

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

FERNALD CLEANUP PROGRESS BRIEFING/
SILO PROJECT PUBLIC HEARING

Tuesday, November 25, 1997
6:00 P.M.

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 MR. STEGNER: I want to welcome you
2 all here and thank you for coming. My name is Gary
3 Stegner. I work in Public Affairs for the
4 Department of Energy at the site.

5 You can see by the agenda that's
6 coming up here shortly on the screen that it is a
7 very full agenda, probably a little bit ambitious.

8 On your seats you'll have the latest
9 additions to the Fernald Tool Box. It has
10 evaluation forms on there also. We would ask that
11 you fill out the evaluation forms at the conclusion
12 of this evening's session and please indicate your
13 preference for the topic of the month for January.

14 We're going to sort of move things
15 rather quickly tonight. We're going to ask your
16 indulgence on some things. At the September
17 session you indicated a preference for having
18 questions immediately following the presentations,
19 so we're going to do that tonight, but the
20 indulgence we're going to ask of you is that we
21 will only field two questions per so we can move
22 through this and get into the public hearing in
23 good time. To make up for that, what we'll do is
24 have a break between the sessions, about 15

1 minutes. That will give you access to each
2 presenter. So questions you don't get answered
3 during the open session here, you can seek out the
4 presenters or the staff people and they can answer
5 your questions then. And as the usual drill, we
6 will be here following both sessions tonight to
7 answer any questions that may arise.

8 Again, I've asked the presenters to
9 sort of expedite things tonight to sort of compress
10 their presentations. And as I mentioned, we'll try
11 to hold it down to two questions per presenter so
12 we can keep things on track and hope to get this
13 first session through in an hour to an hour and 15
14 minutes so we can move into the hearing on the
15 explanation of significant differences for Silo 3.
16 As I indicated, we will take a rather, for us, a
17 lengthy break between sessions.

18 So with that, make sure I'm not
19 forgetting anything, I think we can move into the
20 first presentation, which is Dave Lojek.

21 MR. LOJEK: Good evening. Welcome.
22 I'm going to go over basically a brief status of
23 Operable Unit 1 and where we are. We have the
24 project schedule slide, and basically you can see

1 our three activities, our ARASA contract was
2 awarded, complete rail upgrades is coming up, ARASA
3 construction start. We're on target for all those
4 items. First waste processing and shipping, that's
5 still -- our Record of Decision, of course, will
6 date to March 1st, 1999. That's our long-term
7 target, and a little longer term target, our
8 complete operations in the year 05, May 05.

9 Basically the message from this slide
10 here is that on-site activities necessary to
11 support the rail infrastructure upgrades, and
12 during the month of October, were continuing in the
13 month of October. These basically involve the rail
14 enclave, which you can see over there on Paddy's
15 Run Road. In fact, that was completed during the
16 month -- at this point in time it's completed. The
17 north railyard is coming to completion. The
18 loadout area is complete. Rail maintenance
19 building. So those are some of the subitems that
20 are under that category.

21 Under the category of off-site
22 activities, we have some off-site trestles,
23 primarily the Okeana trestle, the Camp Run trestle,
24 and the Wynn Road trestle. We've completed those

1 upgrades to all those, the largest of that being
2 the Okeana trestle, the 600, almost 700 foot
3 trestle out there in Okeana. Camp Run and Wynn
4 Road were two smaller trestles there.

5 And I guess most importantly, during
6 the month of October we awarded the ARASA contract
7 to International Technologies Corporation. The
8 ARASA subcontractor is basically the contractor
9 that will be engaged in the remediation of the
10 waste pits. So that was awarded on October 20.

11 One other item here on this one is
12 that the Shandon yard improvements is an upcoming
13 activity. That will see some action, you will be
14 able to see some action out in the community.

15 A lot of these activities I pretty
16 much touched on. Like I said, the Shandon yard
17 upgrade. With the completion of the Okeana
18 trestle, the Camp Run, and the Wynn Road, that
19 pretty much gets us out of the community, so to
20 speak, out of that far reach of the community. The
21 Shandon yard access, when we upgrade that access
22 point there, you'll see some activities right there
23 along Paddy's Run Road, but that's pretty much it.

24 Our on-site rail infrastructure

1 construction, completed about a month from today,
2 December 23rd is our date for that.

3 The 90-day look ahead, the key item
4 here -- two key items I want to touch on here,
5 first is the amendment to our RA work plan.
6 Basically with the award of the ARASA subcontract
7 on October 20th, we have an RA work plan
8 deliverable that said within 60 days of contract
9 award we have to submit basically the RD and RA
10 package document submittal dates to the EPA. So
11 we're on target for that, that's due December
12 20th. I think December 20th is a Saturday, so I
13 think we're targeting for December 19th to the
14 EPA. We have a submittal there. And the bottom
15 item here in our 90-day look ahead is award of the
16 contract for railcar procurement, which we did have
17 an RFP that was put out on the street for
18 railcars. That RFP was put out on the street
19 Friday of last week. And we're looking at a
20 potential award of that contract in February of
21 '98.

22 Here we've got some photographs of
23 our work. This is the Okeana trestle, this is as
24 it stood in October of '97, so this is the

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 completed work on the Okeana trestle. You can see
2 each of these sections here are now steel sections
3 to support the rail line that crosses. This is
4 about a hundred feet high, almost 700 feet long
5 from end to end. The wooden trestle -- go ahead to
6 the next slide, that should show -- here's the
7 shot. This is the July '94, so this is sort of a
8 file record that shows the Okeana trestle as we had
9 it with all the wooden members in it, so we had
10 that all upgraded.

11 Another item I mentioned was the
12 Paddy's Run trestle. This is located on-site, but
13 it's right there at the edge of the property line
14 there. We had an upgrade that we had to do to the
15 Paddy's Run trestle. We also put a walkway along
16 the side here and barrier here because when we load
17 our unit trains along this area here, we'll have a
18 need to do a walk down of the train at that area.

19 And this item here, this is a shot
20 taken from our rail maintenance facility. We're
21 looking out through the west and a little bit to
22 the south this way. The rail yard is all in
23 through here, so this is just a shot showing the
24 progress made in the rail yard area.

1 Okay, that's my presentation here.

2 Up next we have Operable Unit 2, that's Jay
3 Jalovec.

4 MR. STEGNER: Are there any quick
5 questions for Dave before he sits down on this?
6 If not, Jay.

7 MR. JALOVEC: Thank you, Dave. My
8 name again is Jay Jalovec, and I'm going to talk
9 about OU-2. This overall general chart includes
10 the subprojects, one of which is the new North
11 Access Road that was completed October 20th. That
12 was part of this project because the old North
13 Access Road was in the footprint of the disposal
14 facility. The Haul Road is scheduled to be
15 completed the end of this month. That is on
16 schedule. And that's the road that takes the
17 excavated waste from the southern waste units to
18 the on-site disposal facility. This milestone
19 here, OSDF seasonal cover, that will mark the end
20 of the construction season in December. Then we
21 will essentially be shut down for the wintertime
22 until next spring, 3/98, when we have RA work plan
23 milestone of first waste placement on March 27th,
24 1998, and then an arrow showing just ongoing

1 construction currently scheduled for the year
2 2006.

3 Major work activities for October, we
4 completed the Cell 1 clay liner installation, and
5 that was 3 feet of compacted clay that's on the
6 prepared subgrade. We also initiated installation
7 of the secondary composite liner, and that is what
8 we commonly call the GCL and the GML, or the
9 geosynthetic clay liner and geomembrane liner.

10 On the leachate conveyance system,
11 completed installation of the southern and eastern
12 portions and the permanent lift station. The
13 leachate conveyance system, as a reminder, is the
14 system that transports the leachate from the
15 disposal facility to AWWT for eventual treatment.
16 We also began final testing of the leachate lines
17 in October.

18 Major work activities continuing for
19 the roads. As I said, we finished up the North
20 Entrance Road, opened it up to the public on
21 10/20. We completed gravel base and geotextile
22 installation on the Haul Road, and started paving
23 process of that. We have no enforceable milestones
24 due in October.

1 The 90-day look ahead as far as the
2 on-site disposal facility, install the primary
3 liner system, that was initiated this past Sunday.
4 We had a real nice weather day and worked some long
5 hours and got that process initiated. The leak
6 detection system is currently underway. Following
7 that we have the leachate collection system and
8 beginning placement of the protective cover. Those
9 activities actually are slated right now for the
10 first part of December, not November as indicated
11 here. The protective cover, that will consist of a
12 minimum of 1 foot of impacted material. In
13 December we will complete that protective cover and
14 close for the winter. And then January months will
15 begin preparation for next season, which includes
16 setting up of a debris transfer area.

17 The 90-day look ahead for the
18 leachate system, complete final testing and
19 performance systems, operability testing, we'll do
20 the standard start-up review. That is just
21 independent verification that that system is indeed
22 ready to begin operations. The initiate leachate
23 collection and treatment upon placement of
24 material, that's the protective cover I just

1 mentioned, so that actually will be December rather
2 than November as indicated there. Then in December
3 it will be up and operational, and we'll be
4 performing routine maintenance. The road, that's
5 specific to the Haul Road, we've actually continued
6 paving at this point. Right now we have small
7 minor details that we're working on, like painting
8 and some shoulder work.

9 As far as milestones for the look
10 ahead, we have to place a seasonal cover by
11 12/31/97, and this is different than the protective
12 cover that I was just mentioning. This will be a
13 crusting agent, a pine sap material that will be
14 applied to the impacted material for erosion
15 control purposes during the winter.

16 A few pictures here. This is Cell 1,
17 the black material is the GML, geomembrane liner,
18 and this is just showing PetroEnvironmental, the
19 contractor, went out and got some lights so we
20 could extend the hours of operation. With the rain
21 and a few problems that we encountered, we needed
22 some extra time, and this was a real effective way
23 to extend the workday.

24 This is the shot before we had all

1 the liner material put down. This is the liner on
2 the east part of the first cell. We had a guy come
3 in to dry out this uncovered clay due to those
4 rains, and the motions of the helicopter was really
5 effective in helping to dry that material out.

6 This is an example of the seaming
7 operation. He is seaming the GML together, and
8 this piece of equipment is called a mouse.

9 The last slide, this just shows the
10 exposed clay, the 3 feet compacted clay. The white
11 material here is the GCL, geosynthetic clay liner.
12 On top of that is this black material, the GML, and
13 this is the process that is eventually moved all
14 the way across, and we are now in the primary liner
15 system. So it looks like this here on top of an
16 entire system of GML, GCL, and rock at this point.

17 I believe that's the last picture.
18 Is there any questions?

19 Okay, next for OU-3 I would like to
20 call up Art Murphy and Jamie Jameson.

21 MR. MURPHY: Good evening, I'm Art
22 Murphy, the project manager for Plant 9 and
23 Operable Unit 3 process area, where I've spent
24 about the last five years with DOE.

1 Our project schedule, when you look
2 at this graph, the way I like to look at it that
3 makes the most sense to me is as if the blue were a
4 highway and you're driving down that highway and
5 you're seeing a billboard associated with each of
6 those dates, and that's how this would shake out.
7 In OU-3 a lot of things are happening now. Things
8 are really picking up and you can see there as the
9 dates start to tick off, we're into 2/3, which I'll
10 talk about some more and working on the safe
11 shutdown of that, and as it commences forward, you
12 can read those yourself, you don't need me to read
13 those. Go ahead.

14 Again, our safe shutdown is going
15 along very well. Most of the materials and the
16 items that you'll see on here will have to do with
17 completing holdup material removal or energy
18 isolation, which means we're going to disconnect
19 power from that associated component. We've also
20 done some underground utility line work.

21 Continuing on with our 90-day look
22 ahead, we began to work into 2/3 with the asbestos,
23 but again you'll see several things jump out here
24 at you. Asbestos removal, energy isolation, holdup

1 material, it's just taking place in different
2 buildings, and this slide is pretty much
3 self-explanatory. Again that ongoing underground
4 utility line work for some of the outlying
5 buildings.

6 We're in the boiler plant now. If we
7 look ahead to our D&D, major work activities in
8 October, boiler plant/water plant have been going
9 real well. I know two months ago we were here and
10 told you that we would drop both the east and west
11 precipitator in the silo, and I wanted to make a
12 point of telling you that I'm here tonight with a
13 film to show you we have done just what we said.

14 Along with this, some other items,
15 the water plant demolition, the railroad scale
16 house removal, but the thorium Plant 9 complex,
17 which has kicked into gear now with that contract
18 being awarded and we're seeing people mobilized,
19 and another thing that we told you we were thinking
20 about doing and we've done and we're back here to
21 tell you that we've done, we've utilized Building
22 81 as a changeout/dressout facility. This probably
23 saved us at least a half million dollars having to
24 set up a trailer for that activity. It was thought

1 out real well and it's working real well, and
2 should be a key to the success of that cleanup.
3 We've got the office trailers and all their
4 supporting utilities hooked up now. They're in
5 there working, the contractor, NFC. Mobilization
6 is starting. We have areas fenced off. The
7 magnesium warehouse, we're in that ready to start.
8 Some activities even started today. I was out
9 myself today and we did a full dressout, walkdown
10 of Plant 9 and started to begin to strategize about
11 how that is going to exactly happen detail by
12 detail. So things are going really well.

13 Again, our 90-day look ahead,
14 hopefully these things here I will show you in just
15 a moment have been done, demolition of the
16 electrostatic precipitators, fly ash silo, pipe
17 bridge, wet salt storage bin, and clearwell
18 building. The transite removal is going on in the
19 interior there at the boiler plant and, of course,
20 that associated sizing and segregation. Everything
21 is rolling along real well, and what's really going
22 to be interesting, if you work in this field, as a
23 lot of you do, you kind of wait for that. As they
24 say, true characterization comes out during

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 remediation, and that's my favorite part when we
2 actually can do some work. So it's really buzzing
3 out there and you see a lot of people moving around
4 and things happening. If you look ahead and think
5 of that, the northeast quadrant, once you get out
6 those 13 or so buildings and 9 of them, we'll come
7 back and get the boiler plant. I feel like we're
8 really making a dent.

9 Again, on a daily basis with Plant 9
10 I'm getting -- Veterans Day we worked and we got 13
11 submittals and individual work plans that deal with
12 the different pieces of the total job. So our
13 staff is busy reviewing those concurrently with FDF
14 and all the other associated entities on-site that
15 have to be in that loop, and then by getting
16 involved up at the beginning of the project, I feel
17 like that makes us proactive and prevents us from
18 having a 13th hour disagreement, which has been
19 known to happen in the past. And in the
20 maintenance/tank farm complex, we continue to work
21 on that implementation plan.

22 Just a little side note on the D&D of
23 the mag warehouse, if you're familiar with that, it
24 looks like we'll start in the south end of that

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 building in the bay taking down asbestos piping.
2 It will be cut, glove bagged, dropped down by
3 manlift, and then probably mechanically cut or
4 maybe some of it needs to be torch cut, we don't
5 think it will be, and then we'll follow with the
6 interior removal of lighting windows, that type of
7 thing, and then go up on the roof and start the
8 asbestos and actual cutting and removing and
9 lowering of the roof. Then we will come back
10 inside with some shears and begin to cut the
11 masonry rebar, whatever, before we knock those
12 walls down.

13 So, again, safe shutdown is rolling
14 right along. Monty Morris and people are doing a
15 great job. Jane is keeping people moving.

16 I've already told you about the
17 boiler plant, the reactivators and now -- go ahead,
18 see what else we've got here.

19 This is the removal of the MAWS
20 equipment, which was a pilot system we had in there
21 in Plant 9. It had to come out before anything
22 else could be done, and apparently it's going to be
23 done at Ford International University, discussing
24 with those folks. They had some interesting

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 ideas. We did a rather successful OU-3 by
2 relocating some equipment, we moved our soil
3 washing equipment out of Plant 8 and moved it up to
4 RMI, and we're going to try to find a home for
5 this, but we couldn't get that done quite in time,
6 so we stored it, properly wrapped it and sealed all
7 the controls, and we got that stored on the north
8 Plant 5, on that pad outside with a roof, so it's
9 in good shape and it's going to go somewhere. And
10 it's already generated a lot of attention.

11 Go ahead. That's it, okay. Then I
12 want you to just take a quick second and look at
13 this video so that you can see that we in fact did
14 what we told you we would do 60 days ago. As you
15 can see here, what they've done with each of these,
16 I think you'll see it consists of cutting
17 methodology where they're weakening the columns and
18 then pulling, I think they pulled this silo. On
19 the precipitator, they pulled one down to the east
20 and one to the west. We were able to do them both
21 in the same day. Fortunately, we had enough
22 daylight left, but, again, to go out there now,
23 we're really starting to see activity and people
24 getting things done and it's a different work

1 atmosphere.

2 Weakened here, weakened here the
3 columns, and then basically pulled them down, see
4 them come out in a very controlled fall. You can
5 see that they're on this dust with water. One of
6 these show, I believe they've got the water going
7 for dust control. So everything is kind of --
8 here's another one. You'll see it in the evening,
9 they ran out of daylight, but that was a good day.

10 Once again, 60 days ago we told you
11 this is what we were going to do, we're back here
12 now telling you we did it, trying to do a good job
13 for you. Took advantage of Building 81 so we
14 didn't have to build a half million dollar decon
15 facility, and things are looking up. So thank
16 you.

17 MR. STEGNER: Dave Yockman, OU-4.

18 MR. YOCKMAN: My name is Dave
19 Yockman, and I'm going to give you a brief status
20 on the Operable Unit 4.

21 If you look at the schedule here,
22 that lays out the regulatory milestones that we
23 agreed to in the dispute resolution. As you can
24 see, we've met the first one, the draft ESD to

1 EPA.

2 Take a look at some of the activities
3 we did in October. As far as Silo 1 and 2 proof of
4 principle, we got back responses from 21 different
5 vendors, and we're in the process of evaluating
6 those responses. We're also working on developing
7 or during the month of October we worked on
8 developing the scope of work and the evaluation
9 criteria, and in addition we started scoping out
10 what it would take to revise the FS.

11 As far as Silo 3 work in October, we
12 completed rescoping of the Silo 3 RFP based on some
13 of the changes resulting from the private --
14 pulling it out of privatization, and also some of
15 the headquarters comments, as many of you are
16 probably familiar with.

17 In addition, in October, as far as
18 the ESD was concerned, we worked on revising and
19 getting a draft final of that. We also, from a
20 silo integrity standpoint, we worked on doing some
21 core borings on Silo 4. That was complete, and
22 we're currently in the process of evaluating the
23 results from that and drafting up a final report.
24 There were no enforceable milestones due in

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 October.

~~1165~~
1165

2 If we take a look ahead, actually
3 some of this stuff has already taken place in
4 November. Of course, the first bullet, after
5 tonight's progress briefing, we're going to have a
6 public hearing on the ESD, and as far as the RFP
7 goes, we've released that for the regulators,
8 vendors, and stakeholders to review.

9 One of the things that we're also
10 working on with Silo 3 is trying to get some
11 material, a small amount of material out of that
12 silo to provide to vendors, and we're currently --
13 actually, that date is wrong there, it should be
14 December of '97, we're going to do a mock-up on
15 Silo 4 before we go ahead with that. And on
16 December 2nd we're also going -- essentially the
17 same presentation you're going to see tonight will
18 be given to the cab out in the back. That will
19 happen December 2nd.

20 In December -- let's see, those dates
21 are also wrong. Those dates should be January of
22 '97 and February of '98 to complete the start-up.
23 We're going to get some lessons learned from the
24 mock-up of Silo 4, and then we're going to get

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 ready in December and then -- or in January, and
2 then try to do the -- initiate operations in
3 February.

4 MS. CRAWFORD: So it should be 1/98
5 and 2/98?

6 MR. YOCKMAN: It should be 1/98 and
7 2/98. As I said earlier, the final report should
8 be complete for Silo 4, the compressive strength
9 test and the petrographic analysis should be done
10 and we should have a report for folks to look at.
11 The Silo 1 and 2 waste retrieval, we've been
12 working on in December, we're going to work towards
13 completing the design basis for that.

14 One other thing I'll point out is
15 that also in December we're going to try to do an
16 independent technical review of the strategy for
17 the accelerated waste retrieval, and right now
18 we're tentatively set up for the second week of
19 December, and the public and whoever wants to
20 attend may sit in on those meetings. We'll let you
21 know more specifics as we get them solidified.

22 Let's see, I guess in January we're
23 going to try to finalize things with the ESD and
24 also the RFP.

1 Then the final thing, some of the
2 SEP's, the work plans for three of the -- you can
3 see two of them we've submitted this week, and then
4 there's a third one we'll submit towards the end of
5 December.

6 This here is a picture of the --
7 they're preparing the area around Silo 4 for the
8 mock-up, and they did that in October, November
9 time frame.

10 This here, the title is wrong, it
11 should say Silo 4, we didn't take cores from Silo
12 3. This is the machine that was used to pull a
13 4-inch core from the Silo 4 wall, and six cores
14 were taken from around the silo, and those are the
15 cores that are being evaluated. Like I said, those
16 are complete, we're evaluating those, and we're
17 going to have a final report sometime in December.

18 That's all I have for you on Silo 4.
19 If you have any quick questions.

20 MR. HOPPER: Can you briefly explain
21 the accelerated waste retrieval effort and what
22 you're going to do in December.

23 MR. YOCKMAN: The accelerated waste
24 retrieval, basically we've laid out a strategy to

1 go in and try to look at a strategy to take the
2 material out sooner than we had originally looked
3 at doing it with the original baseline. As far as
4 the December -- early in December an independent
5 review team, we're just going to have somebody come
6 in -- actually not somebody, it's a group, right
7 now it's looking like four individuals to come in
8 and just do a review of the strategy to make sure
9 we're heading in the right direction.

10 Any other quick questions?

11 MR. HANSEN: How confident do you
12 feel the core samples should give you a good
13 indication of what --

14 MR. YOCKMAN: I think preliminary
15 results look good, but what I would say is wait
16 until the report comes out in December. It's only
17 I would say about two weeks away. I don't know,
18 but preliminary results look good.

19 MR. HANSEN: That's what I mean, how
20 confident are you that Silo 4 cores will be
21 indicative of what is in there?

22 MR. YOCKMAN: One of the things
23 they're going to look at in that report is they're
24 going to look at that issue to see if we need to go

1 in and do cores out of 3 and 1 and 2. So you
2 should get an answer on that.

3 MS. CRAWFORD: Would it be -- since
4 4 has sat out in the weather all these years since
5 there's no berms around it or -- is there berms
6 around 3 -- no. So 3 and 4, okay -- Let me start
7 over. It's been a long day.

8 MR. YOCKMAN: I think a lot of the
9 questions you're about to bring up are going to be
10 answered in that because I brought up the same
11 questions, and I think a lot of those are going to
12 be brought up and explained in the report, in the
13 final report, because they're going to have to look
14 at those in order to make a determination for the
15 other silos.

16 MS. CRAWFORD: Okay.

17 MR. STEGNER: John Kappa starting
18 off on OU-5.

19 MR. KAPPA: Before we get into
20 schedule, I'm just going to take a minute to set
21 the stage where we're at in the operable
22 restoration project. Hopefully by taking a minute
23 now you'll see how the rest of these activities
24 we're going to talk about tie into our overall

1 goal, which is to remediate the Great Miami
2 aquifer. Right now we're at a real important stage
3 in operable restoration. For the past four years,
4 since about August of '93, we've been in a plume
5 containment mode, that as we have four groundwater
6 extraction wells that are located at the leading
7 edge of our plume, and right now we're in the midst
8 of a number of projects where we're going to switch
9 to active plume remediation; we're going to be
10 going after the heart of the plume. So it's an
11 exciting time right now, there's a lot going on,
12 and hopefully this will all tie in.

13 If I can figure out how this thing
14 works here. As you can see by the schedule,
15 through mid 1998 we have a lot of activities going
16 on. First big milestone is meet 20 parts per
17 billion discharge limit. Come January 1st, per our
18 OU-5 ROD, our effluent going out to the Great Miami
19 River has to be below 20 parts per billion. So
20 that's an ambitious goal.

21 We're in the midst of relocating our
22 sewage treatment plant.

23 Another big project we have ongoing
24 is the AWWT expansion project. We're currently

1 operating AWWT at a design treatment rate of about
2 1100 gallons per minute. What the expansion
3 project is going to do is increase our treatment
4 capabilities for groundwater exclusively by an
5 additional 1800 gallons per minute.

6 Also coming up is a couple of
7 projects, and most of you have probably seen these,
8 these are the ones that are taking place around
9 Wiley Road, it's our south plume optimization
10 project, which is two extraction wells that are
11 going on the property south of the FEMP, our south
12 field extraction and a reinjection operation. As I
13 said, a lot of the construction activities you see
14 ongoing is the pipelines for bringing pipe in to
15 feed our injection wells as well as laying pipe to
16 take our extracted groundwater to treatment.

17 Major work activities, we've just hit
18 on a bunch of these, we're continuing with the AWWT
19 expansion project construction. Also, our ion
20 exchange regeneration system, what this project is
21 going to do is give us the ability to regenerate
22 our resins. Currently we don't have that
23 regeneration capability. By having that we're
24 going to be able to save a lot of money by not

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 having to buy new resin whenever it's exhausted.

2 In conjunction with the injection
3 demonstration project, we have groundwater
4 monitoring wells going in with each of those
5 injection wells. We talked about the south plume
6 optimization, those are the two wells south of
7 FEMP. Sewage treatment plant we talked about.
8 Also in October we submitted our final operations
9 and maintenance master plans to EPA. That lays out
10 our operating philosophy for treatment facilities.

11 Enforceable milestones for October,
12 we submitted our final DMEPP report. We're
13 currently working on agency comments. We'll be
14 responding back in early December on those. We
15 also submitted our permit renewal application to
16 Ohio EPA for NPDES permit. Our permit expires, I
17 believe it's in April or so of next year, so that
18 process is underway.

19 The 90-day look ahead, just hit on
20 the DMEPP comments. Also we have comments going in
21 on the draft final baseline remedial strategy
22 report. That's a report I think we talked about a
23 couple of months ago. It lays out our strategy on
24 how we can try to clean the aquifer up in about a

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 ten-year time frame. Draft final injection
2 demonstration plan, that's going to be going to the
3 agencies in December. And also another document in
4 January, south field extraction system, south plume
5 optimization. Those are start-up of monitoring
6 plans that are tied to the projects we just talked
7 about in south field.

8 Enforceable milestones. Each month
9 to Ohio EPA we submit NPDES update, and then again
10 January '98 our effluent to the Great Miami River
11 has to be below 20 parts per billion.

12 Those are a couple of photos. Behind
13 us is Wiley Road, so we're looking south. This is
14 one of the injection wells, and this is a concrete
15 footer they're getting ready to pour above the
16 concrete pad there. The injection water is going
17 to come up this pour, over, and down into the
18 injection well.

19 I think I mentioned a sewage
20 treatment plant. The sewage treatment plant that
21 we currently have on the east side of the property,
22 it's old and it's in the way basically. So we had
23 to come up with a new plan. So we're utilizing
24 existing equipment we have on-site. It's our

1 biodenitrification effluent treatment system. We
2 relocated that equipment just east of the AWWT
3 facility. They moved that equipment the first
4 couple of days of November. So they're just in the
5 midst of finishing up that project.

6 Then the south field, I mentioned all
7 the pipeline we're laying, and if you've driven by,
8 you've seen it. We have varying sizes from 6-inch
9 to 20-inch line high density polyethylene, and this
10 is a fusion machine. Basically with this portion
11 here they plane it off to get smooth edges, then
12 they insert another plate to heat it up and
13 basically jam it together and melt it together to
14 fuse it to get a watertight seal.

15 This is part of that project. I
16 think we're up by the basins here actually. I
17 think I mentioned earlier we have water coming in
18 the south field, we have water going. So we're
19 utilizing the same trench wherever we can do that.

20 This is I think the final slide, just
21 looking in the south field area. This is our
22 access road. Here's Wiley Road. Our injector
23 wells, you've probably seen those, those are right
24 along the fence line. We have our ten or so

1 extraction wells all throughout the southfield
2 area.

3 Any questions?

4 MS. SCHROER: Just the one on the
5 pipe welding. You test those also?

6 MR. KAPPA: Yes.

7 MS. SCHROER: You test for leakage?

8 MR. KAPPA: Right. Before that goes
9 into service, they'll hydro test those lines,
10 they'll fill them with water and have a pressure
11 gauge on the end, and if there's a leak, they will
12 be able to detect that pressure drop.

13 MS. CRAWFORD: How close are we to
14 20 ppb's for the river?

15 MR. KAPPA: The last few months
16 we've been real good.

17 MS. CRAWFORD: What is real good?

18 MR. KAPPA: Below 20.

19 MS. CRAWFORD: Below 20?

20 MR. KAPPA: Yeah, consistently. The
21 biggest hurdle we had on that was our filtration
22 system at AWWT, the multimedia filter project which
23 we finished four or five months ago. That's helped
24 us get a lot better flows and a lot cleaner water

1 through the system. It's not gumming up our ion
2 exchange resins, we're keeping them cleaner, and
3 our effluents have been real well.

4 MS. CRAWFORD: But officially
5 January of '98 you have to be --

6 MR. KAPPA: Right, that's the
7 enforceable date.

8 MS. CRAWFORD: And what happens if
9 you're not?

10 MR. KAPPA: We need to talk about
11 that if it happens.

12 MS. CRAWFORD: Okay.

13 MR. KAPPA: Try to work through the
14 problem. Identify the problem and work through
15 it. Any others?

16 MR. STEGNER: Thank you, John.

17 MR. KAPPA: John Sattler, waste
18 management is next.

19 Oh, did I get ahead? I'm sorry,
20 Mark.

21 MR. JUETT: Actually, next on the
22 agenda is our soil project. It's the second half
23 of Operable Unit 5. I'm Mark Juett. You normally
24 see me attached to the aquifer restoration

1 project. I'm pinch-hitting for Dennis Carr and Rob
2 Jenke tonight where we stand with the soil effort.

3 This slide, like the others, gives
4 you a view of the time line and what's going on
5 with soils. Let me give you a quick overview to
6 set the stage for what's going on. Basically the
7 soils remedy for the site consists of excavating
8 about 1.8 million cubic yards of affected soils and
9 moving the vast majority of that material into the
10 OSDF. By volume comparison, the soils is the
11 largest volume generating remedial action project
12 we have on the site. Practically all that 1.8
13 million yards of material is viewed to be
14 acceptable to go into the OSDF. Current estimates
15 show that probably around 50,000 yards of it may be
16 above the waste acceptance criteria for the OSDF
17 and will have to be shipped off-site.

18 To move that much material in
19 accelerated remedy as planned for the site, we had
20 to break this into areas and phases so that we can
21 keep pace with the D&D project. As they complete
22 their efforts, we'll come in and take the soils
23 out. It's also in lock step with the funding
24 profile for the site.

1 So there's seven key areas that the
2 remedy is broken into or divided into. Area 1,
3 Phase I is the northeast portion of the site.
4 You've heard a lot about that area in the past few
5 months of presentation because that's the area that
6 we cleared to make the site ready for the first two
7 cells of the OSDF. Cells 1 and 2 reside on a clear
8 and certified area in the northeast corner. That
9 was A1 PI. We basically completed that work this
10 summer.

11 The next two areas that are up on the
12 screen for us are going to be very active in terms
13 of seeing activity on the site is Area 2, Phase I,
14 which is the crew two southern waste units, the fly
15 ash piles and the south field. Those are all being
16 done in conjunction with the soil project. We're
17 hot and heavy and have operated a launch on the
18 field work for that area, and in tandem we're going
19 to begin Area 1, Phase II, which is the southeast
20 portion of the site. This will basically clear the
21 area for the remaining cells of the OSDF, cells 3
22 through 9 if we use all 9 cells. So we're really
23 going to move hot and heavy on those two areas.

24 The next one that is in the queue is

1 Area 3, which is the northeast portion of the
2 production area, and it has the D&D, and when that
3 area gets complete, we'll be coming right on in to
4 remove soils from that area, and the rest of the
5 areas are shown here.

6 The major work activities for October
7 that were done in soils, you may have heard last
8 meeting that we had an erosion problem in Paddy's
9 Run that we wanted to take care of. That work
10 basically is complete from the field work in terms
11 of removing the downed trees and the loose soil
12 that we found that was of an erosion issue, and
13 some of that material was contaminated, so that's
14 all been excavated and brought back on-site.
15 What's left to do for that is complete a design for
16 stabilizing, basically putting riprap along the
17 eroded area and getting it stable geotechnically.
18 That design is underway, and we should have a crew
19 to go forward with that stabilization next month.

20 As we move through these areas and
21 begin our remediation, there's really four key
22 steps we have to accomplish. The first step is to
23 characterize the areas, figure out exactly where
24 our boundaries are so we can attack them with the

1 best data that we can. That's really a two-step
2 process in itself. We look at all the RI data
3 that's been generated over the same study, see if
4 there's any data gaps, and then come in with a
5 really hard core sampling program called a
6 preexcavation survey where we fill in any data
7 gaps. So together that's the major first step.

8 We then move forward with a big
9 design effort that's subject to EPA approval. Put
10 out a big design package. They approve it, and
11 once it's through that loop, we then begin Phase
12 III, which is the actual excavation process.
13 That's where all the dirt is moved, all the
14 excavation work is completed and the material moved
15 to the OSDF. But then there's still one more stage
16 after that, which is called certification, and
17 that's where we come back again with an intensive
18 sampling program to show that the remediation is
19 complete and that we've met our cleanup levels
20 throughout the whole area.

21 So as we sequenced our way through
22 this, we're basically moving through each of these
23 steps kind of in just a forward moving progress.
24 As we're excavating one area, we're getting ready

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 to do characterization of another. So the two
2 areas that are about to come into the queue here,
3 which is the southern waste units area and then the
4 southeast portion of the property, we're just
5 moving forward and in October got all our
6 characterization work done for that, and now we're
7 ready to move forward with design. As we get
8 through that design, you'll start to see a lot of
9 fur flying here and a lot of soil work starting
10 really next spring after the winter season clears.

11 We really only have one enforceable
12 milestone for October, which was really to get the
13 design package for Area 2, Phase I to the
14 agencies. We basically met that test, that's in
15 their hands now, and we're still working through
16 some waste acceptance criteria issues on that
17 design, but we're about ready to get approval on
18 that and then move forward with the excavation
19 activity.

20 Our 90-day look ahead, we want to
21 complete that embankment stabilization project that
22 I referred to, that should be complete once we get
23 design approval from the agencies. We're going to
24 continue doing field work in what's called a site

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 preparation package for Area 2, Phase I, the
2 southern area, southern waste units area.
3 Basically what site prep is, it's where we come in,
4 build all our sedimentation ponds and erosion
5 control measures, and then begin to do the active
6 remediation. So there's a lot of ground clearing
7 and pond building that goes on ahead of the
8 cleanup, and that effort is underway right now.
9 We're going to keep moving ahead in the other
10 remediation areas with our data collection so we
11 can get our best boundary definitions that we
12 possibly can.

13 Area 3 is of interest to everyone
14 because that's where we first start getting into
15 the production area, and in our next 90-day period
16 here we hope to get into that Area 3 and begin some
17 detailed characterization there. We're getting
18 ready to submit what are known as project specific
19 plans, which are the work plans for that
20 characterization, and EPA has a hand in approving
21 and overseeing, and those are just underway now for
22 Area 3, and that's going to be a major step for the
23 site as we move and shrink this thing down to the
24 production area.

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 The only big enforceable milestone
2 for us with the agencies in the 90 days is another
3 design package. You see this nickname here a lot,
4 this IRDP, that stands for integrated remedial
5 design package. So that is our design document for
6 soil. We're getting ready to go into Area 1, Phase
7 II with a submittal to the agencies here in
8 November.

9 A couple photos of what's going on
10 down there. This is some of the work that you can
11 actually see as you drive along the southern
12 boundary of the site. This is the site prep work
13 that I referred to. This is a stockpile area where
14 as we excavate for these ponds, the material is
15 contaminated, we want to stockpile it and hold it
16 until such time as the OSDF is ready to take it.
17 That area where we build our stockpiles has a
18 synthetic liner placed in it for temporary purposes
19 to control any leachate that might arise in the
20 short time that we have a stockpile. So that's
21 this liner. Think of it as like a mini version of
22 the OSDF. It has a liner for leachate collection
23 that works for the temporary or interim period that
24 this pile is in existence, and that work is

1 underway right now.

 1165

2 Okay, this is a view of the footprint
3 of that stockpile area, and that's the same type of
4 liner that you saw in Jay Jalovec's presentation
5 that's going in for that stockpile, and this is
6 what the footprint will look like and that's pretty
7 much complete work.

8 These are the actual basins that are
9 being built down there for sedimentation control.
10 All the sediments from the areas that are under
11 excavation, should they be mobilized for rainfall,
12 will end up in these basins and be held until such
13 time that the remediation is complete and these
14 ponds are taken out of service, the material
15 removed and disposed of just like the contaminated
16 soil. So these ponds are underway. We should have
17 them complete here shortly, and once that work is
18 complete, we can begin actual remediation next
19 spring.

20 MS. YOCUM: Will there be liners on
21 the bottom of these ponds?

22 MR. SATTLER: Yes, they'll have
23 earthen liners rather than synthetic. It will be
24 clay type.

1 MS. YOCUM: Then will you take **1165**
2 samples of the soil after you've drained them?

3 MR. SATTLER: You bet. The area
4 beneath these areas still will be subject to
5 remediation in its own cell, so once the pond is
6 removed and the liner is removed, then we go and
7 clean the whole area beneath that pond as well, and
8 it goes through that certification process to
9 complete the loop.

10 This just gives an aerial view of the
11 southern waste units themselves. Probably the one
12 orientation area is our stormwater retention basins
13 that are on the right-hand side of the picture
14 here. Just for orientation, everything is just
15 south of those ponds, and it's the fly ash piles
16 and the south field area that we're going to be
17 attacking with this cleanup in the spring. And
18 that's just an aerial view of the area.

19 I believe that's it. Now it's John
20 Sattler's turn.

21 MR. SATTLER: This is the same
22 schedule you saw last time we talked, and we've got
23 the major, the street projects for the waste
24 management group listed here. What this schedule

1165

1 doesn't show you are the more routine ongoing
2 activities, the most notable of which would be low
3 level waste disposal activities. The other thing
4 I'll point out about this schedule is that the most
5 important dates that drive this schedule aren't
6 shown here. If you want to see those dates, the
7 best schedule to look at is the one that Art showed
8 you because when we sit down and we schedule our
9 activities, waste project management, we really
10 look to the other schedules, in particular the one
11 for the facilities closure project to drive our
12 activities.

13 For example, if you look at the
14 schedule that Art showed you, the first two or
15 three activities on there talk about safe shutdown
16 of Plant 6 and also talks about the Plant 9 area.
17 Well, two of these projects or one project here in
18 waste management, the thorium stabilization
19 project, is in the Plant 9 area, so we have to
20 finish that project and clear out of there.
21 Another notable one, as I just mentioned, is Plant
22 6. Right now we have safe shutdown activities
23 ongoing in Plant 6 at the same time we have mixed
24 waste project and moving material activities. So

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 that's really driving us to maintain our schedule
2 to clear out.

3 Probably the best example of all of
4 kind of real-time work, Art mentioned two or three
5 times himself about Building 81 and how they're
6 using that for a staging facility. Well, until
7 October that was a storage facility for mixed
8 waste. So the folks had to clear all that stuff
9 out and get it out of Building 64 area in order to
10 allow them to proceed. So if you really want to
11 see what our drivers are, look at Art's schedule.

12 What did we accomplish in October?
13 The most notable thing in low level waste was not
14 the shipments we did, but rather the fact that we
15 had a very successful audit with the folks from
16 Nevada Test Site, and the end result of that is
17 they said we can go ahead and resume shipment of
18 our residue waste stream, and that will be picking
19 up in earnest over the next couple of months. So
20 we will start resuming low level waste shipments.

21 Mixed waste, we wrapped up the demo
22 phase of the organic extraction project. You'll
23 recall that was part of the rapid commercial
24 industrialization initiative project, and we are

1 now in the process of sitting down and looking at
2 the results to see how successful it was. We
3 tested three different types of waste, we had soil
4 and debris and sludge, and we were testing to see
5 how effective this project was for removing PCB's
6 as well as some other constituents, and once we
7 finish taking a hard look at the data, we'll make a
8 decision on how much more of the waste that we have
9 on-site we're going to proceed with this project
10 for treatment.

11 We continue bulking, we're starting
12 bulking batch 9. Batch 7 and 8 are still on-site.
13 They will be going out here in the relatively near
14 future. The NPDS project, we treated 29 drums and
15 one box as well. Most of that stuff in those 29
16 drums was neutralized first and then it was
17 stabilized through the stabilization process, and
18 in addition to that we were able to ship out over
19 300 drums of a listed mixed waste to Envirocare for
20 disposal.

21 Nuclear materials, we continue the
22 discussion of the T-hopper area and we continued
23 packaging efforts. Those first two bullets are
24 really in support of the last item on here, which

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 is our contract with BNFL. Those are efforts to
2 package the enriched material that we sold to
3 BNFL. As a matter of fact, our first shipment went
4 out in early November to BNFL, which was quite an
5 accomplishment. It took a long time and a lot of
6 work to establish that contract. This is a big
7 thing for us in nuclear materials disposition.

8 The packaging of the normal ingots
9 and depleted spill metal, the normal ingots, that
10 supports one of the other projects, one of the
11 other contracts we're working on. Unfortunately,
12 the depleted spill metal will probably be sent to
13 NTS for disposal. We are still looking into one
14 possible alternative, but it looks now like most of
15 the depleted metal will be earmarked for disposal.

16 MS. CRAWFORD: What's EURATOM?

17 MR. SATTLER: EURATOM.

18 MS. CRAWFORD: EURATOM, whatever
19 it's called.

20 MR. SATTLER: That is an oversight
21 type organization. We worked out the deal, the
22 terms of the contract with BNFL, and once BNFL
23 signed that contract, in order to implement that
24 contract, they had to put it in front of this

1 organization, and there are many European countries
2 that are influenced by this organization and they
3 have to get that checked off before they can
4 proceed with the receipt of these nuclear
5 materials.

6 MS. CRAWFORD: Okay.

7 MS. SATTLER: Where are we? Low
8 level waste projects, 90-day look ahead, we're
9 gearing up shipments of low level waste. Once
10 again, for the most part it will be waste stream 6
11 residue.

12 Mixed waste project, I mentioned
13 we're going to take a look at the data from the
14 demo phase and make a decision on how we're going
15 to proceed.

16 The thorium stabilization project,
17 we're going to start shipping the low level waste
18 portion of that project early next year, and we do
19 have a requirement to submit a work plan to Ohio
20 EPA next month. That will really be focusing on
21 the mixed waste treatment portion of that
22 particular project.

23 Liquid mixed waste, batch number 7 we
24 plan to get out in December. That's about 20,000

1165

1 gallons of mixed waste that will go down to TSCA
2 for incineration. Batch 8 should be going out in
3 early February of next year.

4 MS. CRAWFORD: And how many gallons
5 is number 8?

6 MR. SATTLE: I'm not sure. Most of
7 the batches are approximately the same volume, but
8 I can find out for you.

9 MS. CRAWFORD: Okay.

10 MS. SATTLE: NPDS project, we have
11 approximately 65 more drums that are ready for
12 processing.

13 Nuclear materials, first bullet,
14 award of contract for lab, that's already been
15 done, we've already been sending samples off-site
16 for analysis. This is in support of the BNFL
17 contract, and we will continue to talk with folks
18 on the normal compounds and the low enriched
19 materials. We will be talking with BNFL some more
20 about the normal. The low enriched, we're still
21 evaluating responses to the RFP on that, see if
22 we'll have some success in selling more of the
23 enriched materials. The depleted uranium, we were
24 recently successful in completing the terms of the

1 contract with Lawrence Livermore to send out small
2 amounts of depleted to them, and the normal metal
3 we are continuing to talk with Allied for moving
4 that material out.

5 T-hopper projects, we'll continue
6 with construction activities and that, too, will
7 support BNFL.

8 A few pictures. This is the organic
9 extraction project involving Terra-Kleen. This is
10 in Building 80. Some of you were able to take a
11 look at this way back last spring I believe it was,
12 we had a little ribbon cutting ceremony. It is not
13 much more complicated looking than this, once we
14 get enough boxes in place. The next slide I
15 believe shows -- the one after this will show some
16 sampling activities. This is a repackaging effort
17 of the UF-4 and this is part of the materials that
18 will be going to BNFL.

19 And this is in Plant 6. Part of the
20 organic extraction project is actually taking place
21 in Plant 6, where we have the staging of the boxes
22 as well as sampling of the material in the boxes
23 and the soil sampling associated with that
24 project.

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 I think that's all. Very good. And
2 Johnny.

3 MS. DASTILLUNG: Can I ask a quick
4 question?

5 MR. SATTLER: Yes.

6 MS. DASTILLUNG: What does NPDS
7 mean?

8 MR. SATTLER: That's neutralization/
9 precipitation/deactivation/stabilization.

10 MS. DASTILLUNG: One more time.

11 MR. SATTLER: Neutralization/
12 precipitation --

13 MR. HANSEN: It's on one of the
14 slides.

15 MS. DASTILLUNG: Where? Oh, thank
16 you.

17 MR. SATTLER: Okay.

18 MR. REISING: Thanks, John.

19 Fortunately, I only have one brief quick slide, and
20 I have no busy pictures, so we'll bring this to an
21 end. All of the various activities that you've
22 seen presented in the monthly update, fortunately
23 or unfortunately, cannot be accomplished unless we
24 actually have project management. Project

1 management, the way I look at it, is basically our
2 integration of baseline cost, schedule and scope of
3 the activities we have to deal with, and hopefully
4 by the presentations this evening you see the
5 amount of activity that's ongoing, and hopefully
6 you're starting to get a feel for the amount of
7 integration that we as project managers have to try
8 to put forth in order to make plans go and make it
9 work. And as a result of this, we continually have
10 to review our baseline, update our baselines, and
11 look at the integrated schedules, cost, and scope
12 and where we're going.

13 As a result, as you remember, last
14 year we came out with the national plan, which some
15 people may affectionately refer to as the AL-OMB
16 plan. In actuality, even though it now has a new
17 name, as those of you who were on some of the
18 various video conferences with headquarters as the
19 new plan was being presented, we like to refer to
20 it locally as the accelerated plan, which is
21 exactly what it is.

22 You'll remember approximately five or
23 six years ago the baseline was asking for about 25
24 years. As a result of the exercise in the '95 IRB

1 process, we were able to look at a 276 estimated
2 case, which basically gave us the original Fernald
3 ten-year plan. Then as a result of the national
4 plan coming on-line, that had to be tweaked and
5 readjusted due to different target funding that we
6 were given, and we came up basically with our
7 accelerated plan, which went out a little bit
8 beyond that. Presently we are based on an estimate
9 of about 2008 as far as the actual. Our current
10 baseline is concerned anticipating potentially cell
11 closure at this point in time by about 2006.

12 So just to give you an idea, for
13 about the last four to six months there's been a
14 large number of people working very diligently on
15 updating this accelerated plan, and the way that it
16 works is we have to evaluate our baseline, take a
17 look at the target funding and schedule that we
18 have, and to synthesize that into submittals to the
19 Ohio field office. These submittals then are
20 taken, tweaked, looked at, reviewed, commented
21 upon, and then they will in the very near future be
22 submitted to headquarters to be incorporated into
23 the national plan.

24 The difference this year is this plan

1 is actually being utilized for the submittal of our
2 budget requests as far as to the Office of
3 Management and Business is concerned, that budget
4 is concerned.

5 So here again is a quick idea of -- a
6 lot of the activities again, there's been four to
7 six months worth of activities building up to this
8 month, with a lot of dashing to the finish lines
9 that may need to come up with a submittal of the
10 accelerated plan to the Ohio field office. We
11 submitted the draft to the Ohio field office early
12 in November, received a number of comments.
13 Fortunately we've been able to work through those
14 comments, have revised the document, and as
15 recently as last week submitted that revised
16 document up to the Ohio field office. That will
17 then be reviewed for a few days and then submitted
18 to Ohio and incorporated into the national plan to
19 be submitted to OMB, as you can see, the latter
20 part of December. Anticipate some type of a public
21 release of that document in February. I'm talking
22 to Mike Jacobs and Gary and others as far as when
23 we have the opportunity to present this information
24 from an Ohio and from a Fernald standpoint to the

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 public, we will do that. Again, we'll have to see
2 what these drafts are dealing with.

3 One of the products of this exercise
4 is the integrated priority list, which many of you
5 are very interested. It is for all the five
6 project offices, area offices within Ohio to where
7 we take a look at all the various activities, some
8 99, 110 plus that are at the PBS or the sub PBS
9 level within the Ohio field office for the various
10 area offices, and they are ranked as far as the
11 priority and the various activities based upon the
12 various sites. So we'll have drafts of that to
13 share with you sometime in the near future, and
14 hopefully in the relatively near future we'll have
15 a meeting to discuss not only comments that we
16 received last year on the plan that would have been
17 incorporated into this plan, but also give you an
18 opportunity to take a look at how this has been
19 modified from the plan that was submitted last
20 year. Again, kind of an iterative process, an
21 ongoing process, more or less an updating of the
22 baseline.

23 The submittal of this document to the
24 Ohio field office was based upon our fiscal year

1 '99 replan that is presently being developed by
2 FDS, going to be submitted to DOE by December 12th,
3 and will go to review not only here but also at
4 headquarters. So, again, this is basically an
5 update of the accelerated plan, and as we're
6 allowed to share bits and pieces with the public,
7 we will be doing that. Thanks, Gary.

8 MR. STEGNER: Thank you. Let's take
9 about a 10 or 15-minute break. Let's try to come
10 back in here at 25 minutes after, and then we will
11 get into the public hearing part.

12 (Brief recess.)

13 MR. STEGNER: I want to thank
14 everybody and welcome to the second part of
15 tonight's meeting. For those of you who did not
16 sign in, would ask that you do so before you leave
17 tonight.

18 The purpose of the public hearing
19 tonight is to get your feedback on the draft final
20 explanation of significant differences document
21 which has been in circulation for a few days for
22 Silo 3. I want to remind you that the comment
23 period opened on the 17th of November and will
24 close on the 16th of December. You do not have to

1 comment tonight. You can submit your comments to
2 me in writing. You can give me your comment card
3 during, after the meeting. You can send your
4 comments to me, again, anytime prior to or by
5 December 16th.

6 We're going to follow the usual
7 public hearing protocol that we have used and
8 practiced here in the past. Terry Hagen will give
9 a presentation tonight, sort of updating you,
10 bringing you up to speed, more or less I guess
11 reviewing what we've covered in the past as far as
12 the ESD goes for Silo 3.

13 Following the presentation we will
14 open the floor for questions, and depending on how
15 long that takes, hopefully we will be able to
16 answer everyone's questions before we get into the
17 official public comment period. Once we get into
18 the official public comment period, we will answer
19 no more questions after that. Basically it will
20 just be the stakeholders giving their impressions
21 of the document.

22 As I say again, if you don't wish to
23 comment tonight, you can certainly submit your
24 comments to me in writing. There is a card at each

1 place here where you can submit your comments to me
2 in writing.

3 Again, I want to stress that the
4 topic tonight is the explanation of significant
5 differences for Silo 3 and that will be the only
6 topic that we will be discussing during this
7 period.

8 So let me now turn it over to Terry
9 Hagen.

10 MR. HAGEN: What I would like to do
11 tonight is give a fairly broad overview of the
12 information on the Silo 3 proposed path forward
13 that we covered in more detail in the public
14 workshops we had in May, June, and July, and also
15 as presented in more detail in the draft final
16 explanation of significant differences.

17 Just as a logistics note, if there's
18 anyone that doesn't have a copy of the draft final
19 ESD and would like to pick one up tonight, there
20 are five, six, seven copies here, and if we run
21 out, just let myself, Gary, anyone know and we'll
22 be sure to get you whatever you need.

23 To go back and cover a little bit of
24 the history, as I suspect about everyone here

1 knows, the Operable Unit 4, which includes Silo 3,
2 Record of Decision was issued in December of 1994,
3 and as its basics, it basically called for removal
4 of contents of Silos 1, 2, and 3, treatment by
5 vitrification, and off-site disposal at the Nevada
6 Test Site.

7 With that in place, as I suspect
8 everyone also knows, we implemented a pilot testing
9 program that was designed to give us information to
10 design, construct, and operate a full-scale
11 vitrification treatment system. And in the course
12 of operating that pilot plant, what we found was
13 that the high sulfate content in Silo 3 introduced
14 significant problems that were detrimental to
15 success at vitrification for any material that
16 would include Silo 3.

17 Now, within the draft final ESD
18 there's more detail on what I just discussed in
19 Section 1 and Section 3, and I encourage you to
20 look there for a more detailed discussion of this
21 first bullet. There are technically ways to
22 address that high sulfate content, but what we also
23 found, not only based on our pilot plant
24 experiences but also some of the emerging

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 experiences within the DOE complex and within
2 industry, is that the ways to address it were
3 either technically uncertain, such as the use of
4 reductants, or cost prohibitive, such as just flat
5 out diluting the material with other waste and then
6 treating that diluted volume to where the sulfate
7 contents were more manageable.

8 In light of what we had learned from
9 the pilot plant testing campaigns and what we were
10 seeing from the DOE complex and industry, there
11 were some fairly constant themes that we were
12 receiving and recommendations from the Fernald
13 Citizens Task Force, as it was called then, or
14 Advisory Board now. The independent review team,
15 which as we discussed in some of our previous
16 workshops, was chartered, made up of people from
17 industry, government, experts in waste management.
18 It was again chartered to give advice to DOE and
19 Fluor Daniel on Silo 3 and silos' path forward in
20 general and also from the Army Corps of Engineers,
21 and the common theme that I referenced was really
22 that we should separate treatment of Silo 3 from
23 the treatment of Silos 1 and 2, and that specific
24 to Silo 3 we should evaluate whether it was

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 appropriate to go to some kind of alternative
2 treatment process, alternative from vitrification.

3 With that being the case, we engaged
4 in some discussions with the regulators as to what
5 would be the appropriate regulatory mechanism to
6 conduct that alternative technology evaluation, and
7 the position of US EPA was essentially that an
8 explanation of significant difference would be the
9 appropriate way to go if three conditions were
10 satisfied as are set forth here. One is that the
11 alternate treatment technology was a stabilization/
12 solidification process that met the original
13 remedial action objectives and former standards
14 laid out in the December of 1994 Record of
15 Decision. Number 2, that the alternate treatment,
16 if it were to be selected, could be performed in
17 roughly an equivalent cost as to what was estimated
18 for vitrification of Silo 3 contents in the
19 December 1994 Record of Decision, and that the
20 remedy included disposal in an off-site facility
21 that was deemed to be protective and appropriately
22 permitted.

23 In a few minutes when we get to the
24 path forward on ESD, I'll just highlight a couple

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 of differences between ESD and a ROD amendment that
2 were relevant to this process.

3 Given that we were going to go down
4 or at least proposed to go down the explanation of
5 significant difference path, it resulted in a
6 document that is out for public review right now.
7 Just a quick overview of its sections: 1,
8 introduction; 2, summary of site history,
9 contamination, and selected remedy are fairly
10 self-explanatory, but most notably that's where we
11 initially present the discussion of what the
12 original selected remedy was, how we initiated some
13 of the pilot plant testing operations, and what we
14 saw that led to the recommendations and advice from
15 the various groups that I referenced in the
16 previous slide.

17 Section 3 is where the majority of
18 the technical analysis supporting the proposed path
19 forward lies. We go into additional detail again,
20 supplementing what was in Section 1 on what were
21 some of the problems we encountered during the
22 attempt to vitrify Silo 3 material in combination
23 with 1 and 2 during the pilot plant operations and
24 what led to the decision that we needed to

1 reevaluate the selected remedy. And then once
2 that's established, it also presents the process by
3 which we screened potentially applicable
4 alternatives, narrowed that down to a few, and then
5 conducted a more detailed evaluation as to whether
6 they could be appropriate for consideration in
7 treatment of Silo 3. So, again, Section 3 is
8 really I think where the meat of what -- you can
9 obviously decide for yourself what you're
10 interested in, but it's where the majority of what
11 I'm about to talk about is contained.

12 In Section 4, support agency, public
13 comments and responsiveness summary. Here's I
14 think where I would just like to say a quick word
15 about the difference between ROD amendment and an
16 explanation of significant difference. Basically
17 under an explanation of significant difference all
18 you're required to do by EPA regulations is publish
19 the explanation of significant difference saying
20 what was different, why, and put it out for public
21 inspection. There's no requirement for public
22 involvement, no requirement for public review.
23 Recognizing that that wasn't consistent with what
24 we've been doing here in terms of public

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 involvement, we went with the ESD process, but we
2 modified it and committed to conducting, number
3 one, a formal public hearing -- public review
4 period, which we're in the middle of, starting
5 November 17th, it runs through December 16th;
6 having a public hearing, which of course we're
7 doing tonight; formally taking public comments and
8 developing a responsiveness summary for each of
9 those. And as I think you all probably remember
10 for those of you who have worked with us at the
11 proposed plan stages of the other projects, that's
12 exactly what we did in establishing the Record of
13 Decision for the previous five operable units. So
14 to get to the point, that's where in the final ESD
15 that responsiveness summary will lie.

16 Number 5, affirmation of statutory
17 determination is basically a legal requirement
18 whereby DOE and EPA as signatories affirm that what
19 has been selected is consistent with the law for
20 CERCLA.

21 Six is a chronology of the public
22 involvement that we've had on the path forward
23 graph. Really, Operable Unit 4 as a whole, it goes
24 back to the IRT days and before, it also focuses on

1 the workshops we have had on the Silo 3 path
2 forward.

3 And, finally, 7 is references, which
4 is pretty self-explanatory.

5 Back to where we were. We basically
6 established consensus from the regulators and the
7 stakeholders that it was at least appropriate to
8 reevaluate whether vitrification was the right
9 process. For Silo 3, as we discussed with you in
10 our first session last May, we wanted to use a
11 process that we were all familiar with and
12 comfortable with. So the process that we used to
13 evaluate technologies for appropriateness really
14 mirrors what we did in the feasibility studies and
15 proposed plan stages of each of the operable units,
16 again in the process of establishing those Records
17 of Decision.

18 And the first step after we nailed
19 down the remedial action objectives, which have not
20 changed for Silo 3 from what was presented in the
21 original Operable Unit 4 Record of Decision, was to
22 look at the universe of technologies that could
23 possibly be applicable. We went to US EPA guidance
24 to help us do that. This was, of course, in a

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 presentation that Don Paine has gone through a **1165**
2 couple of times. And what we found was that there
3 were two general families of treatment technologies
4 that we thought could be applicable.
5 Vitrification, obviously, and we've discussed some
6 of the reasons or maybe I should say some of the
7 problems that we encountered in trying to implement
8 that. And then secondly was the broad family of
9 solidification/stabilization technologies. For one
10 reason or another the ones that are shaded in the
11 darker blue were judged not to meet remedial action
12 objectives.

13 In Section 3 of the draft final ESD
14 we go into quite a bit of detail discussing how the
15 three alternatives, which I'm going to get to that,
16 were considered in more detail, satisfy remedial
17 action objectives. To maybe take the summarization
18 of what those are to the lowest level possible, it
19 was basically to be able to treat the RCRA metals
20 to the regulatory limits, to address the
21 disposability of the contamination for the purposes
22 of workers' safety and also transportation safety,
23 and then also to provide for long-term
24 protectiveness with permanent disposal. These were

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 the two that were judged to apply.

2 This slide basically presents the
3 universe of stabilization/solidification
4 technologies that EPA guidance suggests you should
5 start with. On these two columns, the RI/FS with
6 the check on it, what that indicates is that for
7 those with the mark, those were considered at some
8 level during the original RI/FS evaluation that led
9 to the December 1994 Record of Decision. The
10 additional checks under IRT, which is a little bit
11 difficult to read, are those technologies that were
12 considered at least at some level by the
13 independent review team that I referenced earlier
14 that was chartered to give advice to DOE and Fluor
15 Daniel on the silo's path forward.

16 Working through the FS process, once
17 we had identified a universe of technologies that
18 could potentially apply, with the assumption that
19 for one reason or another a lot of those aren't
20 really going to be applicable, the next step in the
21 process was to screen those using three criteria,
22 and these are the same steps and criteria that we
23 use to screen the broader number of alternatives at
24 the FS stage of the project. And that's

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 effectiveness, and these are some of the things
2 that go into that evaluation, implementability and
3 cost.

4 As you recall, Don Paine went into
5 quite a bit of detail as to the screening of those
6 individual technologies. Section 3 presents that
7 information in detail. It kind of summarizes the
8 conclusions of that process. There were three
9 technologies that were judged to be appropriate for
10 more detailed evaluation, chemical stabilization/
11 solidification, and then two polymer based
12 encapsulation technologies, polymer (micro)
13 encapsulation or sulfur/polymer encapsulation.

14 Now that we have kind of narrowed
15 down the possibilities to a manageable group for
16 more detailed evaluation, we went to the next step
17 in the process that we again utilized during the FS
18 stage of the game, and that was evaluation against
19 a CERCLA nine criteria. As we've discussed before,
20 to this point in the game, it's actually evaluation
21 against the first seven of the nine. The two
22 modifying criteria, state acceptance and community
23 acceptance, come into play based on what we hear
24 from you tonight or get in formal written

1 comments.

2 A couple of words, as we said before,
3 before a remedy can be selected, by law it has to
4 be demonstrated to be protective of human health
5 and the environment and it has to be compliant with
6 applicable or relevant and appropriate
7 requirements, which is why they're called threshold
8 criteria. If a remedy can be demonstrated to
9 achieve those two, then you can look at it against
10 the balancing criteria, the five of which are
11 referenced.

12 A slight difference in how we used
13 the seven criteria in this process versus what we
14 normally did during the process of establishing a
15 single remedy in the Records of Decision.
16 Historically, when we worked with this process
17 together in the past, we would look at an
18 individual alternative and ask the question did it
19 satisfy the two threshold criteria. Then if it
20 did, it was eligible for further consideration
21 against the balancing criteria, and what we would
22 do is for all of the alternatives that it basically
23 passed the threshold criteria in evaluation, there
24 was a comparative analysis to see how those

1165

1 alternatives really measured up against each other
2 against the five, recognizing that one alternative
3 might perform better in one area but poorly in
4 another compared to the other alternatives going
5 through detailed evaluation, and the idea was to
6 select the technology that really had the best
7 balance. The slight difference in how we've
8 utilized these criteria in the ESD wasn't so much
9 that we did a comparative analysis to identify a
10 single technology that would be selected.

11 What we did was, number one, applied
12 the threshold criteria evaluation, and if it
13 survived, which all three of the technologies that
14 I had on the previous slide did, then we did really
15 an evaluation. It wasn't so much comparative in
16 nature, but looked at those technologies
17 individually, designed to ask the question is there
18 any reason to rule this technology out or suggest
19 that its performance against one of these criteria
20 is so poor that we shouldn't allow it to come into
21 play in terms of what the market might be able to
22 provide for treating Silo 3. And to get to the
23 bottom line, as we discussed before, we concluded
24 that any one of the three technologies that we're

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 going through the detailed evaluation satisfied the
2 conditions of what would be accepted under the ESD
3 that I laid out four or five slides ago. Which
4 are, to summarize, stabilization or solidification
5 of the Silo 3 contents using chemical
6 stabilization/solidification or one of the two
7 polymer based encapsulation technologies, the
8 polymer (micro) encapsulation or the sulfur/polymer
9 encapsulation, both part of that.

10 With that conclusion, that led to an
11 overall proposed remedy for Silo 3 which includes
12 what I just said, with the addition of off-site
13 disposal at either the Nevada Test Site or an
14 appropriately permitted commercial disposal
15 facility, and that is a difference from what was in
16 the original Record of Decision. The original
17 Record of Decision only allowed for the possibility
18 of disposal of these wastes at the Nevada Test
19 Site. What this ESD does is expands at least the
20 possibility for commercial disposal, presuming they
21 can be demonstrated to be protective and it is
22 appropriately permitted. That is, in essence, the
23 proposal in the draft final ESD that's in front of
24 you.

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 So where are we at? As I referenced
2 earlier, we're in the middle of the formal public
3 review period that started on November 17th, ends
4 December 16th. Obviously we're at the public
5 meeting stage of that tonight. We'll be accepting
6 formal public comments later. We'll be taking them
7 in writing up to the 16th. After the public
8 comment period ends, we will be developing a
9 responsiveness summary addressing each individual
10 comment and, as appropriate, revising the draft
11 final ESD, and then we will incorporate the
12 responsiveness summary into Section 4, as I said,
13 and then finalize the ESD, making that available
14 publicly. Right now we think that will probably be
15 in the January time frame. That's the process for
16 the ESD.

17 We've also been working with you on
18 the draft requests for proposal for treatment of
19 Silo 3, assuming that the path forward that we have
20 proposed tonight was going to be accepted.
21 Obviously, if there's any change, we'll modify the
22 RFP accordingly. The draft RFP has been out for
23 comment for about 30 days. Expectation is that
24 that review period will wrap up around the 3rd of

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 December of this year. Then we will go through a
2 process of resolving those comments and revising
3 the draft RFP accordingly. The expectation or goal
4 is that that final RFP, which is the one that would
5 actually solicit responses formally from vendors,
6 would be in March of 1998.

7 MR. STEGNER: Thank you, Terry. The
8 agenda says next, I'm not sure if that is
9 appropriate or not, but we'll have comments from
10 the regulators. Do you guys want to go now or do
11 you want to wait until after the question and
12 answer period?

13 MR. SARIC: It doesn't matter.

14 MS. CRAWFORD: Go ahead.

15 MR. SARIC: Just briefly, I guess
16 that we've all been involved in this process
17 together with Silos 1, 2 and 3, and certainly the
18 whole pilot plant project and some of the
19 difficulties we had there, I think it's something
20 that you can expect whenever you're kind of
21 implementing innovative technology, you do the
22 smaller bench scale studies on the silos, and we
23 did that back in '91 and '92 and we looked at those
24 and looked at the viability of vitrification versus

1 other remedies, and that was the first level. The
2 next step was building the pilot plant and seeing
3 what was the input, what would be possible, what
4 would the technology really hold as you went to
5 that next level before you built that full-scale
6 facility, and that was something we went forward
7 all together and we built that and learned from
8 that experience that due to the high sulfate
9 contents with the Silo 3 material, the
10 vitrification was going to be extremely difficult,
11 if not impossible. And the various review teams
12 that were formed, independent review teams, the
13 Army Corps of Engineers, all those groups that were
14 together, the task force that looked at it, I think
15 we all agreed there was certainly some need to
16 separate Silo 3 from Silos 1 and 2 because the Silo
17 3 material, it is different material. And we've
18 kind of all come forward to get a look at other
19 technologies that brought us here today.

20 I think that this is something our
21 agency supports, this path forward ESD. It's a
22 faster path forward than the ROD path forward.
23 It's certainly that we feel is allowable to do, and
24 I guess from our perspective that we definitely

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 support this remedy and this path forward where it
2 allows the various technologies be looked at and to
3 ultimately clean up and remove this material from
4 Silo 3.

5 MR. STEGNER: Thank you, Jim. The
6 State of Ohio. Kelly.

7 MR. KALETSKY: I'm Kelly Kaletsky,
8 from Ohio EPA. Tom Schneider was unable to be here
9 this evening and asked me to say a few words on his
10 behalf.

11 I think Ohio EPA concurs with both
12 the concept and the contents of the Silo 3 ESD. I
13 think we're committed to, like everyone else,
14 seeing the Silo 3 contents remediated in a safe,
15 efficient manner, and we feel like that can be done
16 through an ESD, and we look forward to working with
17 DOE, Fluor Daniel, Fernald, and stakeholders, not
18 only throughout the public comment period but
19 through the entire remediation project, and we
20 really look forward to hearing your comments, your
21 concerns, or any questions that you might have
22 about the ESD or the process. Thank you.

23 MR. STEGNER: Thank you, Kelly. Now
24 we'll take questions if there are any.

1 MS. CRAWFORD: Can we turn the light
2 on now?

3 MR. STEGNER: Yeah, we can turn the
4 light on now, we can do that. Vicki Dastillung.

5 MS. DASTILLUNG: On page 34, Table 9
6 of the draft ESD it talks about NTS is giving
7 preliminary confirmation of the acceptability of
8 the treated waste under existing performance
9 assessment. When will we get final confirmation
10 that NTS will indeed take this?

11 MR. HAGEN: What they mean by
12 preliminary evaluation versus final is that they
13 have looked at the characteristics of the waste
14 compared to what was assumed in the performance
15 assessment that they would accept this under, and
16 that the characteristics of the waste are
17 consistent with what was assumed there. That's the
18 basis of the preliminary determination that it can
19 come there. We won't get final acceptance until we
20 implement testing of the treated material that
21 documents that actually what we're going to send
22 there is the same stuff and is what we suggested it
23 was when we gave them the data upon which the
24 preliminary evaluation is done. So that -- I think

1 what I'm saying is that they don't really give the
2 final approval until we give them actual physical
3 testing results on the treated material. But in
4 looking at the existing characteristics of the
5 waste and the expected characteristics of the
6 treated waste form, if it is what we have said it
7 is and it's what we have said it is in the data in
8 the RI, then they can accept it under the existing
9 performance assessment.

10 MS. CRAWFORD: Can we play devil's
11 advocate here, you know, we get -- I mean, you get
12 to that point and you send them some final test
13 results or whatever and --

14 MR. HAGEN: The lynch pin, just to
15 tell you what it is, it's not the radiological
16 issues. The radiological constituents and
17 concentrations don't require any further treatment
18 other than packaging to go to NTS. The issue is
19 treating it to reduce the RCRA metals to below
20 regulatory levels. That's what they need the
21 actual testing results on, the treated product,
22 before they'll accept it, and the answer, Lisa, is
23 that until we can treat it such that our on-site
24 data shows that we're below those levels, we won't

1165

1 even offer it to send out there. If that were to
2 happen, that means we've got a problem with the
3 treatment process that's got to be fixed before we
4 can ever send it to them. So it would be something
5 we would kind of have to take care of our own
6 problem; it wouldn't be their problem.

7 MS. DASTILLUNG: So we won't treat
8 the bulk of it until we've done a little batch
9 first and that's been okayed?

10 MR. HAGEN: That's generally right.
11 I think you're kind of confusing two things there.
12 What we're going to do in the process of bringing a
13 vendor on board is make them demonstrate that their
14 process works using actual Silo 3 material,
15 treating it to what the NTS or commercial disposal
16 facility WAC requirements are since that's allowed
17 under the ESD. They still -- that's going to tell
18 us and hopefully you that we've got a process that
19 works. They still won't accept the treated waste
20 until they get actual testing results on the
21 material itself that we're sending. So that's just
22 part of the routine process of sending the material
23 out there. We're going to have to sample it at
24 some frequency based on the volume going to

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 demonstrate that what they're really getting ~~passes~~ ¹¹⁶⁵
2 the TCLP test. It won't be just based on a pilot
3 test type run by the vendor that they'll do for us
4 to let us know that we've got something that
5 works. And, again, that's kind of the difference
6 between what we mean by the preliminary acceptance
7 versus final acceptance.

8 And I think the same would apply if
9 we were to go to a commercial disposal facility,
10 they would likely have certain waste acceptance
11 criteria and conditions as their license permits,
12 and our expectation is that we would have to sample
13 the actual material going there on some frequency
14 to show that it meets the conditions of the
15 permitting license.

16 MR. STEGNER: The gentleman in the
17 back and then Edwa.

18 UNIDENTIFIED SPEAKER: Yes, on page
19 29, Table 5, it gives two costs. Are those --
20 rough order of magnitude costs -- are those for
21 just the on-site work or does that include
22 transportation and disposal estimates also?

23 MR. HAGEN: Somebody correct me if
24 I'm wrong, but I believe it includes transportation

1 and disposal, yes.

2 UNIDENTIFIED SPEAKER: Is there any
3 estimate of what the on-site engineer's estimate
4 is?

5 MR. HAGEN: I don't know the
6 breakdown. Does anyone? You're asking what the
7 treatment portion of the cost is, the on-site
8 treatment portion?

9 UNIDENTIFIED SPEAKER: Correct.

10 MR. HAGEN: I don't have those
11 numbers at my fingertips. Does anybody from FDS
12 have that breakdown available? We can get that
13 information certainly in response to a comment.

14 UNIDENTIFIED SPEAKER: What's the
15 time line for on-site, what's your expectations of
16 duration of that project?

17 MR. HAGEN: That's going to depend
18 on -- there's some discussion of that in here. Let
19 me say the real answer is going to depend on the
20 exact technology selected and the vendor and what
21 they propose. I think we have an expectation, if
22 you'll go to the detailed evaluation under
23 implementability on cleanup time, which is on 35 at
24 the bottom, we talk about an expectation that

1 chemical stabilization can be done in nine months
2 or less. That's the actual treatment processing
3 time. And that the other two technologies
4 discussed, based on EPA literature, that our
5 expectation is the time frame would be roughly
6 equivalent. So that is a rough expectation, but I
7 guess I'll go back and say what I started with, it
8 would be dependent upon which of these technologies
9 and what the vendor proposed.

10 UNIDENTIFIED SPEAKER: Okay. And
11 one last question: You have discussed an off-site
12 location, a preliminary treatability on-site and
13 then final stabilization off-site, and in the RFP
14 you have stated that you would be -- accept
15 responsive proposals on those particular
16 technologies and techniques. Have any of those
17 been received?

18 MR. HAGEN: I'm not really prepared
19 to speak to the RFP.

20 MR. YOCKMAN: Karen, do you want to
21 field that question?

22 MS. WENTZ: The RFP, we haven't
23 received any input back. The comment period is the
24 3rd of December, so we'll wait and see if we get

1 anything.

2 UNIDENTIFIED SPEAKER: But that
3 would be available?

4 MS. WENTZ: That would be available.

5 MR. STEGNER: Edwa, you're next.

6 MS. YOCUM: Yes. On page 33, in
7 chemical stabilization you mention secondary waste,
8 and I would like to know what form that waste is in
9 and how will it be disposed, and is the cost of
10 disposing that secondary waste included?

11 MR. HAGEN: I'm just reading through
12 to see exactly what this says to answer your
13 question correctly.

14 MS. YOCUM: It's under volume.

15 MR. HAGEN: The point of that was,
16 is that the expectation is that there would be next
17 to no secondary waste.

18 MS. YOCUM: But what is the
19 secondary waste?

20 MR. HAGEN: I'm not sure I can
21 really speak to there being any. There would be
22 minimal amounts of secondary waste from some of the
23 elements that involve the offgas system and the
24 contaminants that are going to be collected with

1 the offgas system. The sense -- Here is my answer
2 to that: I hadn't thought about that, but to be in
3 regulatory compliance, because those are
4 essentially Silo 3 materials, we would have to
5 treat those and dispose of those in a way that's
6 consistent with what we're doing with the contents
7 of Silo 3. I believe -- I can't swear to this, I
8 have to admit, Edwa, but we should have all
9 secondary waste handling costs included in the
10 estimate. It should be very minimal, though, too.

11 MS. YOCUM: Okay, then that will go
12 to -- then are you saying the secondary waste is
13 going to be your offgas?

14 MR. HAGEN: What I was saying is
15 that there will probably be -- we would have to
16 control the particulates. There could be some
17 systems associated with controlling the
18 particulates during movement.

19 MS. YOCUM: Like filters.

20 MR. HAGEN: Like filters, things of
21 that nature, yes. That would be my expectation,
22 the only real secondary waste that you would be
23 dealing with. My experts in the back are nodding
24 their heads too.

1 MS. YOCUM: That brings me back to
2 explaining the offgas issues on page 35. You're
3 talking about in the chemical stabilization it
4 maintains moisture and resulting in particles, and
5 then in your polymer you're saying that it would be
6 generated and handled during material handling.
7 Now, how can you, from what I'm understanding what
8 material handling is, how do you handle material
9 handled gas, offgases?

10 MR. HAGEN: Are you asking what's
11 different between chemical stabilization and sulfur
12 polymer?

13 MS. YOCUM: Yeah, I guess that would
14 be easier.

15 MR. HAGEN: Basically it is my
16 understanding that the principal difference between
17 the two as it relates to offgas is chemical
18 stabilizations are usually ambient processes,
19 they're done at room temperature.

20 MS. YOCUM: They're what now?

21 MR. HAGEN: Done at room
22 temperature. Whereas -- and you'll notice that we
23 basically have the same discussion for the polymer
24 (micro) encapsulation. Where there's a difference

1 on the sulfur/polymer is that basically you're
2 adding a molten sulfur to the waste stream, so
3 you've got much higher operating temperatures, and
4 those introduce some of the offgas issues that are
5 associated really as much with the additive itself
6 and the need to control offgas from the sulfur
7 being in a molten stage than it is from there being
8 greater particulate loadings because you're
9 handling the waste a lot different. It's really a
10 difference in the fact that for the chemical
11 stabilization technology you put in whatever your
12 additive is, whether it's cement or some
13 proprietary agent that a vendor has. It's at room
14 temperature, and you have to address particulate
15 coming off of it as we talked about. With the
16 sulfur polymer encapsulation, the additive is
17 basically a molten sulfur, which puts off -- that
18 material itself introduces offgas issues that have
19 to be addressed, and that in the last sentence
20 there, potential generation of SO₂ and hydrogen
21 sulfide, that really comes directly from
22 introducing the molten sulfur, which is an additive
23 that you're putting in to achieve the encapsulation
24 of the waste. So the increased offgas issues

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 really deal directly with what the additive is as
2 opposed to handling the waste differently. That's
3 the way I would explain it.

4 MS. YOCUM: That's a little
5 technical.

6 MR. STEGNER: We have a question --
7 we'll come back to you, Edwa -- we have a question
8 in the back.

9 UNIDENTIFIED SPEAKER: Is off-site
10 treatment not allowed?

11 MR. HAGEN: Under this ESD it calls
12 for on-site treatment.

13 UNIDENTIFIED SPEAKER: I'm sorry.

14 MR. HAGEN: On-site treatment is
15 what the ESD calls for.

16 MR. YOCKMAN: Hold on. Why don't we
17 let Karen address that. She's shaking her head. I
18 think off-site treatment is allowed.

19 MR. HAGEN: It's silent I guess.

20 UNIDENTIFIED SPEAKER: Is it
21 allowed?

22 MR. STEGNER: Is there anyone who
23 can, from DOE who can address that?

24 UNIDENTIFIED SPEAKER: Off-site

1 treatment is allowed.

2 MR. STEGNER: Off-site treatment is
3 allowed.

4 MS. CRAWFORD: It's spelled out in
5 here somewhere.

6 THE WITNESS: One more question.
7 What's the period of performance once the project
8 starts, what's the expected amount of time for the
9 entire process?

10 MR. HAGEN: The only expectation we
11 expressed in the ESD was the treatment time
12 expectation. It's discussed on the table that I
13 referenced earlier. The final answer to that, I'm
14 going to go back and give the same one I did
15 earlier, it depends on what a vendor has to offer
16 in terms of probably where they do the treatment
17 at, where it's going, and what their process is.
18 So the real answer is going to depend on the
19 specific vendor and what they're proposing.

20 MS. CRAWFORD: It's on page 12.

21 MR. STEGNER: Do you have any more
22 questions before we move to --

23 MS. CRAWFORD: No, you can't go, we
24 have lots more questions.

1 MR. STEGNER: Keep going, please
2 ask.

3 MS. CRAWFORD: Okay, I'll go next.

4 MR. STEGNER: Lisa Crawford.

5 MS. CRAWFORD: I have a list. I'm
6 going to try to go quick. Because on page 12 in
7 that very bullet that I just alerted you to, Terry,
8 the last part, below RCRA TCLP limits and disposal
9 facility WAC, that's at -- that's not here, that's
10 there.

11 MR. HAGEN: There, yeah, be it NTS
12 or a commercial facility.

13 MS. CRAWFORD: Okay, that was a
14 little confusing the way it was worded.

15 MR. HAGEN: Not this.

16 MS. CRAWFORD: That's a little
17 confusing. Also on page 36 under the cost issue, I
18 guess I'm a little concerned that we have a rough
19 order of magnitude cost for the chemical
20 stabilization, but we don't even have an idea of
21 what the other two are going to cost. I guess I
22 have a real problem with that because I thought
23 that was something we were really kind of looking
24 at.

1 MR. HAGEN: I think that's a fair
2 comment. The reason for that is I guess twofold.
3 One is if you look at the implementability section,
4 what we say is that there's just a lot more
5 industry experience with chemical solidification
6 stabilization than with these two. So there's not
7 a lot of industry data out there as to how much it
8 costs to implement these two technologies. The
9 statements that you see in there we got from EPA
10 guidance that said that they should be roughly
11 equivalent to the chemical stabilization. That was
12 the first thing. The second thing is that, I mean,
13 frankly, we have just done a little bit more work
14 dating all the way back to the original RI/FS
15 evaluation on evaluating chemical stabilization
16 than we have these other two. So I'm not saying in
17 hindsight we don't wish we had more information,
18 but the fact is that historically we focused more
19 on that and probably had more of a basis for saying
20 here's what we think the costs would be for Silo 3,
21 and then given the lack of a lot of industry
22 experience with the other two, about all we had to
23 rely on is EPA guidance on the fact that they felt
24 it should be about the same.

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 MS. CRAWFORD: Okay. Do you want me
2 to keep going?

3 MR. STEGNER: Yeah. Are there any
4 other questions out there?

5 MS. CRAWFORD: Anybody else just
6 raise your hand. On page 33 under the volume, it's
7 the same kind of a question, we've got an estimate
8 for the chemical stabilization.

9 MR. HAGEN: Same answer. It's a
10 valid question; unfortunately, it's the same
11 answer. There's more industry experience and more
12 site experience with Silo 3 materials related to
13 this family of technologies than the other two.

14 MS. CRAWFORD: Let me be blunt with
15 you, does that then mean when we move into this
16 process that we automatically move to chemical
17 stabilization and we don't look at the other two?
18 That's the impression folks like us are going to
19 get sitting out here in the audience.

20 MR. HAGEN: I would state that no.
21 Here's what I would say, is that the reason that we
22 don't have as much data, though, is because there's
23 not a lot of industry experience. I'm not saying
24 there's no industry experience. I think the answer

1 to your question is going to be it's wide open to
2 any vendor that wants to come give meaningful data
3 on these technologies. It might be reasonable to
4 expect that we're going to get fewer expressions of
5 interest for these technologies for chemical
6 stabilization because there appear to be a lot more
7 vendors out there that have got experience with the
8 chemical stabilization, but that does not rule out
9 the ability for some vendor because there is some
10 limited commercial development to bring ideas to
11 the table, and the RFP should be written to allow
12 that and is written to allow that.

13 MS. CRAWFORD: And the RFP --

14 MR. HAGEN: The draft RFP, sorry.

15 MS. CRAWFORD: The draft RFP has
16 already been written, right?

17 MR. HAGEN: The draft RFP has.
18 Obviously it is out for your review, and right now
19 it allows, and will continue because the way the
20 ESD is written, to allow a vendor to be responsive
21 to proposing any of these three methods.

22 MS. CRAWFORD: Because I guess I
23 want to make sure in my mind that I have this
24 correct. So the RFP -- I think we've already --

1 we've looked at the RFP, if I'm not mistaken. It
2 clearly says it can be done on-site or off-site in
3 the RFP, right? The RFP doesn't say it can be done
4 off-site? How can we have an ESD that says it can
5 be done off-site but we have an RFP that says it
6 can't be done off-site? That to me doesn't make a
7 lot of sense.

8 MS. WENTZ: I apologize, it does ask
9 for input to treat it off-site. That was the
10 comment he made earlier.

11 MS. CRAWFORD: Because that's been a
12 real confusing piece for a lot of people, depending
13 on how you read it and how you understand it, and
14 if you follow this process, it's been confusing. I
15 think you need to make it really clean and sure
16 that folks understand that, that it can be done
17 on-site or off-site with off-site disposal.

18 MR. HAGEN: I think there's two
19 issues, one is being clear as to what the ESD says,
20 which I screwed up and I apologize, and the second
21 part is linking it to what the RFP says.

22 MS. CRAWFORD: Somebody may want to
23 go back and make sure those two things are saying
24 what they're supposed to be saying. When we get

1 responses back to the final RFP, will those be
2 shared with us at some point?

3 MR. HAGEN: Yes.

4 MS. CRAWFORD: And we can look at
5 those?

6 MR. HAGEN: Yes. In that period of
7 time between December 3rd and March, yes.

8 MS. CRAWFORD: Okay. All right,
9 that's it.

10 MR. STEGNER: Any more questions out
11 there before we move into the official public
12 comment period? If not, what I want to do is to
13 excuse Dave and Terry so as not to be a
14 distraction.

15 So what I will do now is I will begin
16 the formal public comment process, and I would ask
17 that anyone who wants to comment on the record
18 tonight verbally to please, you can stand up if you
19 project well, if not, there's a microphone back
20 there that you're welcome to use. State your name
21 and please provide your comment. As I said also
22 earlier, that you're under no obligation at all to
23 comment tonight either verbally or in writing. The
24 comment period is open until the 16th of December,

1 and you can submit those comments to us in writing
2 on or before the 16th of December.

3 Anybody want to talk, speak on the
4 record tonight? Anyone prepared to do so? Going
5 once, twice. Okay, I assume we're going to have a
6 lot of comments in writing then.

7 Thank you all for coming tonight. I
8 appreciate -- we all appreciate your attendance,
9 your participation, and we will reconvene for next
10 session on December 9th.

11

- - -

12

PROCEEDINGS CONCLUDED

13

- - -

14

15

16

17

18

19

20

21

22

23

24

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

1 C E R T I F I C A T E

2 I, LOIS A. ROELL, RPR, the undersigned, a
3 notary public-court reporter, do hereby certify
4 that at the time and place stated herein, I
5 recorded in stenotypy and thereafter had
6 transcribed with computer-aided transcription the
7 within (92) ninety-two pages, and that the
8 foregoing transcript of proceedings is a complete
9 and accurate report of my said stenotypy notes.

10

11

12



13

MY COMMISSION EXPIRES: LOIS A. ROELL, RPR

14

AUGUST 12, 2002.

NOTARY PUBLIC-STATE OF OHIO

15

16

17

18

19

20

21

22

23

24

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342