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Southern Reporting, Inc.

Transcript of the
DHEC Public Meeting

February 5, 2008

In Re:
EFP Products State Superfund Site

COPY

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The original sealed transcript filed in Pat Vincent's office.

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APPEARANCES

DHEC-BL&WM:

Ms. Angie R. Jones

Mr. R. Gary Stewart

Ms. Pat Vincent

Mr. Konstantine Akhvlediani

DHEC-Region 3:

Steve Moseley

Paul Edinger

TRC:

Jean Oliva

Robert Smith

SPX:

Dan McGrade

Enviro-Pro:

Tom Bolyard

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1 And I am the one who goofed and put Thursday,
2 February the 5th. I'll go ahead and acknowledge
3 that; I apologize. We had several changes on those
4 schedules and with the holiday season, it was a
5 little hard trying to find everybody available, so
6 I apologize that that did occur.

7 I wanted to also let you know that we
8 publicized this meeting today in the Sunday paper
9 as -- and that was in "The Herald" as well as in
10 today's publication of "The Herald."

11 I also have -- with me today is Angie Jones.
12 Angie is our project manager. She's also the
13 spokesperson for the site, and she's reviewed all
14 the documents that are -- have been developed for
15 this site, and she will be presenting the
16 presentation in a few minutes to you.

17 I also have Gary Stewart. Mr. Stewart is with
18 -- the manager of the State Remediation Section, so
19 he is the supervisor of Angie and I. We also have
20 Konstantine Aquavediani -- Ahkviediani. Excuse me.

21 MR. AHKVIEDIANI: That's right --

22 MS. VINCENT: Yes.

23 MR. AHKVIEDIANI: -- so --

24 MS. VINCENT: He is with the -- he's a hydrologist, and
25 he's with the -- the department's hydrogeology

1 department. And so one of the things that he will
2 -- his concentration is, is with the groundwater
3 issues. And we also have some regional folks with
4 us today. Steve Moseley is here. Would you stand?
5 Thank you. And Paul Edinger. They are -- they
6 work out of the Lancaster office, but they also
7 serve you in this community.

8 There are some things I'd like to go over
9 before we get started. I want to make sure we
10 cover everything. We do have a sign-in sheet.
11 We're asking everybody to sign in today. One of
12 the things that that helps us with is providing
13 notice to you in the future, and if you ever want
14 your name to be removed from the mailing list, you
15 can always contact us. The sign-in sheet -- we ask
16 you, of course, to write legibly so that I can read
17 that later on. And this -- the sign-in sheet will
18 be placed in the bureau's file that's located in
19 Columbia.

20 Secondly, the department has also established
21 an administrative record for this site. The
22 administrative record is a -- a group of documents
23 that the department has relied on in making its
24 decisions -- the technical decisions regarding the
25 site. And we have that stored at the York County

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1 Public Library, and that's at 21 -- (clears throat)
2 excuse me -- 21 East Liberty Street. And so you
3 can go and look at -- there. It's not the
4 department's full file on this site, but it does
5 give you the documents that we relied on in making
6 decisions.

7 We also -- you can come down to the -- the
8 department's office and review any of our files
9 there with a -- a Freedom-of-Information request,
10 and we'll make those files available to you as
11 well.

12 There is also a gentleman that I probably
13 should introduce to you. Steve Tackett is here
14 with the mouthpiece on his mouth. He is actually
15 our court reporter for tonight. He will be
16 transcribing the meeting word for word so that we
17 can be sure to recollect all the questions and
18 comments that you may have that may be presented to
19 us later. And we do have microphones that will be
20 coming around to make sure we -- we've captured all
21 your questions and comments.

22 I think Ms. Jones will be here to provide you
23 with some background information regarding the site
24 and provide you some investigative results as well
25 as providing a -- a summation of the alternatives

1 that the department looked at in trying to decide
2 how to clean up the soil and groundwater at the
3 site.

4 You, as the public, and -- are allowed the
5 opportunity to provide us written comments
6 regarding the site and those comments have to be to
7 us by March the 7th. And you can send those to --
8 to myself, Pat Vincent. I am on a fact sheet here,
9 and I also have my business card here if you didn't
10 get a fact sheet in the mail. Next I will let
11 Ms. Jones take over.

12 MS. JONES: Thanks, Pat. First, I want to thank
13 everyone from the community for showing up tonight.
14 I -- I really appreciate this. As Pat said, I will
15 give a brief history of the site and talk about the
16 investigations and, really, what led us to come
17 here tonight and ask for your input on the remedy
18 of this cleanup. So I'll talk about the
19 investigations; I'll give you a description of each
20 cleanup alternative; and then I'll also present to
21 you the one that the department has preferred.
22 It's our proposed remedy that you would've received
23 in your fact sheet.

24 And then I'll open up the floor to comments
25 and questions, so if we could hold the questions

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1 until the end, I think my presentation may take
2 about 15 to 20 minutes, unless I speak faster than
3 I think.

4 In the early '50s, a company called "Metals
5 Protection Company" operated a plating business at
6 the site. Steel plates were rinsed through various
7 methods after they were dipped into chromic acid
8 baths. When these plates were drained, they were
9 drained by various methods. One was into a rock
10 field sump, which was built over an abandoned well.
11 That well was about 50 foot deep. We consider this
12 to be our main source area for the groundwater
13 contamination at the site. Some rinse water was
14 also pumped into a settling basin, and these early
15 rinsing methods did not remove all the chromium
16 from these plates, so it -- it's in the
17 groundwater. It -- its -- has percolated into the
18 groundwater.

19 Then throughout the '60s, '70s, and '80s, the
20 ownership transferred numerous times, finally to
21 EFP Products, which is the name that's still in
22 front of the building at the site. In 1990 there
23 was a merger; SPX Corporation assumed all the
24 liabilities of a previous owner, so SPX is the
25 responsible party for performing the remedy at the

1 site.

2 Then in 1991 DHEC began discussions with both
3 EFP, who was operating at the site, as well as SPX
4 about the chromium contamination on the property.
5 Several reports were developed, and in 1994 a
6 groundwater report was submitted to DHEC which
7 really showed us how much contamination was on the
8 property.

9 That following year in 1995, we entered into a
10 consent agreement with SPX. Through this consent
11 agreement, SPX is required to perform a remedial
12 investigation to determine the nature, the source,
13 the extent of any contamination on the property.
14 They're also required to conduct a feasibility
15 study, which is the phase we're at now. The
16 feasibility study evaluates options for cleanup
17 after the site has been determined to be fully
18 investigated.

19 So that's what we're here tonight to talk
20 about: a summary of that feasibility study and the
21 options that were presented for the remedy. So let
22 me first start out by giving you some -- some
23 history of the investigations at the site.

24 Numerous monitoring wells were installed; I
25 believe there are close to 30 on the site. These

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1 wells are sampled, some quarterly, some annually.
2 There are also five residential wells that have
3 been sampled since 1997. I do believe we're only
4 sampling four of those wells now. One is no longer
5 in operation.

6 There were some surveys, geophysical surveys,
7 to identify some bedrock fractures, because we do
8 have groundwater contamination in the bedrock. We
9 investigated various areas on the property that we
10 thought may be potential sources: A sludge
11 disposal trench, some plating areas, there was an
12 old lagoon on the property. I believe our next
13 slide will show a map of these locations.

14 This is Campbell Road at the top here, so the
15 entrance to the facility -- you know, you come down
16 the driveway right here. There's an old plating
17 bath, and that 50-foot disposal well is on this
18 part of the property. Here's our lagoon location;
19 here's a sludge disposal trench. These were
20 various areas through historical sampling and
21 investigation that -- that were investigated
22 through the '90s.

23 So after installing these wells, collecting
24 these soil samples, performing these tests, what
25 did we find? We found that both the soil and the

1 groundwater was contaminated with chromium on this
2 facility, and the groundwater, both shallow and
3 deep, is contaminated with chromium.

4 So now, after the department has the data, we
5 need to decide what to do with the information we
6 have. So if we know the soil is contaminated, how
7 bad is it? So we have evaluation standards that we
8 look at, so I'm going to separate this presentation
9 into two topics. One, the soil -- and we'll talk
10 about the soil first, and then we'll talk about the
11 groundwater.

12 So the soil cleanup standard -- EPA has set
13 two limits for what they consider to be goals and
14 levels for direct contact or ingestion. For an
15 industrial area, that limit is 64 milligrams per
16 kilogram. For a residential area, that number is
17 30 milligrams per kilogram. So this is an
18 industrial site, so we're going with the industrial
19 number at 64 milligrams per kilogram.

20 Okay. So now that we know what our number is
21 -- our standards, our 64 and our 30 -- I can tell
22 you that from all the samples collected around that
23 site, samples outside the footprint of the building
24 range from 0 -- non-detect -- to 55 milligrams per
25 kilogram.

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1 So that 55 is above a residential number, but
2 it's below the industrial number. Now, beneath the
3 building where the plating baths were, the numbers
4 greatly exceed the residential and industrial
5 numbers, so we have exceedances under the building
6 very high above industrial standards.

7 And the next slide shows the area from my
8 first map. Campbell Road is up here and you pull
9 into the facility. This is the -- the area of the
10 plating bath, and we -- these are the sample
11 locations. And it may be hard to see, but these
12 numbers indicate the concentrations of the chromium
13 that were collected from this around the -- the
14 former plating bath area.

15 So we do know exactly where the soil
16 contamination is underneath the building. So once
17 we know what limits we've exceeded and we know
18 where we have exceeded those limits, the department
19 has specific goals. We want to prevent any
20 exposure to chromium exceeding that industrial
21 number; we also want to prevent that chromium from
22 migrating from those impacted soils and creating a
23 larger area of contamination.

24 So the document that DHEC reviewed, the
25 feasibility study, gave us three alternatives for

1 soil remediation, and I will explain each of these
2 three. The first one is no action. We are
3 required by the National Contingency Plan -- it's
4 just a regulation that we have to compare the other
5 alternatives to a no-action so you have a baseline.
6 This would be no active remediation, no deed
7 restrictions on the property and, of course, there
8 is no cost associated with this alternative either.

9 The second alternative that was evaluated was
10 basically no active remediation but deed
11 restrictions to be placed on the property. These
12 deed restrictions would ensure that the building --
13 the integrity of the floor was maintained. It
14 would also prevent the portion of the facility
15 being converted into a residential development. So
16 it can only be zoned industrial. The estimated
17 present worth cost for this alternative is
18 \$150,000. Now, that cost is made up by the legal
19 fees associated with placing the restriction -- the
20 deed restriction on the property, as well as
21 maintaining the -- the integrity of that floor and
22 -- and the roof over that area of the building
23 where the soil contamination was.

24 The third alternative is the most costly:
25 800,000 to about \$1.5 million. This is excavation

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1 and off-site disposal. Basically, we would come in
2 and remove the concrete floor; remove those areas
3 of contaminated soil beneath that floor. We would
4 have to characterize those soils to see how they
5 would need to be disposed, and they would be
6 disposed of off-site at a -- at a proper facility.
7 We'd bring clean backfill in and replace the floor.
8 Now, if these soils -- if the contamination levels
9 were too high in these soils, they may need to be
10 stabilized if leachability was a concern. So that
11 -- that drives up some of the cost. Deed
12 restrictions would also be placed on the property
13 with this alternative. Once again, for
14 nonresidential development and maintaining the
15 floor over that area where the soils were removed,
16 but we would still need to maintain the integrity
17 of that floor.

18 So those were our three descriptions of our --
19 I'm sorry -- the three alternatives described. So
20 the department uses some evaluation criteria in
21 order to help us determine which of those three
22 alternatives would be the best one to select.
23 First of all, I have to make sure that each
24 alternative protects human health and the
25 environment and complies with state regulations --

1 state and federal regulations. Then I also look at
2 long-term effectiveness, reduction of toxicity,
3 short-term effectiveness, implementability, and
4 cost. I have to look at those and compare each
5 alternative against these criteria.

6 And the last evaluation criteria is community
7 acceptance. That's why we're here tonight to get
8 your input. If you have some concerns about the
9 remedy that DHEC has selected/proposed, then we
10 would like to hear your input, and that will help
11 us decide what our remedy would be.

12 So I took each alternative -- the first one
13 was no action. And this does not meet any
14 evaluation criteria that I just showed on that --
15 on that list. It is not protective of human health
16 and the environment; it does not prohibit that
17 material from moving; so we did not like this
18 alternative.

19 The second alternative was the alternative
20 where we just placed deed restrictions on the
21 property. If we can maintain the integrity of that
22 floor, and if we can keep precipitation from
23 hitting that soil and causing soil contamination to
24 migrate, this is very effective in the long term.

25 It also -- the deed restriction also prohibits

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1 any residential development on the property, so
2 that's protective over the long term. It's easily
3 implemented. You just go to the courthouse, place
4 a deed restriction on the property. And there are
5 no short-term risks. You don't have to come into
6 contact with the soil and the -- the workers who
7 are out there would not have any risk associated
8 with that.

9 The third alternative was the removal and
10 off-site disposal alternative. If you remove the
11 soil, you have greatly reduced your mobility of the
12 -- the soil contamination. It -- it can't go
13 anywhere if it's already been removed. The
14 restrictions are also effective long-term. One
15 thing that is a drawback to this alternative -- the
16 excavation activities may be limited due to the
17 presence of the building. First of all, you have
18 to remove the concrete floor, and I'm not sure how
19 thick it is, but it's -- it's -- it's substantial.
20 Also the height of the building and any -- any
21 shoring activities due to having to excavate this
22 property would be greatly limited by having that
23 building in place. So I'd -- I'd hate to tear down
24 that building and remove that flooring if it was
25 unnecessary.

1 And the other short-term risks associated with
2 the building is, once again, working in the tight
3 area inside that building with the large equipment
4 and then also managing the contaminated soil once
5 it's removed. So there are some risks to the
6 workers that would be performing this work.

7 Okay. The alternative that DHEC prefers is
8 No. 2, no action. Basically, no active removal,
9 but deed restrictions placed on the property. It
10 prevents any future exposures to the soil; it
11 prohibits the leaching of these soils into the
12 groundwater; and it's very cost-effective. So that
13 is the alternative that DHEC would like to
14 implement for the soils.

15 Now, I'd like to switch gears and discuss the
16 alternatives presented for the groundwater. We
17 know the groundwater's contaminated and the limit
18 that I must remediate that groundwater to is a
19 number established by the EPA, and DHEC has maximum
20 contaminate levels. Now, that level that is a safe
21 drinking water level is 0.1 milligrams per liter,
22 and I'll show you some other numbers here in a
23 minute so you can see how that compares to the
24 actual contamination on the property.

25 Chromium has exceeded that regulatory level,

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1 .1 milligrams per liter in both shallow,
2 intermediate, and deep bedrock wells on-site. The
3 nearby residential wells that we have sampled have
4 never showed any site-related contamination, and
5 they have been sampled since 1997. They are
6 sampled quarterly.

7 This first map shows the shallow -- what we
8 call "saprolite" -- shallow groundwater
9 contamination. This area is also the area where
10 our soil contamination was. The old disposal well,
11 the old plating baths are located in this area.

12 Okay. The next slide -- this slide shows the
13 bedrock contamination -- the deeper contamination.
14 Once again, here's -- here's Campbell. So it's a
15 little bit larger area of contamination in the
16 bedrock, and then we have an area over here of
17 deeper bedrock contamination near this former
18 lagoon.

19 But you can also see -- I think one of the
20 reasons why a lot of people showed up was because
21 of where they live and they're concerned about
22 groundwater potentially impacting their drinking
23 water wells since you're not on city water out
24 here. What I can tell you from this is that those
25 of you that are living, you know, half a mile or a

1 mile away are not in any harm.

2 From this map, I can show you that I know
3 where the contamination is, if -- it's right here
4 on the property. Now, granted, this figure right
5 here, I do know that my contamination has been
6 detected in this well right on the property line,
7 but I also have a boundary well over here. It's
8 located off the property, but it has not shown
9 contamination, so I know that the contamination has
10 not migrated past this area. Groundwater flow in
11 this area does flow toward the southeast, and I
12 believe the neighborhoods here tonight are located,
13 I guess, northwest of this property. So I do
14 understand your concerns, and I just -- I wanted to
15 go ahead and clarify that. We know exactly where
16 the groundwater contamination is on this property.

17 So just as we set our goals for the soil, we
18 also set our goals for the groundwater. We want to
19 restore that groundwater, because it is a drinking
20 water source of the state. So we want to restore
21 the groundwater to that .1 milligram per liter,
22 making it safe. While that's being remediated, we
23 want to prevent any exposures to that groundwater
24 where it exceeds that .1 level. We also want to
25 limit any migration of the chromium-contaminated

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1 groundwater any farther than it's migrated already.

2 So in order to meet these goals, we have four
3 -- let me clarify that -- we have five alternatives
4 for groundwater remediation. The first one, just
5 like for the soils, is no action. We are required
6 to consider this just as a baseline for comparison
7 with our other alternatives. There would be no
8 active groundwater monitoring. Right now, I said,
9 we're doing some quarterly and some annually, but
10 with this option there would be no monitoring.
11 There would be no deed restrictions placed on the
12 property, no protections for contamination
13 migrating any farther, getting to nearby
14 residential wells. One good thing is there's no
15 cost.

16 The second alternative is extraction,
17 treatment, discharge -- basically, pumping the
18 groundwater out of the ground. There would be some
19 studies to determine our best system design. Then
20 we would pump the groundwater out of the ground.
21 We would treat it on-site. We would continue
22 monitoring the wells to make sure that our pumping
23 was effective; we would place restrictions on the
24 property, because this would not occur quickly,
25 with this pumping activity; we would have to get a

1 sewer line run to the property, because once this
2 water has been treated, it will be discharged to
3 the -- the sewer and eventually to the POTW. The
4 estimated present worth value of this alternative
5 is \$7.7 million.

6 The third alternative incorporates a little
7 bit of the second alternative I mentioned:
8 pumping. We would remove the groundwater in the
9 source area where I mentioned the plating baths and
10 the disposal well were located under the building.
11 We would extract the groundwater from that area,
12 once again treat it, and discharge it to the sewer.
13 Outside those areas, if you remember to the -- the
14 figure to the right where I showed the lagoons --
15 there was some off -- there was some contamination
16 there in the -- in the deep bedrock. Outside the
17 source area, we would have some in situ treatment.
18 That just basically means "in place," so the
19 groundwater would stay in the ground, and -- and
20 our remedy would be inserted into the ground. We
21 would continue monitoring. There would be
22 groundwater restrictions -- groundwater use
23 restrictions on that property so nobody could drill
24 a well and drink from that contaminated area. Once
25 again, water supply and sewer would have to be

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1 supplied in order for this remedy to occur. And
2 this alternative is a little more costly at \$8.1
3 million.

4 The fourth alternative does not include any
5 pumping. It is all in place. It is all in situ
6 treatments. We would continue monitoring the
7 wells, probably a different monitoring network than
8 we have right now, but we would continue monitoring
9 to make sure that plume decreases, but it does not
10 increase. Deed restrictions would still be placed
11 on the property to make it protective for
12 residential nearby. And this alternative also has
13 a contingency for future water supply. If
14 residential wells become impacted, we would need to
15 make sure that these residences were hooked up to
16 city water.

17 This alternative is broken down into two
18 options. The first option, 4A, we want to inject
19 this material to remediate the chromium in both the
20 shallow and the deep aquifers. So we want to
21 target both areas where we have exceeded that
22 .1-milligram-per-liter limit. So the estimated
23 present worth of injecting into both the shallow
24 and the deep is about 2.6 million.

25 Now, the other option for this alternative is

1 to only inject in the deeper bedrock aquifer. The
2 shallow groundwater really hasn't changed much
3 since about 1996, so the contamination is -- it's
4 pretty localized and -- and hasn't moved very far,
5 but it still exceeds the -- the cleanup levels that
6 DHEC wants to protect the groundwater. So this
7 second remedy, GW-4B, would only inject into the
8 deeper groundwater. Estimated present worth: \$1.1
9 million.

10 So there you have the alternatives described.
11 So then what I do is I take those same evaluation
12 criteria, and I compare all these alternatives and
13 see which one ranks at the top, once again, with
14 community acceptance being very important.

15 So the first alternative, no action, is not
16 protective of the environment. It's a -- in order
17 to reach this MCL as chromium breaks down, it would
18 take years. So reaching this 0.1 milligram per
19 liter is -- is highly unlikely. There would be no
20 long-term protections. There is no short-term risk
21 since nothing would be occurring at the site, but
22 these remedial objectives would not be achieved if
23 -- if nothing occurred at the site.

24 The second alternative was the pump-and-treat
25 method. Long-term protection would be achieved

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1 with this, because in the long-term, there would be
2 deed restrictions. People would not be drinking
3 from the contaminated aquifer. Eventually, all the
4 contaminated water would be pumped and treated. It
5 does require a long-term operation and maintenance
6 of a treatment system. Now, through our pre-design
7 studies, we would be able to tell you exactly how
8 long this pumping would occur, but as of right now,
9 I -- I don't know. It would be many years. There
10 is some short-term risk associated with the workers
11 that would be handling this extracted groundwater
12 and any of the sludge that occurs from the
13 remediation of the groundwater. And once again,
14 you -- we would have to construct a -- a water and
15 a sewer line, so that's very costly and
16 time-consuming as well.

17 The third alternative: incorporate a little
18 bit of the pump and treat with some of the
19 in-place. Once again, long-term protection -- is
20 protected, is provided. Still, the short-term risk
21 -- pretty much everything that I said with the --
22 the pump and treat. The one issue with this that
23 differs is the in situ may reduce the overall time
24 frame for the remediation to occur. It might occur
25 faster if you're -- if you're placing something in

1 the ground to help break down that chromium. A
2 negative with this is the permeability of the
3 saprolite. That means the -- the porosity and --
4 and the compaction of the clays that are very
5 shallow. It may prohibit the material from
6 reaching into the groundwater. So that -- that's
7 one issue that we'll have to study during some of
8 our design studies. And once again, long-term
9 operation and maintenance.

10 The fourth alternative reduces toxicity,
11 prevents exposure. There is a contingency action
12 of the water line in case residences are exposed.
13 Faster reduction in chromium because you're going
14 to treat both the shallow and the deep aquifer at
15 the same time. Once again, the -- the compaction
16 of that shallow soil, that -- the saprolite may
17 complicate this remedy. You would have to install
18 an extensive injection system, multiple points
19 drilled into the ground so that you can get your
20 material into the ground. So -- so a system will
21 have to be developed, and that will take time and
22 -- time and money.

23 The second option for -- for this alternative
24 was treating only the bedrock. Similar to the
25 first option, but you're only targeting one

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1 aquifer. Although there would still be long-term
2 protection, it will reduce the toxicity mobility,
3 but we're not -- not expected to impact any of the
4 shallow groundwater.

5 DHEC has selected alternative GW-4A, which was
6 the in situ injection into both the saprolite and
7 the bedrock. It does provide protection to human
8 health and the environment; it reduces the
9 groundwater contamination because you're actively
10 treating it. There will still be monitoring
11 ongoing to make sure that the plume is decreasing
12 in size. And once again, the contingency action
13 has been provided, that public water may be
14 supplied if necessary.

15 So the next step -- DHEC has evaluated the
16 investigation results; DHEC has evaluated the
17 feasibility study, which is at the library. What
18 I've done was taken this document -- basically,
19 tweaked it down into the fact sheet that you were
20 provided, and that's what I've presented here to
21 you tonight.

22 So after explaining this proposed plan to you,
23 we welcome any comments. So for the next month,
24 we'll take any of your comments -- tonight and
25 until early March. Once we've all decided on the

1 remedy, I will write a record of decision so that
2 the company knows exactly what is expected of them,
3 which alternative has been selected, and what DHEC
4 and the community would like to occur at this
5 facility.

6 Okay. After this record of decision has been
7 written, where we select the remedy, the consultant
8 and the responsible party will have to come up with
9 a design. So the day after the -- I write the
10 record of decision, you probably will not see
11 activity at the site. There will be some studies
12 and some discussions with the department, some
13 designs so that we make sure we're -- we're going
14 down the right path. So this remedial design will
15 be submitted to the department. We will review it,
16 and then we can begin implementing the remedy.

17 So once again, the administrative record is at
18 the York County Public Library. We will accept
19 comments over the phone, via e-mail, written, and I
20 would like to answer any questions you may have
21 here tonight, and -- let me first say that if I
22 can't answer everything, I have some other folks
23 here that may be able to help me answer some of
24 those questions. Yes, sir?

25 MR. PENLAND: What is considered a shallow well and deep

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1 well as to -- talking about the depth?

2 MS. JONES: Uh-huh.

3 MS. VINCENT: Please tell us your name.

4 MR. PENLAND: Steve Penland. Steve Penland.

5 MS. JONES: The -- the question was what do we consider
6 to be shallow and what do we consider to be deep
7 bedrock? Make sure I -- make sure I answer this
8 correctly, Jean.

9 Some of our wells that were installed in the
10 saprolite go down to, say, 45/50/55 feet and then
11 our bedrock is deeper than that. It's 75 to 80.

12 (To Ms. Oliva) Is that correct? Close? Okay.

13 MS. OLIVA: It -- it starts at about 50 --

14 MS. JONES: It -- it --

15 MS. OLIVA: -- and continues down.

16 MS. JONES: I would say that the -- the difference right
17 there starts at around 50/55, but I mean we've --
18 some of our wells are 120/140 foot deep.

19 MS. VINCENT: Next question. Hold on just a moment.
20 Let me get me you on the mike. Please announce
21 your name too.

22 MR. SMITH: My name's Tom Smith. I'm -- I was the local
23 developer over there with Homestead -- did the
24 three developments, so I've got a -- sort of, a
25 litany of questions. And I'm also the councilman,

1 and I also live out there.

2 MS. JONES: Okay.

3 Mr. SMITH: And there -- there -- there's concern to me
4 as far as how we got to this point, because as a
5 developer, we -- we did environmental assessments
6 on all of our properties out there and -- and I
7 talked to you, Angie --

8 MS. JONES: Uh-huh.

9 MR. SMITH: -- the other day, and this was not caught,
10 you know? And there seems to be a breakdown in the
11 system, meaning, you know, while these preliminary
12 investigations were going on, you know, why wasn't
13 local DHEC aware of it through the system --

14 MS. JONES: Uh-huh.

15 MR. SMITH: -- you know? Because there's no way to
16 really, you know, find out about these things. I
17 mean, you know, when we did the -- the Campbell
18 property, there were some tanks that had to be
19 removed over there. They were done. Over at
20 Vander Lakes there was a -- a ditch -- a trench
21 that was dumped on for years; we found that and
22 tested those, but there was nothing -- and we used
23 two environmental companies, so there was a, you
24 know --

25 MS. JONES: Well --

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1 MR. SMITH: -- we could have used --

2 MS. JONES: -- once again, can I ask you the time frame?

3 When -- when were these --

4 MR. SMITH: This was --

5 MS. JONES: -- developments --

6 MR. JONES: from '80s --

7 MS. JONES: Okay.

8 MR. SMITH: Okay. -- through the mid '90s.

9 MS. JONES: Okay.

10 MR. SMITH: And what -- what concerns me is that even up

11 into '97, '98, '99, when Vander Lakes was going on,

12 which is really the closest property local DHEC

13 still permitted wells to be placed out there.

14 MS. JONES: Uh-huh.

15 MR. SMITH: So there's a -- there's a -- there's a

16 problem with the system.

17 MS. JONES: Well, I believe they were able to let those

18 wells be installed because there was no concern for

19 groundwater contamination in the area you're

20 talking about.

21 MR. SMITH: So you guys knew that -- you know, there was

22 no concern even if they're 1300 feet away or 1500

23 feet away? I mean, you said a half a mile. You

24 know, what -- what's the -- you know, I know some

25 of the adjacent properties have been tested and --

1 MS. JONES: Uh-huh.
2 MR. SMITH: -- and so far, luckily, nothing's escaped --
3 MS. JONES: Uh-huh.
4 MR. SMITH: -- you know?
5 MS. JONES: Uh-huh.
6 MR. SMITH: But water has a funny way of traveling --
7 MS. JONES: Uh-huh.
8 MR. SMITH: -- in different areas, and I don't know that
9 any of us could -- you know, can really say for
10 sure if -- I mean, can you say for sure that
11 it's --
12 MS. JONES: Well --
13 MR. SMITH: -- safe?
14 MS. JONES: -- we have shallow wells; we have deep
15 wells; you know, we have them located all over that
16 property.
17 MR. SMITH: Right.
18 MS. JONES: The site's littered with wells, and we feel
19 we have a very good hold as to, you know, how deep
20 the contamination is, how widespread it is --
21 MR. SMITH: Right.
22 MS. JONES: -- and that's -- that's why that -- the blue
23 -- the blue area --
24 MR. SMITH: Sure. No. I --
25 MS. JONES: -- on the map -- you know, we -- we know

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1 where it is.

2 MR. SMITH: And -- and -- look, I've been developing for
3 25 years. I'm very familiar with --

4 MS. JONES: Right.

5 MR. SMITH: -- environmental and -- you know, in fact,
6 we -- we talked. We've got one up on Pole Branch
7 Road. We had to drag water a mile and a half up
8 the road, because we did an environmental
9 assessment, found out there was contamination, so
10 we put in monitoring wells, yet local DHEC didn't
11 know about it.

12 MS. JONES: Uh-huh.

13 MR. SMITH: We had to find out about it, and DHEC UST
14 knew about it since '92, so there's a concern
15 there, just over all --

16 MS. JONES: Okay.

17 MR. SMITH: -- and we'll talk about that.

18 MS. JONES: Okay.

19 MR. SMITH: The next thing is, though, is the history of
20 this site. What -- what triggered -- I mean, it's
21 -- it -- it's been monitored for so long, what
22 finally triggered the cleanup? I mean, what's --
23 what -- what triggered it? I mean, if you knew you
24 had problems out there --

25 MS. JONES: Uh-huh.

1 MR. SMITH: -- years ago, why -- why did -- why did --
2 why did it take so long to get this site to -- to
3 come to this point?

4 MS. JONES: That's a good question. Let me --

5 MR. SMITH: And then, you know, as -- as far as the
6 adjacent property owners, you know, what can they
7 -- these are questions I know they have. What are
8 they going to be able to do with their property,
9 whether it's -- you know, there is no water and
10 sewer out there. Most of the property zoned behind
11 that property and around it is zoned industrial,
12 and water and sewer will probably run through those
13 properties one day, but as far as the residential
14 or the farmland around it, you know, can these
15 people put wells if they needed it for irrigation
16 or -- or, you know, can future homes be put out
17 there? Or, you know, is DHEC going to say, "Look,
18 if you're within 500 feet or 1000 feet of this
19 site, no more wells of any type so we don't draw
20 down and pull out these contaminates"? Or --

21 MS. JONES: I'm sure the location of where those wells
22 would potentially be installed would be of concern
23 to --

24 MR. SMITH: Right.

25 MS. JONES: -- DHEC, yes. But --

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1 MR. SMITH: Okay.

2 MS. JONES: -- that's why if we can get out there, you
3 know, right now and start this remedy --

4 MR. SMITH: Uh-huh.

5 MS. JONES: -- we don't even --

6 MR. SMITH: Does local DHEC right -- right now know
7 about this?

8 MS. JONES: Yes.

9 MR. SMITH: DHEC -- as far as somebody wanting to build
10 a house out there right now?

11 MS. JONES: Yes.

12 MR. SMITH: Okay. And I just -- you know, I'm just
13 curious about the -- the questions -- as far as the
14 cleanup, it seems to me, on the proposal for the
15 -- the soils, you know, if -- if No. 2 is done, you
16 know, first of all, who's going to continue to make
17 sure that that floor stays in place and that roof
18 stays okay and --

19 MS. JONES: The property owner.

20 MR. SMITH: The property owner. Okay. What happens if
21 the bus hits that property owner?

22 MS. JONES: If the what?

23 MR. SMITH: What happens if that property owner
24 disappears? What happens? Okay.

25 MS. JONES: Then I guess that's when the -- that's when

1 the local DHEC and -- and state DHEC goes -- goes
2 to make sure that --

3 MR. SMITH: But why would we --

4 MS. JONES: -- there's a new property owner that -- that
5 knows about it.

6 MR. SMITH: Okay. Well, I don't know if a -- you
7 know --

8 MS. JONES: It's not --

9 MR. SMITH: Taking on a contaminated site -- I don't
10 know --

11 MS. JONES: It -- it's a corporation.

12 MR. SMITH: Okay. I know, but if -- if they sell to
13 somebody and they --

14 MS. JONES: Uh-huh.

15 MR. SMITH: -- somebody takes it on, they get it real
16 cheap, and they do it, and they feel okay with it
17 for whatever reason --

18 MS. JONES: Uh-huh.

19 MR. SMITH: -- and if something happens to that person,
20 does it fall -- does it fall back on the previous
21 owner?

22 MS. JONES: Gary, do you want to answer? Because this
23 happens quite often.

24 MR. SMITH: Uh-huh.

25 MR. STEWART: Yes. When we place -- require

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1 restrictions to be placed on a property, they're
2 required -- the property owner is required on an
3 annual basis to provide us information showing that
4 the restrictions are still in place and they're
5 still being protective. It's on our back to make
6 sure, on an annual basis -- and I think the basis
7 -- I -- I think our stuff is due, like, May 29th of
8 each year.

9 We require parties to notify us, and we have
10 to verify that everything is still in place. That
11 can be verified through drive-bys on a periodic
12 basis, various measures just to make sure the
13 restrictions are still in place. And if a -- if a
14 party goes belly up, there's -- there's not a whole
15 lot we can do about pursuing that party, but we do
16 have a state fund, the Hazardous Waste Contingency
17 Fund, which can be used to address situations such
18 as this if a private party's unable to.

19 MR. SMITH: But as we have a private party right now,
20 why would we have them take it out? You know,
21 instead of being stuck with this thing in 15 years
22 if somebody goes belly up, and then the taxpayers
23 have to pay for the cleanup.

24 MR. STEWART: Well, under the laws and regulations we
25 deal with -- we deal with the Superfund Law, which

1 has -- has also been adopted as state law -- we're
2 required to select and implement remedies that are
3 cost-effective and protective of human health. The
4 -- the Alternative No. 2 is protective of human
5 health and it is more cost-effective than
6 Alternative No. 3.

7 MR. SMITH: And I -- I -- as somebody that, you know, is
8 a councilman and somebody that lives out there, and
9 I got neighbors and friends and family, I just
10 think -- you know, I -- my uncle taught me this in
11 business: If -- if -- if the bus hits you, what
12 are you left with? And if the bus hit somebody
13 over there, you're left with that contamination
14 when you had a chance for the party -- now, I don't
15 know who the company that owns it now, if they were
16 responsible for this or was it the company before
17 or before or before -- you know, I don't know.

18 But the fact is if you have somebody that has
19 finances and is able to clean it up and it was the
20 -- you know -- you know, everybody needs to take
21 care of their own responsibilities and it shouldn't
22 fall back on us. That's all I'm saying, because
23 you're asking us for a recommendation. As a
24 councilman in this area, I would say they need to
25 clean that thing up -- you know, it -- it -- so

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1 that we don't get stuck with it. You guys
2 shouldn't have to --

3 MR. STEWART: And we --

4 MR. SMITH: -- mess with it either.

5 MR. STEWART: -- we appreciate your concern in that --

6 MR. SMITH: Uh-huh.

7 MR. STEWART: -- area and -- and that's part of the
8 reason we're here tonight. We want to hear what
9 you think. We want the company to know what you
10 think.

11 MR. SMITH: Uh-huh.

12 MR. STEWART: We're here with a proposal tonight. It's
13 not carved in stone that this is the remedy. We go
14 back, and we evaluate all the comments, and we can
15 change the -- the remedy before it's actually put
16 in place.

17 MR. SMITH: That -- that's -- I just wanted to --

18 MR. STEWART: Right.

19 MR. SMITH: -- put that out there just so that it was
20 put out there that, you know, we got to think down
21 the line, you know --

22 MR. STEWART: Right.

23 MR. SMITH: -- because apparently whoever put this in
24 the ground wasn't thinking too far down the line.

25 So as far as the cleanup on the GW-4A, where

1 has that done been -- you know, where has it been
2 done before, how --

3 MS. JONES: The in situ? Yes. It's --

4 MR. SMITH: Yeah. And was it --

5 MS. JONES: It's been done at numerous sites.

6 MR. SMITH: With -- the same contaminates?

7 MS. JONES: Yes.

8 MR. SMITH: Okay. And how long did you see the effects?

9 I mean, how long did it -- I mean, I know it's
10 tough to say on -- each site's different, but was
11 it three years or five years or -- you know, where
12 you really saw something effective?

13 MS. JONES: (Mr. Akhvlediani) Which -- would you know?
14 Have -- have you had any chromium sites where you
15 can tell what it -- the time frame --

16 MR. AKHVLEDIANI: It's hard to tell. It depends on the
17 site.

18 MR. SMITH: Uh-huh.

19 MS. JONES: (To Ms. Oliva) Would -- would you know,
20 Jean?

21 MS. OLIVA: It -- it can -- it can --

22 MR. AKHVLEDIANI: -- range --

23 MS. OLIVA: My name's Jean Oliva; I'm with TRC.

24 MS. JONES: Jean prepared this plan, this -- this
25 feasibility study, so she's highly familiar with

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1 the -- the investigation and the -- the
2 alternatives.

3 MS. OLIVA: Yes. This has been used on -- on some
4 sites. I -- as you mentioned, it depends on the
5 site conditions and on the levels of contamination.
6 At lower levels of contamination like the -- the
7 areas around the -- the areas around the outside of
8 those blue circles, those should be able to be
9 remediated within, I would think, one or two years.
10 In the center we have some -- in the source area,
11 we have some higher level and that might take a
12 little longer to get those cleaned up.

13 MR. SMITH: That's all I got.

14 MS. JONES: Okay. Okay.

15 MS. VINCENT: Thank you.

16 MS. JONES: There was a question over here. I'm not
17 sure --

18 MS. VINCENT: Did we finish with Mr. Smith?

19 MR. SMITH: Yeah. I'm done.

20 MS. VINCENT: Okay.

21 MS. JONES: Okay.

22 MS. VINCENT: (To Ms. Jones) Sorry. (To Mr. Hurley)
23 If you'll announce your name too.

24 MR. HURLEY: Carl Hurley. I live at Leland Court, so
25 I'm within the 1-mile radius. I also have an MPH,

1 and I -- you guy's have done a great job.

2 MS. JONES: Thank you.

3 MR. HURLEY: Anybody here qualified to speak to the
4 health risk of chromium?

5 MS. JONES: No. No.

6 MR. HURLEY: So they --

7 MS. JONES: The -- the question was, was anybody here
8 tonight to speak as to the health effects of
9 chromium, and unfortunately, no, we did not bring
10 anyone since we know that no one is currently being
11 exposed.

12 MR. HURLEY: But there's potential exposure. Can you
13 get those and have them mailed to us?

14 MS. JONES: Yes, I can do that.

15 MR. HURLEY: Thank you. Okay. You mentioned city water
16 supply if any of the residential wells become
17 contaminated. At whose cost? city water supply?
18 Who --

19 MS. JONES: The line --

20 MR. HURLEY: -- pays --

21 MS. JONES: -- the line would be installed at the cost
22 of the responsible party.

23 MR. HURLEY: So there'd be no cost to the homeowner?

24 MS. JONES: For the installation of that water line, no.

25 MR. HURLEY: Okay.

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1 UNKNOWN MALE: You have to pay for the water meter.

2 MS. JONES: Probably.

3 MR. HURLEY: Any way I can get my well tested?

4 MS. JONES: Not by DHEC regarding -- related to this
5 site. We -- we don't feel the need to go out and
6 sample private wells since we know where the
7 contamination is on this property.

8 UNKNOWN MALE: Even -- even if you --

9 MR. HURLEY: Now, the groundwater --

10 UNKNOWN MALE: -- know the groundwater is --

11 MR. HURLEY: -- flows in -- underground, and we don't
12 know where that goes.

13 MS. JONES: But -- but the two maps that I -- I -- I
14 placed up there, we know where the contamination
15 is. We know where -- we know which way the
16 groundwater is flowing, and we know where currently
17 the contamination is.

18 MR. HURLEY: Okay. On behalf of a homeowner, I'd like
19 DHEC to at least reassure me by testing my well.

20 MS. JONES: Thank you.

21 MS. VINCENT: Hold on just a minute, sir.

22 MR. HILTON: Hi, I'm John Hilton.

23 MS. JONES: Hello.

24 MR. HILTON: You didn't answer the question about which
25 way the water is flowing under the plant.

1 MS. JONES: Southeast.

2 UNKNOWN MALE: Do you have a well there?

3 MR HILTON: Thank you.

4 MS. JONES: Yes.

5 UNKNOWN MALE: Does it have contamination?

6 MS. JONES: The question was which way is the
7 groundwater flowing, and I said toward the
8 southeast, which is away from the residential
9 development. He asked if a well was installed in
10 that area; I said yes. And then the third question
11 was: Was there contamination in that well? And
12 the farther-most well that we have in that
13 location, no, there was not.

14 MR. PENLAND: Steve Penland. I can address some --
15 maybe some of the health concerns. I did a map of
16 the folks who lived down Campbell Road and within,
17 really, a half a mile of the 24 houses that's
18 there, there's been 11 cases of cancer. In those
19 11 they're cluttered around on both sides of the
20 plant, and I was going to supply that with y'all --
21 with a copy of all the -- the cancer, that -- from
22 long-term residents. Now, someone that's lived
23 there for maybe two or three years, it's not, but
24 -- but the cases are -- are right there from all
25 the way down the road, and that -- and that was the

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1 reason that I would like to get my water tested.

2 And you mentioned five residential wells. I
3 only know of three of my neighbors who said they
4 were getting their wells tested.

5 MS. JONES: And I might've misspoke earlier when I said
6 five. I -- five initially were sampled; then I
7 think we were down to four. One of them may have
8 been at that -- the little store that was formerly
9 located across the street.

10 MR. PENLAND: Yeah. That's -- that's the Martins.

11 MR. MARTIN: That's my well.

12 MR. PENLAND: The Martins, the Carpenter, and the
13 Davison.

14 MS. JONES: I have four wells that we -- that we sample,
15 and I can -- I can show you the date on the --
16 there are four residential wells that are sampled.

17 MR. PENLAND: Can you -- I've listed three of them.
18 What's the fourth one? Is it on the plant?

19 UNKNOWN MALE: Steve, that's mine.

20 MR. PENLAND: Oh.

21 UNKNOWN FEMALE: Yeah, but you would be Davison, you
22 know, because --

23 UNKNOWN MALE: That's right.

24 MR. PENLAND: Yeah.

25 MS. JONES: This is public information, so I --

1 MR. PENLAND: Uh-huh.

2 MS. JONES: -- can give the addresses.

3 MR. PENLAND: Okay.

4 MS. JONES: 6357 Campbell.

5 UNKNOWN MALE: Yeah, that's --

6 UNKNOWN FEMALE: But you --

7 UNKNOWN MALE: -- that -- that'd be my mother-in-law.

8 She's passed away --

9 MS. JONES: Okay.

10 UNKNOWN MALE: -- but that well was tested.

11 MS. JONES: Okay. And 6270 Campbell?

12 MR. MARTIN: That's mine.

13 MS. JONES: Okay.

14 UNKNOWN MALE: 6270 would be --

15 MR. PENLAND: -- Martin.

16 UNKNOWN MALE: Yeah.

17 MS. JONES: 6145.

18 MR. MCLEAN: That's mine.

19 MS. JONES: 6115.

20 UNKNOWN MALE: That's the same well. Same well.

21 MR. PENLAND: Same well.

22 UNKNOWN MALE: Those two addresses are on the same well.

23 MR. PENLAND: Yeah.

24 (Multiple attendees speak simultaneously
25 without benefit of the microphone.)

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1 UNKNOWN MALE: I'm sorry.

2 MS. JONES: That's okay.

3 MS. HALL: What -- what types of cancer was --

4 MS. JONES: Just a moment.

5 MS. HALL: What type of cancer --

6 MS. JONES: What's your name too, please?

7 MS. HALL: Sherry Hall. What -- what -- what was the
8 type of cancer that was found?

9 MR. PENLAND: Four breast cancers, one prostate, two
10 brain cancer -- what was a -- what was a -- the
11 Chambers. Because they lost two -- two in their
12 family.

13 MS. PENLAND: Oh. Very complicated cancers.

14 MR. PENLAND: Yeah.

15 MS. JONES: There has been no cancer cluster study
16 performed in this area that I'm aware of.

17 MR. PENLAND: Uh-huh.

18 UNKNOWN FEMALE: My mother just -- excuse me -- was
19 diagnosed with ovarian cancer, and she lives on
20 Campbell Road.

21 MS. JONES: It's very hard to associate --

22 MR. PENLAND: True, but -- but with 24 families --

23 MS. JONES: Yes, sir.

24 MR. PENLAND: -- and to have 12 cases -- I didn't even
25 include the 13th one which is a mile away --

1 MS. JONES: Yes, sir.

2 MR. PENLAND: It -- it just about -- we just lost
3 another Campbell -- person by that name.

4 MS. JONES: We haven't -- we haven't determined there to
5 be any correlation between this site's
6 contamination and exposures off the property. I --
7 I don't have any better answer for that since we
8 have not conducted a study to evaluate that.

9 UNKNOWN MALE: Are you planning on doing a study to do
10 that?

11 MS. JONES: Yeah. Well, we can take that list back and
12 give that to someone else that's more qualified to
13 answer that question.

14 MR. HALL: Charles Hall. Are you planning on doing an
15 studies to that?

16 MS. JONES: As I just said, we can take that list back
17 and -- and see -- sorry. We can take that list
18 back. Since I'm not qualified to -- to state
19 whether a study should be done or how it could be
20 done, I can take that list back and this
21 information and -- and let those people -- somebody
22 else determine that. But yes, I can -- I can relay
23 the information. Absolutely.

24 MS. CRAGO: My name is Tammy Crago and I have lived off
25 of Paraham Road near the Vander Lake ferry for the

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1 past ten years. I left a message on your machine
2 probably about a week and a half ago and did not
3 hear back from you, so I have several questions I
4 would like to be answered.

5 First, I'd like you answer Tom's question.
6 You all have been testing in this area since
7 1997 --

8 MS. JONES: Correct.

9 MS. CRAGO: -- and -- and we just were informed of it a
10 week and a half ago. Why? What -- and what
11 prompted you to finally send us something?

12 MS. JONES: That's a good question.

13 MS. CRAGO: And I want an answer, please.

14 MS. JONES: Okay. You will. We were using that time to
15 collect information. We did have information
16 available, and I could have come to you whenever
17 the investigation was complete. I could have come
18 and said, "Here's our data; here's what we know."
19 I waited until now --

20 MS. CRAGO: That would've been nice, because I have
21 three small children, and I could have gotten my
22 well tested to make sure they were safe.

23 MS. JONES: We would've made sure that we sampled any
24 well that -- that we thought there would've been a
25 concern in. And we -- if -- if this contamination

1 had been migrating off site, we would've come to
2 you much sooner. I'm sorry. We used this time --
3 the past year and a half to evaluate our options
4 for cleanup so we could come to you and tell you
5 how we were going to proactively address this
6 contamination. We were not as concerned with the
7 community, because we know the contamination is
8 limited to on-site.

9 UNKNOWN MALE: You know that now, but not -- not for a
10 -- last 13 years where people would be -- could --
11 could be getting contaminated.

12 MS. JONES: That was why we were doing our studies. You
13 know, we sampled --

14 UNKNOWN MALE: Yeah. But --

15 MS. JONES: -- these residential wells --

16 UNKNOWN MALE: -- but you're saying that you knew it was
17 chromium there, right? It was like 15 years back
18 when you were studying to see where the chromium
19 was. You didn't know where it was, but nobody
20 around was informed about it. I bought a house --
21 you know, next -- I mean, I -- I bought a house out
22 east side of Paraham and Campbell Road. I wouldn't
23 buy a house if I knew there was going to be --

24 MS. CRAGO: Me either.

25 UNKNOWN MALE: -- contamination of chromium next to me.

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1 MS. CRAGO: And we built there.

2 MS. JONES: And I believe that's why we -- in 1997 we
3 started sampling the nearest residential wells that
4 -- that would've shown any impact. We sampled
5 those -- those five that I mentioned earlier which
6 we're down to four now. That's why we initially
7 went out and sampled those to make sure there was
8 no hits in those. And if there was no hit there,
9 we didn't feel the need to go any further.

10 But -- but back to your question, ma'am. I
11 apologize. I -- I think Gary and I might have
12 gotten our signals crossed in -- in who was calling
13 somebody back. I thought maybe you had already
14 received a phone call, and I do apologize that --
15 that we didn't call you back.

16 MS. CRAGO: For anybody who's interested, I am having my
17 water tested at Prism Laboratories. That's in
18 Charlotte. And also, I know there's a Carolina
19 Water. It's -- it cost me \$100 to have my well
20 tested for metals including chromium and the --
21 what's it called?

22 MS. JONES: Hexavalent?

23 MS. CRAGO: Hexavalent chromium --

24 MS. JONES: Uh-huh.

25 MS. CRAGO: -- which we've got that test back; it was

1 okay. We're waiting for a few more days for the
2 other test to come back.

3 But I don't think that we should have to pay
4 to have our wells tested. You're testing some of
5 these wells quarterly, so that means you must be
6 concerned that the contamination could spread.

7 And my next question is: If this site is
8 disturbed, is it going to increase the chances of
9 the chromium spreading and contaminating the wells
10 that are not already contaminated?

11 MS. JONES: If the area over that plating bath area,
12 that -- the -- the -- the floor, if that is
13 disturbed, there is a potential, yes, that that
14 contamination -- when it rains or any rainwater
15 infiltrates it, that it could spread and it could
16 get into the groundwater, yes.

17 MS. CRAGO: So that's the reason why you think it would
18 be safer for our health to keep that building there
19 rather than take it down?

20 MS. JONES: The keeping --

21 MS. CRAGO: I don't want to just do -- do the easy --
22 get -- take the easy way out and the most -- you
23 know, the cheapest way out, because this area's
24 growing by leaps and bounds --

25 MS. JONES: Right.

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1 MS. CRAGO: -- and --

2 MS. JONES: By keeping that --

3 MS. CRAGO: -- we want what's best.

4 MS. JONES: By keeping that floor in place, you --

5 you're preventing any exposure to that soil.

6 You're preventing it from migrating any farther

7 away. That's why any kind of -- I mean, you could

8 -- you could demolish -- if there were no building

9 there -- if we'd have found this contamination

10 outside the footprint of the building, we would

11 have evaluated removal, which would've been very

12 easy since it's outside. We would've also

13 evaluated just placing a cap over that -- that --

14 that would be one option to limit any migration.

15 So these are all alternatives that we would look at

16 and compare against each other.

17 And in this case, we just feel that the

18 limitations of -- of removing that soil and

19 removing that floor are -- are a little tough or a

20 little more expensive or just -- or just not as

21 acceptable as possibly leaving that floor in place.

22 We feel they're both protective for -- for future

23 migration, for future contact. We feel that the

24 alternative we selected is protective.

25 MS. CRAGO: But I -- I feel like -- I feel my concerns

1 are what's going to happen 15/20 years down the
2 road? And you said it's going to be restricted for
3 residential use. Could another industry come in
4 there and use that area?

5 MS. JONES: Yes.

6 MS. CRAGO: And so that could -- that's ridiculous. If
7 another industry is allowed to come in there and
8 use that area again, then they could disturb the
9 chromium that's already in the ground and -- and
10 cause more contamination.

11 MS. JONES: Well, that's why the restriction would be
12 placed on the property. They would have to
13 maintain that -- that floor -- that cap over that
14 area. They could not come in and do anything to
15 destroy --

16 MS. CRAGO: Plus the people who'd be working. There
17 would be -- I don't know who would want to work
18 there.

19 You told us the -- the levels of chromium
20 found in the soil. You never did tell us the
21 levels found in the -- the -- the shallow water and
22 the bedrock. What were those levels?

23 MS. JONES: Oh, that's -- that's -- okay. Good point.
24 It -- it was on that map; it's just very hard to
25 see up there.

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1 MS. CRAGO: I think we saw the soil; I didn't --

2 MS. JONES: Uh-huh.

3 MS. CRAGO: -- see the -- the water.

4 MS. JONES: You're right.

5 UNKNOWN MALE: The -- the target minimum was 0.1
6 milligrams. Did you -- I never did hear what the
7 exception was.

8 MS. JONES: In the saprolite, the shallow?

9 UNKNOWN MALE: Or either.

10 MS. JONES: Okay. Well, I -- I -- I'll give you both,
11 but in the shallow, the highest level of total
12 chromium was 20 micrograms per liter compared to
13 that .1.

14 MS. CRAGO: Micrograms or milligrams?

15 MS. JONES: I'm sorry. Milligrams.

16 UNKNOWN FEMALE: Yeah.

17 MS. JONES: Excuse me. Excuse me.

18 MS. CRAGO: Big difference.

19 UNKNOWN MALE: So 200 times?

20 UNKNOWN FEMALE: Wow.

21 MS. JONES: The numbers ranged from non-detect, .4, .3,
22 12, 13, and 20.

23 MS. CRAGO: And what about the deep water?

24 MS. JONES: I'll give you a range: .2, .5, 2, 16, 110,
25 120, 300, and 380.

1 MS. CRAGO: And that's just why you did not inform us of
2 that.

3 MS. JONES: I'm sorry it was not able to be read on the
4 map. I apologize.

5 MS. CRAGO: I also want to let everybody know, if you're
6 interested, you can purchase something at Lowe's or
7 Home Depot called a "reverse osmosis system." It's
8 a cost of about 150 to \$170. My husband installed
9 it under our kitchen sink this weekend, and it
10 takes -- it's supposed to take out everything
11 including chromium.

12 UNKNOWN FEMALE: Your well tested negative for
13 hexavalent chromium?

14 MS. KREGO: Yeah. It -- that -- we -- we haven't gotten
15 the other test back yet.

16 UNKNOWN FEMALE: Well -- so -- so that -- there's a
17 chromium -- free -- that occurs naturally?

18 MS. CRAGO: Right. Right.

19 UNKNOWN FEMALE: And that's okay?

20 MS. CRAGO: Right.

21 MS. VINCENT: And you're next.

22 MS. PENLAND: Thank you. I have a question. I noticed
23 on your evaluations you talked about the risk to
24 workers --

25 MS. JONES: Yes, ma'am.

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1 MS. PENLAND: -- so I'm assuming you'd know what those
2 risks to workers are if you evaluated them. Could
3 you tell us what those workers would be exposed to
4 over there on that site? What their health risk
5 would be?

6 MS. JONES: If they were removing the soil, for
7 instance --

8 MS. PENLAND: Yes, yes.

9 MS. JONES: -- in that area?

10 MS. PENLAND: If any -- I'm assuming you mean -- I'm
11 back to her disturbing --

12 MS. JONES: Right, right.

13 MS. PENLAND: -- issue here.

14 MS. JONES: Okay. One risk I was thinking of was heavy
15 machinery. And we evaluate everything. But in the
16 -- the other risk would be highly contaminated
17 soils with chromium. They would have to wear
18 certain protective clothing in order to be able to
19 remove this soil.

20 MS. PENLAND: And what would that do them if it got on
21 them? That's the -- I mean, that is the health
22 risk: not the wearing of the suit --

23 MS. JONES: Well --

24 MS. PENLAND: -- but the fact that they need to wear the
25 suit. So I'm assuming there's some kind of risk

1 that you know about that you would put this suit on
2 them.

3 UNKNOWN MALE: Skin contact.

4 MS. PENLAND: If you --

5 UNKNOWN MALE: Skin contact.

6 MS. PENLAND: And what would that do to them?

7 UNKNOWN FEMALE: Are you talking about just if somebody
8 went to work there, or --

9 MS. PENLAND: I'm talking about the risk that --

10 MS. JONES: Okay.

11 MS. PENLAND: -- were on every one of her evaluations
12 that talked about workers being exposed.

13 (Multiple attendees speak simultaneously
14 without benefit of the microphone.)

15 MS. OLIVA: I was to preface by saying that I'm not a
16 risk assessor, but my understanding of the reason
17 why chromium is a concern with respect to health --
18 the main reason is due to inhalation, and that's
19 why excavating the soils inside a building would
20 pose a -- a potential risk.

21 MS. PENLAND: Well, is it going to get in the air if
22 they remove it -- is it going to get in the air if
23 they remove it and be down our road?

24 (Multiple attendees speak simultaneously
25 without benefit of the microphone.)

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1 MS. PENLAND: Well, true. Okay.

2 MS. VINCENT: May I ask your name?

3 MS. PENLAND: Judy Penland.

4 MS. OLIVA: If -- if excavation of the soil were to
5 occur, it would be done under controlled
6 circumstances to minimize any escaping of the --
7 the -- the -- the soil into the air outside the
8 building. And that would be part of the
9 environmental health and safety program.

10 MS. JONES: Did -- let me make sure we finished
11 answering her question.

12 MS. PENLAND: No. I'm not done.

13 MS. JONES: Okay. Then let's make sure we finish her
14 question.

15 MS. PENLAND: My other question was: Say you do all
16 this and you've got the deed restrictions. Is that
17 going to keep some other company from coming in
18 there and deciding they want to build on that
19 property, and they start messing with that soil
20 that's down in that old lagoon or over here on the
21 side the -- that's contaminated?

22 I -- I know that that lagoon was, at some
23 point, very seriously contaminated because a dog on
24 the road went over there, drank some of the water,
25 and died right beside the pond. I know that for a

1 fact. Saw it with my own eyes.

2 MS. JONES: Uh-huh.

3 MS. PENLAND: So I -- I know that at some point that's
4 been very dangerous.

5 MS. JONES: Those restrictions will be placed on the
6 property. They --

7 MS. PENLAND: And they won't be able to build where any
8 of this soil is located?

9 MS. JONES: Correct. That -- that restriction is placed
10 on the property.

11 MS. PENLAND: And just for clarification on the cancer
12 issue --

13 MS. JONES: Yes, ma'am.

14 MS. PENLAND: -- every property that -- the houses
15 across the road and the houses to each side of that
16 plant have had cancer. All of those in the
17 perimeter.

18 MS. JONES: The ones that we were sampling?

19 MS. PENLAND: Yes.

20 MS. JONES: Okay.

21 MS. PENLAND: Yes.

22 MS. JONES: Okay.

23 MS. PENLAND: I know -- I know one of them. I think all
24 of them --

25 UNKNOWN MALE: All three of them.

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1 UNKNOWN FEMALE: All three of them.

2 MS. PENLAND: Then there's cancer there.

3 MS. JONES: Okay. Jean, you might want to clarify
4 something I answered about the . . .

5 MS. OLIVA: With respect to the lagoon, that area was
6 excavated in the 1980s. It's the material that had
7 been disposed of in that area.

8 MS. PENLAND: So it's not there anymore?

9 MS. OLIVA: That's correct.

10 MR. MARTIN: That -- that's not true. It smells like a
11 radiator shop down there if you go around in the
12 evening. You ride a tractor around it, you go down
13 next to the woods, it smells like an old radiator
14 shop with its acids flying around.

15 MR. HENSING: Hi. I just wanted to take a minute. I
16 was on the internet researching hexavalent chromium
17 cleanup while you guys were talking, and I actually
18 found a similar -- I don't want to play -- I don't
19 want to take anything away from your excellent work
20 or anything like that, but I wanted to throw this
21 out there.

22 There was a metal plant in Washington State
23 during the '50s and '60s that was cleaned up
24 recently in 2002. They -- they mentioned in the
25 report that I read from the EPA many of the things

1 that were mentioned tonight. The first thing they
2 tried was to remove all the dirt, which was one of
3 the proposals I think that was mentioned, and that
4 was ineffective. So the next thing they did was
5 they actually razed the building. They leveled the
6 building and they injected some kind of chemical
7 into the soil which they said eliminated all traces
8 of chromium within a few days. It's some kind of
9 catalyst that reacts with it, or whatever, and
10 transforms it to some non-dangerous/-lethal form of
11 the thing.

12 So I'm wondering why you would be leaning
13 towards leaving the floor and leaving the building
14 intact versus maybe going more aggressive and
15 getting rid of it within a few days. My name is
16 Robert Hensing.

17 MS. JONES: That was just not an alternative that we
18 evaluated. If -- if you're suggesting it, we will
19 take that into consideration.

20 MS. VINCENT: We have a question here.

21 MS. JENKINS: Hi, I'm Lesa Jenkins. I live on Leland
22 Court and I'm, kind of, in this profession. I'm in
23 environmental engineering. Just wanted to let you
24 know -- a lot of your questions had to do with your
25 wells and your water source. Campbells Road is a

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1 ridge line.

2 MS. JONES: Thank you.

3 MS. JENKINS: Everything that's on the Rock Hill side
4 flows towards Rock Hill; everything that's on the
5 Clover side flows towards Clover. This site is on
6 the side. However, on -- for DHEC, just to quieten
7 some of this, at \$100 per family, how much would it
8 cost, you know, to go ahead and conduct this so
9 that it would quieten some of the concerns -- and
10 have these wells tested? You're talking about a --
11 versus these million dollars, this is just a drop
12 in a bucket. Ten thousand for 100 residents at
13 \$100 a pop. If you use your lab, it would be less
14 than that.

15 The other thing was on the site: the soil
16 cleanup. What I saw up there was -- at first, when
17 I evaluated your Option S-2, I liked it; I thought
18 it was good. Then I got to thinking about as long
19 as that building's there, we have an eyesore that
20 nobody's going to use, which affects the property
21 value, eventually, in our community. I think the
22 best alternative probably would be to get rid of
23 that soil, and like they said, the lagoons. If the
24 dog died, he probably drank water that was in the
25 lagoon at the time and that's not the case no more,

1 but that's -- I just want to let them know about
2 the ridge line, and --

3 MS. JONES: Okay.

4 MS. JENKINS: -- about the water actually --

5 MS. JONES: You're absolutely right about the ridge
6 line. Thank you for bringing that up.

7 MR. HILTON: Thank you. John Hilton again. Thank you
8 for your comments. Is there any definition to the
9 circle on the map up there?

10 MS. JONES: That -- that's a 1-mile radius --

11 MR. HILTON: One mile --

12 MS. JONES: -- from the --

13 MR. HILTON: -- radius from --

14 MS. JONES: -- site, and that's --

15 MR. HILTON: -- the point --

16 MS. JONES: -- the same map that we have over here.

17 MR. HILTON: Okay. I think that's it.

18 MS. FERRARO: Hi. I'm Julie Ferraro. My first question
19 is: What is the deadline for DHEC's decision on
20 the site? Was there a deadline set?

21 MS. JONES: That March 5th date, or March -- I'm sorry
22 -- 7th.

23 MS. FERRARO: So you will have a decision as of
24 March 5th?

25 MS. JONES: We would like to have all your comments

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1 received by that time, and then we will -- we will
2 start evaluating your comments --

3 MS. FERRARO: Right, but what --

4 MS. JONES: And so it will be shortly --

5 MS. FERRARO: -- what is --

6 MS. JONES: -- shortly thereafter. I'm not sure if it
7 will be a week or -- or two weeks --

8 MS. FERRARO: And then once you do have your written
9 decision, how long will you give the SPX to clean
10 that up?

11 MS. JONES: They will --

12 MS. FERRARO: To be --

13 MS. JONES: -- they will immediately begin working with
14 designs, but there -- there is no specific time
15 frame for when the contamination has to be cleaned
16 up.

17 MS. FERRARO: So that could take years --

18 MS. JONES: It --

19 MS. FERRARO: -- more?

20 MS. JONES: It could. It could.

21 MS. FERRARO: So potentially, from all this amount of
22 years, we can be still be affected by the
23 groundwater and everything else, because it can --
24 it was ten years since you've tested it, now it
25 could be another ten years before we start seeing

1 anything, and by that time, who knows how many more
2 people are going to die.

3 MS. JONES: That's why our monitoring would continue
4 while they are conducting this remedy and while
5 they are placing -- getting their tests together --
6 I'm sorry -- their plans together --

7 MS. FERRARO: Uh-huh.

8 MS. JONES: -- for the remedy. They will be continuing
9 to monitor the wells that we have been sampling
10 quarterly and annually. They will continue to do
11 that.

12 MS. FERRARO: And I just want to say I am for having
13 DHEC come out and test everybody's wells. I think
14 that would be a minimal thing to appease the
15 community, and I don't think that should be a whole
16 lot to ask considering how long we've had to wait
17 on the decision for this.

18 I think, just to appease the community and put
19 everybody's mind at ease, it's not that -- you
20 know, if you just go within your mile radius or
21 however, you know, big you would want to go -- what
22 you've sent out as far as all your -- your -- your
23 letters right now, I think that wouldn't be such a
24 huge thing to ask DHEC to do.

25 MS. JONES: And which community do you live in?

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1 MS. FERRARO: I live in Vander Lakes.

2 MS. JONES: Vander Lakes. Okay. Thank you.

3 MR. CLARY: My name's Chris Clary. I live on Tamarack
4 Drive, Campbell's Crossing. To what extent did you
5 do your underground water testing for all the
6 aquifers in the area?

7 MS. JONES: "To what extent" meaning what was the
8 deepest?

9 MR. CLARY: Yes. How did you determine which way the
10 water's flowing?

11 MS. JONES: Jean or Tom, you may be better qualified to
12 answer this question, but the . . .

13 MR. BOLYARD: Tom Bolyard with Enviro-Pro. We did the
14 assessment VRI on the site out there, drilled most
15 of the monitor wells, and our ongoing -- doing the
16 ongoing sampling on the site up here. We have, as
17 -- as Angie indicated, about 30 wells across the
18 site: shallow, deep, intermediate. And basically,
19 every quarter we do a portion of those; every year
20 we do all the wells and come up with a groundwater
21 contour map that shows the groundwater flow. So
22 every year, we, you know, measure all the levels on
23 all the wells, and I can tell you that the
24 groundwater flow hasn't really changed out there
25 for the -- about the last 12 years that I've been

1 involved.

2 MS. JONES: But is -- is your question why do we put the
3 wells where we put them and how deep did we drill
4 them?

5 MR. CARY: I have a pesticide license because I have a
6 little landscape business on the side that required
7 to have that. And in studying to get the license,
8 they tell you, you cannot really, truly, accurately
9 determine which way the groundwater is flowing
10 underneath the soil because of the difference and
11 the variations of pressures. It's like standing on
12 a mountain and saying, "All the water runs
13 downhill." That's not true. It could be forced
14 upward; it could be forced to the left, right,
15 north, south, not just southeast.

16 MS. JONES: Uh-huh. But I -- I think what Tom was
17 trying to explain was we have enough wells in that
18 area, and --

19 MR. BOLYARD: We have a whole network of wells. It's
20 not just one or two bedrock wells out there. You
21 know, there are --

22 MS. VINCENT: Tom, they can't hear.

23 MR. BOLYARD: Okay. We -- we take water level
24 measurements in all the wells, and it's a network
25 of monitored wells out there, shallow and deep

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1 bedrock wells. And like I said, over the last
2 several years, you know, we have developed this
3 database that shows which way groundwater's moving.
4 It's moving, basically, to the southeast and then
5 to the east-southeast and a little bit around
6 there. You know, it's not all moving directly in
7 one line, of course, because the topography
8 changes. And the bedrock wells, it is more
9 difficult to determine than a shallow well, for
10 instance. But with a network of wells out there,
11 you can -- you can characterize the groundwater
12 flow.

13 MR. CLARY: Do these wells trap?

14 MR. BOLYARD: If --

15 MR. CLARY: Does any of the chromium get through?

16 MR. BOLYARD: No. They don't trap anything. It -- it
17 flows through.

18 MR. CLARY: That's my concern.

19 (Multiple attendees speak simultaneously
20 without benefit of the microphone.)

21 MR. BOLYARD: Well, that's -- again, that's why we have
22 a network of wells and that's why we sample the --
23 the bedrock water supply wells around the site, to
24 make sure that that isn't happening; that it's not
25 going half a mile away from the site.

1 MS. FERGUSON: My name's Debby Ferguson. Your network
2 or wells, is it -- is it all around the perimeter,
3 upgrade and downgrade of groundwater flow on the
4 site?

5 MS. JONES: Yes, it is.

6 MS. PENLAND: How deep is the deepest --

7 UNKNOWN MALE: 140.

8 MS. PENLAND: Judy Penland. How deep is the deepest
9 well that you dug? Or, you know, gone down?

10 MR. BOLYARD: It's at a -- right now, about a 150 feet.

11 MS. PENLAND: Okay. And our well is 320 feet, you know.
12 Have you gotten to that water down there?

13 UNKNOWN MALE: And the water supply of all the
14 surrounding -- most of them are 200-plus feet.

15 (Multiple attendees speak simultaneously
16 without benefit of the microphone.)

17 MS. HENSING: I -- I have one quick question. Kelly
18 Hensing. Can we -- can we as a public say, "Yes.
19 We like your proposals, but as to testing the well
20 water in the 1-mile radius" -- I mean, can that be
21 taken into consideration if --

22 UNKNOWN FEMALE: And make DHEC have to pay for it?

23 MS. HENSING: Yes.

24 MS. JONES: That part I don't know. Well, we will
25 definitely take it into consideration.

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1 UNKNOWN FEMALE: Well, wouldn't it -- wouldn't it be
2 more -- wouldn't it be a good -- wouldn't it be a
3 good part of their corporate social responsibility
4 plan to do that? And can't they take out some type
5 of environmental liability insurance to where if
6 they took out a \$2 million policy and it cost less
7 than that to clean it up, they get the money back,
8 or if it cost more than that, they have to pay for
9 it? Can't their environmental consultant come up
10 with some type of environmental liability insurance
11 policy for that?

12 MS. OLIVA: That's nothing I've done before.

13 UNKNOWN FEMALE: There -- there are policies out there
14 that do it, because when you buy and sell property,
15 you can get the environmental liability insurance
16 premiums to do it.

17 MS. OLIVA: I don't think it's quite as easy as that.

18 MS. VINCENT: I don't think they can hear her.

19 MS. OLIVA: I don't have personal experience with it,
20 but I don't think it's quite as easy as you're
21 making it sound.

22 UNKNOWN FEMALE: I -- I know it's not but --

23 MR. HALE: Frank Hale. Could you describe this
24 treatment method, GW-4A? What -- what material do
25 you inject and how does that work, exactly?

1 MS. JONES: The -- the -- the -- we would have to do
2 some design studies to determine what type of
3 material would be injected. What their -- we don't
4 -- Jean, I don't believe we've decided on what that
5 material would be to this point.

6 MS. DICKMAN: Hi, I'm Colleen Dickman, and I live in
7 Vander Lakes in the 1-mile radius -- actually
8 four-tenths of a mile from the plant. Our well is
9 325 feet and that's -- and you guys went, what,
10 150? So I'm really concerned about that. That was
11 the first question. And is it standard for you to
12 do the 1-mile radius, or is there some concern --
13 why did you pick the mile? I mean, there must be
14 some risks in that.

15 MS. JONES: Okay. To answer your first question, the
16 deepest well on-site was around 150. The
17 residential wells that we are currently sampling
18 around the property are much deeper, say, 220. So
19 -- so we have gone deeper on -- on the residential
20 wells. We realize that the -- the private wells
21 are -- are deeper.

22 That one-mile radius -- I started getting a
23 lot of phone calls from people after I sent out the
24 flyers, and I was trying to figure out where they
25 lived in relation to the site, so I just -- I

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1 thought this map would represent the subdivision
2 and just to give you an idea -- and me -- how far
3 away you were from the site. There -- there's no
4 standard for listing a 1-mile. I just wanted to
5 show people when they came here where their house
6 was in relation to the site from an aerial shot.

7 MS. DICKMAN: And I also think that --

8 UNKNOWN MALE: Did you inform --

9 MS. DICKMAN: -- DHEC should --

10 UNKNOWN MALE: -- everybody in a mile --

11 MS. DICKMAN: -- consider --

12 UNKNOWN MALE: -- 1-mile area?

13 MS. DICKMAN: -- testing our wells to --

14 MS. JONES: Okay.

15 MS. DICKMAN: -- within the 1-mile radius. Vander
16 Lakes.

17 MS. JONES: Thank you.

18 UNKNOWN MALE: I don't know if my home is within a
19 1-mile area, but I didn't get nothing from you guys
20 in the mail. The only copy I got was from my --

21 MS. VINCENT: Repeat --

22 UNKNOWN MALE: -- homeowner's association.

23 MS. JONES: His question was that -- or he -- he made
24 the statement that he did not receive a flyer in
25 the mail; he's not sure if he's within that 1-mile

1 radius. That 1-mile radius was not exactly where
2 we --

3 UNKNOWN MALE: But what address -- to what address --
4 you know, that Campbell Road?

5 MS. JONES: You're on Campbell Road?

6 UNKNOWN MALE: I'm on Campbell Road. I'm at 6715.

7 MS. VINCENT: That was sent a flyer. Yes, that was sent
8 a flyer.

9 MS. JONES: Pat, you may be able to help me answer this
10 one. We looked online for the county website to
11 see what properties were near the site. I -- I
12 took a map, and I -- I drew the -- the main roads
13 that I thought that those people would want to know
14 what was happening at the site, not necessarily
15 that they were in any risk; but if they were
16 concerned about what was happening in their
17 community, I wanted to send them the information.
18 And there were certain roads that I had to select,
19 and certain roads that I did not select. And we
20 did put it in the newspaper as well, but --

21 UNKNOWN MALE: Did -- did -- do you know -- I mean, this
22 is at 6247?

23 MS. JONES: Yes.

24 UNKNOWN MALE: Where was the mile go to? To what -- I
25 said, if -- if I were to do a study like that to

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1 send and inform all the neighbors, I would say,
2 "Okay. That mile goes to 6720 or to 6713 -- you
3 know, and I'm on 6715. So I don't know if it's --
4 I'm outside the mile range or -- or the study that
5 you done to send out flyers is not including
6 everybody that is affected or could be affected.

7 MS. VINCENT: The county provided the department with a
8 list of residents within a mile radius. If your
9 property boundary touched that line, even if you
10 jutted out and had 25 acres further out, you were
11 provided a notice. So I suspect if you didn't
12 receive the fact sheet, it may be that that could
13 be the situation.

14 Also, the department took the -- the
15 information that was provided by the county and --
16 and also cross-referenced with 411.com trying to
17 see if we can get anyone who may be a -- a renter
18 or that wouldn't come up as a -- a -- as an owner
19 of the property within that area. That is what we
20 can come up with --

21 (Multiple attendees speak simultaneously
22 without benefit of the microphone.)

23 MS. JONES: Basically, we tried our best. We relied on
24 the county website, and that's why if -- if -- if
25 you do put your name on this mailing list, we can

1 make sure that you receive a flyer in the future.

2 MS. VINCENT: When you sign --

3 UNKNOWN MALE: Did -- did -- did you do a mailing?

4 MS. JONES: Did we do a mailing?

5 UNKNOWN MALE: Did you mail out notifications?

6 MS. JONES: Yes.

7 UNKNOWN MALE: No.

8 MS. VINCENT: And I actually have extra copies here, if
9 you'd like to have a copy.

10 UNKNOWN MALE: That's not the point.

11 UNKNOWN FEMALE: That's not true.

12 MS. JONES: Okay. I --

13 UNKNOWN MALE: This document was provided by some
14 neighbor that got it off the website before you
15 shut it down before all of us could print it off.

16 MS. VINCENT: I'm -- it -- it's available on the
17 website. I -- I have checked that, and it is
18 available. We may -- we have had some temporary
19 server issues that have temporarily knocked us off
20 completely, but I'll be glad to -- if you will --
21 I'm sorry. If you will kindly leave -- be sure
22 your name is on this sign-in sheet, I will be sure
23 that you will get other notices. But that's -- and
24 we do -- like I said, we have extra copies if you
25 did not receive one or did not see it on the -- the

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1 website.

2 MS. JONES: Sorry. She -- she -- she's taking the
3 microphone around so that it can be recorded.

4 MS. HALL: Sherry Hall, Campbell's Crossing. I just
5 want to know that if the -- what amount of chromium
6 -- as the years have gone by, has it increased in
7 these wells, has it decreased, or what are the most
8 recent levels, and are they increasing?

9 MS. JONES: Jean, do you know that off the top of your
10 head? I -- I can say for the saprolite area, I
11 know that that -- that blue circle that -- that's
12 relatively stayed constant since '97.

13 MS. OLIVA: Yes. And -- and --

14 MS. JONES: Same for --

15 MS. OLIVA: -- the same --

16 MS. JONES: -- the bedrock?

17 MS. OLIVA: Yes. The -- they've both stayed fairly
18 constant. When EFP was operating, they were using
19 one of the wells up in the northwest corner, and
20 since they left, the concentrations in that area
21 have gone down.

22 MS. JONES: I believe that well was pulling that plume
23 toward that well, and once they stopped pulling off
24 of that, the levels have -- have receded.

25 MR. HILTON: Hi, John Hilton again. Thank you for

1 making me feel comfortable about my well possibly
2 not being contaminated, but what I find really
3 irritating is that I live within a mile of the
4 plant. I had to find out through a neighbor who
5 somehow found out. Your website's been down every
6 since he told me about it. I pay, as many of these
7 people do, the salary of the people that evidently
8 work in this county who can't find me at my house.
9 That really burns me up. Everybody -- the IRS --
10 everybody else can, but on something like this, you
11 can't find me to send me a letter?

12 MS. JONES: I apologize. If -- if we didn't get the
13 letter to you --

14 UNKNOWN FEMALE: None of us got a letter. I mean, no
15 one --

16 MS. JONES: And -- and you're in the --

17 UNKNOWN FEMALE: -- no one --

18 MS. JONES: And you're in --

19 (Multiple attendees speak simultaneously
20 without benefit of the microphone.)

21 MS. JONES: And you're in Campbell's Crossing or Vander
22 Lakes? Okay. I do not -- I -- I -- if -- is
23 Campbell's Crossing within one mile --

24 UNKNOWN FEMALE: Yes.

25 UNKNOWN MALE: Yeah.

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1 UNKNOWN MALE: Yeah.

2 UNKNOWN FEMALE: My house is in that circle.

3 MS. JONES: Okay.

4 (Multiple attendees speak simultaneously
5 without benefit of the microphone.)

6 UNKNOWN FEMALE: Paraham Road is off Campbell.

7 MS. JONES: I just want to make sure I know where it is.

8 This is Campbell. Is this Paraham?

9 UNKNOWN FEMALE: That is Paraham, yes, ma'am.

10 UNKNOWN FEMALE: No, no, no, no.

11 UNKNOWN FEMALE: Yep.

12 UNKNOWN MALE: To the right of your fingers, Vander
13 Lakes, and to the left is Tamarack, Campbell's
14 Crossing.

15 (Multiple attendees speak simultaneously
16 without benefit of the microphone.)

17 UNKNOWN FEMALE: There you go. Campbell's Crossing.

18 UNKNOWN MALE: That's Campbell's Crossing.

19 UNKNOWN FEMALE: That's right. That's Campbell's
20 Crossing; that's Vander Lakes.

21 UNKNOWN MALE: That's Vander Lakes.

22 (Multiple attendees speak simultaneously
23 without benefit of the microphone.)

24 UNKNOWN FEMALE: So basically -- basically, the rural
25 people got the letters, but people in the community

1 did not -- where the majority of people would be.

2 MS. JONES: And I was thinking it was just the opposite
3 when I looked on the map and saw Vander Lakes. I
4 -- I thought they were included on our mailing list
5 and not the Campbell's Crossing. I -- like you
6 said, I would've preferred it to be just the
7 opposite. I apologize if we did not send it to the
8 correct location.

9 UNKNOWN FEMALE: It should've been sent to both of them.
10 They're both on there.

11 MS. JONES: Correct.

12 UNKNOWN FEMALE: It should have been -- been a little
13 more thorough.

14 MR. ALEXANDER: Yeah. Nelson Alexander. I live in
15 Vander Lakes. I got two questions. One, I want to
16 know if maybe the drought had something to do with
17 prompting your decision to tell the people in the
18 area.

19 And the second thing is that I was -- built in
20 that area, basically, because it was a booming area
21 and your house were going up in value. And if you
22 say that SPX is responsible for cleaning up their
23 site, if I'm getting ready to sell my house this
24 year and y'all put this in the paper -- and you
25 sent a lot of these notices out that evidently

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1 didn't get to some people, but they got to a lot of
2 people -- now that you've opened up a can of worms,
3 what am I going to tell someone who wants to buy my
4 house?

5 UNKNOWN MALE: See, by knowing that, you're responsible
6 to notify the people that are buying your house of
7 the potential risk of the chromium.

8 MS. JONES: Well, we notified the public because this
9 site is in your community, not necessarily because
10 I felt that you were drinking contaminated water.

11 MS. CRAGO: But answer the first question he had.

12 MS. JONES: Right. I -- I -- that's what -- I was going
13 to ask him the first question. Can -- can you --

14 MS. CRAGO: What prompted you to --

15 MS. JONES: Oh, was it the drought.

16 MS. CRAGO: -- to start acting now? We -- we --

17 MS. JONES: This --

18 MS. CRAGO: -- think you still should answer that.

19 MS. JONES: Okay.

20 MS. CRAGO: You've been testing this place for over ten
21 years.

22 MS. JONES: Correct.

23 MS. CRAGO: What -- what magically happened --

24 UNKNOWN MALE: Yeah.

25 MS. CRAGO: -- at that site that you are just now

1 notifying us?

2 MS. JONES: I got this document, and I reviewed it, and
3 I came to a decision as to what would be the best
4 remedy to --

5 MS. CRAGO: It took ten years to do that?

6 MS. JONES: To -- to complete the investigation; to
7 install the wells; and to investigate under the
8 plating bath area --

9 MS. CRAGO: You're telling me that took ten years?

10 MS. JONES: Yes, ma'am. Yes, ma'am.

11 MS. CRAGO: There's something wrong with that picture.

12 MS. JONES: Yes, sir.

13 MR. WEBB: I'm Alan Webb. I live at -- in Campbell
14 Crossing, and I had a question about the injection
15 of the material. Is the proposal that that will
16 change that hexavalent to something else? And is
17 that a permanent change? That's number one
18 question.

19 MS. JONES: Yes. The answer to that -- to both those
20 questions is yes.

21 MR. WEBB: Okay. And the other thing is, you know, I'm
22 -- you know SPX didn't cause the problem --
23 whatever their company name is.

24 MS. JONES: Correct.

25 MR. WEBB: And somebody back in the '50s caused the

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1 problem. I've been involved with these types of
2 sites all my life and ten years is -- is probably
3 it, but if she came to us a while back and she had
4 one-tenth of the information and told us that there
5 was contamination, we'd all be on her back and all
6 threatening to take her out to the nearest tree and
7 "Bring your own rope because we're going to hang
8 you."

9 You people are beating up the wrong person.
10 You know, I think that the state -- it has taken
11 charge and is making that -- that property owner
12 responsible to clean up the mess.

13 And if you haven't got 100 bucks in your
14 pocket to go test your own well, you're in bad
15 shape. I'm sorry. But if you have, go test it; if
16 you haven't, see if you can get a loan. It's not a
17 big deal, and I'm going to sleep well tonight. I
18 don't know about the rest of you, but I'm a mile
19 away from this thing and it's -- and it's contained
20 pretty much on the site, so what -- what's your
21 gripe? Your griping about not getting a notice,
22 but you're all here. So you all know about it. Do
23 you just want to complain about something?

24 UNKNOWN MALE: Yeah, I want to complain, because what
25 happens next time there's something worse and we

1 still don't find about it, unless we hear about it
2 from the neighbors? That's the problem.

3 MR. WEBB: Well, I mean, obviously, she's been working
4 on it; she got her information together --

5 UNKNOWN MALE: It's not her that did it. It's the local
6 authorities.

7 MR. WEBB: Well, they're not here, so why are we beating
8 them up?

9 UNKNOWN MALE: Well, that's what needs to be
10 communicated to them.

11 (Multiple attendees speak simultaneously
12 without benefit of the microphone.)

13 UNKNOWN FEMALE: They're here to take our questions.

14 MS. JONES: I -- I appreciate your comment and at other
15 sites that may not have information on a -- on a
16 county website, we have gone door to door. We did
17 not go door to door here. I apologize for that. I
18 thought that, by hitting the county website, I was
19 getting the residences that I needed to get. I
20 cannot apologize any more for that, so I see both
21 sides at the table here.

22 I -- I do also understand that some people
23 want to be notified, and now some people are upset
24 that now that that has been brought to light, their
25 property values may be decreased; or it's been --

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1 been brought to -- to light, or -- I -- I guess I
2 can't win. I'm in a catch-22 there. I need to
3 tell the public what's going on, and you also don't
4 have any reason to be concerned about your property
5 based on where it's located. So that may be one
6 factor that I'm trying to give you here.

7 MR. MARTIN: Bill Martin. I'm at 6270 Campbell Road,
8 right across the road from it, and I'd like to know
9 what the deed restrictions are going to be on it --
10 how far away from the contaminated site?

11 MS. JONES: The restrictions will be placed on the EFP
12 property -- only on that property.

13 MR. MARTIN: Okay.

14 MS. JONES: Not -- not on -- not on your property.

15 MR. MARTIN: Well, back before EFP closed up, I used to
16 get a printout every quarter when they tested the
17 water, and I haven't received once since they
18 closed that business up. And they do test my well
19 every quarter, but I'd like to get a printout on it
20 so I know what's happening with it.

21 MS. JONES: That's -- you're absolutely right. I didn't
22 realize that -- that EFP was handling that. We can
23 get that information to you. We can -- because
24 it's submitted to DHEC and then I can turn around
25 and send it to you. Absolutely.

1 MR. MARTIN: My well is about 150 feet from one that's
2 contaminated.

3 MS. JONES: Absolutely.

4 MR. MARTIN: Thank you.

5 MR. PENLAND: One -- one quick question. Steve Penland.
6 Just one quick question: I don't want to do any
7 rumors, but -- but I was told three weeks ago that
8 -- that a contract had been put out to purchase
9 that property -- the 25 acres and the -- and the
10 site -- from a -- from a trucking firm out of
11 Charlotte, North Carolina. And I -- and I don't
12 know that as a fact. It was just something that
13 was passed on to me by a neighbor on it, and -- and
14 so this would be something that would be rolling
15 through that you need to check into.

16 MS. JONES: Okay. I -- I'm not aware of any contract on
17 that property, but it would not change the actual
18 remedy that would occur on the property.

19 MR. DICKMAN: My name's Ray Dickman, and I was just
20 wondering how old that building is and how long is
21 it going to be maintained for since you don't want
22 any groundwater --

23 MS. JONES: Uh-huh.

24 MR. DICKMAN: -- getting into it --

25 MS. JONES: Uh-huh.

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1 MR. DICKMAN: -- and has anybody checked that building
2 lately?

3 MS. JONES: How old is the building? I -- Jean, do you
4 know?

5 MS. OLIVA: I believe it was built in the early '50s.

6 MR. MARTIN: It was built in 1955.

7 MS. JONES: Oh, the entire building?

8 MR. MARTIN? No.

9 MS. JONES: Oh --

10 MR. MARTIN: Just out where they chrome-plating bath --

11 MS. JONES: Okay. That front part area?

12 MR. MARTIN: The front part of it --

13 MS. JONES: -- was in the '50s. And --

14 MR. DICKMAN: Is anybody maintaining right now?

15 MS. JONES: The question was: Is anybody maintaining
16 that building right now?

17 MR. MARTIN: No.

18 MR. DICKMAN: Keep it structural, because you're saying
19 you don't want groundwater in there.

20 MS. JONES: Correct.

21 MR. DICKMAN: And how are you going to keep it from
22 getting groundwater in it if the roof's leaking?

23 UNKNOWN FEMALE: Structural integrity's what they're
24 saying.

25 MS. JONES: He -- he can answer that question. Sorry.

1 I'm going to pass that one off.

2 MS. VINCENT: Hold on just a moment, sir. Your voice
3 isn't carrying well.

4 MR. PETERSON: Chase Peterson for SPX Corporation. We
5 -- we -- we're responsible for that site, and we're
6 responsible for maintaining that building, and to
7 prevent rainwater from getting into that building
8 and percolating through that concrete floor -- and
9 maintaining the concrete floor -- the integrity of
10 the concrete floor. And so we'll have to be doing
11 inspections of the building; make reports to the
12 agency; periodic reports on the inspections. And
13 we'll hire an independent consulting firm, and
14 they'll come in and do those inspections and submit
15 the report to the agency and will make any repairs
16 that are necessary.

17 UNKNOWN MALE: What are your future plans for that site?

18 MR. PETERSON: Well, we'd like to sell it to someone and
19 -- and then -- then they'd be responsible for --
20 and we -- we'd still be responsible for maintaining
21 those -- making sure those deed restrictions are in
22 place, but the party that takes it over would have
23 to assure us in a contract -- you know, maintain
24 the floor, maintain the roof, and everything.

25 UNKNOWN MALE: Is somebody maintaining it now? is what

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1 I'm asking.

2 MR. PETERSON: Well, yeah -- yeah. I know. Well, what
3 happened -- what happened is -- what happened there
4 is we go into the building -- we periodically
5 inspect the building and the area where the plating
6 was to make sure there's no water in there, but the
7 -- the tenant was EFP products; they were leasing
8 the building from SPX Corporation, and they vacated
9 -- terminated the lease and left. They cleaned up
10 the building, cleaned everything out, all the
11 hazards. We made sure they cleaned all the
12 materials out of the building, but when you have a
13 vacant building like that -- we boarded it up; we
14 locked it up. Tried to lock the gates, but all the
15 copper wire, you know, was stolen out of that
16 building, which happens to us whenever there's a
17 vacant building -- you lose -- people come in and
18 vandalize it, and -- and we lost a -- we lost a
19 quite a bit of copper wiring. And that's why the
20 telephone poles are down. They were taking the
21 wires off the poles and the poles fell. Yeah. So
22 -- so we have -- we have somebody coming because
23 the pole is leaning down -- this pole was leaning
24 down. They're coming in to -- we called BlueTec
25 Energy out in there; they're coming in and put the

1 poles back in place.

2 UNKNOWN MALE: When was the last time it was inspected?

3 MR. PETERSON: Huh?

4 UNKNOWN MALE: When was the last time it was inspected?

5 UNKNOWN MALE: We -- we inspect it every quarter when we
6 go out there and do our sampling. About two or
7 three years before EFP left -- before EFP left the
8 site about two or three years, which would be four
9 or five years ago, I guess, they redid the floor
10 and all the plating baths. They resealed the
11 floor, and so it's -- it's in great shape right now
12 -- the -- the critical plating bath areas on the
13 site.

14 MR. STEADMAN: Paul Steadman, adjacent property owner,
15 and I have a couple of questions. First of all,
16 the monitoring wells and the private wells, when
17 they're sampled quarterly and annually, does that
18 just detect chromium on the day of the sampling, or
19 is there any way to detect whether or not there's
20 been any trace through there since the previous
21 time of the sample?

22 MS. JONES: That -- that water is collected that day, so
23 it's what was in that well that -- at that time it
24 was sampled.

25 MR. STEADMAN: So anywhere between one and four days, if

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1 you will, per year you're checking to see if
2 there's chromium present on those one to four
3 specific days?

4 MS. JONES: Yes.

5 MR. STEADMAN: Okay. And I'd say in the past ten years
6 we've had more drought than we have had annual --
7 well, normal rainfall, at least historically -- and
8 if we were to have normal rainfall, do we know how
9 that would affect the migration of the chromium to
10 other wells off the site?

11 MS. JONES: I can't speak to that. It would -- we've
12 seen the trends that we have so far. It would
13 depend on the amount of rainfall, the frequency of
14 that rainfall.

15 MR. STEADMAN: Okay.

16 MS. JONES: I -- I -- I couldn't answer that.

17 MR. STEADMAN: Okay. And do we know what the effect
18 would be -- that as this property is potentially
19 developed in the future and there's more wells
20 placed on the property, whether it's for industry
21 or for agriculture or for residential growth, do we
22 know how that's going to affect the aquifer system
23 and the migration off-site?

24 MS. JONES: Well, first off all, there will be no
25 residential development on this property. You

1 know, the contamination is still on the groundwater
2 right now and that's what we need to remedy before
3 you could -- you know, you couldn't put a house
4 there and have a --

5 MR. STEADMAN: Right.

6 MS. JONES: -- a well on it.

7 MR. STEADMAN: But if we had -- on the surrounding
8 properties, if we added wells, how would that
9 affect the draw and the plume and all that?

10 MS. JONES: It would depend on how deep those wells were
11 installed --

12 MR. STEADMAN: Okay.

13 MS. JONES: -- and if they're pulling from that same
14 aquifer that is contaminated or not.

15 MR. STEADMAN: Okay. So it seems to me, then, that to
16 contain this site requires cooperation from the
17 adjacent property owners or limits the adjacent
18 property owners from what they can do on their
19 property for fear or concern that it's going to --
20 we don't know the effect that it's going to have on
21 this contaminated site. And if we leave the
22 90-fold contamination that's present underneath the
23 floor of the building there and don't remove it,
24 then we're just exposing ourselves to future risk,
25 regardless of whether or not it's the -- the

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1 facility is maintained or not.

2 And I'd just like to echo Tom Smith's concern
3 that to choose S-2 as a solution for the soil
4 contamination leaves it in the hands of a private
5 party, whether it's a corporation or not.
6 Corporations do go out of business, and it's still
7 then left on the hands of the citizens or -- and
8 taxpayers to then take care of the situation. So
9 you're relying on a third party to make -- to
10 determine whether or not Solution S-2 is going to
11 be successful.

12 MS. JONES: I think it's successful whenever you look at
13 our evaluation criteria. Is it protective? Yes.
14 Is it -- you know, does it prohibit anyone from
15 coming into contact with it? Yes. You know, it
16 meets those criteria if that cap is maintained on
17 it.

18 MR. STEADMAN: Yeah.

19 MS. JONES: Correct. And -- and once those -- so in
20 order to keep that floor intact, you have a deed
21 restriction on the property. So yes, there are a
22 lot of things that have to occur in order to keep
23 that soil where it is and for no one to come into
24 contact with it. And those were the options that
25 were placed in that alternative, and that's why

1 they were listed out that way. So we feel that
2 we've -- we have made that alternative protective.

3 MR. STEADMAN: I --

4 MS. JONES: They both will work. S-2 will work and
5 S-3 will work. It's just a matter of which one is
6 more feasible; which one makes more sense; which
7 one's -- you know --

8 MR. STEADMAN: They both will work at the time they're
9 implemented, but the -- the ultimate success --
10 I'll use that word -- that your cap -- that cap's
11 -- integrity of the cap is maintained and is
12 incumbent upon the person -- the person or
13 corporation that purchased the property. And if
14 they don't then do that, well then, who's to say
15 that the integrity of the cap is maintained and
16 that 90-fold contamination doesn't leach out any
17 further into the soils or into the groundwater
18 and --

19 MS. JONES: That's that once-a-year check that we've
20 mentioned when a deed restriction's placed on a
21 property, that it's reported back to DHEC to make
22 sure that -- that we verify that the cap is in
23 place, that the floor is intact. So we have
24 certain protections that we feel work in certain
25 instances with the deed restriction.

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1 MR. STEADMAN: Okay.

2 MS. JONES: I -- I do see your point. I -- I would love
3 to, if there's contaminated soil, sure, dig it up
4 and get rid of it, but out in the open somewhere,
5 it makes perfectly good sense; underneath a
6 building with a huge concrete slab that the
7 building has a potential use for a future occupant,
8 then -- then the line is not so -- you know, it's
9 not so black and white. There -- there are other
10 options you may be able to use.

11 MR. STEADMAN: Yeah. Two more points. And that is if
12 the direction of the aquifer has been documented as
13 being to the southeast from the contaminated site,
14 while it's away from some of these residential
15 neighborhoods, which is good, it's heading to Lake
16 Wylie and also towards other growth areas that are
17 not shown on this aerial photograph, and that --

18 MS. JONES: That's why the sooner we can get out there
19 with the remedy, the sooner we can, you know,
20 mitigate that.

21 MR. STEADMAN: And I would like to formally ask that
22 DHEC would consider the potential remedy that
23 Mr. -- I believe --

24 UNKNOWN FEMALE: -- Hilton.

25 MR. STEADMAN: -- Hilton proposed or mentioned that he'd

1 seen online where you can essentially use some type
2 of -- it sounds like a chelating agent that would
3 bond the heavy metal and render them non-toxic. I
4 think that should be considered and also that you
5 should consider extending water service out to any
6 of the neighborhoods in the proximity to the
7 contaminated site so that they don't have to worry
8 about their groundwater and what -- even if you are
9 checking them for the presence of chromium one to
10 four days a year, that's a lot of water going
11 through those wells in between on the other
12 300 days of the year.

13 And the other question is if -- how can
14 somebody buy that site and continue another
15 industry there if they can't have access to water?

16 MS. JONES: Maybe they don't need water. I don't know.
17 Could it be a -- a storage unit? I mean, I -- I --
18 I --

19 UNKNOWN FEMALE: Where would you wash your hands?

20 MS. JONES: -- I was purely speculating as to the use of
21 that building.

22 MR. STEADMAN: Right.

23 MS. JONES: Maybe they would want their own water line
24 and maybe they wouldn't need to use water. I don't
25 know. I was just stating there's a building out

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1 there; it may have some purpose; it may not. I
2 can't speak to that.

3 MR. STEADMAN: Okay. But just for industrial use going
4 forward, that site is going to have to have water,
5 and certainly, the neighbors will sleep better if
6 they have city or county water out there. And I
7 think that should be considered in one of the
8 solutions particularly when some choices that could
9 cost 8 million are not being chosen. Thank you.

10 MS. JONES: And there've been several comments -- and --
11 and then we'll get to you, sir -- about the -- the
12 sampling the wells and running the water, and I --
13 I believe what the department has tried very hard
14 to do is to put in as many wells as we thought --
15 in the areas that we thought would show the
16 contamination. Where is it shallow? Where is
17 deep? How far out is it -- has it extended? We
18 feel that we know where that contamination is, and
19 we did not feel the need to go and sample people's
20 houses.

21 I do understand your concern, but, you know,
22 from a scientific standpoint, we didn't see the
23 need to go any farther. But I'm not saying that
24 we're not taking that under consideration. We hear
25 your concerns, very much so, but I wouldn't just

1 necessarily run out and sample subdivisions nearby
2 my site, unless I had a reason to think that the
3 contamination had migrated that far.

4 And also the issue about that -- your wells
5 only showing four days out of the year. You know,
6 once that -- it's not just one molecule that hits
7 your well and then keeps on going. It's -- it's a
8 plume that would extend. So if -- you know, once
9 you start to see some detections in your well, you
10 would still see that. I don't think it would show
11 up and then -- you know, if it's moving away, it's
12 going to be in your well from -- from one sampling
13 event to the next.

14 UNKNOWN MALE: Independent of rainfall?

15 MS. JONES: Yes.

16 UNKNOWN MALE: But previously, I thought you said you
17 didn't know what the effects of a non-drought
18 condition would be to the plume.

19 MS. JONES: I said I couldn't quantify. And I know
20 rainwater and precipitation does affect the
21 aquifers, yes. I couldn't tell you how much. If
22 -- if it rained ten days out of the year, would
23 that mean it would move -- it would migrate, you
24 know, 2 feet more per year? I -- I couldn't tell
25 you that.

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1 UNKNOWN FEMALE: Will your questions and comments from
2 this public meeting be documented online or do we
3 have to take time off from work to go look in the
4 record at the York County courthouse?

5 MS. JONES: We have a -- a -- I'm not sure how we will
6 get the transcript out to the public. If that's a
7 concern that you want -- you would like the
8 recording from this meeting to be placed, maybe,
9 online? Somehow if we could scan that in? We can
10 look into that.

11 UNKNOWN FEMALE: Hi. It appears that the highest levels
12 of contamination are deeper. So again, with the
13 concern is if the on-site wells are only 150 feet
14 deep and the surrounding wells that are being
15 tested are only 225, how do we know how bad the
16 contamination is at 300/400 feet? My well's
17 400 feet deep, and it's well into the bedrock, so,
18 you know, where -- how are we going to be assured
19 that a deep well's -- as deep as that is okay,
20 because, obviously, the shallow water isn't so --
21 so bad, and as you get down it's .380.

22 MS. JONES: Uh-huh.

23 UNKNOWN FEMALE: That's quite considerably higher than
24 it should be.

25 MS. JONES: Uh-huh.

1 UNKNOWN FEMALE: So are you going to be testing any
2 deeper than that, or is that just as far as you're
3 going to go is 225 feet and you're done?

4 MS. JONES: As of right now, yes. And -- and Tom, maybe
5 help me out. I know we did some studies on-site.
6 We -- we did go deeper on-site than that 150, and
7 we just encountered bedrock. We did not encounter
8 any fractures. So we feel that since your well --
9 we didn't go -- well, Tom, how -- how deep did we
10 go?

11 MR. BOLYARD: About 240 feet. Our -- our deepest well
12 was about 240 feet. We had no fractures for the
13 last 60 feet; it was solid granite; and that's why
14 we stopped going where we were. The -- the --
15 again, the --the placement of your well really is
16 much more critical than the depth of your well. If
17 you're, you know, not an adjacent property, then
18 you're much, much less likely to be ever impacted
19 by this site.

20 UNKNOWN FEMALE: And my other question is: Is there
21 going to be any cost that will come back to the
22 residents or is it -- will -- will it specifically
23 be for the corporation?

24 MS. JONES: It will be for the corporation.

25 UNKNOWN MALE: I just want to let everyone know I got my

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1 water tested this morning at Parr Laboratories.
2 They're off the opposite way off Carowinds
3 Boulevard. Forty-five dollars a sample, four
4 metals.

5 MR. CAMPBELL: My name is Briant Campbell, and my
6 question pertains to the size of these contaminated
7 sites. Either in acres or square footage, what is
8 the approximate size of the two blue circles on
9 these maps over here to our right?

10 MS. JONES: Ooh.

11 MR. CAMPBELL: I mean, I'm wondering, are we --

12 MS. JONES: Yeah.

13 MR. CAMPBELL: -- talking about a half-acre? are we
14 talking about a ten-acre site? I guess is my
15 question.

16 MS. JONES: Well, the entire site is about 25 acres,
17 so --

18 UNKNOWN FEMALE: We can get that information.

19 MS. JONES: Yeah. We can -- we can -- oh, yeah. And
20 the building is about a 70,000-square-foot
21 building, so we'd have to just -- I think they're
22 playing around with it in the back.

23 UNKNOWN MALE: It's three-quarters.

24 MS. JONES: Yeah.

25 UNKNOWN MALE: That's 2 acres.

1 MS. JONES: We think maybe 2 to 3 acres? Two to 3 acres
2 in size.

3 MR. CAMPBELL: Okay. Thank you.

4 MS. JONES: Sure.

5 MS. VINCENT: Who was next? I can't remember. Were you
6 next? Anybody else have a question?

7 MR. SMITH: Hi. I just -- I hope that DHEC will take a
8 -- a long, hard look it -- at this, as far as
9 long-term. Okay? If the building -- whoever buys
10 it -- I mean, I don't -- I don't know why somebody
11 would, but if they did, to take on that problem and
12 you don't have water and sewer out there -- there's
13 nowhere nearby. I just don't see why somebody
14 would -- would buy that site.

15 MS. JONES: I don't know. Water could be run out there.
16 You know, we -- one of our options included running
17 water and sewer, so that is a possibility. But I'm
18 not speculating as to who should --

19 MR. SMITH: Right.

20 MS. JONES: -- buy or not buy that property.

21 MR. SMITH: No. But you know, whoever did buy it, I
22 just think that -- that -- you know, I just
23 question, you know, how responsible that that
24 person would be if you knew exactly what was under
25 it. I mean, you know -- there's a -- a time and

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1 point when common sense comes into play, and as far
2 as this site, the remediation of that really needs
3 to be looked at, you know. And I'm sure, like this
4 gentleman said, it's been done someplace before.

5 There are plenty of these sites across the country.

6 MS. JONES: Uh-huh.

7 MR. SMITH: And how many of these is that -- when you do
8 your evaluation process, is that how you do it? Do
9 you look at sites that have been done before you,
10 or you just say, "This is sort of a -- a basic
11 example of how things are remediated"?

12 MS. JONES: You can do it both ways.

13 MR. SMITH: Okay.

14 MS. JONES: Any type of information that's out there,
15 you can use that to --

16 MR. SMITH: Have you looked at -- you know -- you know,
17 punched in contaminated sites that are -- were
18 contaminated with chromium and other
19 contaminates --

20 MS. JONES: Oh, yes.

21 MR. SMITH: -- that are similar? And then how were
22 those sites cleaned up, and what was the best way,
23 and -- you know, and -- because I would speculate
24 that, you know -- you know, really, since the last
25 15 years, we haven't had a lot of continuous

1 cleanup, you know. That's pretty evident just like
2 with the site with the history here. You know, I
3 just don't think that there's a -- a -- it's been
4 -- I mean, Love Canal was one of the first ones,
5 and it just -- but what bothers me a little bit as
6 far as the length of this -- I know the Pole Branch
7 Road site, we put in monitoring wells over there at
8 a gas station when we found it out -- our own
9 monitoring wells -- and DHEC UST within a year had
10 15 other monitoring wells out there, and they
11 actually have started the cleanup process, and this
12 all happened within a couple of years. Now, with
13 that said, they knew about that site since
14 '92 also. So it bothers me that -- that -- and
15 maybe it's funding. I don't know. I mean, it's
16 always money, but it bothers me that these sites
17 are left lingering, you know. And ten years is a
18 long, long time to track the contaminates.

19 It seems to me with a couple/three years, you
20 should know the scope of the plume, you would
21 think. And if it's -- if the -- once the plume is
22 there, it's not like -- I mean, if this thing has
23 been contaminated since the '50s, the plume hasn't
24 moved that far. That's the good thing, you know.
25 So I would -- you know, I -- I just -- I -- I just

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1 -- it bothers me that it did take so long.

2 And then it does bother me that I still think
3 to this day that there's different departments that
4 do not coordinate with each other within DHEC. I
5 think you -- all you people are doing a fine job,
6 but there's a -- there's something missing, because
7 things are being dropped and one department doesn't
8 know what the other one's doing. And -- and what
9 I'm looking at is use this as an example, use Pole
10 Branch Road as an example of -- of where things
11 like this won't happen again.

12 MS. JONES: Thank -- I -- I -- I --

13 MR. SMITH: Okay.

14 MS. JONES: -- we will. I think we've learned from
15 this. But I -- I think to follow up with -- you
16 made a statement about, you know, "He looked
17 online; he saw a remedy." So basically, that's an
18 in-place remedy, what we're doing with the
19 groundwater. We're not pumping out the
20 groundwater; we want to inject something in place.

21 MR. SMITH: Right.

22 MS. JONES: Am I hearing from what you had looked up
23 that you would also like to see that in-place
24 treatment in the soils under the --

25 MR. SMITH: I don't know.

1 MR. JONES: -- building?

2 MR. SMITH: Either -- either, you know --

3 MS. JONES: As an option to evaluate.

4 MR. SMITH: As an option to knock the soils out. I just
5 wouldn't leave them. I -- I --

6 MS. JONES: Okay.

7 MR. SMITH: I just -- you know, to leave them -- you
8 know, again, 15 years from now, we may be back in
9 this room saying, "Well, God. We should have got
10 it out of there 15 years ago."

11 MS. JONES: Okay.

12 MR. SMITH: You know, that's what I'm concerned about.

13 MS. JONES: And -- and Jean, maybe you can fill me in on
14 -- on the leachability of the soil. I mean, do you
15 want to --

16 MS. OLIVA: Well, I -- I'd like to --

17 MS. JONES: Thank you. I promise, we won't forget.

18 MS. OLIVA: I'd like to maybe describe the geology a
19 little bit better. The saprolite in the top
20 20 feet or so is very clayey, which makes it very
21 difficult to treat. As it goes down, the clay
22 breaks down; you get into partially weathered
23 bedrock and then to bedrock. So we're going to be
24 treating that more permeable zone beneath the clay.
25 To try and get anything injected into that clay

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1 material beneath those plating baths would be very
2 difficult.

3 MS. JONES: So while it could work at one site that you
4 -- that you found, it may not be very fruitful
5 here.

6 UNKNOWN MALE: What about actually removing it?

7 MS. JONES: That is -- that is one of the options, and
8 we've heard your -- your concern about it.

9 UNKNOWN MALE: It's just going to keep leaching back
10 into the -- into the groundwater.

11 UNKNOWN MALE: Uh-huh.

12 MS. JONES: Well, --

13 UNKNOWN MALE: If it rains, it's going to keep on
14 leaking -- leaching right back in. You've got to
15 remove it.

16 MS. JONES: He -- he was making a statement that, you
17 know, if we remove it, it does not continue to
18 leach. And -- and my response to that would be
19 that that's why we want to maintain that cover,
20 that flooring right there, and then there's no way
21 it can leach. There's -- there's no way to -- to
22 push that contamination through. But -- but it was
23 an option that we evaluated -- to remove it -- and
24 we've heard your concern to consider that tonight.

25 Yes, sir.

1 MR. DICKMAN: Ray Dickman. Chromium and the hexavalent
2 chromium, are you considering those the same
3 chemicals --

4 MS. JONES: We're going --

5 MR. DICKMAN: -- as we're talking?

6 MS. JONES: Yes. Yes, I am. When I say "chromium," I
7 -- I mean -- I'm talking about the total -- the
8 hexavalent -- I'm talking about the chromium.

9 MR. DICKMAN: Are you going to remove the solids out of
10 the plant that was left over.

11 MS. JONES: The solids in the plant?

12 MR. DICKMAN: The --

13 MS. JONES: When -- when EFP was operating?

14 MR DICKMAN: Yes.

15 MS. JONES: Yes. But they've removed everything from
16 inside that building. It's -- it's been cleaned.

17 MR. DICKMAN: All right.

18 MS. JONES: That has been removed.

19 UNKNOWN FEMALE: Says in the report that the soil
20 underneath the footprint is outside the industrial,
21 but the surrounding soil is without -- is
22 contaminated beyond the residential. So the out --
23 surrounding soil is also contaminated, not just
24 what's under the footprint, correct?

25 MS. JONES: Correct. But I think -- correct. But I

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1 think it was a little backwards. Outside the
2 footprint is contaminated above residential, but
3 not industrial, and since this is an industrial
4 site -- industrial work -- it would be protective
5 for an industrial setting. It would not be
6 protective for residential.

7 UNKNOWN FEMALE: Right. So the soil is still
8 contaminated, regardless of whether it's
9 contaminated for industrial or residential.

10 MS. JONES: Yes.

11 UNKNOWN FEMALE: It's just a matter of a putting a label
12 on it. It's still contaminated.

13 MS. JONES: It is still contaminated, so we would not
14 want houses built there if those soils are left in
15 place at that level. We have done the testing on
16 those soils and they do not leach, so they are
17 bound up in that soil. They're not going to leach
18 into the groundwater and cause additional
19 groundwater problems.

20 UNKNOWN FEMALE: The surrounding soil does not leach?

21 MS. JONES: Correct. But it is still contaminated. So
22 you -- you wouldn't want to walk over there and dig
23 it up and play in it.

24 UNKNOWN FEMALE: How is it possible that it doesn't
25 leach? Is it -- I mean, rainwater will wash over

1 it, and it will -- how is it that -- how -- how
2 does it not leach? I don't understand that.

3 MS. JONES: I think Jean would answer that.

4 MS. OLIVA: When Angie refers to "total chromium," total
5 chromium consists of two different types of
6 chromium: Hexavalent chromium and trivalent
7 chromium. The trivalent chromium does not leach,
8 so when we sampled soils and there were high levels
9 of total chromium, but not of hexavalent chromium,
10 we know that that's the trivalent chromium and that
11 does not leach.

12 MS. JONES: Thank you, Jean. That was -- that was
13 perfect.

14 MS. VINCENT: Any other questions or comments?

15 MS. JONES: There -- there's one more over here.

16 UNKNOWN MALE: You know, I -- I think you've heard from
17 pretty much the majority of the people here on
18 different subjects and -- and I, too, would think
19 that depending on a third party to not disturb that
20 soil or that slab or roll a truck up on it and
21 break it or whatever it is, is not as responsible
22 as removing the soil. So I would say I would be in
23 favor of removing the soil, and I think that -- I
24 think that's the message you're getting. I --
25 maybe I'm talking out of turn, but I think that's

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1 the message you're getting, and that's what the
2 community is saying. We don't want to take the
3 risk down the road that something might happen.
4 And just like you closing the door and -- and going
5 on vacation for four months and coming back and
6 finding out your water heater broke, I mean, we
7 don't want that to happen. And -- and as -- as
8 many different projects I've been involved with as
9 a developer, when we came across bad soils, our --
10 our desire was to get rid of it. And that's what I
11 think they're saying.

12 MS. JONES: I -- and I do -- that is what I think I'm
13 hearing, and if there were other, future uses for
14 the site that we already knew about -- you know,
15 we're not saying that somebody else may want to
16 come in and remove the building or move the soil.
17 That could always happen in the future if -- if --
18 somebody chose to do something different with the
19 property. I mean, these are all speculations, but
20 I do understand that in all cases, we would love to
21 just remove the soil, if it's feasible.

22 MR. KENNEDY: My name is Gary Kennedy. Can we have a
23 show of hands for who agrees with that gentleman's
24 comment? Thank you.

25 MS. JONES: No. Thank you.

1 MS. VINCENT: Any other questions or comments?

2 UNKNOWN FEMALE: Since you have had a big response to
3 this meeting, will y'all have another meeting
4 before you make your decision on the remediation?

5 MS. JONES: If -- if -- if you would like that.

6 MR. SMITH: I think that'd be good. And the Timbers
7 that -- they didn't get advised. They're in the
8 mile ring, and again, that's the other development
9 up there. I know Colleen made me aware of it, and
10 I got one because I'm a councilman, but --

11 MS. JONES: So -- so first of all, what I'm hearing is
12 that we did not notify the proper people, correct?

13 MR. SMITH: If you do the 1-mile ring. I have -- you
14 know, I didn't know where you -- where you --

15 MS. JONES: And that 1-mile ring, we just -- we had to
16 pick some boundary.

17 MR. SMITH: Right.

18 MS. JONES: It could've been three-quarters of a mile if
19 we chose it, but --

20 MR. SMITH: You got a very small portion of the 1-mile
21 ring.

22 MS. JONES: Okay. So do you feel -- even though the
23 contamination is limited to on-site, do you --

24 MR. SMITH: I'm not going to make that choice.

25 MS. JONES: Okay.

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1 MR. SMITH: I'm not DHEC; you are.

2 MS. JONES: Okay.

3 MR. SMITH: I mean, you know --

4 MS. JONES: Well, I'm just saying the concern from the
5 subdivisions that -- that we've had here that the
6 neighborhoods --

7 MR. SMITH: Well, you know, they're going to hear it
8 from these people that are here --

9 MS. JONES: Okay.

10 MR. SMITH: -- and neighbors and -- you know, so I would
11 -- I would put a letter in there and -- and try to,
12 you know, just explain it as best as possible, put
13 your number in there. Certainly, they -- they
14 could call me if they'd like -- whatever. I don't
15 care. But --

16 MS. JONES: Okay.

17 MR. SMITH: -- you know, just as a -- if you're going to
18 test the wells within the 1-mile -- that's what
19 we're talking about --

20 MS. JONES: That -- that -- that's been proposed and
21 DHEC --

22 MR. SMITH: Right.

23 MS. JONES: -- will consider that, so --

24 MR. SMITH: Well, again, it's a cheap piece of mind for
25 a lot of people out here, so -- you know.

1 MS. JONES: So the issues that I've heard tonight are:
2 The -- some residential wells to be sampled by
3 someone other than the property owner; the
4 notification of the residents within that 1-mile --
5 some were notified, some were not; we need to do a
6 better job notifying the public; the soil removal
7 under the building to be considered as an option
8 versus -- versus the remedy that DHEC selected:
9 leaving it in place.

10 UNKNOWN FEMALE: S-3 instead of S-2.

11 MS. JONES: And any concerns about the groundwater
12 remedy that I might've missed? We're proposing --

13 MS. VINCENT: A question -- a question arose about the
14 depth of the wells --

15 UNKNOWN FEMALE: -- wells being tested.

16 MS. VINCENT: -- being tested and --

17 MS. JONES: The depth of the wells being tested -- well
18 that -- we will take that into consideration too.
19 The -- should DHEC sample the wells? If so, which
20 ones? How far away? How deep?

21 I just want to make sure that I've -- I've
22 grabbed every --

23 UNKNOWN FEMALE: In that mile radius.

24 MS. JONES: -- everything. And then also we need to
25 alert the property owners of their sample data.

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1 MR. GANGELHOFF: Paul Gangelhoff, Vander Lakes. I think
2 also you need to put some kind of a time line on
3 the remedy and not leave it open-ended.

4 MS. JONES: Okay. Okay. A couple more questions and
5 then -- I appreciate you guys staying here. It's
6 been about two hours.

7 MS. SNIKER: I'm Cheryl Sniker from Campbell's Crossing.
8 I just want to add one more thing. I think you
9 alluded to it; we didn't quite clarify it. If --
10 before this plan is implemented, once you've made
11 your decision, that there's a follow-up meeting.

12 MS. JONES: And you would like that to be a formal
13 meeting -- a presentation versus just a letter or
14 a --

15 MS. SNIKER: Yes.

16 MS. JONES: Okay. Okay. That's --

17 MS. SNIKER: Especially since there's some indecision
18 about what you're going to do in the final version
19 for the groundwater. That would give us an
20 opportunity to hear the whole story rather than
21 just the proposal.

22 MS. JONES: So you're saying if we decide to go with
23 Option S-3 versus S-2, come back and tell you that
24 that's --

25 MS. SNIKER: No. Not for soil, for groundwater. Since

1 you didn't know about the injectable -- what was
2 going to be used, how it was going to be done --
3 that was -- that's going to require some follow-up,
4 and we would like to have the details of that.

5 MS. JONES: Okay.

6 UNKNOWN FEMALE: Disposing of the soil -- you know,
7 we're -- just had a show of hands that everybody is
8 concerned about the total removal of that soil.

9 MS. JONES: There -- there will be pilot testing. I --
10 I think the first step after that remedial design
11 would be some bench scale to see what -- what
12 injectant works to break down this chromium. Then
13 they'll be a -- maybe a pilot study on the property
14 to see how -- what our system looks like. Maybe
15 once all that settles, then we can come and tell
16 you if it worked or not or if we have to choose
17 something else.

18 MS. SNIKER: Okay.

19 UNKNOWN MALE: I have a question.

20 MS. JONES: Yes, sir.

21 UNKNOWN MALE: Has any other cleanup been done on that
22 site? I know for a fact that that small building
23 adjacent to the big building there was used as a --
24 machine shop, and they just took the oil and the
25 chips and everything and dumped it out the back

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1 door on the ground. And I just was wondering if
2 there was any other cleanup done there --
3 peripheral kind of cleanup as opposed to just the
4 chromium.

5 MS. JONES: There have been several soil removals out
6 there. Just in my reviewing the file I -- I've
7 seen several. They were prior to the company
8 entering into an agreement with DHEC, so there may
9 not have been a lot of DHEC oversight at that time
10 whenever they were removing that -- those soils or
11 those piles. But it is documented that removal
12 occurred, and I think we've confirmed that those
13 samples -- that those locations were clean with our
14 soil samples on the property. But -- but something
15 has occurred out there.

16 MS. VINCENT: Is that all the questions? We're going to
17 -- as we mentioned, the comment period for the
18 proposed plan runs through March 7th. You can
19 e-mail additional questions that you may come up
20 with after you get home, sit down and talk with
21 your -- your spouse, you know. Please feel free to
22 call Angie on any of the technical questions. If
23 there's somebody you think needs to get a notice of
24 the -- the next meeting that we are proposing, then
25 please let us know that too. If you will also turn

1 in your survey sheets to Mr. Akhviediana, and --
2 we'd appreciate it if you could do that and --

3 MS. JONES: Pat, I had two more questions. First of
4 all, the York County Library, is that a convenient
5 location for us to house this record? Is it fairly
6 convenient for everyone?

7 And then second of all, the -- the -- I mean
8 the notice was also placed in the newspaper. I
9 believe that was the York newspaper -- or Rock
10 Hill?

11 MS. VINCENT: "The Herald."

12 MS. JONES: "The Herald"?

13 MS. VINCENT: Rock Hill "Herald."

14 MS. JONES: Is that the -- the proper paper?

15 UNKNOWN MALE: Yes.

16 UNKNOWN MALE: Yeah.

17 MS. JONES: Okay. Thank you.

18 MS. VINCENT: Thank you. We're going to close the
19 meeting.

20 (Whereupon, at 9:11 p.m., the meeting of the
21 above-entitled matter was concluded.)

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