tank, you have a criticality potential.

04:09:09

A:

Even with low enriched the potential is there and you have design for it and that's why this facility is designed the way it is; with the multiple plants being rather spread out. I mean it was more than just a security issue. A lot of it was geometry controls. Designing a facility and not knowing what's going through the facility long term. I mean this facility was built to run for 40 or 50 years.

04:09:40

A:

And in the 50s they didn't know that much about what the future held. This a very unique design, though, I hate to see it being tore down quite frankly (laughing). But I know that's the way it has to be. It's time to get the source term under control here, get it disposed of properly and it's best to do that while we still have some people here that understand what it is we're dealing with.

04:10:15

A:

If I talk to a lot of young project managers, project engineers about criticality controls, they don't know right off the top what that means and it's best that we get out of this business unless we're willing to educate people on that.

04:10:42

Q:

Good. Good. Um, something that I think a lot of people don't understand, exactly what is a criticality?

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04:10:48

A:

That's when you have a nuclear reaction and you generate atomic, well, nuclear criticality is just that you start to bombard, um, one atom with another and you generate a lot of heat. That's, that's what happens inside a reactor under a very controlled environment, very tight geometry control, with a lot of cooling to take that heat away.

04:11:28

A:

And that's how the heat is used; in a heat exchanger then turns it into steam, then runs a turbine and then but it's a very controlled environment. Typically if you're in a manufacturing facility, you don't have the ability to control, um, the taking away the heat the way you do inside a reactor. That's why a criticality event like Chernobyl, like a Three-Mile Island is a bad thing (chuckling).

04:12:07

A:

It's a bad thing, very high heat, very quickly generated and not very readily controlled. On this site, um, there has never been a criticality event and there never will be, well I shouldn't say never, being an engineer (chuckling). But, (laughing) we have controlled the uranium and as we keep moving uranium off site, the pure uranium, the metal, there's less and less chance of that ever being an issue here.

04:12:49

A:

But until we get all the uranium in safe configuration either disposed of in low concentrations here on site or at Nevada or at Utah, the potential does exist and we have to pay attention to it.

04:13:15

Q:

Now the product we made here, of course, went into reactors and I think a lot of people including myself don't really have a good handle on what exactly the configuration was that these cores here were used for; can you explain that?

04:13:29

A:

Um, I'm not all that familiar with the reactor designs that were used in the end reactor or the reactors that Savannah River, that was pretty much classified information and I was commercial breeder reactors where we used plutonium fuel in the breeders. But we did use some depleted uranium which would have been targets or cores probably made here in the breeders.

04:14:10

A:

Where you would take a depleted uranium tube, if you will, and put it in a high radiation field and as that radiation bombards the U238 in that core you changed the state of the uranium and you generate a plutonium which is what you're trying to generate. That's the breeding process. That's then when you remove that core and you process it through a Purex process is one process used.

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04:14:53

A:

You then concentrate that plutonium which is then your weapons grade production. Um, the tailings, the leftover uranium after that process with 99.9995% plutonium removal was then sent back here as feed material. But that material came back here, that uranium came back here as residues for further processing and reuse. It was the fuel cycle; this was the Feed Material Production Center.

04:15:42

A:

The highest purity uranium that's ever been generated in the world, it was generated here. This is a pretty neat site, the technology here. The old timers that I met when I came here used to talk about making uranium you follow procedures but the actual process was more black art and witchcraft.

04:16:10

A:

Controlling the purity of this material, um, it was a lot about the way these people that worked here cared about what they did; there was esprit de corps, there was a lot of pride in what they were doing. They knew they were a very important part of the Cold War. They didn't take it for granted they took it very seriously.

04:16:43

A:

Um, I still sit and talk with retirees and never get tired of hearing the stories. It was a great place to be.

04:16:55

Q:

Terrific. Gosh, I don't even have to ask you very many questions (laughing "I'm sorry I babbled"). No, no, you're doing great, this is wonderful information. I think a lot of people don't really have a handle on. You asked people that had a vague idea as to what the uranium was going to be doing. But they didn't know what the configuration was or what exactly it was used for and they'd say well it was going down to Oak Ridge or Savannah Ridge and they were doing something with it down there.

04:17:19

Q:

Because it was classified information, they didn't say. Um, now we talked a little bit about the types of challenges we have dealing with waste on site and you've had a lot to do with that; figuring out what's going to happen with the waste. Let's talk a little bit about that and then we'll go back in time and sort of retrace your career here a little bit. But something I am actually interested in is the cleanup of Fernald. What are we doing with the waste and how are we dealing with it right now?

04:17:56

A:

I think what impresses me most about Fernald, we truly are pioneers here; anybody that is at Fernald by definition is a pioneer. We're doing things here that are typically first time its been done and its impressive for me who thinks of myself as an engineer who is very methodical, very systematic.

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04:18:30

A:

When I think of the circle of processes that we have gone through here. The Remedial Investigation, the Feasibility Study that circle of process and eventually coming up with proposed plans and having buy in by the regulators, the stakeholders, um, Department of Energy orchestrated all of this and supported it financially and psychologically. Um, it was a very, very methodical, very systematic way of determining what's the right thing to do at Fernald.

04:19:13

A:

And every site that gets cleaned goes through a similar process and if they don't they're at risk, higher than need be. And when you think at how Fernald is now dealing with their remediation, if you look back at how we go to where we are now there were many, many people worked very hard to develop those paths forward.

04:19:48

A:

The remedial investigation for the operable units, each one being different and each one having its own Record of Decision. And now that we're into the implementation of our Records of Decision, it's very refreshing to see a very large system that quite frankly I questioned if we could ever get to the end and we're there we're doing what we said we were going to do.

04:20:22

A:

And we're getting better at it every day. We're putting waste in our cell everyday. And if someone had told me five years ago that we would be disposing of waste on this site, I would never have believed that.

04:20:40

A:

I knew that was the right thing to do, but I never thought we would get buy in. It says something about American ingenuity it's not about slick salesmen; it's not about snake oil salesmen. It's about being honest and showing people if you follow a very structured, methodical systematic way of developing a plan and if you build trust back and forth you can accomplish some pretty great things.

04:20:21

A:

First of all you to remember you can't care who gets the credit, you've just got to keep moving forward. And when I look at we're taking waste out of our waste pits and putting it through a process to dry it to analyze it to make sure that it meets land disposal restrictions and that it meets the waste acceptance criteria for the disposal in Utah and putting in railcars.

04:21:50

A:

And when I drive the back roads to and from work and I see these trains of waste moving off site; it's pretty impressive. I'm very glad to be part of this cleanup. We are making a difference and daily

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when you think you're not accomplishing anything and it's hard sometimes to keep motivated but we are accomplishing a lot here.

04:22:26

A:

I think the stakeholders appreciate that, I know I do. Um, and I am probably just as much a stakeholder as I am an employee as I am a project engineer manager here. It's a pretty impressive site but we are still pioneering. We have to keep making it better, learning and making it better but do it the same we got to here, very methodically, very systematically.

04:22:58

A:

Don't fly by the seat of our pants we have to follow plans, procedures and remember that it doesn't hurt occasionally to go back and read what we wrote that drove the decision that was made and now we're a part of. We have to keep looking at history before we look into the future too far. Going back regularly opening up those old textbooks, those old RI/FS documents.

04:23:32

A:

Go into the PEIC and reading what we said we were going to do and making sure we're still doing that. That's what we're all supposed to be doing here; making sure that each and every one of us are following the rules. I think that's what our quality assurance program is really all about. It's everybody's quality assurance. Watching out to make sure we're doing what we're saying we're going to do.

04:24:00

Q:

Great. That's wonderful. For some reason I'm thinking about while you're talking about the cleanup now too and how important it is to keep people here during the process. Um, you were sort of during the transition between the processing years and cleanup years and how hard was it to make sure the folks who knew the process stayed involved in Fernald.

04:24:36

A:

It was a lot different when we were in a production mode than in a remediation mode. But I think if you look, well I'll look at my experience and my career and give you my opinion. I came from manufacturing world when I came here to Fernald and saw the complexity of this operation I was amazed.

04:25:10

A:

I had never been anywhere, I thought advanced reactors were very convoluted and very complex. This site in virtually 136 acres would take raw ore and out the other end would come the highest purity uranium metal ever produced in the world and all of that was done in this 136 acres. Every discipline that every university and college in the world has ever taught was utilized in that process.

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04:25:49

A:

Chemical, electrical, mechanical, witchart, blackart, all of that was done here, the Pilot Plant here the kinds of operations they did in that Pilot Plant (laughing). They used virtually every material known to man and then probably made a few of their own to help enhance the process. And when you think that now you're going back to clean that up it helps to know what you were working with so you know how to handle it.

04:26:27

A:

The process of going from process to remediation, um, was integrated in very large part when I got here even though we were still in production, we were also into improving the environmental conditions. The dust collectors were being replaced all over site.

04:26:54

A:

There were a lot of productivity improvements that were removal action type activities. There was a lot of new things happening if we had stayed in production that were going into place. And a lot of it was being driven by environmental issues. There was, so when we went out of production and were kind of in a cold standby or a hot standby and then a cold standby; the projects that were in place were ongoing.

04:27:36

A:

And we learned a lot about how to take out a piece of contaminated equipment and handle it and replace it with nice shiny new stuff. And frankly, that same technology is being used today. We still have to do things that same way, now we do it on a much larger scale now. Uh, we take whole buildings out instead of one little corner with a piece of equipment in it and dispose of just that piece of equipment.

04:28:11

A:

But it's just larger scale and we're able to do whole buildings because of the knowledge of those who have been here to take the little pieces out and handle them properly. The procedures we use today were built on the foundation of those early procedures of demolition and decontamination and fixing contamination. And knowing how to containerize something before you transport it either on site or off site.

04:28:45

A:

It's very much a learning experience. If you work here uh any time at all and I, I've been here 13 years and I can still honestly say there isn't a day goes by that I haven't learned something new. It's a, it's a very challenging place to be and it's an exciting place to be.

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04:29:11

Q:

Great. We're gonna pause and change tapes.

A:

Okay.

TAPE FLHP0221

05:01:25

Q:

Something that uh, that's kind of on my mind that you mentioned before was uh the pioneering aspect of the cleanup that's going on here at Fernald. What are some of the new technologies that we're using here to deal with the waste?

05:01:40

A:

Uh, I guess if, if I look at the technologies uh most of what I see us using here are with regard to the stay times for workers in heat. When you must be dressed out in anti-C's and working in the construction months of the summer and you get a very high temperature, high humidity day and you have someone in double anti-C's and a respirator, their stay times are very limited.

05:02:21

A:

So there's been a lot of work here with our technology group to develop cool vests and that sort of thing to keep the body core temperatures lowered so people can actually perform without having a health hazard. Uh, the kinds of protective equipment we use, the materials they're made of are not what they were made of 10, 15 years ago.

05:02:51

A:

There's a lot of new technology in the materials of construction, of the PPE. Uh, the fact that we have equipment now, uh when I was a kid you talked about a steam shovel which is what you dug big ole ditches or coalmines with. People look at a piece of equipment now and they call it a track hoe and we have 'em around here that we dig with but we also use those with robotic arm to shear steel to break up concrete.

05:03:30

A:

Put a hydraulic jackhammer on the front of one of those and you can break up more concrete in 10 minutes than 100 men can break up with 50 jackhammers in two or three days. Which means you're getting in, you're doing the job, you're getting out without more exposure to the employee. So the technology here has been more focused at worker health and safety than anything else in my estimation.

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05:04:06

A:

Uh, we don't really need robots like the typical six degrees of freedom robotic arm that we were working with in the 3-mile defueling project where you were going down inside a reactor with a robotic arm to remove things. Which we never really did anyhow, it was all done by men up on a shielded platform working with long handled tools.

05:04:44

A:

Again a lot of, a lot of the technology uh with robotics has become a lot more practical like large lobster claw type shears. Uh, that's what we really need. We don't need fence little arms with hundreds of cables driving 'em. Here on this site we need stuff that's big and strong like a bull. That's what we need.

05:05:16

Q:

Like taking down Building 32. I love seeing that footage, just pushing it over. (Comment – yes, yes, yes) Now uh Fernald is, how does it figure within the whole DOE complex um how are we sort of leading the way for a lot of other sites?

05:05:35

A:

Uh, I think the, the 10-year plan that people talk of. The 2006 plan, which was, as far as I know was pretty much developed here. And it was a combination of people involved in that; no one individual, no one company, no one single entity of developed the enhanced demolition of these facilities. But I think Fernald kind of set the pace for that.

05:06:25

A:

That it could be done this way. Again, it came down to you first must have a very sound engineering basis for what you're doing and if you follow the circle of process you will have it. If you have regulators that you can agree to disagree with and move forward. If you can have stakeholders that you can agree to disagree with and move forward.

05:06:57

A:

And I guess when I look at being an engineer and working on the projects I've worked on, experience has always been in my practice a better teacher than all the classes I took and all the books I read. Uh, anything I do is an iterative process. I'm a little smarter at the end of each day and if I can't go back and rethink where was I, what did I do, can I do it better.

05:07:39

A:

If I lose that lessons learned mentality and then incorporate better ideas, better thinking, better processes, then I'm not doing my job. That's what I think Fernald has really done very well. We have developed programs that, that promote people thinking how can I do this job better. And one of things we learned has worked very well is by really opening communications with everybody on the project.

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05:08:18

A:

Not just the managers, not just the field workers but everybody in between. A lot of what is difficult to deal with here are the logistic items, the relying on just in time delivery of a piece of equipment that just plain isn't available when you think you need it. Having lay-down areas, knowing where to have those established, knowing what are long lead materials.

05:08:51

A:

You can't turn loose a work force that doesn't have all the proper PPE. And obviously if it's raining, if it's hot or it's cold, that PPE has to be different. And you have to be able to respond to the needs of the worker. And that's logistics, and that's where we have developed a lot of processes to deal with that. Our project scheduling people, our resource loading gets to that level of detail, it has to.

05:09:27

A:

Uh, when you talk about running a project and you think about all those other direct costs like someone has to go to training and we're starting a new procedure. That means we all have to have a briefing, we have to have a tabletop review. Procedures don't just fall out of the sky and get implemented. It's being aware of that and implementing that thought process I think is the key to our success. It has been until now and it will be in the future.

05:10:04

Q:

Great. Now of course something that we all hear so many times working at Fernald is that you know friends and family I know have asked me why is it costing so much, why is it taking so long, those types of things. Uh, can you address that issue just a little bit?

05:10:23

A:

Um, I guess if, if I look at the, the yearly budget for Fernald and I look at what we're accomplishing, I'm not that blown away by it. When I think of other costs and when I think of what we're doing here and the number of people it takes to do this I'm not all that blown away by it. Yeah, there is an awfully big overhead but I look around the site here and I don't see too many people not doing something productive.

05:11:20

A:

The key here is being able to recognize what's productive. I'm not being very productive right now however if there's a value added by these kinds of interviews, and I believe there will be. you are being productive. So it's just the spin you put on things. Again, I try to rely heavily on the philosophy that what happens to you every day is governed more by your attitude about 90 percent of your attitude.

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05:12:01

A:

And if you can try to keep a positive attitude uh you will be a winner. It's easy to find fault with what someone else is doing, what you think they're doing it wrong but if you can't add, if you can't be a value added you're better off moving forward. Don't, don't dwell on what you think someone is doing wrong. You may not understand what they're doing at all.

05:12:33

Q:

Great. What is the big picture as far as the cleanup of Fernald? Um, how long is it going to take now and uh what exactly needs to be done here still?

A:

The way you asked that question's makes me think a little bit about if we were to go back into our project files and look at our schedules of two or three years ago we would say that we will be done with this operable unit on this date. And we'll be done with that operable unit on this date and our experience and what we've learned about some of these projects have changed all those schedules.

05:13:28

A:

Uh, I can remember not that many years ago where the last thing that was going to happen here was advanced wastewater treatment would be going on for I believe it was out into 2022 or something like that. And now with reinjection and the capacity of our advanced wastewater treatment, the success of that total process, we're going to be done I believe 2008 or something like that.

05:14:07

A:

That's amazing. Uh, the waste pits, if we didn't have 50-car unitrains trucking out of here every two weeks we could be fooling around out there in those waste pits for 50 years but I think the plan now is to be done out there in 2003 or 4. Uh, I think what we all have to keep in mind as employees here, this ties into the, the budget and what it's costing.

05:14:43

A:

We have to remember that everything we can get done a day ahead of schedule comes off the back end. And if we look at our budget here which works out to around 276 million a year, round numbers a million dollars a day. Uh, every day we can cut off this process we save the taxpayers and ourselves a million dollars. So if you can get something done today do so, don't put it off until tomorrow.

05:15:21

A:

And I believe we will have a site that has an On-Site Disposal Facility, a cell that will be containing two and a half million cubic yards of low-level waste, soils, rubble, structural shape from the buildings, the transite siding will all be contained in that. And it will be covered in the 2006, 2007 time frame. The waste pits will be gone so that the soils underneath can be placed in that cell.

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05:16:08

A:

Uh, the last things that are happening here will be the silos I'm told now. Uh, I'm not familiar enough with the, the stage of their remedial design. I believe they're looking again at a vitrification process, which is going to be a while getting in place. But that is probably going to be the last operation, major operation going on here on site.

05:16:42

A:

Now all the waste, the secondary waste that's generated by these projects, we have contracts in place within the Department of Energy under the broad-spectrum treatment program. Which is already established and the subcontractors that are doing this work at Oak Ridge and in Texas to treat the secondary waste prior to disposal at Envirocare.

05:17:16

A:

All those things are in place. And as we generate these wastes we have projects that will handle them. We've got them; the project's funding levels are established based on estimated quantities. Uh, resources have been allocated. We have a pretty clear path forward. I don't see a, I personally don't see a hole in the planning. I see a very complete system.

05:17:51

(Someone in background – can we pause?)

Q:

Sure.

05:17:56

Q:

Something I think a whole lot of people don't have a whole lot of understanding of is the actual On-Site Disposal Facility. Can you explain a little bit about how we're building it, what's going in it, why, how it came about?

05:18:10

A:

Uh, I guess the facility itself has evolved probably over about the last eight, eight years, maybe ten. A lot of people recognized that there was going to be a significant quantity of waste that it was not financially prudent to ship to the arid west. Uh, key to putting it here on site was to develop an engineered cell with many levels of containment and leachate collection systems that you can monitor if you had any leaching of the waste.

05:19:12

A:

And this technology has been used all over the country. It's the same technology used up here at Mt. Rumpke. This is a little more sophisticated than Mt. Rumpke but uh it's a pretty straightforward technology. Developing it and detailing it for this site, the major issue was the fact that this site does sit directly over a primary aquifer.

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05:19:50

A:

So the importance of what you put in the cell if it were to fail still wouldn't be a major risk to the country. And the engineering process was very rigorous. There was an awful lot of input from civil engineers of all kinds. A lot of very thorough review processes were gone through. Uh, to get to where we are today but when I mentioned earlier there's in the order of two and a half million cubic yards of truly low-level material that's going to be generated here during the, the remediation process.

05:20:40

A:

That equates to an awful lot of rail cars or an awful lot of trucks. And from a cost perspective alone, you can justify it. Let alone the fact that there are many states who don't want all of our waste in their backyard. Uh, the balance of final waste disposal on this site is something we can all be very proud of. We don't send it all to one place.

05:21:17

A:

It, we're using everything at our, at our fingertips that we can use to dispose of this site at a very balanced approach. Uh, I remember looking at the history records of what went in the pits. And when you think that up until 1985 virtually nothing that came on this site ever left this site unless it was pure uranium metal.

05:21:51

A:

Everything else that came here, all the paper, all the wood, all the uh the ore raffinates. The, the cafeteria waste, the office waste, all that was disposed of on this site. And a lot of that is what is going into uh now we ship a lot to Rumpke. We have programs in place to control the clean side waste. We have other mechanisms in place for sending stuff, hazardous waste to recyclers.

05:22:39

A:

We uh, we dispose of things many different ways. We don't have a large scrap metal pile any longer. We've disposed of that. Some of that material was sent off site and melted down and reused for shield blocks or waste containers. There's been a lot of waste management, waste minimization, pollution prevention technology used here on site to, to enhance the whole waste management process.

05:23:14

A:

You can't always just throw something away when you're done with it and we do a lot of recycling. Uh, those things were not done prior to 1985. Prior to '85 it went to the pits or to the sanitary landfill or to the South Field for disposal or storage. Our flyash piles were down in the South Field. Those have all been moved now into the cell.

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05:23:50

A:

It's an exciting place. Then we have our RCRA or our mixed waste, which we have treated now the vast majority of what was in storage here over the years. We're down to a couple of thousand drums or containers of that type of material, the mixed waste material. And we have programs in place to treat that type of material.

05:24:22

A:

Any secondary waste that will be coming out of the silo's project, the Waste Pits Project, the South Field Soils and Waters Projects. Any mixed waste that's generated by those projects come to the Waste Management Division and get put into the broad spectrum treatment program.

05:24:47

Q:

Can you tell us a little bit about the uh, the mixed waste um solidification? That's kind of an interesting process.

A:

Yeah, that was a result of we had five or six RCRA warehouses that were bulging at the seams and we kept generating RCRA waste and the expense of storing that kind of material. The daily inspections of containers in itself was an unacceptable overhead. Let alone that material needs to be moved from the site so you can tear buildings down and complete your remediation.

05:25:37

A:

So we came up with a treatment plan to treat first of all we had a lot of liquids that needed to be bulked. So then we got into some uh grip blast residues that were high in lead content from lead-based paint. A lot of uh heat treatment salt baths that had been, that material was in RCRA storage, high for RCRA metals. Uh, there were a lot of sump cakes that had the same kind of inorganic contamination in them along with uranium.

05:26:20

A:

So we developed a mobile treatment program here on site where we would take those drums, dump them across a screen and do a segregation. Remove all the noncompatible material; remove the debris that needed further pretreatment. Shred it, shear it, whatever to get it back into the form where we could then chemically stabilize and then cement solidify that waste.

05:26:57

A:

Uh, then do final sampling of that material, that finished concrete, as it was placed in metal boxes. And that material is now in the ground at Nevada as low-level waste. We were able to remove the mixed waste portion of that material. And I was in Nevada two years ago and saw a lot of those boxes in the ground. Pretty exciting.

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05:27:28

Q:

Must be satisfying to know (Comment – oh my) you've taken all this stuff (Comment – it really is) and done that process.

A:

And I guess part of my problem was I was in Waste Management when we were doing the repaint of the water towers and was responsible for generating a lot of that waste. And then I was responsible for treating that waste and getting it in the ground. I guess it's kind of the way it's supposed to be.

05:28:02

Q:

That's great. Um, how much progress have you seen from the day that you got here to today on this site? What's like some of the major things that you've seen that?

A:

I've put on about 20 pounds. I have a lot more gray hair. Oh it's, it's a different world. It's truly a different world. Uh, 13 years have changed this facility, it's almost scary the difference. It's hard to remember being in production. It's hard for me to remember these buildings, as they were when I got here.

05:28:56

A:

I think probably the part that has been well when I came here of course it was very high security. We had a very, very rigorous security staff who carried weapons and did drills routinely. Uh, you had to have the right numbers on your badge to get into your office. And it was a cost and a burden on everybody here to maintain that security that just plain was, is unnecessary today.

05:29:44

A:

Uh, it was necessary then but is not necessary now. And if you don't learn and improve as you can you'll just die on the vine if you don't grow.

05:29:56

Q:

I'm going to interrupt you real quick right there 'cause we need to change tapes.

A:

Okay.

TAPE FLHP0222

06:01:02

Q:

All right. Sorry to interrupt you, you were talking about the progress that you've seen on site for 13 years.

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A:

Uh, I guess what I, what I do recognize as a major improvement when we originally worked on waste management and originally we were doing removal actions. And we were developing individual project work plans. We really spent an awful lot of effort, a lot of resources to develop those work plans.

06:01:42

A:

And each one was uniquely different. And what we have done now is combined a lot of those into our Records of Decision. We don't have to revisit what is the acceptable level to leave behind, that has been established. We worked long and hard to try to develop those criteria. I was involved in a lot of that trying to get into procedures of what is acceptable to cover over.

06:02:25

A:

We were, should it be 35 picocuries per gram, should it be 50 parts per million uranium, should it be stained soil. All that is behind us now. And that was a major effort. How do you determine what is activity. Should you use a handheld meter, no that doesn't work. Should you use a sodium iodized crystal, well that works but.

06:02:57

A:

We've been through all that and I think we're, it's now pretty cut and dry. This is now what the criteria is, don't try to change it just live with it and we're doing that. So that's major improvement. Uh, trying to establish those criteria, those requirements. A lot of opinions were set forth there but we're there now and I'm very happy for that.

06:03:30

Q:

Let's talk a little bit about the work force here. Um, what kind of people work at Fernald?

A:

Well we have a pretty broad spectrum of backgrounds. We have a lot of different philosophical people. The diversity here I think is the key to our success and will be in the future. Not everybody here is cut out of the same cloth.

06:04:11

A:

The diversity here is both ends of the spectrum. We have the whole, the whole spectrum here. And that teaches you a lot about what is important. And that's listening to people who have a different perspective, truly listening, not blocking them out. I learned from a boss of mine a long time ago, even a broken clock is right twice a day.

06:04:48

A:

And we have to remember that. Uh, even if someone has told you something wrong before doesn't mean that every time they talk to you they don't know what they are saying. You have to keep your mind and your ears open but more importantly your mind. Let that thought process build. Try to

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reach synergy with one thought to another, be iterative.

06:05:17

A:

Let the system work for you, become part of the system. Don't block it out because someone said and you don't agree with that someone so they can't be right. That to me is what the work force at Fernald is all about. There are people who not just at Fernald but everywhere you go that have hidden agendas. We all know that, no sense dwelling on it or worrying about it, that's just the way it is.

06:05:54

A:

And they probably have every right to that opinion. Doesn't make it wrong, doesn't make it right, it's an opinion. What I'm telling you now is my opinion. You may agree, you may not that's just how it is. But keep an open mind, let your mind work for you. And I believe here at Fernald we have a very diligent work force.

06:06:25

A:

Yeah, there are people that uh will get you down if you let them. But I have that at home, I have that in my neighborhood. I try to rise above it and I think I'm better for it. We all are. We have a very good work force here. I socialize specifically with the golf crowd here. But when we get together here at work and away from work you can tell there's some very deep friendships.

06:07:06

A:

Not just acquaintances, but friendships. There's a trust, there's an honesty that you build on a trust that you build on and we just got to keep striving to keep that alive. That's what will be the key to the success of Fernald. Keeping people being friends I think is probably the best way to put it.

06:07:34

Q:

Great. And uh, wait for this truck to go by. He'll just be a few seconds.

06:07:46

Q:

Uh, what do you think are the major challenges for Fernald within the next 10 years or so?

A:

Keeping focused on our ultimate goal. Not letting politics, office politics, personalities get in the way of our mission. Uh, the rebid process is going to take a significant amount of effort of a lot of people. I have my personal feelings on that rebid process.

06:08:31

A:

What it will accomplish, what it won't accomplish. But I will keep an open mind and wait and see. I will do everything I can to keep positive about that process. Uh, I really think that as long as the core people that work here care doesn't really matter what company logo is on their shirt or their hardhat or

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their badge.

06:09:10

A:

Uh, doesn't matter whether they're a DOE employee, a Fluor Daniel, a Westinghouse, a NLO, subcontractor, an IT, a B&W, Foster Wheeler, it's about people. And about people communicating and people caring enough about the mission to stay focused on that mission. That's the key to the success at Fernald and that's the key to success at P&G and at Ford Motor Company and General Motors and everywhere else.

06:09:45

A:

It's about people trying a little harder to make a better world for one another. And I guess my, my goal is to try to be known as someone who is courteous. Someone who has the, the time to say hello, good morning, how are you. And listen if someone wants to tell ya how they are not just a ritual. Being courteous, treating each other like you want to be treated.

06:10:25

A:

Holding a door for someone, not because, it's just being courteous. Not cutting people off on the phone or talking with your mouth full of food. Just be courteous. The key to, the key to life in the new millenium I hope.

06:10:52

Q:

Great. Now they're tearing down buildings pretty quickly as we've been talking about and um what would you like to see done with the land here when we're done?

A:

Well I live right over the top of the hill and it's a long drive to Miami Whitewater to the golf course for me. I would love to see a nice 18 hole or even a 9-hole golf course here. I think this place lends itself very well to it.

06:11:22

A:

A lynx type golf course when we're all done with no trees, just a few mounds. I kind of like the lynx type golf courses. I've been to Scotland and I mean it's 500 years ago they built those and this place has been here for 50 years, I think it's appropriate to have a lynx type golf course here. Uh, we could call it St. Andrews II or III I don't care. St. Andrews-Fernald, that would be fine with me.

06:11:50

A:

And I'd love to be the starter. Or the caddy master, I can do all of that. That's what I'd like to see. I'd like to see a with the environmental area on the northeast corner and the on-site cell with the little mounds, well they're not little mounds but the mounds. Uh, and the uh wetlands that we will have to maintain here for the out years, I believe golf course would fit just fine on this property.

06:12:35

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Q:
You know you're not the only one that said that.

A:
Well I've been selling that to community meetings a lot.

Q:
That's great. Uh, is there anything you want to add? Anything that we didn't cover that you kind of wanted to cover?

06:12:51

A:
Uh no, I guess if someone says what does Fernald, what has it done for me, it's taught me a lot about change and how to deal with change. Uh, there is no question there's always many ways to skin a cat. The way we're doing things here is one of those ways. It's not the only way. However, there was a manager here who years ago told me that if we're not part of the solution we are part of the problem.

06:13:41

A:
I try to say that to myself every morning, try to be part of the solution. There are plenty of people that are very good at being part of the problem. I'm one of them I'm sure. But each day I try to tell myself to try to keep a positive attitude and try to be part of the solution. There are a lot of things that are left to be improved upon here.

06:14:14

A:
There are a lot of people that I don't know personally yet that work here. Some I will become friends with over the years. I guess the main thing though is that I would hope that we can set an example here as being a caring work force, a non-selfish work force. I think everybody here knows that they're working themselves out of a job and there's a couple of ways you can look at that.

06:14:50

A:
You can say well the glass is half full or the glass is half-empty. What I say to people with regard to that is if you like waste management, if you like remediation, if you like environmental science there is no better training around than Fernald, Ohio. Uh, we're doing it here; we're not talking about it. We're learning from our experiences.

06:15:20

A:
As a project manager one of the things I have tried to establish on all of my projects was to set them up in phases. Such that there is a hold point between major activities where you can evaluate what we've learned from this last phase. What can we do in the next phase to incorporate this lessons learned? I believe in doing that in everything we do here.

06:15:57

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A:

And if we can get people all on that same page thinking that it is an iterative process we will have a very successful project. And we all want a successful project. The, the mission that all of us have is to put none of our fellow employees or our company or the Department of Energy at risk. We are here to try to do the very best job we can do, the safest way we can do it and not put anybody in harm's way.

06:16:36

A:

And if you think of your daily activities and keep that in mind you will pick up something that's laying where someone can trip over it. If you think of that as you go to the parking lot and you walk to the parking lot, you keep your eyes open, you leave the parking lot in an orderly fashion. You act like a lady and a gentleman. That's all anybody can ask of you.

06:17:06

A:

And look out for your fellow worker. That's all your really required to do. It's a great place. I plan to retire from here in about four years. But I live just over the top of my left shoulder and I don't plan to move. I plan to be here 'til they plant me in the ground somewhere around here. So uh I think I will see even more change. I'll see it on my way to and from the golf course but I will be watching. And I will still go to the community meetings and try to keep in touch with what is happening here.

06:17:55

A:

Uh, I am very impressed with the relationships we have with our stakeholders. That has been a very resourceful process. I remember going to community meetings when they first started and we have grown together. We have truly grown together and it's exciting to be part of that. To see someone at the local grocery and they say hello even though you may have been on opposite ends of an issue a time or two or maybe a dozen.

06:18:36

A:

But you don't have to worry so much about whether people like you; you have to worry about whether they respect you. And how do you build respect? It's about trust and it's about being a gentleman and a lady. That's pretty much the bottom line. Kind of what they taught us in Kindergarten. That's about it.

06:19:04

Q:

Great. Do we need to roll off some nat sound? (Cameraman – yes) okay, we're going to roll off what we call nat sound, that just means we have to have, as quiet as it gets around here on the set for about 30 seconds.

A:

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Okay.

Cameraman – we're rolling.

Q:
This is nat sound.