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PUBLIC MEETING

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Nease Chemical site proposed

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plan meeting, Salem Public

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Library, 821 E. State Street,

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Salem, Ohio, Wednesday, June 22,

13

2005, 6:30 p.m., taken before me,

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Robert A. Cangemi, Court Reporter

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CORSILLO & GRANDILLO

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COURT REPORTERS

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700 City Club Building

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Cleveland, Ohio 44114

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216-523-1700

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2 TRANSCRIPT OF PROCEEDINGS

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5 MS. PASTOR: Thank you all

6 for coming. I am, Sue Pastor, and I

7 am work for the United States

8 Environmental Protection Agency. I

9 am what is called a community

10 involvement coordinator, I will

11 be monitoring the meeting

12 tonight.

13 This is a meeting for the

14 Nease Chemical site. If you do not

15 want to be here, you are in the wrong

16 place.

17 Tonight we are going to

18 propose how we are going to cleanup

19 the facility and the site proper. I

20 hope you picked up an agenda. We are

21 going to follow this. If you have

22 any questions, if you can hold those

23 until the end, if you would bear with

24 us, I would appreciate that.

25 Mary Logan works with me, we

1 are out the Chicago office. Sheila
2 Abraham is our colleague with Ohio
3 EPA. Other people in the audience,
4 who owns Nease Ruetgers, is Rainer
5 Domalski, he owns it, and Steve Finn
6 is a consultant.

7 We have a court reporter
8 here, so when we get to the Q & A
9 portion of the meeting, he and I
10 would appreciate it if you would
11 state your name for the record.
12 If it is unusual and needs to be
13 spelled, he would appreciate that, as
14 well.

15 If he can't hear you, I asked
16 that he not be bashful and ask you to
17 repeat it or help him out. I also
18 want to remind you, if you really get
19 into this sort of thing and this
20 doesn't do it for you, the 2 pieces
21 that we mailed out, we have an online
22 for you to pick up tonight. We have

23 other more technical documents, they

24 are housed here at the library, you

25 can't check those out. You can

1 look at them, it is like an
2 encyclopedia.

3 We are in the middle of a
4 public comment period, it is running
5 through the whole month of June.
6 Folks can make comments either
7 online or you can fax them to me,
8 if you prefer, or you can mail
9 those.

10 Information on how to do that
11 is in here. There is a sheet on the
12 inside, if you like to use the mail
13 or fax, you can use the comments
14 sheet.

15 You can also fill that out,
16 and leave it with me or Mary
17 tonight. We also, if you noticed on
18 the agenda, we have the comment
19 portion of the meeting, it is a
20 little different than the
21 questions.

22 During the question and

23 answer portion, obviously if you have

24 any questions about what Mary has

25 said in her presentation, that would

1 be the time to ask those.

2 Then the public comment
3 portion is when we will be most
4 interested in hearing your comments
5 pertaining to our proposal on how to
6 go about doing this cleanup.

7 You can criticize, you can
8 praise us, agree or disagree, just
9 taking a couple of minutes, if you
10 would, at that point you can go on
11 record with your oral comments, and
12 the court reporter would appreciate
13 at that time, as well, hearing your
14 name and spelling it and if you
15 represent a particular organization
16 or governmental body, that would be
17 helpful to know, as well.

18 We need to be done by 8:30, a
19 little bit before. The library was
20 nice enough to let us use its room
21 and asked that we be done by 8:30.
22 I will be making a last call close

23 to 8:30, so we can honor their

24 wishes.

25 Mary will keep her

1 presentation as brief as possible, so
2 that you all have a chance to ask the
3 questions you want and to make any
4 comments during the comment portion
5 of the meeting.

6 We will be talking a little
7 bit about the Superfund program, and
8 if you are not familiar with it, this
9 is a Federal program, it is a United
10 States Environmental Protection
11 Agency funded program, it deals with
12 uncontrolled or hazardous waste
13 facilities or bodies of water that
14 are contamination problems, old
15 landfills, you name it, and that's
16 what we use under the Superfund
17 program to do investigating and
18 cleanup, that's the law that we work
19 under.

20 Superfund doesn't mean that
21 it is an endless pot of money. It
22 does mean we have money, we save

23 those monies for when we do not have
24 someone who is responsible, who can
25 afford to fund the cleanup, actually

1 do the cleanup, and those
2 investigations.

3 So the Superfund law is very
4 good at working so that we do get the
5 parties who are responsible to do
6 that. That would be anybody who
7 owned and operated a facility that
8 brought waste to and from it or
9 generated waste.

10 In this case it is the
11 Ruetgers who owns the company that is
12 the responsible party. They have
13 been cooperative in conducting our
14 investigation, paying for
15 everything up until now.

16 We will be talking with them
17 soon about doing a cleanup. Once we
18 finally select that once and for all,
19 we don't have reason to believe they
20 would not do it. We will keep our
21 fingers crossed at the cooperation
22 that we have had and the good working

23 relationship.

24 We expect that will

25 continue. I don't think I have

1 forgotten anything. I know you will
2 want to hear Mary's presentation on
3 the proposed cleanup plan for the
4 Nease Chemical site.

5 MS. LOGAN: Thank you,
6 Sue.

7 I am Mary Logan, project
8 manager for the Nease Chemical
9 site. I know this is a little bit
10 of a crowded room. I hope that you
11 can all hear and see.

12 If you are having problems,
13 let us know. Sue, try to shut I set
14 of lights off, if that is better,
15 better for the audience.

16 Is that better? As Sue said,
17 we are here to talk to you about a
18 proposal for cleaning up the Nease
19 Chemical site. This proposal will
20 not been finalized until after we get
21 feedback from the community through
22 your comments and evaluate your

23 concerns.

24 As the title of this slide

25 says, we are talking about soil and

1 groundwater tonight, and what we have
2 done is carve up the site into
3 pieces, the pieces that need to be
4 cleaned up.

5 The first 1 we are talking
6 about tonight is the soil and the
7 groundwater on the old plant
8 site. We are moving ahead with that
9 proposal.

10 First the old plant site is
11 the source of contamination to the
12 second piece, which is the Middle
13 Fork of Little Beaver Creek. We
14 know the community is concerned
15 about that.

16 Cleanup is not included in
17 the proposal tonight. We will be
18 getting back with you in the future
19 to discuss the cleanup alternatives
20 for that portions, as well.

21 Our cleanup for the soil
22 and groundwater on the Nease site

23 involves cutting edge technology. I

24 think we have got a good array of

25 things we may be able to do to the

1 problems at the site to make the
2 cleanup very effective.

3 The proposal includes
4 something called NANO technology.

5 We are going to spend time later
6 in the discussions talking about
7 what that is, including use of
8 very small particles to clean up
9 the contaminants.

10 We are proposing a sequence
11 of processes that will strip off the
12 worst contaminants and whatever is
13 left will be solidified, contained so
14 it won't move.

15 We think this will helpful
16 and effective in cleaning up the
17 problems at the site. Before I give
18 you a lot of detail about what those
19 are, I thought I would discuss the
20 site itself, the problems we have
21 there, why we are trying to clean it
22 up.

23 The old Nease Chemical

24 Superfund site. this is a

25 bird's-eye view of the site,

1 looking down on it, you will see
2 features. I want to highlight
3 those features in the area. Here
4 is pond 1 and pond 2. There is
5 also pond 3, pond 4, pond 7, call
6 them ponds, they are formed ponds,
7 filled in.

8 Before they were filled in,
9 the waste that was in there was not
10 cleaned out, these ponds still
11 contain contaminants. In
12 particular, ponds 1 and 2 contain
13 high levels of contaminants.
14 There's gray shaded areas here, we
15 call those exclusion areas.

16 A and B were areas that old
17 leaking drums and contaminated soil
18 was found in those areas, again we
19 are going to be talking about a
20 little bit later. The Crane-Deming
21 building is here. The green marking
22 is where a fence exists. This is

23 State Route 14, Allen Road.

24 The blue lines running here

25 down the hill are drainage ditches

1 and a unit called Feeder Creek.
2 These are important for some
3 transportation of contaminants off
4 of the property into the Middle
5 Fork of Little Beaver Creek located
6 here, flowing to the north.

7 Here's the railroad
8 tracks that cut through the site
9 itself. To orient you, now, the
10 site description of the old Nease
11 Chemical Company operated in the
12 '60s, early '70s, that was well
13 before a lot of the agencies had
14 many EPA regulations.

15 They operated in a way that
16 companies traditionally did, they
17 didn't manage their waste. A lot
18 of stuff was put out into the
19 environment and left on the site in
20 an unregulated fashion.

21 They shut down the plant,
22 as Sue mentioned. Ruetgers Company

23 bought the plant later, never
24 operated at that facility. They have
25 been working with us to investigate

1 the problems we have had with the
2 cleanup.

3 As I mentioned, exclusion
4 areas A and B contained leaky drums,
5 contaminated soil, and the water
6 would be placed in these ponds.

7 Hold on, we are going to take
8 questions at the end.

9 Again, some interim cleanup
10 has occurred at the site, certainly
11 not enough to make the site as clean
12 as we would like it to be.

13 Here's the railroad tracks.
14 Here is former pond 3. In exclusion
15 areas A and B, we did have removal
16 of contaminated soil and leaky
17 drums.

18 These were put in place to
19 try to condition contaminated soil
20 from moving when it rains. The soil
21 would get mixed into the water and
22 runoff the site. Those were put in

- 23 place to stop that. There are a
- 24 couple of systems here to collect
- 25 some of the contaminated

1 groundwater.

2 Now, the problem at the
3 Nease site, 2 major types of
4 contaminants we are concerned
5 about, the first is mirex. Mirex
6 is in the soil, it is in the old
7 ponds areas. Mirex is a chemical
8 banned in the U.S. in 1978, and it
9 is very much like DDT.

10 You have heard about it,
11 that it sticks around in the
12 environment. It does not
13 breakdown at a very good speed.
14 Once it is in the environment, it
15 sticks around for a long time.

16 Another group of chemicals we
17 are concerned about are called
18 volatile organic compounds, VOCs
19 abbreviated.

20 They are solvent like, used
21 traditionally in industrial
22 processes. What they can do is move

23 very quickly into the environment,

24 evaporate easily. They can get

25 mixed with water and move, these

1 are the problems at the Nease site
2 in the groundwater, the amount of
3 volatile organic compounds in ponds
4 1 and 2, these can cause adverse
5 effects on human health or economic
6 receptors.

7 There was a lot of evaluation
8 of whether people are currently at
9 risk because there is limited
10 exposure, people are not currently at
11 risk.

12 We believe if people were
13 exposed frequently in the future,
14 there is a possibility there might be
15 harm. Now, again, I like to use a lot
16 of pictures in my presentation to
17 help you get a feel for what is going
18 on.

19 This picture, imagine if you
20 would, we took a slice of earth
21 right through the site, you are
22 viewing it sideways, this shows you

23 what the problems are, where they are

24 going, the worst areas.

25 Here again, ponds 1 and

1 ponds 2. there is old waste
2 sitting at the bottom of those
3 ponds. When it rains, water gets
4 into there, it can leak out, move
5 into the ground. The ground
6 itself, you see a shallow area up
7 here, light gray, we are going to
8 call that shallow, it is groundwater
9 that was loose soil placed by
10 glaciers that is sitting on top of
11 the dark gray area with cracks,
12 that's rocks under the ground.

13 Essentially both of these,
14 topsoil and deeper ground bedrock
15 carry water, it is underground
16 water called groundwater that is a
17 source of potentially clean water,
18 if it tests clean for people to
19 drink. It also can be
20 contaminated by the contaminants
21 moving and leaking into
22 groundwater.

- 23 We have 2 systems
- 24 collecting some of the
- 25 contaminated groundwater, checking

1 it and all of the soil at the top
2 has some contaminants on it. We
3 need to make sure that people or
4 animals don't come in contact with
5 that soil.

6 It doesn't show it in this
7 picture, when it rains, this
8 contaminated soil can run downhill
9 and can get into the ditches. This
10 is showing why ponds 1 and 2 are
11 such a problem for us.

12 When they dug the ponds,
13 put the waste water in there, the
14 ponds were dug below the water
15 table. This blue line represents
16 where the groundwater exists at the
17 site. As you can see, there's
18 waste material in the groundwater.
19 That gives waste material every
20 opportunity to move into the
21 groundwater, contaminating it.

22 The contaminants leaked

23 downhill. All of this soil is
24 highly contaminated. That is a
25 big source of a lot of our problems

1 for the groundwater at the site.

2 This generally may not be the

3 clearest.

4 The railroad track lines

5 indicate where the groundwater

6 contamination flowed to. The

7 direction of flow is from the west

8 to the east, and the most

9 contaminated groundwater is near

10 pond 1, and the second area which is

11 a major source of that contamination,

12 this is a very quick overview of the

13 types of problems we have at the

14 site, why we are trying to clean them

15 up.

16 What I am going to do is

17 talk about what we are proposing to

18 do to clean up the problems, then we

19 can talk about other options we

20 considered and talk a little bit

21 about why we think that the option

22 we are proposing is the best 1 for

23 the site.

24 You are going to see there

25 that each of the options talks

1 about four different areas on the
2 site. We need to do different
3 things to treat the problems.
4 What we are proposing here for
5 ponds 1 and 2, we are proposing to
6 treat that material in place by a
7 process called stripping,
8 stabilization and solidification.

9 I am going to get into that
10 in a about 2 slides. For the other
11 ponds on the site, the proposed
12 treatment would be to cover it
13 with a low permeability plastic cover
14 to prevent the rain from soaking in
15 and it will be topped with clean
16 soil.

17 Other than for shallow
18 groundwater, the light gray in the
19 previous couple of slides that would
20 be collected, a trench would be dug
21 and the groundwater would flow into
22 it, be collected and pumped off the

23 ground and treated to remove the

24 contaminants.

25 The deep groundwater in

1 the southern area would be treated
2 by injecting a substance known as
3 nanoscale zero-valent iron. The
4 cost of the cleanup we are
5 proposing is \$19-million. Here is a
6 bird's-eye view of what we are
7 proposing.

8 Again, ponds 1 and 2, you
9 see the orange triangle, the other
10 ponds and soil would be covered
11 with earth. This darker green
12 represents the impermeable plastic
13 covered with clean soil. The
14 lighter green would represent where
15 we put clean soil only to trench,
16 to collect the shallow groundwater
17 that runs near the railroad tracks
18 and takes a little jog and would
19 capture the groundwater moving
20 from the west to the east.

21 1 of the options that we
22 would consider while we are actually

23 designing, building this, if it would
24 be more effective, instead of pumping
25 the water out of the trench, having

1 it treated inside the trench, run it
2 through an iron carbon biological
3 process in the ground.

4 Then the last element,
5 these black dots around ponds 1 and
6 2 over here to the east and then
7 down in this portion of the site
8 would be where we inject the
9 nanoscale zero-valent iron; and
10 2, stripping, stabilization and
11 solidification.

12 The way it would work,
13 there would be some construction
14 equipment, like a crane or a big
15 bulldozer, it would have attached to
16 it a series of mechanical
17 attachments that is basically a
18 long pole that has a lot of
19 paddles or plates, it would dig
20 down through the ground.

21 It is going to churn up the
22 contaminants and soil and mix them,

23 and at the same time through a tube

24 air would be injected. These

25 volatiles evaporate easily. Air is

1 injected, air is going to come up to
2 the surface and capture the
3 contaminants, evaporate into the
4 air.

5 They would be captured in a
6 unit placed on top. That will suck
7 the contaminants out. After the
8 contaminants are stripped off the
9 soil, whatever is left there would be
10 cement like material added, mixed in
11 with the remaining soil. It will
12 make that soil less likely to be --
13 if there are any contaminants, they
14 will be less likely to be moved by
15 rain or groundwater that would come
16 in contact with them.

17 Now moving to nanoscale
18 zero-valent iron, this is cutting
19 edge, new. Nanoscale zero-valent
20 iron is a common element you find
21 everywhere in the world, these are so
22 tiny, your hair is probably a

23 thousand times thicker.

24 And when they get mixed with

25 water, get injected into the ground

1 through wells, zero-valent iron will
2 mix with the water already in the
3 ground and spread out and move to
4 where the contaminants are, and the
5 contaminants themselves are
6 destroyed, much like many of the
7 iron contaminants, basically
8 destroyed by a similar process.

9 There's no air under the
10 ground, contaminants can come in
11 contact with the iron, there's a
12 reaction similar to rusting, they
13 are destroyed, broken down to
14 harmless byproducts. It is a
15 single particle that represents
16 iron, trichloroethylene.

17 It comes in contact and
18 it is broken down into harmless
19 byproducts. Again, after the
20 cleanup is complete, iron is part
21 of the soil already, and it will
22 settle and become part of the

23 soil.

24 All right. The next 3

25 slides are going to be a series of

1 how we might inject it, how it would
2 move in the ground, the wells. I
3 again circled the worst areas of
4 contamination.

5 It would be injected with
6 water, spread out, start moving, this
7 is after a few days. After a few
8 weeks, after a few months. And what
9 we would do is some studies to assess
10 what are the best amounts of material
11 to inject, and how often to inject
12 them to get the best treatment where
13 this is cut away, how the whole
14 remedy would work.

15 And for ponds 1 and 2,
16 stripping, stabilization and
17 solidification would take care
18 of the worst contamination.

19 Whatever is left, it would be
20 stabilized by the cement type
21 of material for shallow
22 groundwater collected in the

23 trench, pumped above ground,

24 treated to destroy the

25 contaminants.

1 The soil and other ponds,
2 it would be covered by a plastic
3 cover that would prevent contact
4 with the contaminants, prevent
5 the rain from moving through.

6 The deeper groundwater would be
7 treated by injection through a
8 series of nanoscale zero-valent
9 iron. This is the remedy we
10 would like to pick.

11 The EPA has to consider
12 no action, alternative or no
13 action. Option A is no further
14 action. We would not clean up,
15 monitor or manage the
16 contamination. The existing
17 systems that collect shallow
18 groundwater would continue to
19 run.

20 These systems were built
21 for ponds 1 and 2. The estimated
22 cost would be \$4.7-million. Option

23 B, this is the Option the EPA
24 recommends. stripping, stabilization
25 and solidification. Option C, there's

1 a couple of differences in this
2 Option, ponds 1 and 2 would be
3 treated in place by a process called
4 thermal desorption.

5 The other ponds and soil
6 would be covered with a layer of
7 clean soil, only the cover would
8 not be plastic cover, the shallow
9 groundwater would be cemented
10 in. Deep groundwater would be
11 treated the same as in our
12 proposed alternative, with the
13 nanoscale zero-valent iron.

14 This cost \$24.7-million.
15 This a is picture cartoon of the
16 thermal desorption, heating the
17 contaminants, the contaminants
18 would either be destroyed by the
19 heat itself or there is also going
20 to be a slight air vacuum put on
21 those.

22 Well, the contaminants

23 would be sucked out. This is a
24 slide of that option, which
25 includes thermal desorption and

1 then the nanoscale zero-valent iron
2 for the deeper groundwater.

3 Option D is probably the
4 most traditional, if you would,
5 option. This option for ponds 1 and
6 2 does not provide any treatment or
7 construction of the contaminants,
8 it contains a place, by building a
9 cover over it, coverage of the
10 units.

11 And along the bottom, the
12 other ponds and soils would have
13 clean soil on the top. The
14 shallow groundwater would be
15 collected in a trench and pumped
16 above ground to be treated like
17 Option B.

18 The cost of this remedy is
19 \$21.4-million. The containment
20 approach, the plastic and the low
21 permeability cover would be placed
22 on ponds 1 and 2. A cement-like

23 substance would be poured around the

24 edges of the former ponds and

25 injected below the bottom of the

1 ponds.

2 This would keep the
3 contaminants from moving. This
4 shows you the containment, ponds 1
5 and 2, soil over the remainder of
6 the site. The shallow groundwater
7 would be taken above ground,
8 treated.

9 In this case some wells
10 would be dug deep, the groundwater
11 pumped out, taken above ground and
12 treated.

13 Option E is essentially the
14 same as Option B, except that the
15 shallow groundwater would be treated
16 underground, within the trench
17 underground. Soil only would be
18 placed over the remainder of the
19 site. The cost of this is
20 \$13.8-million.

21 This is a bird's-eye view
22 of what Option E would look like,

23 only soil over the remaining
24 areas. The treatment inside the
25 trench for the shallow groundwater

1 injection of the nanoscale zero-
2 valent iron for the deep ground
3 iron.

4 There's a couple of things
5 we didn't talk about, each of the
6 remedies has active common
7 elements. There's a portion of
8 the site in this corner of the
9 site, we haven't talked about it,
10 there's some contaminated
11 groundwater that in all of the
12 remedies it would be treated by
13 nanoscale zero-valent iron
14 injection.

15 We have so much more
16 chemical build-up in the wells when
17 that happens, chemicals would be
18 removed from the well. Whatever
19 system we build for cleaning up the
20 groundwater, we need to contain it,
21 run it, make sure it is working
22 correctly, make sure it is

23 inspected, operated the way it

24 should be.

25 There's contaminants under

1 the crane building we can't reach
2 now. Also, whatever we do to the
3 cover, whether we build it up
4 with soil cover. We need make
5 sure that it stays, that it
6 doesn't erode, has vegetation
7 growing on it.

8 We want to manage the
9 water flow so it doesn't erode
10 the things we build on site.
11 Everything that we do we will
12 measure and monitor during
13 construction and after, to make
14 sure it is working the way I
15 would think it should, and in the
16 the mean time, until we reach
17 cleanup standards, we will continue
18 to limit access to the site,
19 restrict use of the groundwater,
20 restrict how the soil is dug into,
21 so that people are not exposed to
22 any contaminants until the cleanup

23 is complete.

24 One of the things the EPA

25 has to do is make sure our remedies

1 are effective. How do we compare
2 between the options, we have a list
3 of criteria, it is the same list we
4 use for every Superfund site.

5 I am not going to read
6 these to you, you have them in
7 your handout. We basically want
8 to make sure that our remedies
9 are constructive, that they don't
10 do any harm in the short-term.

11 We are actually able to build
12 them. We can build them in a way
13 that they work and that the cost
14 is reasonable for the amount.

15 One of the criteria is
16 community acceptance. We are
17 here to hear your opinions about
18 our proposal before we pick the
19 final cleanup. Now, this is more
20 personal. We are approaching
21 what we are proposing.

22 I am, I guess, pretty

23 happy to be proposing this to

24 you. I personally think this is

25 a real good remedy. I think it

1 is using technologies that are
2 going to be highly effective for
3 the problems that we have at the
4 site.

5 The site is complex, it
6 has difficult problems to try to
7 deal with. I think innovative
8 technologies are going to give
9 us a good opportunity to be more
10 effective than some of the other
11 options we talked about.

12 I think of the criteria
13 we just put on the previous
14 slide, the proposal we have
15 before you provides the best
16 balance among them, critically
17 the treatment of the pond area
18 is going to remove a significant
19 amount of the contamination.

20 It is going to take a lot
21 of the stuff out of the ground
22 that is currently there, and

- 23 whatever is left is going to be
- 24 left in a condition where it is
- 25 not going to be moving into the

1 groundwater.

2 The plastic cover, as
3 opposed to just the soil cover
4 is a good option, reduce the
5 amount of rain that falls, limit
6 the amount of contamination that
7 gets into the shallow groundwater,
8 and the nanoscale zero-valent
9 iron component, I didn't talk
10 about it earlier, the rock under
11 the site has a crack, this means
12 there is cracks, and fractured
13 bedrock is difficult to clean up
14 once it is contaminated.

15 The nanoscale zero-valent
16 iron can get into tiny cracks and
17 crevasses. I think it is going
18 to be more effective than some
19 of the other alternatives that we
20 have going for us.

21 What our next step is, is
22 to select the final cleanup.

23 Again, we can't do that until
24 we consider your public comments.
25 Final cleanup will be documented

1 in something called the record of
2 decision that will come out later
3 this year.

4 After the record of
5 decision is signed, we will do a
6 pre-design investigation. We
7 actually may talk about that
8 before whatever we pick as a
9 cleanup, we need to get some
10 more information.

11 You know, the logical
12 question might be, after all of
13 these years of study, why do you
14 need more investigation to figure
15 out where the contamination is.

16 It is one thing to figure out
17 how to build something, to clean
18 it up is another.

19 The pre-design
20 investigation will get us
21 information to help build a remedy
22 in most effective way. I have

23 hydraulic testing. I know where
24 the flow is going, how fast and
25 far. We need to evaluate how big

1 the cover is. We need to look at
2 that portion of the site on the
3 southern end more closely.

4 Included in that, we are
5 going to offer the homeowners in
6 that area the opportunity to have
7 their wells re-tested, if they
8 like. And we need to do pilot
9 studies on what we finally pick.

10 If we pick Option B, it
11 will include evaluation of things
12 like how much, how long do you have
13 to mix the material, what type of
14 things do we have to mix in it,
15 also do a test of the nanoscale
16 zero-valent iron to measure how
17 the iron is working on the
18 contaminants before we implement
19 it.

20 We need full scale
21 engineers, very technical
22 engineering. We are hoping to

23 be in full scale construction by
24 2008. That was my spiel. I
25 think Sue is going to talk to you

1 for another second.

2 MS. PASTOR: Before we do
3 questions and comments, I want to
4 have Sheila come up and explain
5 how the state has been involved
6 in working with us during all of
7 that time.

8 MS. ABRAHAM: Some of you
9 know the people who are seated
10 before me, we have been working
11 with the EPA for many years on
12 this site, and we have looked at
13 everything that they have looked
14 at, reviewed and commented.

15 And we support proposed
16 plan Option B for the reasons
17 Mary laid out. You heard them
18 once. I won't go over them
19 again. We are interested in what
20 the community thinks, what you
21 would like to have happen. We
22 are here to hear from you.

23 MS. PASTOR: And, Sheila,

24 you are located where?

25 MS. ABRAHAM: Out of

1 Twinsburg.

2 MS. ABRAHAM: As Sue said,
3 there is a repository with all of
4 the documents, the highlights of
5 the site. If you need information,
6 we have it. I have cards I can
7 give you after the meeting.

8 MS. PASTOR: We are in
9 Chicago, it takes us a flight to
10 get here. Sheila can zip down
11 here.

12 MS. ABRAHAM: Driving the
13 speed limit, I can be here in an
14 hour.

15 MS. PASTOR: Feel free to
16 call any of us if you have
17 anything on your mind, once we
18 leave town. If you have
19 questions for us, if you would
20 raise your hand, we will
21 acknowledge you.

22 Again, for the court

- 23 reporter's benefit, if you can
- 24 state your full name and spell
- 25 it, and if you represent a

1 particular organization, or if
2 you are affiliated with somebody,
3 he would appreciate.

4 If he doesn't catch your
5 name, he is not being rude, or
6 if he didn't hear, we may ask you
7 to repeat, so if you have a
8 question.

9 MR. COPLEY: Gary Copley,
10 C-o-p-l-e-y, geology major. I
11 have 2 quick questions. I
12 would like to know where the
13 nearest aquifer is, and
14 Washingtonville, that's considered
15 a decent aquifer, right?

16 MS. LOGAN: Steve Finn
17 is here, and I think Steve is
18 better able to answer that than I
19 am.

20 MR. COPLEY: In terms of
21 aquifers, in terms of the
22 largest, nearest aquifer, how many

23 miles?

24 MR. FINN: What Mary said

25 was this rock is fractured, so

1 water can move through it. What
2 is underneath it is not thick. It
3 is probably on the order of 10,
4 15 feet thick, then you get into
5 what is shown on Mary's diagram,
6 there is a sandstone aquifer that
7 will be the unit that water wells
8 would be screened in, it is over
9 150 feet thick, there is no
10 fracture.

11 At that point you are
12 getting down 300 plus feet, solid
13 limestone.

14 MS. PASTOR: Who else has a
15 question?

16 MR. VODREY: Jackman
17 Vodrey, V-o-d-r-e-y, and I have
18 been the Chairman of the Little
19 Beaver Creek Wildlife and Rivers
20 Advisory Committee since 1974.

21 I noticed on the map that
22 you have ponds up to number 7.

23 They are not showing on the map
24 numbers 5 and 6; is that because
25 they were just totally filled in,

1 or you couldn't read the map?

2 MR. FINN: This is
3 anecdotal. Everything we have
4 seen, there were no ponds 5 and
5 6. Essentially the process used,
6 they started off with acidic waste
7 water. pH is the thing that
8 indicates the acidity. Low numbers
9 is high acidity. A pH of 2 is very
10 acidic.

11 They have a progressive
12 series of neutralizing pH of 7.
13 What those numbers represent is
14 the gradual neutral state until
15 it got to 7. They didn't have
16 individual ponds for the missing
17 steps 5 and 6.

18 That's the best
19 understanding. All of the
20 historical photos we looked at
21 go back and give us an overview of
22 what the site looked like in the

23 '60s when it was operational, and

24 those are the only ponds.

25 MR. VODREY: The second

1 question would be on page 4 of the
2 pass out, of the Cutting-Edge
3 Techniques memo, you talk about
4 covering some of the ponds with
5 clean soil only. What is the
6 theory that you are were following
7 in deciding to cover with
8 impermeable plastic or low
9 permeability, some of the ponds,
10 and others you would just be putting
11 soil over it?

12 MS. LOGAN: Good question.
13 The primary risk of mirex in soil
14 would be if somebody were to come
15 in contact with it frequently or if
16 animals were digging into that
17 contaminated soil, the clean soil
18 would prevent contact with any low
19 levels of mirex that might be still
20 in the soil.

21 So in some of the areas,
22 ponds 4 and 3, for example, that

23 would be the rational cover.

24 There's pretty low levels of mirex

25 to cover-up. Now, in the other

1 areas what we are talking about,
2 the plastic cover, some of those
3 areas also have low levels of
4 mirex, but the plastic would have 2
5 functions.

6 The plastic would also
7 have soil on top of it. The
8 plastic will prevent rain from
9 falling through. Because this is
10 the area where we have a lot of
11 the shallow groundwater, it will
12 lessen the amount of groundwater,
13 keeping rain from coming in, to
14 prevent the contacts which is the
15 goal we have for the other areas,
16 as well.

17 That's the rationale
18 about why we would have 2
19 different types of covers at the
20 site.

21 MS. PATTERSON: Mary
22 Patterson, local resident, I have

23 lived on the property where the
24 ponds are, 1 and 2, on the
25 opposite side -- or 3 and 4, I

1 apologize, behind the Crane-
2 Deming property.

3 When these ponds were
4 first put in, they didn't hold
5 up. Why there are not 5, 6 and 7
6 is because they caved in. They
7 came back and made them larger.
8 They were not adequate for what
9 they had put into them across the
10 railroad tracks.

11 Just for historical
12 information, we lived there
13 probably 8 years.

14 MS. LOGAN: Where we
15 have the big ponds now are smaller
16 ponds.

17 MS. PATTERSON: I know
18 that.

19 MS. LOGAN: The construction
20 people were coming in. What they
21 were drilling and digging for didn't
22 hold up.

23 There were a lot of pond
24 holes, if you would. In a sense,
25 they needed to get them larger.

1 They were not retaining what it was
2 they needed.

3 MS. PASTOR: Thank you.

4 MS. GRISCHOW: Mary Kate

5 Grischow, G-r-i-s-c-h-o-w,

6 biological anthropologist and

7 researcher, I have several

8 questions. I will keep it

9 short.

10 Probably the most

11 important question is the signs

12 along the river way, all of them

13 for Beaver Creek are in horrible

14 disrepair.

15 They are also only in

16 English, which I think is a very

17 bad thing. It is a multi-cultural

18 population in this area. The

19 only warning we get is in the

20 Vindicator, don't eat fish out of

21 Little Beaver Creek, it is full of

22 mirex.

23 I think the creek should
24 have more warning signs.
25 Columbiana being part of this,

1 there are a lot of families
2 fishing in that creek, they are
3 eating those fish. This has
4 been going on for many years.

5 I grew up here. I
6 think those signs, I think it is a
7 bad state of affairs, that they
8 should have been kept up. They
9 are rusted out. This is just
10 kind of a commentary, I would
11 like to see those signs replaced.

12 It would be a nice thing
13 for the community, better
14 warning than just fish and
15 wildlife. I see it every year
16 during hunting season, that's the
17 only time I saw a warning along
18 the river.

19 An addition question is,
20 since we are not progressing
21 towards cleanup until 2008, what
22 about the rest of the areas, the

23 tributaries feeding off of the

24 river. as well. The public

25 health assessment, it keeps

1 getting pushed back, pushed back,
2 are we going to get a new one with
3 updated cancer rates and autoimmune
4 rates?

5 MS. LOGAN: First, I
6 guess -- do you want to respond
7 to that?

8 Sheila will respond when
9 I finish. In terms of the
10 progress of the proposition,
11 Little Beaver Creek, what we have
12 been doing is talking with the
13 technical team of the State EPA
14 about what information we need.

15 We believe we need more
16 information on the creek before we
17 can make a rational proposal. I
18 am hoping it is not going to take
19 years and years and years.

20 We are working to get
21 information laid out. We will
22 get that later this year. You

23 may see people taking some
24 samples in the creek. Our goal
25 is, as soon as we assess what

1 that means, we will be back to
2 talk with you about the creek.

3 In terms of the public
4 health assessment, as part of the
5 Superfund program, we have
6 recently created what we called
7 an endangerment assessment, it is
8 not the same. It looks at the
9 potential risks from the
10 contamination that we have.

11 It specifically looked at
12 the Middle Fork of Little Beaver
13 Creek, at the potential risk if
14 somebody were to go swimming in
15 the creek and if you got it on
16 your hand.

17 I think the fact that it has
18 been here for 35 plus years, I
19 think 30 to 35 plus years, that
20 there is some concerns about the
21 increased rate of various forms of
22 cancers that are directly correlated

23 to some of these chemicals.

24 I think the problem is

25 those keep getting pushed back.

1 MS. GRISCHOW: Is another 1
2 still on its way?

3 MS. ABRAHAM: I will have
4 to check with my office. We did
5 an assessment of the potential
6 health risks. I had not heard about
7 that.

8 MR. FRY: This is Bob Fry
9 with the Health Assessment Section
10 at the Ohio Department of Health,
11 and we did a health assessment
12 focusing on the off-site
13 contamination in 1997.

14 We also did 2 exposure
15 investigations, where we sampled
16 people's blood and fat tissue for
17 mirex in 1990 and in 1996. At
18 that time the exposure
19 investigation indicated that the
20 highest levels of mirex in the
21 local population, primarily in the
22 workers, the former workers at the

23 plant, and in a number of
24 individuals who had farms adjacent
25 to the plant and had dairy herds

1 around, were drinking their milk
2 and eating their dairy, cattle.

3 We had a few other
4 individuals who were associated
5 with exposure to the creek, but
6 the biggest trend, it was with
7 regard to mirex levels in the
8 local population was with the
9 individuals who were former
10 workers at the plant, which
11 makes some sense, that's where
12 the bulk of the contamination
13 is.

14 The problem with -- my
15 recollection is that it is very
16 persistent in the environment. It
17 is persistent in your body. Almost
18 ten years later we know very little
19 about what the health effects are
20 from mirex exposure.

21 We don't know what the
22 levels are in a particular body.

23 We are not able to predict what
24 adverse health effects would be
25 associated with that particular

1 level in a person's blood and

2 fat.

3 Basically we, in 1997,

4 because of the elevated levels of

5 mirex, because of the fact we had a

6 complete exposure pathway that

7 people were exposed to of mirex,

8 areas were termed off-site areas,

9 public health hazards, that's why the

10 section was broken out to be

11 addressed.

12 MS. ABRAHAM: As Bob said,

13 they deferred it to public

14 endangerment assessment, risk

15 assessment. I involved with

16 that. We looked at all of the

17 data, all of the information on

18 mirex and the other chemicals

19 associated with the site and did

20 the most protective risk

21 assessment we could.

22 And I think the bottom line

23 is that currently there is no
24 exposure, there's no risk about
25 acceptable levels with exposure to

1 mirex, except for the people who
2 eat the fish. I mean, that is
3 still a concern that we are working
4 on evaluating.

5 We have new data for the
6 fish. We are hoping to go out and
7 collect more data, and we hope that
8 shortly we will have an update on
9 that. But in terms of your actual
10 exposure to mirex, people's exposure
11 to mirex both on the site and
12 property, over property, there's
13 really no risk that we were able to
14 substantiate, but Mary will talk to
15 her management about issues and see
16 what needs to be done.

17 And the signs, I am sorry,
18 you are right, the signs are in
19 bad condition. In some areas we
20 noticed that when we came out to
21 do sampling for ODOT last fall,
22 we did put up signs along places.

23 I will be happy to get with you

24 after the meeting, if you can

25 flag some locations where you

1 think it would be better to put
2 signs, I will make sure that we
3 will get the signs, make sure
4 they are put there.

5 So I will see you after the
6 meeting.

7 MS. PASTOR: Let's see,
8 does anybody else have a
9 question?

10 MR. CANNELL: Johnny Cannell,
11 C-a-n-n-e-l-l.

12 You have people on the
13 road where trailers park that
14 flooded, was that tested, and bad
15 fields across the street; could the
16 farm products have that chemical in
17 it, too?

18 MS. ABRAHAM: What we did,
19 we did look at the parkway. I am
20 not sure. I don't know if we took
21 samples from the location.

22 You know what I mean, that

23 whole trailer park.

24 MR. CANNELL: The creeks

25 flow to 165, it was all flooded out

1 in that area; did anybody test that
2 ground out there?

3 MS. ABRAHAM: That was
4 tested earlier, but it is on the
5 list of things we are planning to
6 do in the near future, as soon as
7 possible, just to see what happened
8 there.

9 MR. CANNELL: Another
10 question, was Agent Orange made
11 there? There is a rumor it was made
12 there.

13 MS. ABRAHAM: We don't
14 know.

15 MS. LOGAN: We don't have
16 reason to believe it was. It was
17 something we --

18 MR. CANNELL: I heard
19 there's a chemical used in the
20 Agent Orange and it was made
21 there.

22 MR. FINN: There's no

23 connection between mirex and the
24 Agent Orange. If somebody knows
25 different, than that, tell me.

1 To my knowledge, we have
2 been studying mirex for a long
3 time, and there is no connection
4 between those two things. Some
5 years ago we did test for some
6 chemicals for dioxins, since I
7 don't know why the question was
8 raised, it may have been raised
9 because of exactly the concern
10 you are expressing, because
11 Agent Orange did contain
12 dioxin, they were tested at the
13 site. Dioxin was not found at the
14 site.

15 The EPA took action, I
16 think you can rest assured on that
17 point.

18 MS. PASTOR: There is a
19 question here.

20 MR. LOGAN: Sean, S-e-a-n
21 Logan, L-o-g-a-n, County Commissioner
22 here in Columbiana County.

23 It was probably 15 years
24 ago this month or next month that
25 we actually toured the site. I

1 arranged for the then director
2 Richard Shank to tour the site,
3 and it is exceptionally frustrating
4 that we are looking at May 2008, and
5 Mary and I talked, and Sheila, and
6 some of other staff. Some of them
7 do not even speak to me now, out of
8 Twinsburg.

9 I was the State
10 Representative at that time, but
11 the contractors, I have a series
12 of questions as well as Mr. Vodrey
13 does, I am a member of the
14 advisory counsel that he spoke of,
15 the cost will be borne by Ruetgers
16 Nease; is that true?

17 MS. LOGAN: We expect
18 Ruetgers will continue to work
19 with us under the legal process.
20 They have the option not to. We
21 expect they will do that.

22 MR. DOMALSKI: We have

23 spent \$20-million on the site,

24 \$20-million for the

25 investigation. We have been

1 pumping the water on a regular
2 basis. We have been inspecting it
3 every month.

4 We have been spending
5 every year \$300,000 only for
6 inspection and running the
7 treatment system. What I can say
8 is the process, as we went through
9 for the FS study, Mary came in
10 last year and pushed it. It is
11 very nice to see you coming
12 forward. I was pleased about
13 that.

14 And now we are in the stage
15 -- I think the proposal makes sense,
16 from my standpoint, and in September
17 probably we will have to work it
18 out. We can talk about how the
19 company is committed to fulfill
20 the obligations. That's all I can
21 say.

22 MR. LOGAN: Is there not a

23 consent decree, as well?

24 MR. DOMALSKI: The consent

25 decree is a contract between us and

1 the U.S. EPA.

2 MS. LOGAN: We have an
3 agreement, it is called a consent
4 agreement for Ruetgers to do
5 investigation and evaluation of
6 the cleanup options. It basically
7 takes them through where we are at
8 now. Once we pick the cleanup, we
9 will sit down and continue to have
10 a discussion of how they are going
11 to do their work.

12 We have a consent
13 agreement and the state is a party,
14 as well, the 3 parties. We have
15 all been working. We haven't
16 finished the Middle Fork, that
17 agreement will stay in place until
18 then.

19 MR. LOGAN: Under Option A,
20 \$7-million, is that based on your
21 cost that you have just cited,
22 \$300,000 a year?

23 MR. DOMALSKI: No, if you

24 make a calculation, it is not

25 -- you calculate for 10 or 20

1 years. This is part of the
2 thing.

3 MR. LOGAN: Was it based on
4 that?

5 MR. FINN: It is based on
6 continuing what is going on out
7 there.

8 MR. LOGAN: How many
9 years?

10 MR. FINN: What the EPA
11 does is you project costs out for
12 a total of 30 years, then the
13 formula the consultants use, they
14 convert that to net present value
15 way to compare on an equal basis,
16 different options, so that have
17 money to spend at different times.
18 The numbers that Mary was quoting
19 was net present value over 30
20 years.

21 MS. PASTOR: We have more in
22 the back. I want to give everybody a

23 chance.

24 MR. LOGAN: We do not want

25 to get wrapped up in the Superfund.

1 We don't want to rely on the public
2 side of the Superfund.

3 MS. LOGAN: We don't
4 either.

5 MR. LOGAN: Has Ruetgers
6 Nease proposed something similar to
7 this in the past?

8 MR. DOMALSKI: Not this
9 technology.

10 MR. LOGAN: What about the
11 stripping, stabilization and
12 solidification?

13 MR. DOMALSKI: I don't think
14 so.

15 MR. LOGAN: I thought they
16 proposed technology. There was
17 discussion about the stabilization
18 of the area. We have to drive out
19 the contaminants as much as we can
20 with stripping this, only
21 stabilization doesn't work.

22 MS. PASTOR: How about

23 somebody else who hasn't asked a

24 question?

25 MR. ROLOSON: Steve

1 Roloson, R-o-l-o-s-o-n.

2 Have you done any studies
3 on the rate that the groundwater
4 contamination? You are talking
5 about not doing those treatments
6 until 2008.

7 I guess it appears to me
8 that the groundwater is moving
9 down, and the rate is expanding as it
10 moves.

11 MS. LOGAN: Actually, in
12 terms -- yes is the answer to your
13 question.

14 In terms of the studies of
15 groundwater movement, there has
16 been a number of studies, I
17 think you heard, for a significant
18 number of years. What seems to be
19 happening is, as the contaminants
20 move from the wells to the east
21 towards the Middle Fork of Little
22 Beaver Creek, which is on this

23 right here, it appears to be
24 limited by River Valley in the
25 sense that the contaminants reach

1 there and probably there's just so
2 much other water that they become
3 diluted

4 We don't view that as a
5 positive outcome for the rest of
6 the site. In reality, there's
7 wells that are over here, and some
8 others where we have a feeling
9 of where the water is going into
10 Middle Fork, and it does not appear
11 to be doing that.

12 The other thing that time
13 analysis has shown is that as the
14 groundwater moves further away
15 from the site, it takes time to
16 get there. These contaminants are
17 older, essentially than the ones
18 closer to the pond. So what we are
19 seeing is that the contaminants are
20 breaking down by themselves.

21 Conditions in the
22 groundwater seem to be favorable to

23 having some of the contaminants
24 breakdown. So with the proposed
25 Option B, we think treating the

1 core of the contamination with the
2 nanoscale zero-valent iron is
3 going to jump start the whole
4 natural process going on down
5 here and we will continue in
6 terms of the concern about
7 discharge to the creek. We are not
8 seeing that.

9 MS. ABRAHAM: I can add that
10 we haven't seen VOCs in the -- we
11 haven't seen them in the sediment,
12 so that's another question related to
13 impervious cap placed over the
14 ponds.

15 MR. ROLOSON: Do you know if
16 that material that would be capped
17 off, are you inspecting that when you
18 remove that source of infiltration,
19 are you expecting those ponds to
20 de-water and for that material to
21 compact over time?

22 MR. FINN: Over time, yes,

23 there will be some continued
24 consolidation. These ponds, as
25 you know, have been there a long

1 time. They have already got a lot
2 of consolidation
3 I of the things that will
4 be a factor in the sign is actually
5 designing the covers so that the
6 water flows off and doesn't pond on
7 top of them.

8 MR. ROLOSON: That's 1
9 concern I would have, that it
10 would be adequately high to
11 compensate for any settling which
12 is expected, so you don't create a
13 pond.

14 I final quick question,
15 when the process starts, if it
16 starts in 2008, like you are
17 projecting, how long does that
18 process continue; is that multiple
19 years or just when you are doing the
20 iron reduction?

21 MS. LOGAN: I want to
22 clarify, you say the process

23 starts in 2008, that's the date I

24 put up there, because the

25 nanoscale zero-valent iron will

1 have to be tested in the field.

2 We would be doing work
3 before 2008. The people could come
4 visit, if they want to see. We can
5 arrange tours for the community,
6 whatever. We would also be doing
7 some testing. As I said, the
8 applications that we would use on
9 ponds 1 and 2, the work will be
10 going on before 2008. In terms of
11 once we get into the full scale
12 building, say depending on what
13 time of year we start building,
14 the pond area and cover should
15 take about a year.

16 The nanoscale zero-valent
17 iron, a lot of it depends on the
18 tests and feasibility studies
19 that compares. The option talks
20 about maybe injecting once every
21 three months for a couple of years,
22 and then see how effective that

23 is, and decide whether to continue

24 that or modify the process, or add

25 some other things into the

1 application at that point.

2 But groundwater cleanup
3 there, just not at the Nease site,
4 groundwater cleanup takes a long
5 time once the contamination is
6 there, so we would not wait for
7 the 2 years to be over.

8 I probably want to look
9 every three months at what our
10 system was doing, how well, it
11 was working, to try to optimize
12 the operation to do the best job
13 we could. I can't give you a time
14 frame.

15 MS. PASTOR: Yes.

16 MS. KREIE: Barbara Kreie,
17 K-r-e-i-e, Lisbon, interested
18 citizen, long time interested
19 citizen.

20 It is going to be a lot
21 longer -- I have several questions,
22 the \$19-million we read about in

23 the newspapers, would that all be
24 expended in that 1 pond and not go
25 beyond that particular area that

1 you showed us, because my
2 recollection is that it was found
3 in the creek, as far as the Ohio
4 River.

5 At 1 time we had many
6 studies, and if you want to have any
7 history of what is going on around
8 here, just ask some of us who
9 attended most of the hearings over
10 the years, there has been much
11 concern. Number 1, at that time
12 there were 9 cases of leukemia in
13 Lisbon, all connected with Nease. 1
14 time there was a front page story in
15 the Morning Journal that said there
16 were 3 carcinogens found in the
17 water from Nease.

18 It just seems to me that
19 it is so extensive, that it goes
20 from there and continues to the
21 Ohio River and effects everybody
22 along the way. When those signs

23 say do not swim, do not fish, when

24 they are taken away, somebody

25 should be notified and they

1 should immediately be put up again
2 so that strangers would not go
3 there.

4 You see a beautiful pond or
5 a river. Beaver Creek is beautiful,
6 going by you want you want to canoe
7 or throw in your fishing line and
8 enjoy it. There should be warnings
9 the entire length of it, until it is
10 cleaned up.

11 I have been attending so
12 many hearings over the years, I
13 came to a figure at the bottom of
14 that 2008. Quite frankly, tears
15 came to my eyes because, it cannot
16 go on forever.

17 Something has to be done.
18 If somebody is going to throw
19 \$19-million at 1 spot, they may
20 not have any leftover to take
21 care of the entire length of that
22 creek.

23 And it does go into the

24 Ohio River, let's face it.

25 MS. LOGAN: Every time I

1 hear about communities having
2 illnesses, it is a sad thing. I
3 think Sheila talked about the
4 facts. We will go back and see
5 if there is health assessments.
6 We think in terms of the current
7 exposure, people if they are eating
8 fish, may be at risk,

9 I guess we have to move
10 ahead and cleanup. I know it is
11 frustrating to say it is going to
12 be 2 or 3 more years. First of
13 all, if we are going to build
14 something, we need to build it
15 right.

16 We can't build something
17 without doing some very technical
18 engineering designs. I would say
19 that the time we are spending is
20 not time wasted. It is going to
21 move us in the cleanup in terms
22 of the creek itself. We actually

23 have a lot of information, as you
24 say, all the way down the creek,
25 and we need to get more.

1 But 1 of the things that
2 never makes sense is to cleanup a
3 water body before you cleanup the
4 source of contamination. You don't
5 want to pay money to clean something
6 up, then have something happen at
7 the site that washes more
8 contamination in.

9 We do not want to wait
10 until all of the cleanup is done
11 before we move to the Little Fork
12 of Beaver Creek. We want to move
13 ahead as soon as we can with the
14 cleanup proposal for the Middle Fork
15 of Little Beaver Creek.

16 As I said, you do not clean
17 it up until you cleanup the source of
18 contamination, in terms of making
19 sure the work gets done. You have
20 heard of commitments to work
21 cooperatively. It is intended to
22 have a proposal for cleaning up

23 that creek.

24 MS. KREIE: You said if

25 people want their wells tested,

1 all they have to do ask.

2 Let me tell about this,
3 there was a combined Ohio and
4 Department of Health meeting
5 along with the Ohio EPA here in
6 Salem, I attended that, some
7 people wanted their wells tested,
8 if they lived bordering the creek,
9 they wanted them tested. Later
10 on, they learned they have
11 already been tested, but not ours.

12 They said they were chosen
13 by computer. Is that the way this
14 is going to be done?

15 MS. LOGAN: The wells we
16 are talking about, I showed you
17 pictures from the air of the
18 groundwater contamination. What
19 we are looking at is the rest of
20 the people who live along State
21 Route 14, if they want their wells
22 retested.

23 We are not talking
24 anywhere along the creek or
25 anywhere in the town of Salem.

1 We are looking at these where
2 there is groundwater contamination
3 at the site, those wells were
4 tested, they are clean. We want
5 to continue to make sure they are
6 clean.

7 MS. ABRAHAM: Can I add to
8 that your concern is about mirex, it
9 binds strongly to sediment of the
10 soil. You would not normally expect
11 to find that in groundwater.

12 We have done a lot of the
13 historical testing along the
14 Middle Fork of Little Beaver
15 Creek, and there is no mirex in
16 that area.

17 There's no risk to people
18 living in the Middle Fork of
19 Little Beaver Creek area, not on
20 the site, not the area, but in
21 the Middle Fork of Little Beaver
22 Creek.

23 We haven't been able to
24 document contamination, that's
25 why we are limiting the testing in

1 the proximity.

2 MS. KREIE: \$19-million is
3 going to be assigned for this?

4 MS. LOGAN: That is for
5 the cleanup we are talking about
6 tonight. There is going to be more
7 money necessary.

8 MS. PASTOR: I want to let
9 the questions go until 8:00.

10 Remember they are going to put
11 us out by 8:30. I want to give
12 everybody a chance.

13 MS. KREIE: There is a
14 woman living in that area and at
15 this moment in time there is
16 trucks going in and out day and
17 night.

18 Could you tell me if that
19 cleanup has already begun?

20 MR. DOMALSKI: This is
21 the Crane-Deming building. They

22 shut down the operation at the

23 end of April. They had an

24 auction. They auctioned

25 everything off, all of the

1 equipment that they had in there,
2 and the buyers had 1 month to
3 remove all of the equipment.

4 There's trucks going right
5 now in and out, that's the reason
6 for it.

7 MS. PASTOR: How about
8 someone in the back who has not
9 asked a question yet?

10 MR. BOSLEY: Brad Bosley,
11 with Little River Scenic River
12 Advisory Council.

13 Has this technology been
14 tested before or is this like a
15 model?

16 MS. LOGAN: Nanoscale zero-
17 valent iron or stripping,
18 stabilization and solidification,
19 or both?

20 MR. BOSLEY: Is this all
21 innovative technology?

22 MS. LOGAN: I will give a

- 23 brief answer, then Steve can.
- 24 Treatment ponds 1 and 2, stripping,
- 25 stabilization and solidification,

1 those techniques have been used
2 very often at different sites.
3 What is a little different here is
4 the sequence that we will use them
5 in.

6 At another site that I
7 know of currently, they did
8 pilot studies and that currently is
9 being set to go into full scale,
10 designed to go into full scale in
11 terms of nanoscale zero-valent
12 iron.

13 I heard news that is
14 pretty cutting edge, there is a
15 number of sites where studies have
16 been done, I ask Steve to talk
17 about that. He is familiar with
18 that.

19 MR. BOSLEY: Another
20 question, the sequence in doing
21 this, would you put the wells in
22 the first and monitor, see if

23 anything is tracking into the

24 wells?

25 MS. LOGAN: We have a

1 bunch of wells already in place
2 that we will continue to use. I
3 talked about pre-design
4 investigation. We are going to
5 figure out what additional
6 monitoring we need to get a
7 baseline before we do anything.

8 MR. FINN: That is
9 relatively new. It was first
10 developed in a number of
11 universities. Probably the most
12 prolific in research in this
13 area was Lehigh University,
14 Pennsylvania. They did the most
15 extensive research, and close to
16 10 years ago.

17 Now, the first testing of
18 it was started around about that
19 time, about the last 3 or 4 years.
20 This has got out of the
21 laboratory and into the field, to
22 my knowledge. I don't know, there

23 are at least 10 field scale
24 studies that have either been
25 finished, or our currently in

1 progress.

2 There is also 1 site
3 where the pilot testing has all
4 been finished, and the design is
5 moving forward to go into full
6 scale implementation. This would
7 not be the first, by any means.
8 There is a lot of other sites, at
9 least 10 that I am aware of, further
10 along.

11 All that is learned from
12 those will get factored into
13 utilizing the technologies here.

14 MS. PASTOR: I am not
15 being mean, but we have a public
16 comment portion of the meeting.
17 We want to make sure we have time
18 to get the comments, we are hear
19 until 8:30.

20 MS. MAHONEY: Mary Ellen
21 Smith-Mahoney, Community General

22 Health District.

23 There is a low density
24 polyethylene liner with a
25 re-compacted soil barrier.

1 MR. FINN: That was a very
2 technical question. The polyethylene
3 part you probably all got. There is
4 different types of polyethylene used
5 for impermeable covers, 1 is the low
6 density.

7 There is also a high density,
8 also another one of light or low
9 density.

10 There will be a design
11 decision made there. A lot of
12 designs were reviewed, and with
13 the re-compacted surface water
14 management system you indicated,
15 there would be no contamination to
16 feed our creek, therefore no
17 increased contamination to
18 Middle Fork of Little Beaver
19 Creek.

20 Also to clarify, there's
21 no discharge from the shallow
22 surface water into the Middle Fork

23 of Little Beaver Creek.

24 MS. MAHONEY: If you

25 slow the groundwater table in the

1 middle or upper levels of pond 1
2 and 2, is there going to be some
3 kind of upgrading slurry wall to
4 lower that while you do the
5 stabilization, which I assume is like
6 cement?

7 MS. LOGAN: We did not
8 have an updated slurry wall.
9 Before the groundwater flows
10 through, during the treatment
11 process, the technical engineering
12 design has not been dealt with.

13 I wanted to make sure
14 that I clarify 1 point. I did
15 say there is no discharge of
16 groundwater of Middle Fork of
17 Little Beaver Creek. There is
18 discharge that does get into
19 Feeder Creek.

20 There is data that these
21 guys can talk about.

22 MR. FINN: There is a

23 small amount of discharge in the
24 shallow groundwater that flooded
25 Feeder Creek. That will be part

1 of the storm water management
2 plan.

3 MS. LOGAN: Contaminants
4 that are flowing into Feeder Creek
5 are the volatile organic
6 contaminants, not mirex. When
7 they get into water body, they
8 evaporate. It is not a storm
9 water management plant. It is part
10 of the groundwater cleanup
11 objectives.

12 MS. ABRAHAM: We are
13 monitoring everything that is
14 coming off of the site.

15 MR. DOMALSKI: For the
16 Feeder Creek drainage ditches, we
17 have a sediment barrier. Mirex
18 is attached to sediment and not
19 water. Any sediment that goes
20 off-site which may have mirex on
21 it, we do it every month, inspect
22 it.

23 We have probably 10 or 15
24 sediment barriers, then if you see
25 any damage on it, you move the

1 sediment.

2 MS. KREIE: I have a
3 comment, and this goes back to
4 mirex. If you are eating the
5 fish, drinking milk from the farms,
6 I can tell you that mirex passes
7 through breast milk. It passes
8 through the placenta and it
9 focuses on the brain, kidney and
10 liver. Mirex passes through sperm
11 and into the children.

12 I graduated from Salem High
13 School, and 6 of the kids I
14 graduated with are dead of a brain
15 tumor. Are you telling me that it is
16 a coincidence?

17 I can list 21 people in
18 the Town of Salem, some with brain
19 tumors, kids in school with
20 Leukemia. I am not pointing
21 fingers, but there is something
22 going on in Columbiana County, MS,

- 23 brain cancer, kidney and
- 24 reproductive issues, heavy
- 25 miscarriage levels.

1 There is a lot of these.
2 Whether it is Nease or whether it
3 is not Nease, I really hope and
4 pray somebody at ODH, CDC gives us
5 attention. These are high.

6 I have done research work
7 on a Master's in Public Health.
8 I have done a lot of research in
9 this. Many of my friends are
10 dead. I don't go to class
11 re-unions in Salem, I go to
12 funerals.

13 MS. PASTOR: It really
14 wasn't a question. We can make this
15 the first comment. We have a few
16 minutes before 8:30. We are going to
17 take comments. So, for the record,
18 could you state your full name?

19 MS. GRISCHOW: Mary Kate
20 Grischow, G-r-i-s-c-h-o-w.

21 MS. PASTOR: With the
22 comments we don't respond

23 verbally. Mary will go back and
24 look at the comments, and those
25 include the ones we are getting in

1 writing, E-mail and every other way

2 we them in.

3 Mary and Sheila will look

4 at those comments and respond, that

5 way that will be attached to that

6 record of decision document that

7 they talked about, that will

8 outline the ultimate cleanup

9 plan.

10 Remember, this is a

11 proposal. We want feedback and

12 comments. It is not cast in

13 stone. You can make a comment or

14 give a thought or an opinion, as

15 opposed to a question at this

16 point. Then if we have a few

17 minutes, we will go back to

18 questions.

19 The gentleman in white, your

20 comment, please?

21 Your name again?

22 MR. VODREY: Jackman Vodrey,

23 V-o-d-r-e-y.

24 I neglected to mention

25 earlier, I live on Little Beaver

1 Creek and I am on the Little
2 Beaver Creek Wildlife and Scenic
3 Rivers Advisory Council setup to
4 advise the directors of OD&R on
5 the issues facing Little Beaver
6 Creek.

7 On June 2nd, Ryan Gillis
8 wrote an article, and I suggest
9 that that news story should be
10 made part of the official record.

11 Since Mary is not allowed to
12 comment, she can decide whether the
13 quotes are accurate.

14 I know sometimes the
15 quotes are not super accurate. I
16 ask that that be made part of the
17 record.

18 It is a good article.

19 MR. CANNELL: John Cannell,
20 C-a-n-n-e-l-l.

21 Maybe some of you might
22 know his name, Philip W. Stevenson

23 inspected that creek for ten
24 years. Each time the government
25 told him to do more research

1 because he was wrong. For ten years
2 he told them they were killing
3 people. That man is dead now. He
4 died of leukemia. I have this
5 paper.

6 MS. PASTOR: Any other
7 comments?

8 MR. COPLEY: Gary Copley,
9 C-o-p-l-e-y.

10 When you are using these
11 methods, we get 6 inches of rain in
12 an hour --

13 MS. PASTOR: Now we are
14 taking comments. We can come back
15 to questions. I want to let
16 everybody speak their piece in the
17 comment portion.

18 Ma'am.

19 MR. COPLEY: Barbara
20 Kreie, K-r-e-i-e.

21 I just have a little story

22 to tell. Before Nease Chemical

23 came to Salem, Salem was promised

24 with the pharmaceutical company

25 that they were going to build a

1 large plaque for Salem. And I
2 think it goes along with, if it
3 sounds too good to be true, don't
4 go for it.

5 Anyway, that was before
6 Ruetgers Nease. I believe it was
7 Nease alone that did that, but I
8 just can't believe this was done to
9 a community, and it keeps being
10 delayed. I find no excuse
11 whatsoever for the delay. The
12 original Superfund began with 3
13 billion dollars and Nease Chemical
14 at that time was listed at the
15 top as the worse in the entire
16 nation.

17 It seems to me if they were
18 going to do something about it, that
19 some of the 3 billion dollars should
20 have come at that point in time to
21 cleanup Nease.

22 MS. PASTOR: Thank you.

23 MR. LOGAN: For the record.

24 Sean, S-e-a-n, Logan, L-o-g-a-n

25 Columbiana County Commissioner.

1 I am not a grandstander. I am very
2 passionate about this issue, I have
3 been dealing with it intimately for
4 15 years as an elected official. It
5 is frustrating to address the
6 concerns that Mr. Cannell and
7 others have. We have had many
8 meetings, both State and Federal,
9 as well as at Ruetgers, and 1983 is
10 the year this was designated a
11 Superfund site.

12 I am truly appreciative
13 of everybody's effort, time and
14 money that has gone into it, but
15 please be vigilant and understand
16 that we waited long enough. I am
17 pleased we are at this point, so
18 it is not a technical comment, but
19 certainly I hope that you
20 understand the purpose of the
21 comment and the frustration that it
22 comes from.

23 MS. PASTOR: Thank you.

24 Another comment?

25 MR. ROLOSON: Steve Roloson,

1 R-o-l-o-s-o-n.

2 Like Jackman Vodrey
3 mentioned, we have a 10 member
4 assistance advisory. I have been
5 with OD&R 27 years, and for 25 of
6 those years over in the Little
7 Beaver Creek area. We have had
8 this for many years now on our
9 agenda. We have been discussing
10 this, and I just wanted to go on
11 record, letting you know that the
12 Ohio Department of Natural
13 Resources will be submitting
14 written comments based on the
15 feedback we receive from the local
16 community.

17 MS. PASTOR: Okay.

18 MS. PATTERSON: Mary
19 Patterson, local resident.

20 Having lived on the
21 property now at my age, I would
22 like to suggest that I would be

23 a primary candidate for looking
24 into health matters and issues
25 that could possibly effect myself,

1 my husband, and I have a son who was
2 born at the time that we were
3 occupying that residence.

4 MS. PASTOR: Thank you.

5 MS. KREIE: We have
6 suffered a lot of storm erosion.
7 You said you are not going to work
8 on Beaver Creek. By the time you get
9 to it, it is going to be very
10 eroded.

11 MS. PASTOR: Any more
12 comments?

13 MS. KREIE: Barbara Kreie.
14 Not too recently the double storm
15 that we got from Florida in August
16 and September -- double, triple, I
17 never wanted to live in Florida.

18 We have a little tiny
19 stream besides our house, a little
20 thing that dries up and you cannot
21 see it in the summertime. It is
22 now the Grand Canyon.

23 This is a comment in the way
24 of a question. When I looked out at
25 my creek in the morning, it was about

1 15 feet wider, 10 feet lower. It
2 looks like the Grand Canyon. My
3 question and comment here is, if
4 I that happened to just one of the
5 feeder streams of Little Beaver,
6 could the whole bed of that creek be
7 changed?

8 MS. PASTOR: Thank you. Any
9 other comments? We have a few
10 minutes. We can come back to the
11 questions.

12 MR. HAVERSTADT: David
13 Haverstadt, and just for the record,
14 I was the County Commissioner in
15 1983 when this was declared a
16 Superfund. I am still waiting for
17 something to be done. I serve on
18 the Rivers Committee. It is
19 frustrating to see it on our
20 addenda year after year.

21 You are talking a lot of
22 money, but nothing has been done.

23 Thank you.

24 MS. PASTOR: Thank you.

25 Another comment, going once,

1 twice.

2 We will, for the record,
3 close the comment portion of
4 the meeting.

5 You can continue to send
6 those comments through the end of
7 the month via E-mail, fax, paper
8 mail.

9 All of the information on
10 how to do that is in that
11 newsletter piece you picked up.

12 We can take a couple of more
13 questions.

14 Yes, sir.

15 MR. LOGAN: Can we go back
16 to the last couple slides, maybe
17 I am being too specific. I can
18 ask the Ohio EPA, the U.S. EPA,
19 maybe Ruetgers Nease, what you
20 would like to accomplish within the
21 next week or month and/or do you

22 have any other tables broken out in

23 these next step slides. I think

24 there are 2 slides.

25 MS. LOGAN: Yes, there are

1 2 slides.

2 MR. LOGAN: I am looking for
3 firm dates and commitments.

4 MS. LOGAN: We talked on the
5 phone. I feel your frustration. I
6 can't say anything to it other than
7 let's get the site cleaned up. I
8 think it is, in terms of the next
9 step, we have a mandatory period
10 where we have to take public
11 comments until the end of the
12 month.

13 We will be taking public
14 comments. We will start writing
15 the final decision after that.
16 Somebody might write in and say
17 we hate what you are proposing.
18 We have to think about everything
19 here, then we do the decision
20 document we have been talking about
21 that.

22 We need time to come out to

23 the site, do some of this pre-design

24 investigation, walking around

25 together, talking about what

1 specifically we need to do. We
2 are trying to save time. I of
3 the things that occurred to me,
4 if you would like me to come to
5 any of your meetings to talk more
6 specifically about what we know
7 about the creek, what we suspect,
8 what we need to do, I would be
9 happy to do that, meet with you
10 guys.

11 A VOICE: Your comment
12 about the concern about erosion
13 during the major storms, I moved here
14 from New Jersey, and the first thing
15 I read about Salem, Salem is
16 flooding.

17 We need to know what --

18 MS. PASTOR: It is hard for
19 the court reporter to hear with the
20 extra conversations going on.

21 MR. LOGAN: Do you think

22 you will be doing any of these while

23 you are waiting on the comments

24 period to run, or just --

25 MS. LOGAN: We are not

1 going to get to these in the next
2 few weeks. We hope to be planning
3 the work later in the summer.

4 MR. LOGAN: At what point do
5 you present it to Ruetgers?

6 MR. DOMALSKI: It depends on
7 how fast she works.

8 MS. LOGAN: We have to go
9 through and make the final document,
10 and after that is published -- as I
11 know her, she's working already now
12 on this, and sometime in September
13 we will get a document with a
14 consent decree.

15 MR. LOGAN: Your, Ruetgers
16 Nease comments will be on the public
17 record as well?

18 MS. PASTOR: What is being
19 said today, a transcript is being
20 taken.

21 MR. DOMALSKI: During the
22 negotiations and the consent

23 decree, we will start to prepare

24 the work.

25 MS. LOGAN: We are going

1 to try to do as much work as we
2 can that is legal before we have
3 the legal agreement. We are going
4 to be creative in how we approach
5 this. There may be a way that we
6 can move it along faster.

7 MR. LOGAN: It depends on how
8 fast you work.

9 MR. DOMALSKI: I have no
10 problem with that.

11 MS. ABRAHAM: We are far
12 along, I think.

13 MS. KREIE: Will there be a
14 meeting like this?

15 MS. PASTOR: It can
16 probably be put on the website
17 and the hard copy will get sent
18 here. There will a hard copy here
19 at the library, work plans, consent
20 decree, and any other legal documents
21 will all about here.

22 MS. KREIE: Will that be

23 announced in the paper?

24 MS. PASTOR: It can be. It

25 is not a secret.

1 MS. ABRAHAM: Do you want the
2 actual physical document in the
3 library or would you like the CD, the
4 electronic version?

5 MR. LOGAN: If you could send
6 her a hard copy, that would be
7 appreciated.

8 MR. VODREY: Were there any
9 material errors in the June 8th
10 Morning Journal article, that you can
11 recall?

12 MS. LOGAN: I read that
13 article. I can't recall the
14 article. We had about 5 or 6
15 media coverages. I did read that
16 1.

17 I will have to look at it.
18 I will take look at it and find
19 out.

20 MS. PASTOR: I have a copy.
21 I have it with me, I think.

22 MS. LOGAN: You have it with

23 you?

24 MS. PASTOR: Yes. Okay.

25 Anything else before wrap up?

1 MS. MAHONEY: I want to
2 clarify that the consent agreement
3 that is in place, when you make the
4 consent order, I think you called
5 it, to start this cleanup, when the
6 pre-design, when the actual design
7 is picked, will it allow you to
8 start the plan to cleanup the
9 Middle Fork of Little Beaver
10 Creek?

11 MS. PASTOR: I am not
12 sure.

13 MS. LOGAN: We often
14 carve out the sites into
15 pieces. Doing that doesn't
16 prevent you from working on
17 another piece of the site. At
18 the same time we will be
19 continuing work on the plant site
20 cleanup, as well as whatever work
21 we need to do in the Little Fork
22 of Little Beaver Creek to get to the

23 proposal for cleanup.

24 MS. PASTOR: Anything

25 else before we wrap up? You are

1 going to talk to Sheila about some
2 sign postings.

3 Don't forget, you can make
4 comments through June 30th in a
5 variety of fashions. It is outlined
6 in the written piece. Any other
7 questions; if you read any of the
8 other documents, and a thought
9 hits you and you want to call us,
10 shoot us an E-mail, we have such a
11 short period of time, I don't want
12 to sound nasty, but I still want
13 to get in all of the comments and
14 questions.

15 Thanks for bearing with us
16 and holding yours questions until
17 the end. I guess that's about
18 it.

19 Thank you. See us, if you
20 need to on your way out.

21 MS. LOGAN: I thank everybody

22 for coming out.

23 Thank you for coming out
24 tonight and sharing your thoughts
25 with us.

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3 (Hearing concluded.)

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

2 I, Robert A. Cangemi, Court Reporter in
3 and for the State of Ohio, do hereby certify
4 that the above and foregoing is a true and
5 accurate transcript of the proceedings
6 herein.

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Robert A. Cangemi,
Court Reporter

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