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RPM Meeting
NASA/JPL Superfund Site
Thursday, March 7, 2002
9:00 A.M. to 1:30 P.M.
NASA Management Office - Room 180-801

1 RPM Meeting taken on Thursday, March 7, 2002,
 2 9:00 A.M., at Jet Propulsion Laboratory, 4800 Oak
 3 Grove Drive, NASA Management Office, Pasadena,
 4 California, before VICKIE BLAIR, C.S.R. No. 8940,
 5 RPR-CRR.
 6
 7 ATTENDEES
 8
 9 KEITH A. FIELDS, P.E., Battelle
 10 G.B. WICKRAMANAYAKE, Battelle
 11 RICHARD ZUROMSKI Jr., P.E., Navy
 12 KIMBERLY GATES, Navy (NFESC)
 13 JOHN TALLEY, Navy (NFESC)
 14 PETER ROBLES, NASA Environmental RPM, NASA/JPL
 15 (Present Telephonically)
 16 MARK RIPPERDA, U.S. EPA
 17 DAVID YOUNG, Los Angeles Regional Water Quality
 18 Control Board
 19 RICHARD T. GEBERT, Hazardous Substances Scientist,
 20 State of California, California Environmental
 21 Protection Agency
 22 MARVIN HILLSTROM, Environmental Engineer,
 23 NAVFACENGCOM, Southwest Division
 24 ROBERT KRATZKE, Environmental Engineer, Naval
 25 Facilities Engineering Service Center

1 ATTENDEES (Continued)
 2
 3 KEN MARTINS, P.E., Industrial Water Specialist,
 4 CH2MHill
 5 CHARLES BURIL, JPL
 6 JUDY NOVELLY, JPL
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1 PASADENA, CALIFORNIA; THURSDAY, MARCH 7, 2002
 2 9:00 A.M.
 3 ---000---
 4
 5 MR. ZUROMSKI: We'll go ahead and start. Let
 6 me pass out an agenda. Please just take one and pass
 7 them around. There should be plenty for everybody.
 8 And why don't we start off as we usually do.
 9 We'll go around the room and introduce ourselves, and
 10 I'll start. I'm Rich Zuromski with the Naval
 11 Facilities Engineering Service Center and --
 12 MR. GEBERT: Richard Gebert with the State of
 13 California Department of Toxics.
 14 MR. YOUNG: David Young with the Los Angeles
 15 Regional Water Quality Control Board.
 16 MR. RIPPERDA: Mark Ripperda With the U.S.
 17 Environmental Protection Agency.
 18 MR. HILLSTROM: Marvin Hillstrom with the
 19 Navy, providing practical support.
 20 MR. FIELDS: Keith Fields with Battelle
 21 MR. WICKRAMANAYAKE: Wickram, W-i-c-k-r-a-m,
 22 with Battelle.
 23 MR. TALLEY: John Talley with NFESE.
 24 MR. KRATZKE: Robert Kratzke, K-r-a-t-z-k-e,
 25 with the Navy.

1 MS. GATES: Kimberly Gates with the Navy.
 2 MR. ZUROMSKI: Great. Like I said, as soon as
 3 Peter calls in, we'll patch him in.
 4 I have, as item number one, project
 5 overview and schedule. I think I'll briefly say that
 6 most of the project overview and schedule is going to
 7 be taken care of further in our discussions on OU-1,
 8 OU-2, OU-3 today, so I'll pretty much defer item
 9 number one to our specific discussions. On items
 10 two, four, and seven, and eight, I guess, as well.
 11 So at this time we'll just move into
 12 item number two, the operable unit tech memo.
 13 And I believe everybody in the room got a copy.
 14 I did bring some copies. We're going to go through
 15 it, anyway. Were you guys all able to get copies?
 16 MR. RIPPERDA: Yeah.
 17 MR. ZUROMSKI: I know that David had some
 18 problems.
 19 MR. YOUNG: My computer, I had some problems.
 20 MR. ZUROMSKI: Yeah, I had some problems.
 21 For some reason, your computer system rejected mine
 22 several times.
 23 MR. YOUNG: I set it up that way.
 24 MR. ZUROMSKI: So what we're going to do
 25 is, actually, from that presentation on there, Keith

1 and I are going to go through the presentation; and
2 it really goes through the tech memo.

3 And do you want to sit here and go
4 through that?

5 MR. FIELDS: Sure.

6 MR. ZUROMSKI: With that, that I'll let
7 Keith -- Keith and I are going to do -- kind of do
8 this together, but Keith will be the main contact on
9 this here. So why don't you go ahead.

10 MR. FIELDS: You all had a chance to review
11 the tech memo to a certain degree, so it's kind of a
12 summary of that. But as we go along, please ask
13 questions if there's anything because I don't think
14 I'm going to be sharing anything new that was not in
15 the tech memo.

16 So we'll talk about the current status
17 of the SVE system. That was not in there, but you
18 may have seen monthly reports or whatever forwarded
19 to you. They did the PneuLog evaluation in January.
20 We'll go through those results quickly. Then we'll
21 go into some recommendations in three categories.
22 Design and construction is the first category.
23 Operation and optimization is the second. Soil vapor
24 monitoring is the third. And then I have questions
25 and discussion at the end; but, obviously, as we go

1 through, ask questions as we go.

2 The data that we have here is through
3 the end of December. There is data through -- you
4 know, they've been operating up through the present.
5 We didn't have time to incorporate that in. But they
6 did start up again on December 18th, and initial
7 removal seems to be consistent with what they were
8 seeing January through May.

9 They did do an analysis. One of the
10 recommendations that they looked at was doing an
11 analysis at each screened interval of the three to
12 determine what the mass concentrations were at each
13 for the mass loadings and --

14 MR. ZUROMSKI: Keith, this was done by Geofon?

15 MR. FIELDS: Yeah. All SVE operation work was
16 done by Geofon.

17 And so what we did is we looked at the
18 middle, deep, and shallow screened intervals. And
19 what this told us -- it looked like -- what we found
20 is the highest carbon tetrachloride levels were
21 observed in the shallow screened interval; and the
22 mass removal, the VOC removal rate, was consistent --
23 fairly consistent between all three intervals. So
24 what this told is before January through March 2001,
25 they were operating only from the lower two screens

1 because at that point the majority of the mass was in
2 those two screens. But now we're seeing sort of
3 equal distribution of the mass. So at this point, we
4 checked the monthly reports; they're extracting from
5 all three screens.

6 And that's the way we would use this
7 data in the future when we install additional wells.
8 We would look at the mass at each level and
9 determine, with the flow rate that we have, what
10 would be our maximum mass removal that could be
11 achieved by operating between those three or two or
12 four screened intervals.

13 We redid the contours and calculations
14 based on the November 2001 soil vapor monitoring
15 event. And so the pre-SVE we've all seen before.
16 The November 2001 for carbon tetrachloride is very
17 similar to what we saw in July 2001. And, in fact,
18 the mass estimates are almost exactly the same, so we
19 didn't see a lot of mass removal during -- obviously,
20 there was no SVE operating during that period.

21 And then here's the same with the PCE
22 updated contours for TCE. And then we went ahead and
23 did the revised mass estimates. We went through
24 these at the December 6th meeting. And the only
25 difference here is we had estimated nine pounds

1 currently in that December meeting based on the July
2 data for carbon tetrachloride, and that's the same.
3 And, then, actually, the mass estimate for TCE went
4 up a little bit from like 27 pounds to 30 pounds, but
5 basically the same.

6 The PneuLog evaluation was conducted on
7 January 22nd. It was a one-day evaluation.

8 MR. ZUROMSKI: There will be a report
9 forthcoming on that. I haven't received that yet.
10 So as soon as we get that, we will pass that along to
11 you guys. But the next few slides are taken directly
12 out of the PneuLog report.

13 MR. FIELDS: And I know, Mark, you're familiar
14 with PneuLog. Both of you know how it's used.

15 MR. RIPPERDA: Right.

16 MR. FIELDS: Okay. PneuLog, it's an apparatus
17 they attach to the SVE well, and it has a probe
18 that's attached to a cord or whatever that's lowered
19 down in the well. And they slowly bring it up and
20 they measure flow rate and VOC concentrations as
21 they're going up the profile of this well screen; and
22 it can give you an idea of where your flow is coming
23 from, certain lenses where the most of your flow --
24 and also where your contaminant mass is located
25 within that screened interval, as well.

1 Whereas before, the data we showed you
2 a couple slides ago, was sort of a shallow screen,
3 which is 50-foot long and says, "In this 50-foot
4 interval, we got this mass recovery." With the
5 PneuLog, you can say, "At this level, at between five
6 and 10 feet, in this screened interval, we've got
7 this mass recovery." It just gives you another level
8 of detail.

9 And then they also -- Praxis
10 applied a two region SVE model to assess the carbon
11 tetrachloride mass transfer, and we used some of
12 their results from that in some of the
13 recommendations we made in the report in that memo.
14 It really doesn't change too much what we were
15 recommending before, but it gives us an additional
16 level of understanding of how the subsurface geology
17 is set up.

18 This is the shallow screen. You can
19 see this is a cumulative flow chart on this side, and
20 then this side they determined what -- this is sort
21 of percentage of flow that's coming from a certain
22 interval. So you can see when your mass recovery or
23 when your cumulative flow -- when your cumulative
24 flow has a sharp increase, then it corresponds to a
25 higher effective permeability indicating that you're

1 lab. I think it was their own analytical lab, and it
2 wasn't a California-approved lab. So these
3 concentrations don't have the same validity as like
4 the vapor concentrations, but they seemed to match up
5 pretty well with what we had seen before.

6 But from this you can see sort of the
7 concentration or the mass from each interval where
8 they took the samples. So you can see that, you
9 know, a larger portion of the carbon tetrachloride is
10 coming from this 100 to 120 than it is from the 160
11 to 180.

12 So it gives us some good information as
13 to where the concentrations are coming from. Here,
14 like, for instance, they were seeing no TCE in this
15 region as part of the VOCs that were extracted. And
16 the most -- and primarily from the deep portion. And
17 it's interesting to note that, you know, TCE is
18 almost nothing in the shallow screen where carbon
19 tetrachloride has relatively significant
20 concentrations, and then vice versa in the lowest --
21 the deepest screen.

22 Are there any questions on just those
23 results? The report that Richard was talking about
24 will go into this in more detail.

25 MR. ZUROMSKI: I think it also goes screen by

1 drawing a lot of your mass flow from this area. And
2 then when it goes straight, that indicates that, in
3 that region, there was no additional contribution to
4 flow. So you can see here -- and what this basically
5 tells us is that there's certain lenses that are
6 producing most of the flow. And this is very common,
7 but you can see basically no flow up to, you know,
8 80, 73, 74 feet, and then there's lenses that are
9 producing quite a bit.

10 Same thing with the middle screen. You
11 can see along that profile there's quite a bit. It's
12 a little bit more evenly distributed. There are
13 certain areas where you're not getting a lot of flow,
14 but there's flow coming from almost the whole
15 region.

16 And then also the shallow screen -- I'm
17 sorry. The deep screen. And that one is even more
18 uniform across that flow regime.

19 And then the other result that they
20 give us -- they have a PID that's connected to the
21 PneuLog system, but the concentrations are so low
22 that a PID wasn't really measuring concentrations
23 accurately or capable of it, so they also took
24 concentrations from a -- extracted them into a
25 Tedlar bag, probably, and sent them to an analytical

1 screen on the concentration profiles, as well.

2 MR. FIELDS: This actually shows all three
3 screens.

4 MR. ZUROMSKI: Right. But I think you will be
5 able to see each screen specifically, I think, on the
6 report.

7 MR. WICKRAMANAYAKE: Did you do the mass
8 profile concentration?

9 MR. FIELDS: This is concentration.

10 MR. WICKRAMANAYAKE: Yeah, that, too, the
11 concentration. Did you do the mass profile where
12 you're using carbon tetrachloride because you have
13 the flow rates and you have the concentration?

14 MR. FIELDS: I am sure that was an
15 intermediate step in getting to the concentration
16 because they would have the total concentration and
17 the total flow rate. So it's a calculation -- a
18 specific concentration at an interval, they would
19 have to make those calculations. So that's something
20 that, if we would like to get from them, I'm sure
21 they have those calculations.

22 So now we'll get into the design and
23 construction recommendations. One -- and I think you
24 were all aware of -- this, they're going to do a
25 mobile SVE system.

1 MR. ZUROMSKI: Or systems. I changed that
2 this morning.

3 MR. FIELDS: Oh, okay. The idea, if there's
4 one or two or multiple ones, there's proposed four --
5 or four wells at this point, and the mobile SVE
6 system would be rotated between those four VE
7 wells. And the advantages there, one, is you save on
8 capital expenditures and operation costs are reduced,
9 rather than having four systems running concurrently.
10 And then the other benefit is a big part of our exit
11 strategy and approach to SVE, it looks at rebound.
12 So we -- as we move between wells, it gives us an
13 opportunity to evaluate rebound at each of those --
14 around each of those wells.

15 Another recommendation we had was to
16 update the air permit. And the air permit, as it is,
17 does not allow multiple locations, that we can tell,
18 so we want to change that. It requires CC14 analysis
19 every two weeks, and we may want to back that off to
20 monthly or quarterly and focus more on the total --
21 just the VOCs with an FID reading, which is
22 consistent with other permits that Battelle has
23 obtained from the SQAMD here in Los Angeles. Just
24 maximizing that a little bit and making it more cost
25 effective so that they're not taking more data than

1 they need to and spending more on that than is really
2 necessary.

3 And then this has been a recurring
4 comment since the FS, but to get some perchlorate
5 analysis from the soil. And, as is appropriate
6 within these, that will be done. The only thing that
7 may not -- the highest perchlorate concentrations in
8 groundwater are around the existing SVE well, and the
9 other wells are sort of outside that perimeter where
10 it's not as high. So it may be something that would
11 be even more focused on in a later aspect of work
12 when they're installing a well within that area where
13 you're seeing the highest perchlorate concentrations
14 in groundwater water.

15 MR. GEBERT: Is the mobile system, then, is
16 that like on a skid or --

17 MR. FIELDS: It's on a trailer.

18 MR. ZUROMSKI: We put to the trailer already.
19 The existing SVE system that's been operating, we had
20 it mounted on a trailer about -- what? -- five, six
21 months ago. And basically now we can take it and
22 trailer it around the site. We're just trying to
23 decide if we're going to have one or two depending on
24 how often or how long we have to operate the wells
25 that we're proposing, but we don't think we're going

1 to have to buy four systems. We think we can get
2 away with a couple, and rotate them through the
3 wells. As you have often times normally shut down
4 one, move to the next.

5 And, actually, if you'd like today at
6 lunchtime or something, we can go up. I can show
7 you. They did a really nice job. They basically
8 just took that system, had to rework some of the
9 plumbing, basically, and popped it on a trailer. And
10 it still fits within the same existing compound and
11 everything, so --

12 MR. FIELDS: There's a still a portion of it
13 that's skid mounted. The carbon treatment units --

14 MR. GEBERT: The carbon's still in place
15 there.

16 MR. ZUROMSKI: Yes.

17 MR. FIELDS: -- it's still going to be skids.
18 They're on skids.

19 And then additional SVE wells, we had
20 proposed for three additional wells. And what we did
21 here, the gray areas are sort of the combined TCE and
22 carbon tetrachloride plumes that I showed earlier
23 from the November 2001 data, and they've just been
24 put on here to show you sort of where the
25 concentrations are exceeding a very conservative

1 value of soil vapor screening levels that were from
2 the Water Board '96 guidance. So the concentrations
3 we all know are very low already, but these are the
4 areas that exceed a most conservative evaluation
5 using those screening levels. And so you can see
6 each well has fairly good capture of the areas with
7 the highest levels of carbon tetrachloride and TCE
8 that have been observed.

9 Now, these -- of course, locations are
10 subject to change a little bit, 50 feet one way or
11 the other to make sure that they're in a location,
12 you know, that fits with installing the equipment and
13 installing wells and not interrupting traffic
14 patterns and stuff like that.

15 MR. ZUROMSKI: I think that one of the things
16 that we would like to get out of this meeting today,
17 like we were talking about at the last meeting,
18 was -- we'll show you a schedule later that shows if
19 we go through the normal RD process that it may take
20 a while to get to the point where we would be
21 drilling these wells, whereas we really know now
22 where they can go, and we have the systems; and we
23 would like to talk about how we can go ahead and
24 maybe start doing this earlier than the RD. And
25 maybe it's an extension of the pilot study or however

1 we might see it, but we could start drilling these
 2 wells prior to the actual -- because the RD is a
 3 primary document, and having to go through all the
 4 reviews, it would take a while. We can get a lot of
 5 this work done -- Keith has done -- and I think we
 6 actually have one more monitoring round now that
 7 we're going to add into the final analysis of these
 8 wells which was just done in February. So we have a
 9 very good idea of where these wells are going to go.
 10 And I think maybe now is a good time to talk about
 11 how -- you guys have taken a look at this -- how you
 12 would like us to approach installing the wells and
 13 whether, under the remedial design and remedial
 14 action specifically, or try to maybe modify our pilot
 15 study work plan and do them ahead of the RD.
 16 Basically what the RD would say what we're talking
 17 about here today. This is definitely part of the RD.

18 MR. RIPPERDA: First the question: Can you
 19 use -- all of these extraction wells look like
 20 they're located extremely close to an existing
 21 monitoring well. Can you use the monitoring wells?
 22 Is their construction suitable for switching over to
 23 extraction?

24 MR. ZUROMSKI: I don't think -- not in the
 25 vadose zone because I don't think they're screened in

1 the vadose zone for soil vapor extraction. So
 2 they're mostly -- because you have -- the vadose zone
 3 is pretty much 50 or 65 feet to almost 200 feet, and
 4 most of those wells, especially -- for example, the
 5 shallow screen monitoring well seven that screen from
 6 like 225 to 275, and the vadose zone is like 200.

7 MR. RIPPERDA: Okay. So those points aren't
 8 all soil vapor monitoring wells? Those are
 9 actually --

10 MS. GATES: Could you change the soil vapor
 11 monitoring --

12 MR. ZUROMSKI: I don't think you can.

13 MR. FIELDS: Soil vapor monitors is just maybe
 14 a -- I don't know the exact construction, but
 15 probably a six-inch screen connected to maybe a
 16 quarter inch tube.

17 MR. HILLSTROM: They're eighth inch.

18 MR. FIELDS: Eighth inch.

19 MR. HILLSTROM: And a lot of them are getting
 20 plugged up.

21 MR. ZUROMSKI: Right. As far as soil vapor
 22 wells go, you couldn't reuse them. And, in
 23 addition -- to mirror what Marvin just said, part of
 24 this project process would also look at installing --
 25 you know, the possibility of installing more soil

1 vapor wells to confirm what we're talking about here.
 2 And I think Keith is going to go into the procedure
 3 that we're proposing for installing the wells, as
 4 well.

5 You might as well -- you guys have seen
 6 this, but what I do want, as far as the locations,
 7 the analysis that we've done, the tech memo that we
 8 forwarded to you, do you guys have any initial
 9 feeling of how you would like us to handle this? And
 10 we can talk about scheduling and items related to
 11 that later. But do you have any initial gut feelings
 12 about how we should proceed in this direction?

13 MR. GEBERT: How close are you in the first
 14 draft of the remedial design?

15 MR. ZUROMSKI: I haven't received an internal
 16 draft yet. So once we get the internal draft, we
 17 would -- it would probably take us a couple weeks to
 18 kind of go through it and hear -- Marvin, do you know
 19 what the delivery date on the internal draft is, by
 20 any chance?

21 MR. HILLSTROM: It's towards the end of March,
 22 early April.

23 MR. ZUROMSKI: End of March, early April.
 24 So you would probably sometime toward the end of
 25 April get the draft remedial design, give it a

1 30-day, you know, for a quick estimate, you know, 30
 2 days. If you went for the full 60 days, it could go
 3 anywhere from end of May till June.

4 But based on the data that we've
 5 already taken, like I said, we have one more
 6 monitoring round in addition to this that, hopefully,
 7 will confirm what we're seeing now. And based on
 8 those quarters of monitoring data, we think that --
 9 we're pretty sure we know where the wells are going
 10 to go, anyway. So this is really a -- I guess, a
 11 preview of the remedial design. So the whole idea
 12 is: Do we want to wait for the document to come out,
 13 so if you got a draft that goes out at the end of
 14 April and you get -- if we do get, you know, the best
 15 estimate 30-day review on that, that's end of May, we
 16 do a quick turnaround on a review. We do a draft
 17 final. We can speed that one through. But we do
 18 like to have the Raymond Basin comments on that one.
 19 That would put us into mid-July for the draft final,
 20 so probably sometime in August you would get a final
 21 remedial design. Whereas right now we have a
 22 contract that's up that basically we need to -- it
 23 would probably take us, I would say, a month to
 24 mobilize into the field and basically start drilling
 25 wells sooner rather than later. I mean, we can put

1 together a work plan that we could -- you know,
2 really it's actually the tech memo we could modify as
3 an addendum to the SVE work plan and do it in that
4 way, or we could wait until August to do that.

5 MR. GEBERT: For me, I don't see any reason to
6 wait because I kind of looked at your data and I came
7 up with the wells. Basically, I have two wells. But
8 very much the same locations you did. So I see no
9 reason why you can't schedule the drillers and do all
10 that as long as everybody here agrees that you have a
11 recommendation for a location. I see no reason to
12 wait.

13 MR. ZUROMSKI: Okay. And I think when we talk
14 about it in a little more detail in the next couple
15 slides, Keith is going to show you that. But we're
16 going to kind of do it in a step line fashion, too.
17 We're going to drill them all, but, you know, as we
18 drill them, we're also going to be kind of
19 reevaluating and making sure we're putting them in
20 the right place and doing the initial PneuLog testing
21 on each of them. So we're going to be -- you know,
22 we're going to do it correctly, and I think we have
23 the data that will help support us make sure we do
24 this correctly. So we're not really, you know,
25 worried about, you know, the thought process that

1 goes through the remedial design. I think we've done
2 a lot of that over the last six months. So it's not
3 like we're just coming out with a pilot study and
4 expanding it. So there is a lot of support for what
5 we're doing.

6 David, Mark, do you guys have any gut
7 feelings right now, maybe?

8 MR. YOUNG: I would like to see activities
9 proceed as fast as possible. But I'll check. I'll
10 see --

11 (Mr. Buri and Ms. Novelty enter the
12 meeting room.)

13 MR. YOUNG: -- you know, what -- Regional
14 Board management can start proceeding for the
15 finalized RD, but I don't think it will be a
16 problem. And, again, you may have to, you know,
17 maybe convert this paper into some preliminary work
18 plan just so I can submit that.

19 MR. ZUROMSKI: I think what we would do is we
20 would put together the work plan and it would
21 basically take the data in the memo that you have,
22 put it into a work plan format, and submit that as
23 a -- you know, some type of modification work plan to
24 the current SVE pilot system work plan.

25 MR. YOUNG: That would be fine.

1 MR. ZUROMSKI: We could move in that
2 direction.

3 MR. YOUNG: Yeah. I think that sounds
4 acceptable and, you know, go ahead and go with it
5 unless you hear differently from me.

6 MR. RIPPERDA: I agree with both of them. I
7 can't see moving the wells much, and I don't mind
8 jumping the gun on the process. But on the flip
9 side, I don't see why you can't just take this tech
10 memo, add in the actual well construction details,
11 and call that your remedial design and have that out
12 next week.

13 MR. ZUROMSKI: I think that we could probably
14 get it out fairly quickly. And that's really what
15 we're doing right now, anyway; but according to
16 Marvin, I guess -- I just don't know what's going
17 into that RD right now, that it is going to take --

18 MR. HILLSTROM: I think it's a little more
19 extensive than what Mark is talking about. But if
20 everybody is kind of satisfied with, basically, this
21 tech memo and some additional details, locations, you
22 know, construction information, I think probably we
23 could get it out soon.

24 MR. GEBERT: Because you already have the well
25 installation finding that's been approved. I assume

1 you will use the same one for the new wells. SVE is
2 not very complicated.

3 MR. RIPPERDA: You don't go out into the field
4 without a plan.

5 MR. GEBERT: Right.

6 MR. RIPPERDA: And to call that plan your
7 remedial design -- there's no regulatory
8 requirements. The content and form of remedial
9 design, it's not like a ROD or an FS. And so maybe
10 the Navy has their own internal guidelines on what
11 they call a remedial design, but I guess the
12 regulators are more open on what goes into a remedial
13 design.

14 MR. ZUROMSKI: I think that -- I guess the
15 only drawback I see to doing it that way is just
16 going through the review process. Whereas if you did
17 it as an IO study, pretty much the work plan gets
18 reviewed, and if it is approved, then we go forward.
19 Whereas if we do it as the remedial design, we do
20 have to follow more formal steps in the FFA.
21 And so that's really the only difference.

22 I mean, I think that basically the work
23 plan that we give you, for the most part, is going to
24 be, if it's not already, would be the remedial
25 design. It's just, you know, how do we want to

1 handle that. And, you know, that's really the input
2 that I'm looking for.

3 So, I mean, we can -- probably after
4 today we'll probably sit down and talk about how
5 quickly we can get that document put together.
6 And what I can do is I can send you a kind of
7 post-schedule of how I could see the remedial design
8 going, and then doing it as an expanded pilot study
9 and see what you guys think. And maybe do it then at
10 the next conference call in April. We could
11 formalize a decision at that time based on the
12 information we send you.

13 MR. RIPPERDA: You can do it either way. You
14 can do the first 12 as the expanded pilot study, give
15 us the work plan, and then just go out and drill.
16 And by the time you get to the rest of the wells,
17 you'll have the remedial design in place. Just
18 always looks --

19 MR. ZUROMSKI: That's a good point.

20 MR. RIPPERDA: It always looks better to the
21 public to have followed the process. So if you can
22 save two weeks, kind of why bother.

23 MR. ZUROMSKI: Okay.

24 MR. RIPPERDA: If you can save three months,
25 then, yeah, do it in an accelerated way.

1 MR. RIPPERDA: You mean for a standard
2 operating procedure, SQAQC, and all that stuff?

3 MR. HILLSTROM: That type of thing, yes.

4 MR. RIPPERDA: As long as everything in there
5 is still exactly how you're going to do it.

6 MR. HILLSTROM: Okay, okay.

7 MR. ZUROMSKI: So what we'll end up doing,
8 then, is we'll most likely put together a work plan
9 for initially expanding the pilot study, and then
10 we'll also be -- you know, really, concurrently with
11 that, we will be submitting the remedial design.
12 Whether it's, you know, the same exact time or it's
13 off by a short time, I couldn't say quite yet.

14 But we will be strategizing on that tomorrow, and so
15 we'll be able to provide you -- probably even sooner
16 than the next teleconference, we will provide you
17 with the way we were -- you know, propose to go.

18 Do you want to go through the rest of
19 this?

20 MR. FIELDS: Sure. We did put in some initial
21 well construction diagrams in the SVE memo for all
22 three proposed wells, but just to go through the
23 general design is we're proposing a construction very
24 similar to what the existing SVE well is with 30- to
25 40-foot long screen intervals, multiple screen

1 MR. ZUROMSKI: I think that that's probably
2 the best approach, what Mark just brought up, is that
3 we do want to minimize mobilization costs. So what
4 we could do is mobilize, drill the first well, and
5 start the expanded pilot study at the first well,
6 finish the remedial design before we move on to SVE
7 at the other couple of wells.

8 MR. FIELDS: But install all wells in one --

9 MR. ZUROMSKI: But install them all at the
10 same time based on data that we have just because
11 when we use the drilling method that we use here,
12 it's pretty expensive to mobilize several times.
13 Also the coordination with Cal Tech operations and
14 things here at JPL, we make sure that's done.

15 So that's kind of the -- we do want to make sure we
16 only have to do that once. But I think that
17 operating it as an expanded pilot study initially at
18 the one location, and then go through the remedial
19 design, make sure we have the design document
20 approved and finalized, and then start the other
21 wells as a remedial action. We could probably do
22 something like that, too.

23 MR. HILLSTROM: Mark, how do you feel like
24 referencing like an RD work plan, which is about
25 eight years old?

1 intervals, down to the water table in each location.
2 So what we did is we estimated based on the closest
3 monitoring well, and then we also put in the data
4 from the closest monitoring point, soil vapor
5 monitoring point, as you can see. And I think this
6 is carbon tetrachloride and then, slash, TCE
7 concentrations.

8 MR. BURIL: What do you call the water table?

9 MR. ZUROMSKI: Chuck, could you and Judy just
10 introduce yourselves for the record before we
11 continue on.

12 MR. BURIL: Chuck Buri, JPL.

13 MS. NOVELLY: Judy Novelly, JPL.

14 MR. FIELDS: Chuck, what we used was just the
15 static water level.

16 MR. BURIL: At what point in time?

17 MR. FIELDS: At the most recent monitoring
18 event. Now, we can go through an evaluation if
19 there's a significant fluctuation.

20 MR. BURIL: There is. It could be as much as
21 50, 60 feet a year.

22 MR. FIELDS: Okay.

23 MR. BURIL: So I would advise caution in terms
24 of how deep you make these things because, depending
25 upon what data you use, you could have one of these

1 completely submerged.
 2 MR. FIELDS: Yeah. What we may want to do is
 3 take a look at the historical high, and maybe that's
 4 something we should talk to Geofon about. Look at
 5 the historical high, and make the bottom well screen
 6 end at that point. That's a good point. But just in
 7 a general conceptualized manner, we were just saying
 8 we'll go down to the water level so we can get a good
 9 profile of the concentrations. Besides that,
 10 construction is the same as it was for the vapor
 11 well.

12 MR. RIPPERDA: If groundwater is 40, 50 feet
 13 below now what it might be in the future, I guess I
 14 wouldn't be afraid of submerging your deepest zone if
 15 there's contamination there. So drill the well, run
 16 the PneuLog, see if there's significant amounts of
 17 contamination there, and if there is, then you could
 18 run the SVE and your whole rebound on and off pattern
 19 while it's not submerged and just deal with the high
 20 vapor content, which -- I don't know -- might cause
 21 some operational problems. I don't know about the --

22 MR. FIELDS: Or just turn it off when it's
 23 submerged.

24 MR. RIPPERDA: And then turning it off when
 25 it's submerged.

1 MR. ZUROMSKI: Right. And having three
 2 different distinct well screens, we can shut one off
 3 as we see the water table rising to certain levels.

4 MR. BURIL: I only see two on the design.

5 MS. GATES: This is one well.

6 MR. FIELDS: There is one well that has four
 7 currently. It's just based on the depth from ground
 8 surface to the water elevation. We currently meant
 9 we took from the most recent data. This is VE-3,
 10 which is sort of at the northeast corner of the
 11 facility where the groundwater table is closer to the
 12 surface. But that's the data that's on each one of
 13 those, and it's just some conceptualizing how we're
 14 going to install these initially. And it will be
 15 finalized in the RDRA.

16 Recommendations for operation and
 17 optimization. This was in that last update to the
 18 pilot study, that memo or action plan that was sent
 19 out by Geofon, but we're going to continue operating
 20 the VEO-1 until we get the asymptotic conditions, the
 21 conditions that we specified in the ROD.

22 One thing -- Richard already mentioned
 23 it -- with the new VOCs from the new vapor extraction
 24 wells, we are proposing doing the PneuLog at each of
 25 those wells similar to what was done at VEO-1 to get

1 a profile throughout the vadose zone. And then we're
 2 going to track cost per pound of VOC removed.
 3 And one of our performance objectives in the ROD was
 4 to evaluate costs closely with this, as opposed to
 5 doing it -- addressing these under another approach.
 6 And so that will be something that's monitored and
 7 tracked to help us make those decisions as we move
 8 along.

9 And then, as we talked about, rotating
 10 the operation of the SVE unit between SVE wells. And
 11 one thing, based on that practice report, they
 12 estimated a minimum time to get a flushing of one
 13 pore volume within the radius of influence was two
 14 weeks, was their estimate, based on their modeling.
 15 So we were saying, "We're going to operate at an SVE
 16 well for a minimum of two weeks in order to make sure
 17 we get a flushing." If after two weeks we see no VOC
 18 concentrations, we may just pull out. It just won't
 19 make sense to keep operating there. But we'll go at
 20 least two weeks.

21 And then also we recommended -- let's
 22 say we go to a well, we see no vapor extraction, no
 23 VOCs, in any of the screened intervals, and so we
 24 move on. We recommend coming back at least one more
 25 time and checking again and make sure we have two

1 times where we are not seeing any mass removal from a
 2 particular well before we take it off the rotational
 3 schedule.

4 MR. ZUROMSKI: And we'll also confirm a lot of
 5 this. We're going to use the PneuLog in each of the
 6 new wells that we do. That will be in the evaluation
 7 ROD.

8 MR. FIELDS: But, yeah, after we're in
 9 operation, we can still look at the mass loading from
 10 each screen interval as we start up at each new
 11 location.

12 And then the vapor monitoring, we
 13 talked about this, I think, at one point as limiting
 14 the analytes as ones that seemed to be of concern,
 15 which are those four VOCs that have been tracked over
 16 the last several years, carbon tetrachloride, TCE,
 17 Freon 113, and the other was --

18 MR. BURIL: 1,1-DCE.

19 MR. FIELDS: Thank you.

20 The one thing that may be a slight
 21 change in approach than we've talked about in the
 22 last couple meetings is that at this point we're
 23 talking about not installing additional vapor
 24 monitoring points. And the reason is we think where
 25 we located these vapor extraction wells are where we

1 have hits of VOCs at the perimeter of our monitoring
 2 network. So we want to take the PneuLog data,
 3 evaluate that first, getting a good profile
 4 throughout the vadose zone of VOC mass.

5 MR. ZUROMSKI: Hello.

6 MR. ROBLES: Hello?

7 MR. ZUROMSKI: Hi, Peter.

8 MR. ROBLES: This is Peter Robles from Cocoa
 9 Beach.

10 MR. ZUROMSKI: Peter, we're just going through
 11 the discussion of the tech memo on soil vapor
 12 extraction and installation of wells, et cetera.

13 MR. ROBLES: Okay.

14 MR. ZUROMSKI: And so you'll hear Keith Fields
 15 is giving a presentation right now.

16 MR. ROBLES: Okay.

17 MR. ZUROMSKI: Feel free if you have any
 18 questions at any time to interject comments.

19 MR. ROBLES: I apologize if I have to get off the
 20 line because we're between conferences. But go
 21 ahead, please.

22 MR. FIELDS: Okay. Thanks, Peter.

23 What we were just talking about is the
 24 recommendations for soil vapor monitoring during full
 25 scale operations of the SVE system, and we had talked

1 significant mass here. Let's step out a hundred or
 2 300 feet and see if there's anything beyond the
 3 radius of influence of this vapor extraction well.
 4 But I think we can make better decisions, instead of
 5 installing five monitoring points or three, maybe we
 6 install two or one.

7 MR. ZUROMSKI: So, basically, we are going to
 8 drill three new wells, use the data from those three
 9 wells to evaluate, then, if we need additional wells
 10 on top of that.

11 MR. RIPPERDA: If you get very little mass out
 12 of all three of these wells, which are put in what we
 13 think are the highest points --

14 MR. ZUROMSKI: And on the perimeters, too.

15 MR. RIPPERDA: -- then you think you don't
 16 really need to be looking much more. If you get a
 17 lot more mass out of these three than you expect,
 18 then you run them till asymptote, and then we'll make
 19 you step out or go to someplace else to check.

20 MR. FIELDS: Exactly, exactly.

21 MR. ZUROMSKI: Absolutely.

22 MR. FIELDS: Another result from that practice
 23 report was an estimate of using the diffusion, how
 24 long it would take to see rebound within the area.
 25 And it was, I think, 130 days. So what we're

1 about limiting the analytes, and now we were talking
 2 about not installing additional vapor monitoring
 3 points at this time because we want to use the
 4 PneuLog data at the vapor extraction wells first.

5 And, I think -- in fact, I thought the
 6 data that was taken by PneuLog was fairly useful and
 7 you would probably get a better profile with that
 8 because you're going along each -- the entire screen
 9 interval rather than looking at discrete points
 10 within the vadose zone. So I think it has some
 11 advantages, and I think it would be an appropriate
 12 approach at this point, particularly since the
 13 concentrations are very low, too. You know, we're
 14 maybe four -- a maximum of four times conservative
 15 vapor screening levels.

16 MR. GEBERT: That seems fine, but you are
 17 probably going to need some more probes at a later
 18 date. It's very likely.

19 MR. FIELDS: I think we want to evaluate the
 20 operation and see -- I mean, if we were extracting
 21 vapor and got to a point where we are seeing very
 22 little mass, VOC mass in the extracted stream, we may
 23 not need to put in additional monitoring points. I
 24 think it's good to look at that data first and then
 25 determine, yeah, it seems like we're getting some

1 recommending is probably two quarters of monitoring
 2 to evaluate rebound so that we can say either rebound
 3 did occur or rebound did not occur in vapor points
 4 surrounding the monitoring well -- the vapor
 5 extraction well, excuse me.

6 And then the last item is that sampling
 7 frequency protocol. And it was the same thing.
 8 I know you guys have seen it before in the last --
 9 we may have talked about it in the last meeting, and
 10 it was included in Geofon's report.

11 MR. ZUROMSKI: We modified it a little bit
 12 based on the recent data.

13 MR. FIELDS: Oh, okay. We just applied the
 14 same protocol to the recent data and were able to
 15 come up with new sampling frequencies for some of the
 16 wells that hadn't been monitored for a couple of
 17 years that were outside the monitoring network of
 18 VEO-1. And so that's at the last page of the memo
 19 indicates what the new sampling frequencies are.

20 And the primary approach of this was
 21 just to look at variability, and variability was
 22 defined as the range of VOCs over the past three to
 23 four quarters over the median concentration in the
 24 past three or four quarters. So if you had a high
 25 variability, you know, your concentrations are moving

1 up and down quite a bit, you would want
2 possibly go into a more frequent monitoring
3 because it would give you more important data.
4 Where this really comes in is if you have continuous
5 non-detects. One non-detect a year gives you as much
6 information as four non-detects within a year.
7 So that's what we're trying to evaluate here, is just
8 trying to optimize it so you're not taking more
9 samples than you need to make our decisions that
10 we're making.

11 And then, also, we kind of have an
12 adjustment in there for the vapor screening level.
13 If we see -- you know, if your concentrations are
14 really low, they could vary just a little bit, and
15 they could exceed this variability index of one. So
16 we want to kind of normalize that to the vapor
17 screening levels, conservative screening levels. If
18 they're below those screening levels, we'll do
19 semi-annual screening; if they're above, we would do
20 quarterly sampling.

21 So the basic result is high
22 variability, above vapor screening levels, quarterly;
23 high variability, below vapor screening levels,
24 semi-annually; and low variability, annually.
25 This approach was sort of adapted from an approach

1 by Lawrence Livermore Labs for groundwater
2 monitoring, optimizing that approach a little bit.

3 That's it for our recommendations.
4 Are there any other questions or things
5 we'd like to talk about?

6 MR. BURIL: I have a question for you.

7 MR. FIELDS: Okay.

8 MR. BURIL: Could you describe the actual
9 apparatus that you would be using for the soil vapor
10 extraction? Is this thing trailer mounted now?

11 MR. FIELDS: Yes. I'm sorry. We went over
12 that briefly up front. But it's a trailer-mounted
13 system. It has a trailer that contains the
14 extraction equipment, the blower, the knock-out tank,
15 some of the various controls. And then the carbon
16 units, the four carbon units, are currently skid
17 mounted. So they'll be rotated around between each
18 well. Richard indicated we may have one, we may have
19 two units that are being rotated between the four
20 wells during full-scale operation.

21 MR. BURIL: How big are these units? I
22 haven't seen them myself.

23 MR. ZUROMSKI: You remember those things --

24 MR. BURIL: Oh, it's the same system?

25 MR. ZUROMSKI: Yeah. It's basically the

1 system we have at VE-01 that we trailer mounted about
2 six months ago.

3 MR. BURIL: Oh, all right.

4 MR. ZUROMSKI: So it fits in -- we're
5 basically making them all exactly the same size, if
6 we do make another one. And it's big enough that we
7 would just trailer it around the site. You know, it
8 fits within the size of the site, so that we can get
9 in and out of areas that we're going to have these
10 in.

11 MR. BURIL: A couple of the sites you have
12 located here may be problematic when you're dealing
13 with something for a long period.

14 MR. ZUROMSKI: Right.

15 MR. BURIL: But we'll cross that bridge when
16 we get there.

17 MR. ZUROMSKI: We had talked about also, these
18 are not the pinpoint location for the wells; these
19 are the general locations. We would have to sit down
20 with you to talk about, you know, in that general
21 area, where would you put --

22 MR. BURIL: I would strongly advise that we go
23 to those field locations along with one of our
24 facilities representatives to make sure that we have
25 the support utilities available to you in all

1 locations.

2 MR. ZUROMSKI: We'll probably want to do that
3 fairly soon, too.

4 MR. BURIL: Okay.

5 MR. FIELDS: And I think because the radius of
6 influence is 350 feet, 400 feet, whatever it may be,
7 there's some flexibility. And if we have to move a
8 hundred feet over to get into another parking lot,
9 that certainly can be accommodated.

10 MR. ZUROMSKI: And I think that the size,
11 though, the number of spaces is going to be exactly
12 like we have at the current locations. So when we
13 picture it, we'll picture it as however X number of
14 spaces that are currently taken up, and that's
15 exactly the same area that we would use for any
16 additional systems.

17 MR. BURIL: And as far as any drilling goes,
18 we would like to get as much advance notice as is
19 humanly possible because while the sonic drilling
20 method, which I assume is what you're planning on
21 using, it works exceedingly well around here, it also
22 wreaks havoc with certain research projects that we
23 have, particularly some of the micro devices
24 considerations.

25 So we want to be sure that we time the

1 work that they're doing and that we're doing such
2 that we don't influence those.

3 MR. ZUROMSKI: I think once that -- probably
4 tomorrow we're going to be trying to figure out, as
5 we were talking about a little earlier, if we are
6 going to keep this as a pilot or RD. And then once
7 we figure that out, when we get the initial draft
8 work plan or RD, we're going to want to sit down with
9 the facilities folks and you guys and discuss the
10 schedule for implementation, how it's going to have
11 to revolve around anything that's got to be sensitive
12 to the sonic drilling because it is --

13 MR. HILLSTROM: But ahead of time we can start
14 spotting the locations for underground utilities,
15 doing geomagnetic surveys, that type of thing.

16 MR. ZUROMSKI: Right.

17 MR. BURIL: Oh, yeah. You've got the wells
18 located right along the backbone of the laboratory.
19 I'll tell you right now that you're going to have a
20 needle in a haystack kind of problem here. We're
21 going to have to look very hard for some open space
22 along Mariner Road.

23 MR. ZUROMSKI: I think that's the problem that
24 we'll work out with anything we do, so that's why
25 I'll make sure we just do it quarterly.

1 concentrations we get in the SVE, in addition to
2 what data do we have in that general area. I know
3 which ones you're talking about, like they're
4 plugged all the way through. You might want to put
5 a well just outside of that because this well is
6 giving very little data right now.

7 MR. FIELDS: And that's one advantage of the
8 vapor extraction well, using that PneuLog approach,
9 we'll get similar data and not have to worry about
10 plugging certain areas up.

11 MR. ZUROMSKI: Right. So then our approach
12 sounds like what we're going to do is we're going to
13 go back now over the next couple of days and we're
14 going to sit down and talk about the actual
15 implementation approach to any of them either as --
16 you know, a small part of us doing it as an expanded
17 pilot study, and then a full approach as the remedial
18 design. Come up with a schedule for a document
19 review, system installations, and we'll send that out
20 to you guys to take a look at.

21 And if we can -- if you have any
22 initial comments on it, we can maybe agree upon it
23 before the next conference call, but I think that by
24 the next conference call, hopefully, we can get
25 agreement on exactly the approach that we're going to

1 MR. BURIL: As long as you're flexible in
2 moving them around, I think that's fine.

3 MR. ZUROMSKI: I think that's fine.
4 Go ahead, Richard.

5 MR. GEBERT: I have a question on the data.

6 MR. ZUROMSKI: Yeah.

7 MR. GEBERT: I notice there's quite a few
8 plugged ports. Is there any way to unplug them?

9 MR. FIELDS: They've tried to blow air into
10 them and extract high volumes, but I don't think
11 they've been very successful in unplugging.

12 MR. HILLSTROM: No, they haven't. Pretty much
13 once they're plugged, they're plugged for the
14 duration. But they do check every port at every
15 sampling event, and some of them have opened up.

16 MR. GEBERT: What are they plugged with?

17 MR. HILLSTROM: Just soil.

18 MR. GEBERT: At some areas it's like a hundred
19 feet.

20 MR. ZUROMSKI: We realize that, as well.
21 And that's why, based on the SVE operations, when we
22 put the new wells in, we can see -- because there
23 may be areas that we're going to want to confirm
24 certain findings that we get from the SVE
25 operations. So we'll take into account the

1 take. It's going about installing the rest of the
2 wells and operating systems.

3 Well, we have the OU-2 response to
4 comments, which I just went over with Tim this
5 morning. I was out of the office yesterday.
6 So these are kind of our draft responses. There
7 weren't really many comments on the draft final ROD.
8 I'll pass these out, as well. There's only like
9 three pages worth here. So if you want --

10 MR. ROBLES: I'm going to have to go. I'll
11 call right back, okay?

12 MR. ZUROMSKI: Okay. So I'd like to just --
13 you know, I know you haven't seen these yet, so if
14 you want to take a couple minutes and go ahead and
15 read through them, or we can just go through them one
16 by one. I'll put them on on the screen because I
17 have them on the electronic copy so everybody can see
18 them, and then we can just kind of go through them
19 one at a time. Let me know when you're ready, and
20 we'll -- unless you wanted to just go through them
21 one by one.

22 Here's the first one from EPA, page
23 III, last paragraph, change "the" to "a" in the
24 second sentence. I think we did make that change for
25 you, Mark, as your attorney requested.

1 MR. RIPPERDA: Yeah.
 2 MR. ZUROMSKI: And you agreed with that, as
 3 well. Let's go through the second one. "Statutory
 4 determinations." We assumed that this language that
 5 you took was from EPA guidance?
 6 MR. RIPPERDA: Yeah.
 7 MR. ZUROMSKI: For the most part it was a
 8 very minor semantical change.
 9 MR. RIPPERDA: You put five-year review
 10 guidance, not --
 11 MR. ZUROMSKI: Yeah. And we made the change.
 12 I think we changed one or two words, but it basically
 13 says exactly what you wanted it to say.
 14 And let's go on to comment three.
 15 "Please add a sentence for not considering cyanide,"
 16 and I think we addressed that one, as well, with some
 17 text. And the reasons why cyanide was not included.
 18 Let's see. There's -- the fourth
 19 comment is -- has relation to hazard questions. We
 20 did modify that with some language. This kind of
 21 really was from our discussion at the last meeting
 22 that we had with Bill Mabey and talking about this
 23 type of analysis and how to describe it. So we put
 24 together a paragraph describing the modification. I
 25 know it's kind of long, so if you want to read that.

1 You don't have to make any -- we'll E-mail those to
 2 you, and make sure that everybody has final
 3 concurrence on the modifications to the draft final.
 4 So if you don't have any comments on what we
 5 submitted, or if you do, just let us know, but --
 6 MR. FIELDS: Sort of the short answer on what
 7 we did is the one sentence that you had -- I'm
 8 sorry. You were speaking.
 9 MR. RIPPERDA: It was a she who raised these,
 10 and I'm the one who wrote these. These are all
 11 questions from her to me.
 12 MR. FIELDS: Oh, okay.
 13 MR. RIPPERDA: If she sees something in the
 14 ROD like you detected cyanide, period, she just says,
 15 "Well, they have cyanide there. How come they're not
 16 doing anything about it?"
 17 MR. FIELDS: What we did is got rid of that
 18 last sentence about -- said something about 10 being
 19 an issue.
 20 MR. RIPPERDA: Right.
 21 MR. FIELDS: We just struck that sentence.
 22 And then we added the sentence, the information that
 23 you had requested about the location of JPL,
 24 non-wilderness, not a good habitat.
 25 MR. RIPPERDA: Right.

1 MR. FIELDS: And then once we got down to a
 2 point where we're looking at hazard quotients below
 3 10, there are a couple of other hazard quotients that
 4 were in the one to 10 range for the deer mouse.
 5 So we just put in a short paragraph on that.
 6 MR. ZUROMSKI: Basically just referencing the
 7 other documents.
 8 MR. RIPPERDA: Right. This looks fine.
 9 MR. FIELDS: Okay.
 10 MR. RIPPERDA: Philosophically, you guys
 11 should be aware when you go to write your next ROD or
 12 do your next ecological risk assessment, I don't know
 13 where the 10 came from, and I'm embarrassed she
 14 caught it, not me. Screening ecological risk
 15 assessments, the hazard quotient is one. If you're
 16 above one, you then have to justify it. So whoever
 17 threw 10 in as a screening level is just -- that was
 18 a mistake.
 19 MR. ZUROMSKI: Okay. But this should,
 20 hopefully, adequately address that change.
 21 MR. RIPPERDA: Yes. Our ecorisk assessors are
 22 pretty liberal on industrial sites.
 23 MR. FIELDS: Okay.
 24 MR. ZUROMSKI: The next one was regarding,
 25 "Include language on the GAC similar to the second

1 paragraph of NASA's response in Section 3.1," I guess
 2 from the last time, so we just modified that as you
 3 requested.
 4 MR. FIELDS: This is actually from our
 5 responses to the comments.
 6 MR. ZUROMSKI: Oh, was it?
 7 MR. FIELDS: And that responsiveness summary
 8 section. So we just put some of that same language
 9 in there and referenced that compliance with DOT.
 10 MR. ZUROMSKI: So that one was pretty easy.
 11 This one was the only -- no, it's the next one.
 12 Change "sitting" to "siting." We did that. Your
 13 attorneys believe that South Coast AQMD rules apply
 14 to ARARs. We, with the exception you can read
 15 there -- the one rule that, according to how NASA is
 16 trying to use a lot of the Navy's expertise in this
 17 area, and we have certain guidance on what we have
 18 considered ARARs and not ARARs in our soil vapor
 19 extraction sites. And so according to the Navy's
 20 guidance on this, I think all of the rules have been
 21 accepted as ARARs, except for this one specific rule,
 22 this nuisance rule. And we haven't really had --
 23 like I said, we just took a look at this over the
 24 last couple of days. We haven't really looked at
 25 this in depth. But you might want to look at -- and

1 I don't know if there are other Navy sites that
 2 you've worked on that might have the same issues
 3 involved. I don't know.
 4 Chuck?
 5 MR. BURIL: Richard, this poses a concern for
 6 JPL as an institute because JPL, the institute, is
 7 not exempt from 402. And a portion of an operation
 8 somehow being exempt from 402 is simply problematic
 9 for both JPL and the AQMD. I think we need to
 10 discuss this a little more before --
 11 MR. ZUROMSKI: I think that we will. This is
 12 our initial proposal --
 13 MR. RIPPERDA: Right. But my attorney
 14 specifically mentioned 402 and said that EPA on other
 15 sites has held it to be an ARAR. So my attorney
 16 wasn't familiar with it, so she went and asked an
 17 attorney who does work on ARARs stuff. And then the
 18 other attorney said, "Oh, yeah. We always use 402 as
 19 an ARAR."
 20 MR. ZUROMSKI: I think that what we'll do is
 21 we're probably going to discuss this a little more in
 22 detail internally. Like I said, this was just our
 23 quick initial response to your comments. And we
 24 might have to -- if this ends up being the only thing
 25 that we have to discuss on all these response to

1 comments, we might have like maybe a quick conference
 2 call on how we're going to address this.
 3 Like I said, you know, Chuck just saw
 4 this today. I've just seen this today, too. Just
 5 talked with my attorney just today, so that's just
 6 our initial feedback on that. So we can talk about
 7 that one further.
 8 But that's, then, your response to this
 9 would be that your attorney does believe that 402 is
 10 an ARAR?
 11 MR. RIPPERDA: Yeah.
 12 MR. ZUROMSKI: Okay. Well, like I said, since
 13 we don't have enough information to really discuss it
 14 in detail right now, let's move on and we can discuss
 15 that later on.
 16 The DOT requirements, I think that we
 17 did include that; right, Keith?
 18 MR. FIELDS: It was later. There was a
 19 follow-up E-mail that says, "Don't worry about it."
 20 But we did put that language in that other comment.
 21 MR. ZUROMSKI: And that was it from EPA's
 22 comments. So these are pretty much -- these would be
 23 your -- are your final comments on the draft final
 24 before it does go final?
 25 MR. RIPPERDA: Yeah. Your response to

1 everything was fine. Those are the only comments we
 2 have, and the only sticking point is 402.
 3 MR. ZUROMSKI: Okay.
 4 MR. RIPPERDA: And then the only other
 5 sticking point is that this is my staff lawyer who
 6 reads through it, and she never gives a ROD to her
 7 boss for final sign-off until this kind of stuff has
 8 been addressed.
 9 MR. ZUROMSKI: Right.
 10 MR. RIPPERDA: And for timing purposes, so you
 11 can know, occasionally the head attorney will open a
 12 ROD up and just find some random thing and want that
 13 to be changed. But it would be probably on the same
 14 level as this kind of stuff.
 15 MR. ZUROMSKI: Okay. So -- but for the most
 16 part, we can go ahead and after we resolve this issue
 17 we'll finalize it.
 18 MR. RIPPERDA: Yeah.
 19 MR. ZUROMSKI: Okay. Richard sent me a couple
 20 comments, as well. Let's go through those.
 21 The first one -- these were kind of
 22 informal, too, Richard. And I'm not sure -- are you
 23 guys are going to submit any more formal comments on
 24 this?
 25 UNIDENTIFIED SPEAKER: No.

1 MR. ZUROMSKI: In response to your one on the
 2 health-based action level 30, actually, back in --
 3 was this in the draft final maybe that we addressed?
 4 MR. FIELDS: Draft.
 5 MR. ZUROMSKI: In the draft. I think Mark
 6 actually sent us that number. That is the chromium
 7 6, the EPA Region 9 PRG for chromium 6 is 30
 8 milligram per kilogram. California might have --
 9 maybe California has another level. But this was the
 10 number that, I think, Mark specifically gave us
 11 during our -- one of the draft or draft rounds of
 12 review. So if there is a California level --
 13 MR. RIPPERDA: I don't remember.
 14 MR. ZUROMSKI: If there is a California level
 15 that you guys might want us to address or look at,
 16 you might want to take a look at that.
 17 MR. GEBERT: I just wanted to double-check
 18 because the number looked high.
 19 MR. ZUROMSKI: That's the Federal EPA number.
 20 And then -- let's see. You have added
 21 the word "federal" to -- and we did that, to
 22 differentiate from Cal EPA. And that was pretty much
 23 it. I think what you might want to do is check on
 24 that one standard for us and get back to us on that.
 25 And, otherwise, if you don't have -- if you have any

1 other comments, that we want to make sure that this
2 goes final at this point.

3 Do you have any other comments?

4 MR. GEBERT: No, that's it.

5 When can we expect the final?

6 MR. ZUROMSKI: Well, I was going to ask -- let
7 me just go through this one real quick.

8 This was one comment from -- as you
9 know, we do allow the Raymond Basin Management Board
10 to look at the draft final document. Their review,
11 their response, which none of you have seen, except
12 for in this document, and their only request -- they
13 said that everything was fine -- is the ROD for
14 OU-2 -- their only request was to be furnished with
15 the implementation schedule, which we're going to be
16 working on here fairly soon, so we have no problem
17 with that.

18 And I think that we will, once we
19 finalize the RD or pilot -- expanded pilot test, or
20 however we'll do that, we'll provide Ron with his
21 requested information.

22 So to answer your question, my question
23 goes to David, we did not receive any comments from
24 the Regional Board on the draft final. Should we
25 expect to receive any draft comments on draft final?

1 MR. YOUNG: No.

2 MR. ZUROMSKI: No?

3 MR. YOUNG: I didn't hear anything back so we
4 should be okay.

5 MR. ZUROMSKI: So then, with that, I think
6 that our two orders of action, number one being we're
7 going to go ahead and work on the addressing the AQMD
8 402 issue right away to try to get working on that,
9 probably after today.

10 And, then, Richard, if you would just
11 confirm your final comment for us, then we'll make
12 sure that your comments are closed out and Regional
13 Board comments are closed out. I didn't receive --
14 and Chuck said Cal Tech's not going to have any
15 response or any comments on the draft final ROD, so I
16 think our implementation schedule at this point would
17 be, number one, address these final two issues.
18 Make sure we get those resolved. And, basically, I
19 think, probably within a week, maybe two weeks after
20 that, we would submit the final ROD. And you would
21 submit, I guess, a signature page. I think Mark and
22 I kind of talked a little bit about this on the
23 phone. We would submit a signature page to each of
24 the parties, just an individual signature page.
25 And what we would do is just ask you to sign your

1 own signature page and submit it back to us, and
2 we'll incorporate it into the final document for the
3 administrative record.

4 And, so, basically, as soon as we
5 address the 402 requirement which probably -- I guess
6 that we didn't really have time to deal with it in
7 the last two days, so probably by next week if we can
8 finalize that, probably two weeks later I would say,
9 at the most, you would receive the final document for
10 signature, which would be sometime toward the end of
11 this month.

12 And then at that point in time, it
13 would just be up to however long it takes for, you
14 know, any minor comments that you might want to have
15 changed and/or how long it takes for you guys to have
16 your individual representatives sign the record of
17 decision.

18 Peter is not on the line. I'm not
19 quite sure who the exact individual is from NASA who
20 is going to sign this. I don't know if Chuck knew
21 who signed on any of that stuff in the past, but --

22 MR. BURIL: The most likely person would be
23 Jeff Sutton.

24 MR. ZUROMSKI: Okay. So I don't know how long
25 it will take for NASA to go through its signature

1 process. But, basically, for the most part, the OU-2
2 ROD is complete at this point except for these two
3 minor comments and getting the signatures. So that
4 gives you an indication of how long it's going to
5 take. It could be at the end of this month.

6 If it takes longer to coordinate and get the
7 signatures, you know, it could be sometime in April.
8 But I wouldn't think -- based on, you know, the
9 comments at this point in time, I don't think it
10 would take more than sometime in April at the latest
11 at this point in time.

12 MR. FIELDS: Mark, your signatory, is he --

13 MR. RIPPERDA: She. Deborah Jordan.

14 MR. FIELDS: Oh, well, you said she sometimes
15 has additional comments when she --

16 MR. RIPPERDA: No. It's -- she's brand new,
17 and so since this might be like only the first, maybe
18 the second, ROD she's going to sign --

19 MR. FIELDS: Okay.

20 MR. RIPPERDA: So you never know with somebody
21 brand new. But it's the head attorney who has to
22 tell her it's okay to sign --

23 MR. FIELDS: Okay.

24 MR. RIPPERDA: -- who's just, you know,
25 incredibly detail-oriented and frequently finds

1 "sitting" and "siting" kind of stuff in a ROD, and
 2 wants it changed before we sign it.
 3 MR. ZUROMSKI: I think barring any huge
 4 changes to this document, what -- we'll probably try
 5 to address individual semantical tiny changes with
 6 each individual regulatory agency and just coordinate
 7 through E-mail or something like that. Because it
 8 wouldn't be worth then re-sending --
 9 MR. FIELDS: Right.
 10 MR. ZUROMSKI: -- the final to each of you to
 11 sign at that point in time. But when we compile all
 12 the signatures at the end, the one that goes into the
 13 administrative record would, of course, include
 14 every tiny minor change which might be included
 15 toward the end.
 16 MR. FIELDS: But your head attorney wants to
 17 see it with these final changes. He doesn't want to
 18 see the draft final with this, he wants to see the
 19 final entire package?
 20 MR. RIPPERDA: Not really sure. She'll
 21 probably take this response to comments with a copy
 22 we already have once the 402 thing is worked out.
 23 MR. FIELDS: Okay.
 24 MR. RIPPERDA: And, you know, be happy with
 25 that.

1 MR. FIELDS: Okay.
 2 MR. ZUROMSKI: So that's generally it, then,
 3 as far as the OU-2 ROD. I think that we should have
 4 that milestone behind us fairly soon, and we'll come
 5 up with a good implementation schedule for both the
 6 RD and the pilot study within the next couple weeks.
 7 So does anybody have any last questions
 8 on anything we've talked about with OU-2 today?
 9 If not, I propose to take a real quick
 10 break, regroup, and then we'll come back and talk
 11 about some of the other issues.
 12 I'm going to change -- I'll let you
 13 know right now, since Peter is going to be coming
 14 back on the line, our next discussion was the
 15 administrative record website. I only have one phone
 16 line here, so I can't have Peter on the line and the
 17 Internet site going. So what we're going to do is
 18 we're going to move item number five to the end of
 19 the day, and we're going to go right into the OU-3
 20 actions right after the break. So why don't we come
 21 back at 10:30 or thereabouts, you know, a little less
 22 than 15 minutes.
 23 (Recess taken.)
 24 MR. ZUROMSKI: So with that, let's go into --
 25 we're going to skip item number five, and we're going

1 to do that later. Let's go into operable unit
 2 three.
 3 Is my computer still on there, Keith?
 4 MR. FIELDS: Yes, it is.
 5 MR. ZUROMSKI: What I want to talk about is
 6 what's going on with operable unit three. And what I
 7 want to go through is kind of a schedule which is
 8 kind of still in the works. But, basically, start
 9 off with the first bullet, the removal action
 10 status.
 11 As you guys know, we had talked about
 12 submitting an EE/CA, getting all that together,
 13 really, by the end of January. And here it is
 14 March 7th, and you're probably asking, "Well, we
 15 haven't received the EE/CA yet." And that's because
 16 the EE/CA has not been finalized for several
 17 reasons. And I think we're going to -- I want to
 18 leave this -- this is kind of just like an open
 19 discussion, because what's happening -- let me tell
 20 you what's happening right now -- is that we have a
 21 very rough internal draft EE/CA that hasn't really
 22 been looked at in detail, but really includes the
 23 discussion that we had back in the December meeting.
 24 And that's really sitting in our hands, and we're
 25 kind of trying to decide what to do with it.

1 The problem with that EE/CA is it does not consider
 2 the new California action level of four which came
 3 out on January 18th.
 4 The other problem is -- Hi, Ken. Oh,
 5 good, Ken came in just in time.
 6 MR. MARTINS: Can you believe I actually
 7 pulled into the first parking lot at quarter to 10.
 8 MR. RIPPERDA: Wow.
 9 MR. MARTINS: Forty-five minutes to get here.
 10 MR. BURIL: From where?
 11 MR. MARTINS: Well, there was no spot to park.
 12 I'm literally in the furthest possible parking spot
 13 there is on the other side of the campus. And then I
 14 got -- you know, it was busy, and then they forgot
 15 that you gave them a different number call, and on
 16 and on.
 17 MR. RIPPERDA: Do you want to just state your
 18 name for the court reporter while you're here, Ken.
 19 MR. MARTINS: Ken Martins.
 20 MR. ZUROMSKI: So what we're talking about is
 21 generally the status of why they haven't received the
 22 EE/CA yet, and so, again, back to the reasons.
 23 The first reason, number one, is that
 24 January 18th, our perchlorate standard changed. So
 25 back on January 7th -- actually prior to that, I had

1 talked with NASA headquarters about the EE/CA.
2 I actually did a similar presentation that I gave to
3 you in December to NASA headquarters, and at that
4 point it was pretty much let's go and move forward
5 with the removal action. And so we were getting
6 ready to do that; perchlorate standard changed,
7 things kind of stopped at that point.

8 We had -- and I think Mark was there
9 for a couple of the meetings. We had a meeting with
10 the City of Pasadena before the 18th where we
11 proposed the EE/CA alternative to them as we had
12 talked about in December to get their concurrence.
13 They thought, "Wow, this is a great idea." Then,
14 actually, I think we had a meeting with DHS to see
15 how we would go ahead and implement the 97-005
16 requirements that are going to be part of the EE/CA.
17 The meeting went fairly well. I mean, we got some
18 good feedback from the DHS personnel. And then
19 that's when January 18th happened, right after that.
20 And the perchlorate standard changed. And then we
21 had a meeting with the City of Pasadena after that
22 and more issues surfaced, and that's what we're
23 dealing with right now.

24 You know, Peter is on the line.
25 He could address more of this, but -- or he's not on

1 the line, but I think he would be the one to address
2 more of this. But there's basically some shift in
3 focus because now there are more wells that have
4 detections, because we're now at a lower detection
5 level, and what we're trying to do is decide how
6 we're going to deal with the new detection or the new
7 interim action level, how that affects the different
8 water purveyors, and how we're going to go about
9 implementing some type of off-facility action and
10 some type of possible on-facility action.

11 So on the removal action, right now we
12 are really anticipating that some part of this
13 remedy, no matter, really, what happens, is going to
14 include some type of off-facility wellhead treatment
15 at the two City of Pasadena wells that we talked
16 about. So we are currently moving forward with our
17 97-005 process, anyway, just as we proposed to you
18 back in December.
19 The two wells and treating them for perchlorate and
20 delivering the water to the public through the city.
21 That is still on the table and is still moving
22 forward.

23 The question is: There are more wells
24 that we may have to deal with. There are -- you
25 know, the size of the system, then, might change.

1 How do we address that? Issues related to both
2 upgradient and downgradient perchlorate because your
3 size of your plume contours just went from 18 to
4 four, and where you're delineating Colorado River
5 water being injected and perchlorate coming from the
6 JPL facility is really something that we're trying to
7 deal with. So all of these things are kind of
8 happening.

9 So what's happening now is that Peter
10 and Tim, the attorney from the office, are talking
11 with NASA headquarters. And we're trying to figure
12 out what is really the best strategy to move forward
13 with right now. So means take a look at the CERCLA
14 options -- or not the CERCLA options, but the CERCLA
15 process and different ways to use the CERCLA process
16 to move forward with the OU-3 option.

17 So what I came up with was really a few
18 recommendations to them on how we could do this. And
19 these are preliminary recommendations that -- but
20 came up with a few recommendations that showed
21 continuing on with the EE/CA versus going to an FS
22 right away versus delaying the FS and doing the both
23 the EE/CA and the FS concurrently, there are a lot of
24 different ways. And for whatever reason, my computer
25 is frozen right now, so we're not going to worry

1 about it.

2 But the process is right now that we
3 are looking at which way we want to do this, EE/CA or
4 FS. Number two, is we're trying to -- we got some
5 input from -- I think, Marvin, you sent me some
6 comments on the schedules and how they would all work
7 out. I think I also got some comments from
8 CH2MHill. Hooshang and you guys, I know, actually
9 talked about this trying, to find out which is the
10 best way to do this.

11 And the initial analysis showed, before
12 I looked at everybody's comments and the comments I
13 received, was that we could possibly do the EE/CA and
14 have the EE/CA completed while the 97-005 process was
15 still going on because that could, we found out, take
16 up 18 months minimum even if we tried to accelerate
17 it, probably two years at this point in time.

18 So if we bet on two years for doing the
19 97-005 process, and we did the EE/CA, the EE/CA could
20 be done in the next six months, we could start
21 planning for construction kind of working towards the
22 97-005 completion date so that hopefully we could
23 coincide the 97-005 approval with the start-up of the
24 system, get them started at the same time, and go.

25 What we also wanted to look at was,

1 "Well, what if we just did an FS, and get to record
2 of decision, how long would that take in comparison
3 to the two years that it's going to take us to get
4 the 97-005?"

5 Well, I think that -- and I'm trying to
6 remember exactly what the schedule said, but I think
7 it was something like maybe six months -- three to
8 six months before the 97-005 completion date we could
9 have had a ROD if we accelerated. You know, I'm
10 talking about best case scenario. If we accelerated
11 everything through for OU-3 specifically, and, then,
12 of course, at that point you would have to go through
13 your remedial design, which would take a lot longer.
14 So then it would probably take maybe nine months past
15 the 97-005 date, or maybe more, maybe up to a year,
16 to actually implement the action. So we thought that
17 it's possibly -- it's probably going to be better to
18 do an EE/CA, and then as soon as the EE/CA is done
19 for OU-3, we would be able to move along a lot
20 quicker with the OU-3 actions.

21 So most likely, based on our
22 recommendations to NASA, which we're going to be
23 finalizing over the next week and based on the
24 discussion today, we're going to probably continue
25 with the EE/CA and the removal action as we proposed

1 with possible modifications based on the four PPB --
2 we don't know what those are going to be yet -- and
3 move forward the EE/CA and also 97-005 and get that
4 rolling.

5 That's generally, I think, what we can
6 for OU-3 analysis. Of course, we don't know exactly
7 what's going to happen. You know, are we going to
8 have to expand the system; are we not? We don't know
9 quite yet.

10 But with that in mind, when I was back
11 at NASA headquarters in early January, and I think we
12 talked about this at our last RPM meeting, NASA's
13 concern is that we want to do this as soon as
14 possible. And having to wait for this 97-005
15 process, which is at least two years out, is not as
16 quickly as NASA wants to move to get actions
17 instituted at the facility.

18 So I know in the past that we've kind
19 of included OU-1 and 3 together as the groundwater
20 operable units, but they are listed as two operable
21 units. So we figure at this point in time, we could
22 break them apart, do OU-3 and the removal action and
23 everything related to that, and then maybe do -- I
24 think we talked about either a pilot study more --
25 likely a pilot study or a small removal action on the

1 facility to start working in the source areas on the
2 facility for perchlorate.

3 Now, we looked at both doing it as a
4 pilot study, doing it as an FS, doing it as an EE/CA,
5 and you really -- really showed that we have already
6 done, through our modeling for OU-3, we've actually
7 done a lot of the work for OU-1. And that if we do
8 it as a pilot study, we would probably save a good
9 six months or more over doing it as an EE/CA. And we
10 have the delivered process through the current EE/CA
11 we're doing for OU-3. We have the modeling that kind
12 of backs it up. So we wouldn't be going out and just
13 doing a huge pilot study. We would be doing a well
14 thought out pilot study. But it would get action in
15 place. It would also help out with -- you know, it
16 wouldn't have an immediate effect, but it would have
17 some effect on the off-facility plumes of
18 perchlorate, but it would really get something in
19 place soon. And we think that, best case scenario,
20 we could get that in before the end of the year
21 moving on as a pilot study. So that's another one of
22 our recommendations to NASA which we're kind of
23 working on right now, as well.

24 So those are kind of the two things I
25 want to talk about because the first one, OU-3,

1 depends on a lot of outside entities outside of this
2 room, DHS, City of Pasadena, Raymond Basin Management
3 Board, and how they fit into the discussions, the
4 decisions, related to doing anything related to
5 groundwater and pumping groundwater out of the
6 basin.

7 On the other hand, the OU-1 actions and
8 the reasons it's a lot quicker is because there are a
9 lot less parties involved. Everybody is going to
10 want us to do something on the facility. We don't
11 have to get land or restrictions or things from the
12 city for doing that. We're not delivering the water
13 to the public. Our intent would be to reinject that
14 water. But, of course, we would have to get
15 permission from the Raymond Basin, but I don't really
16 think Raymond Basin's really going to have a lot of
17 heartburn with us helping clean up the groundwater
18 and then putting it back in because the groundwater
19 is not going to be -- their biggest concern is use of
20 the groundwater. We would be putting the groundwater
21 back in, so it would be a zero sum game.

22 So like I said, this is a very
23 open-ended general discussion about these types of
24 things. While we're talking about this, I'll try to
25 get the schedule up on the screen. But what I want

1 to hear from most of you is what do you think about
 2 our strategies? How do you think we can -- well, we
 3 needed a contractor to figure this out. That's why
 4 we pay Keith the big bucks. You know, how can we
 5 implement this quickly on the on-site side? Is a
 6 pilot study a good idea? And then how do we deal
 7 with the off-site issues? How are we going to deal
 8 with the four PPB issue? How are we going to deal
 9 with, you know, other wells in this area that are now
 10 being shut off because of the new action level, which
 11 may not necessarily be the responsibility of JPL.

12 I mean, those are real issues that
 13 we're dealing with. So how we're proceeding is we're
 14 having a small meeting next week to discuss Marvin's
 15 comments, CH2MHill's comments, with just some Navy
 16 folks that have no real ties to the facility, kind of
 17 like the Tiger Team we did a couple years ago.
 18 But some folks that are going to kind of take that
 19 data and the data that I provided, swash it around,
 20 maybe look at your comments from today, and maybe
 21 give a more objective -- maybe we're missing
 22 something -- but give us an objective view. We're
 23 going to take that information, the analysis I've
 24 done, Marvin, CH2MHill, and we're going to provide a
 25 recommendation to NASA of how we want to proceed. We

1 want to get your input into that process is the whole
 2 idea today. And we want to kind of see, "Well, what
 3 do you guys think?"

4 So this is really kind of expanded
 5 work, the type of work that we have to do pretty
 6 significantly, or at least had sped it up. I don't
 7 think we had planned to do anything in the source
 8 zone because the source zone has been fairly stable.
 9 We hadn't really planned to do anything in the source
 10 zone except for doing the two more pilot studies,
 11 doing the in-situ pilot studies.

12 So -- I don't think -- I'm just going
 13 to throw that out. What do you guys think? And I'll
 14 bring up the schedule on the screen so you can see
 15 some dates about how we're going to go ahead and
 16 implement that.

17 So I'm just kind of going to open up
 18 the floor, and if nobody has any comments -- I mean,
 19 this is -- like I said, this is very general.
 20 We really are looking for direction right at this
 21 point, and we need to then take our direction and
 22 give it to NASA because this is really a NASA-level,
 23 even beyond this office. We're going to actually go
 24 back to NASA headquarters and have a brainstorming
 25 meeting with them, and they're going to help us make

1 the final decision on how to go with this because
 2 even if you do -- I'll just throw some cost numbers.
 3 We talked about -- what? -- \$15 million for doing the
 4 off-site OU-3 action? I think Ken gave us an
 5 estimate of somewhere between seven and 10 million
 6 dollars for doing an on-site -- what? -- 750 gpm --

7 MR. MARTINS: 650.

8 MR. ZUROMSKI: -- 650-gpm-type system with
 9 reinjection. That's still a lot of money to be
 10 spending. I mean, obviously it will be consistent
 11 with the final remedy. It's a good idea. But NASA
 12 is now going to have to cough up seven to 10 million
 13 dollars, plus \$15 million, in the next couple years.
 14 Are they going to be able to support that? I mean,
 15 that's definitely an issue, as well. Do we need to
 16 prioritize these things and make sure that, you know,
 17 the funding is going to be available to support the
 18 decisions that we make? I mean, those are realistic
 19 things that we have to look at, as well.

20 So with that, I'll bring these up on
 21 the screen. I'll open up the floor. I mean, if
 22 anybody has any comments on what's been going on,
 23 questions on what's been going on. There has been a
 24 lot going on behind the scenes; and, hopefully, soon
 25 we'll be able to make a decision on which way we're

1 going to roll.

2 So Chuck looks like he's ready to make
 3 a. Comment, jump out of your seat and go for it.

4 MR. BURIL: I'm ready. I was waiting to see
 5 if anybody else was ready to jump in first.

6 MR. ZUROMSKI: Go for it.

7 MR. BURIL: I didn't hear you discuss an
 8 option in OU-1 of going all the way to ROD.

9 MR. ZUROMSKI: We did. And I looked at that
 10 one on my analysis, too. I mean, I looked at -- we
 11 looked at going all the way to ROD with both OU-1 and
 12 OU-3, doing two separate rods. We also talked about,
 13 you know, if we did OU-1 as a pilot study and we did
 14 OU-3 as an EE/CA and we got that EE/CA done quickly
 15 and we got that pilot study in at the end of the
 16 year, we could start working on a combined FS towards
 17 the beginning about this time of next year and then
 18 move towards ROD. I mean, we looked at a lot of
 19 different options.

20 You know, a lot of them depend on what
 21 do we want to do from a time perspective. Because,
 22 you know, a lot of these are really -- you're going
 23 to get to the same end point, some of them within
 24 three to six months of each other. Does that matter?
 25 I mean, is there something that we're looking for

1 that's going to be more of a priority than something
2 else. I mean, I'm not sure.

3 MR. BURIL: I guess the question I would
4 propose to the group is: If we are truly
5 contemplating splitting these operable units up, it
6 would make sense, in my own mind, that we want to
7 draw the process to a close as rapidly as we can in
8 one or both of them. And, you know, interim steps of
9 pilot plans and EE/CAs and so forth all sound good if
10 you're trying to save a lot of time. But the time
11 frames I'm hearing are 90 days, you know, a hundred
12 and 50 days, that kind of thing. And given the
13 longevity of the project, it makes sense to me that,
14 if we're talking about finishing the project off from
15 the standpoint of the CERCLA project, getting to a
16 ROD, an end point where all of us can have something
17 to show at the end of the day rather than a
18 continuation of a process with an interim step, I
19 think we're all better served.

20 MR. ZUROMSKI: We talked about -- I did it two
21 ways. Well, let's go through my schedule now. I did
22 that two ways, and I'll get to that in just a second.

23 The first one is the operable unit one
24 in-situ pilot study. You know, we're going to talk
25 about this in a little while, but I'll talk about it

1 So here's, for example, doing OU-1 as a
2 pilot study, best estimate, you could actually system
3 start up on 12/24 as a pilot study -- that's of this
4 year 12/24/02 -- versus, as an EE/CA, you could start
5 up sometime in May of next year. So, you know,
6 conservatively six months difference doing it as a
7 pilot study versus doing it as a removal action in
8 OU-1.

9 You save time, I think, for OU-1 in the
10 fact that if you do it as a removal action, you have
11 to go through a 30-day formal public meeting -- which
12 I did include a public meeting for the pilot study,
13 but it's not a formal, 30-day comment period which
14 you have to have for the EE/CA. I mean, I think
15 that's where you save a little time is in document
16 review, you know, mailing notices to the community,
17 which we would do, anyway, for the other one; but you
18 wouldn't have to go through the more formal
19 processes. So that's six months difference,
20 generally, between doing OU-1 as an ex-situ
21 extraction and reinjection as a pilot study versus
22 doing an EE/CA.

23 Then I did it as an OU-1 FS to ROD.
24 And that would show you that you would have your
25 final FS around the same time -- well, I guess two

1 now. I actually have the contract rolling on that,
2 and we are going to do that. I think that I have
3 10/22 as the milestone. We're actually going to
4 hopefully start that system up sometime in the fall.
5 So that is a go right now. And we're going to be
6 working on that at least on a pilot scale up at MW-7
7 and --

8 MR. BURIL: What was this again, Richard?

9 MR. ZUROMSKI: An in-situ pilot study for
10 perchlorate reduction. So that's definitely
11 something we're working towards right now. That's
12 going to happen. So that's just something I wanted
13 to include as an overall -- I mean, I think that
14 occurs regardless of which option that we take.

15 And the first option here, this was
16 doing operable unit one as an ex-situ pilot study.
17 You know, I used -- okay. You might disagree or
18 agree with review times, but I used consistent review
19 times throughout all the options just so that they're
20 all relatively the same, so that way you could see it
21 as a six-month or three-month difference. So if you
22 see 60 days and you don't like it or whatever, I'm
23 just saying that it's not really that relevant to the
24 fact that -- they're all, relative terms, they're the
25 same.

1 months before you technically would have had a pilot
2 study in place. So sometime in October of this year
3 you could have an FS with a ROD, I think, in -- go
4 back down to the next one here -- in September of
5 '03. And that would be for your ROD. So that goes
6 -- actually, that was -- I think for OU-1, you
7 actually would save some time because -- you have to
8 go back and think about the dates, even if you did it
9 as an EE/CA, as a removal action, your removal action
10 would be starting up three months before you would
11 have your ROD. So that's a decision that I've left
12 up to NASA. I've let them know that you would
13 have -- you could have your ROD document, if you
14 start working on it now, in September of next year
15 for OU-1. I mean, based on the most, you know, the
16 quickest review times and everything like that.

17 But you could have something starting
18 up in OU-1 in either December or May, December of
19 this year or May of '03. Whereas if you did it
20 through the ROD, I mean, sure, you might be able to
21 start things a little bit earlier, but you wouldn't
22 be able to start a lot of your actions until, you
23 know, sometime in the summer or, you know, late
24 summer of '03; and then that would push that out. So
25 it would probably take you a year longer than the --

1 actually, more than that, I guess. It would take
2 about a year longer to actually start up the system
3 if you did it through the ROD process than if you did
4 it as an EE/CA, and then you go almost a year and a
5 half more if you did it as a pilot study. So that --
6 you know, that can be fairly significant.

7 I also looked at option two, OU-2 FS
8 ROD. This basically takes -- this overlaps the pilot
9 study -- I mean, the whole idea of using a pilot
10 study is to use the data in your pilot study to help
11 you in your decision in your ROD. So this basically
12 shows -- basically it pushes the ROD back, and we
13 would still basically start moving on the ROD as soon
14 as possible, but it shows incorporating the
15 information obtained from the initial start up in
16 OU-1 into the FS and pushing that out. And then
17 that's where I think the differences were. You would
18 actually have a ROD, instead of, I think, in
19 September '03, you would have a ROD in May -- or,
20 excuse me, March of '04. So that's about a six-month
21 difference for a ROD, but you really already have
22 your actions started up, as well. You would probably
23 be memorializing that in your ROD, and then moving
24 forward with a quick RD. But your actions would be
25 in place.

1 That, to NASA, sounds good because it
2 shows we're doing something sooner rather than later.
3 But, you know, I mean, that's a decision that I think
4 that's something that they're going to have to make,
5 and, hopefully, with your input, as well, would be
6 another option.

7 And then option three here is basically
8 doing the same thing as I'm doing with the pilot
9 study, but incorporating the EE/CA data into the FS.
10 And that pushes it out, I think, until the ROD and
11 sometime in September of '04 which is -- what? -- six
12 months more. So that would be a year longer than
13 just going FS straight ahead.

14 So, like I said, there's six-month
15 variabilities in here, and three-month variabilities;
16 but, you know, one gets an action done quickly, gets
17 something in place. Then you get into the
18 documentation, you know, following right along, you
19 know, right quickly along with that, one gets your
20 document maybe a lot sooner, but you don't really
21 have any actions in place. So that's OU-1. I
22 wouldn't go to OU-3 yet.

23 Do you guys have any comments or
24 questions on that that I haven't heard before?

25 MR. RIPPERDA: Yeah. A bunch.

1 MR. ZUROMSKI: Okay.

2 MR. RIPPERDA: First with your comment, why
3 don't we just go for the ROD and complete the process
4 sooner? Well, we don't consider the process to be
5 done until you clean the site up. So you're not
6 going to be out of the CERCLA process for 20, 30, 50
7 years. A ROD is probably the biggest legal
8 milestone, but it's not the final one.

9 MR. BURIL: That wasn't what it was intending
10 to be.

11 MR. RIPPERDA: Right.

12 MR. BURIL: The end of RI/FS process is what I
13 was thinking.

14 MR. RIPPERDA: Yeah. So, you know, I'm not in
15 a hurry to get to a ROD. I hate to do these
16 intermediate measures like EE/CAs and pilot studies
17 to save a little bit of time. You know, kind of like
18 with the soil vapor extraction, if you're going to
19 save just a little bit of time, then why bother.

20 But I also don't like to rush to a ROD
21 when there's so many variables. You don't really
22 know right now exactly what your remediation goal is
23 because there's not a standard promulgated yet. You
24 don't know if you're in situ biological is going to
25 work or not. You're not sure how much mass you're

1 going to get over how long a time from your on-site
2 well. You're not sure when you're going to be
3 allowed to put your off-site well treatment systems
4 in. So I guess when there's so many variables, I
5 kind of prefer doing treatability studies or
6 intermediate measures. So if the ROD is truly a
7 final document, I don't want to do several different
8 RODs. I would rather do some OU-1 stuff, some OU-3
9 stuff, rather than have one single groundwater ROD.
10 That can incorporate biological or not, on-site or
11 not, the appropriate number and locations of all site
12 wells.

13 So I definitely lean toward the
14 treatability study route, and I lean to that more
15 than the EE/CA route for the on-site stuff just
16 because that's almost too much paperwork that's going
17 to be then repeated in the FS, so why not just call
18 it a treatability study.

19 I think your treatability study
20 timeline might be too optimistic because --

21 MR. ZUROMSKI: All of these are too
22 optimistic. All of them are.

23 MR. RIPPERDA: -- because of on-site concerns.
24 Where are you going to put the well, pipelines,
25 handling, space, you know, all the normal concerns

1 that Chuck always brings up with soil vapor you got
2 in spades with water.

3 MR. ZUROMSKI: Absolutely.

4 MR. RIPPERDA: Plus David's --

5 MR. ZUROMSKI: Reinjection.

6 MR. RIPPERDA: -- agency's problems, potential
7 issues with reinjection. And so you might try to
8 rush forward the treatability study, but maybe you'll
9 just spin your wheels for a year and a half, and --
10 so it's not bad to try, but you might just end up
11 actually doing the action at the time when you would
12 have if you'd pursued an EE/CA.

13 MR. ZUROMSKI: And that's some of the
14 discussions we're trying to have internally is
15 precisely that, is, you know, how realistic is it to
16 do this in time? I mean, I think that everything
17 works out great, these schedules are -- at least if
18 everything is the best of both worlds, you know, and
19 everybody agrees, and we just move right forward,
20 boom, it's done. Absolutely. But I think that the
21 whole reason I didn't include those types of issues
22 in these schedules is I wanted to make them relative
23 to each other.

24 MR. RIPPERDA: Right.

25 MR. ZUROMSKI: But I think that that is

1 money because if you don't do the on-site removal,
2 then you're just going to end up having that mass
3 source turned there, and you will be running your
4 off-site treatment system for a hundred years or 500
5 years, whereas if you're treating a source, at some
6 point in time, you'll be able to have saved money on
7 your off-site.

8 MR. ZUROMSKI: It's more of a capital outlay
9 because of the budget cuts that NASA has to
10 consider.

11 MR. RIPPERDA: Yeah.

12 MR. ZUROMSKI: I mean, there's definitely
13 additions to the budget cuts right now. And are they
14 going to a six million pot and then a 15 million pot?
15 I don't know if they're going to have that.

16 Of course, we're also trying, as part
17 of that 15 million is drills, so we can kind of
18 stagger the money as we go along; but they have to be
19 able to commit on that, as well. I mean, it's a good
20 amount of funding. But you're right. I think over
21 the long term -- I gave it capital numbers, and over
22 the long term, one action may reduce the cost of the
23 other or vice versa, it may increase the other.

24 But that's, I think for NASA right now,
25 in their decision process is more going to be what's

1 definitely the thing that we're toying with with the
2 on-site action is, yeah, we have the modeling data
3 that's already done. We know where the wells
4 generally could be located, how effective they would
5 be, you know, how that would all kind of work; but,
6 sure, there's uncertainties with that.

7 So that's why then we go back and go,
8 well, you know, we could have an EE/CA. And even
9 though you're right, the EE/CA is going to be redone
10 in the FS, well, the EE/CA is probably going to be
11 kind of like for OU-3, the EE/CA is pretty much going
12 to be the FS. You're going to get a little more data
13 and then finalize it again.

14 MR. RIPPERDA: Right.

15 MR. ZUROMSKI: So you don't really repeat a
16 whole lot of information.

17 MR. RIPPERDA: And I would say for OU-3,
18 there's no way you'd do that as a treatability study.

19 MR. ZUROMSKI: No.

20 MR. RIPPERDA: You'd have to have a decision
21 document. And another slightly different subject on
22 the cost, you know, six, seven million for the
23 on-site, plus the 15 million that you pretty much
24 know, at some point in time, you're going to have to
25 be spending off-site. It's not quite a stacking of

1 it going to cost them over the next two years to get
2 all the stuff done, and what are they going to have
3 to sacrifice from some of their other programs to
4 make sure that this one is, you know, taken care of.
5 Because this is the number two priority in the NASA
6 environmental program, so I think we definitely -- we
7 are on the priority list for funding, but there's
8 only so much of that, of course, that they could
9 support.

10 I don't know, Richard or David or Chuck
11 or Judy. And, Judy, I saw you smiling. Judy, you
12 must have a comment on what's going on.

13 MS. NOVELLY: Oh, you don't want to hear it on
14 the record.

15 MR. ZUROMSKI: We do, Judy, we do.

16 MR. RIPPERDA: Well, give us your sanitized
17 version, then. What are you thinking? Are you
18 thinking anything?

19 MS. NOVELLY: Not with my boss sitting here,
20 no.

21 MR. ZUROMSKI: Chuck, would you mind leaving?

22 MR. GEBERT: I don't see as you have too much
23 choice, especially for OU-1. If you don't have the
24 data and the information to make a decision for your
25 FS, you really have no choice but to do a pilot

1 study.

2 MR. ZUROMSKI: I mean, we could use the small
3 pilot studies we've done and get to and use that in
4 the FS.

5 MR. GEBERT: But does it work?

6 MR. ZUROMSKI: Yeah, I mean --

7 MR. GEBERT: You say this is --

8 MR. ZUROMSKI: It works on a small scale; but,
9 you know, sure, we're going to have to go through a
10 lot more detail. That's why it takes more time to
11 get the FSs together than an EE/CA or a -- but I
12 think that NASA --

13 MR. BURIL: Well, was the priority here to get
14 to the remedial action, or, you know, a system in
15 place that will become the remedial action as rapidly
16 as possible? Is that the agreed-upon thrust of all
17 of this? I'd like to hear that, at least, to know if
18 we're all working towards the same goal.

19 MR. ZUROMSKI: I'm not the right person to
20 ask. I could not say. I could tell you -- what I've
21 been told is that NASA would like to get something --
22 something -- on-site action or something in place
23 before the end of the year. Now, is that something
24 the in-situ pilot study? Is that something this
25 pilot study that I'm proposing here, pump and treat

1 I mean, we've already proposed
2 something that takes care of immediate off-facility
3 concerns; this is something in addition to that.

4 So I don't know, Chuck. I mean, I
5 don't know.

6 MR. BURIL: Who does make that decision?

7 MR. ZUROMSKI: That's NASA's decision. Of
8 course, nobody from NASA is here today, and that's
9 why this is more of a brainstorming type session than
10 a -- and with getting your input so that I can put
11 into our recommendation to NASA and say this is what
12 we think that you should do at this point in time.
13 And I've kind of given you my thought processes on
14 what we've kind of been working on.

15 MR. BURIL: Well, I think this is a good
16 exercise to at least see what you're thinking. But
17 as far as being able to make this a decision point in
18 time, without NASA being in the room with us to be
19 able to direct what the goal is, I think we are
20 spinning our wheels at this point.

21 MR. ZUROMSKI: Well, NASA has asked us for a
22 recommendation, has asked the Navy as its, you know,
23 contractor, consultant, for a recommendation, what do
24 we recommend them to do. And that's what I'm putting
25 together right now. They're looking for assistance.

1 and reinjection, you know, type study?

2 I kind of received information on both
3 sides that is -- you know, I don't know. But that's
4 what we're going to recommend to NASA is that if we
5 go ahead and recommend to go ahead and do an
6 on-facility extraction and reinjection-type option
7 right now, that recommendation, of course, is going
8 to come with the caveats that, number one, it doesn't
9 immediately reduce any of your off-facility issues.
10 You're still going to have those. Because I think
11 the analysis that CH2MHill did showed -- remember we
12 talked about like 98-percent effectiveness for
13 protecting the wells with the off-facility actions
14 or, I guess, a hundred percent with wellhead
15 treatment, something like that. That changes to
16 somewhere in the 30 percent to protect off-site, as
17 well, when you do something on-facility. There's
18 just not a very immediate effect. I mean, sure, it's
19 going to reduce the mass over time, so gradually
20 those numbers would go down. It just doesn't have
21 the immediate effect on off-site.

22 So, I mean, is their decision to get
23 something in place and start removing mass, or is it
24 get something in place that's going to, you know,
25 immediately take care of off-facility concerns.

1 That's why they hired myself and, you know, the
2 individuals that are here, to provide them a
3 recommendation. And, of course, part of that
4 recommendation would be great if some of these ideas
5 came from the regulatory agencies because, obviously,
6 they're going to have to approve anything that NASA
7 accepts as a recommendation from us. So that's
8 really more of a point.

9 And I don't think that -- even if
10 NASA -- if Peter was here, and, you know, he's not, I
11 don't think he'd be able to tell you that, either.
12 It's more of coming from even higher levels than
13 Peter at this point in time.

14 MR. RIPPERDA: What would you do, Chuck, if
15 you were --

16 MR. BURIL: What would I do?

17 MR. RIPPERDA: Yeah.

18 MR. BURIL: Okay. Here's what I would do,
19 since you asked. First of all, I agree with the
20 pilot plant approach.

21 MR. ZUROMSKI: For on the facility?

22 MR. BURIL: For on the facility. Get
23 something in place as rapidly as you possibly
24 can. That answers two issues in the mail. One is
25 the data you need to know if the doggone thing is

1 going to work, and it also gives a far better
2 perception of progress than what you've enjoyed up to
3 now with virtually anybody who cares to look at the
4 process.

5 As part of that effort, you're using
6 that data, then, to generate an FS. EE/CAs and all
7 of the other things that are intermediate actions,
8 once you've gone to the pilot study effort, and
9 making that essentially a full-scale pilot if you
10 will, you don't need them.

11 MR. ZUROMSKI: I think that's the route.

12 MR. BURIL: Go to the FS.

13 MR. ZUROMSKI: It's either pilot study or
14 EE/CA, not both.

15 MR. BURIL: Go to the FS, and then as you go
16 along with all this process, which is likely to take
17 upwards of a year, you are going to be working the
18 OU-3 issues with the City of Pasadena. So whatever
19 that end arrives at is anybody's guess right now.
20 You simply don't know. But all the data that you're
21 going to generate with what I presume would be the
22 pilot plant is going to be applicable to dealing with
23 the issues that you have under 97-005 because while
24 the technology that I would expect to be used in the
25 pilot plant is the ISEP system or the ISEP plus --

1 MR. ZUROMSKI: Not necessarily.

2 MR. BURIL: -- would have the same -- well, I
3 would argue strongly in one direction, as you all
4 well know. You have an uphill battle with SVE
5 because while the ISEP system is accepted technology,
6 it is not approved for the site specific application
7 that we have here. If you were to use the pilot
8 plant tests to provide, essentially, the
9 site-specific information, you have answered the
10 questions both for operable unit one and operable
11 unit three, "Is this viable?"

12 If, indeed, it is, you then have
13 shortened the amount of time that you're going to
14 have to futz around with operable unit three because
15 now you have the data available to be able to go
16 right into the 97-005 process even before you've
17 decided whether or not it's applicable or not
18 depending upon what the outcome is with Pasadena.

19 At some point in time, you may want to
20 continue with separate approaches. You may want to
21 move ahead with operable unit one as a separate
22 approach simply because operable unit three appears
23 to be so far in the distance that it doesn't make
24 sense to try to keep them together. I don't think
25 we're at that point to make that determination right

1 now. I don't see a problem in keeping them together,
2 as Mark was suggesting, I think, or separating them
3 now. I don't think we're at a decision point to do
4 that because there are too many unknowns right now.
5 But we can treat them somewhat separately in the way
6 that we approach getting the individual pieces done,
7 which is the FS, the pilot plant, and the on-the-side
8 work with the City of Pasadena and move forward on
9 those.

10 I know that there's discussion about
11 other types of pilot plants, and I will just voice my
12 own opinion is that the only system for perchlorate
13 treatment that is currently approved that I am aware
14 of is the ISEP system. There is talk about
15 biological carbon and others that are in the works,
16 but as to when those actually hit the accepted and
17 approved stages is anybody's guess, at least based on
18 my own level of knowledge right now. So rather than
19 hedging on a bet like that, I would go toward the
20 other system, that we know has both been accepted and
21 approved at other locations in Southern California.
22 And at the same time, keep your eyes open. There's
23 nothing that says that we are going to close our eyes
24 to other options that may be more economically viable
25 during the course of time that we're trying to put

1 all this together.

2 And then, just as things unfold with
3 the City of Pasadena, make the decision, like I said,
4 as to split the units or keep them together.
5 And at that point in time, either go for the ROD in
6 OU-1 and continue to work OU-3 as a separate issue
7 because of the longevity of the issues; or if we
8 somehow miraculously come up with a way of dealing
9 with it, keep the two together, finalize the entire
10 thing in one fell swoop. That would be my
11 suggestion.

12 MR. MARTINS: I think the deal killer is going
13 to be the pilot study would be permitted for
14 reinjection because if it's not, it's probable that
15 97-005 destroys the timeline.

16 MR. BURIL: Absolutely.

17 MR. MARTINS: So if it's reinjection into
18 chloride, it becomes an issue with the ISEP process.

19 MR. ZUROMSKI: I think that on your note, the
20 positive note, is that it is -- definitely would be
21 beneficial to use the ISEP or ISEP plus system to
22 help us through the requirements of 97-005.

23 On the contrary and, you know, on the
24 other hand, from what I've heard from CH2MHill is
25 that the advantages to using the biological system

1 that we tested here, the U.S. Filter system, is that
2 it is less expensive by, you know, \$3 million for the
3 pilot study, but it would not provide us with that
4 same data if we weren't planning on using the bio for
5 drinking water. It would provide us on the benefit
6 side if it's the same influent and effluent levels of
7 chloride, TDS sulfate. On the benefit side to that,
8 I guess, it's -- it may be easier to comply with some
9 of the issues that the Regional Board has brought
10 out.

11 But I think also, coming from what I've
12 heard from Ken and from DHS and Environgen U.S.
13 Filter and Aerojet is that for all we know that U.S.
14 Filter system could be approved for drinking water
15 any day or a year from now.

16 So maybe the approach is, then, seeing
17 the benefit on both sides, is to take the process,
18 the modeling, the important part, through with maybe
19 two technologies, almost kind of like an EE/CA
20 initially, maybe in the initial stages, and get the
21 document put together. And, then, when we're at the
22 point to submit that document to you, see what data
23 is there, see what weighs in favor of one technology
24 or the other, and then make a decision at that point.
25 Because there are benefits and detriments on both

1 sides of both of those two technologies which are
2 really the two technologies that we're considering.
3 I mean, there's really -- at this point in time, it's
4 the reliability that we're looking at. There's
5 really no other technologies that we can use at this
6 point in time. It's really looking at the benefits
7 that you brought up for the ISEP versus the benefits
8 for the biological. And they may weigh one way or
9 the other pretty much from now versus today.

10 MR. BURIL: I would only state that for the
11 consideration of the ISEP is that, one, you have a
12 far greater likelihood of acceptance by the people
13 who are ultimately going to be making the decision as
14 to whether they are going to accept putting that
15 system on their wells and purveying it to their
16 customers. So, you know, that may be less of an
17 issue than what you might think, but still an issue.

18 The other issue that I would submit is
19 the idea of the basin plan requirements, I think that
20 there really does need to be the examination of
21 regulatory relief in that regard because what we're
22 talking about here is basically putting stuff back in
23 that is not that much different than what we're
24 taking out.

25 MR. ZUROMSKI: And the system can be adjusted,

1 too.

2 MR. BURIL: And the system can be adjusted to
3 try to minimize that to the greatest degree we can.

4 But the idea of, you know, running a
5 biological system, and then waiting for the
6 acceptance to come through, it just -- it seems to be
7 a gamble that I'm not sure we want to take. It's not
8 to say close your eyes to it, by any means. If,
9 indeed, the acceptance shows up, then, certainly, you
10 know, there's a lot more to talk about in operable
11 unit three at that juncture, and maybe more to deal
12 with in operable unit one. But if history is any
13 teacher, they've been talking about this biological
14 system since 1997.

15 MR. ZUROMSKI: I mean, I think that's
16 definitely something that's going into our decision
17 process, a part of that is also we are currently
18 moving forward with the 97-005 process. On top of
19 that, and I talked with Mark about this, I didn't
20 tell you guys yet, I talked with Alan Shorcher from
21 DHS and -- when we had our initial discussions about
22 97-005. The indication we got from the Regional
23 Board -- from DHS was that they would only accept the
24 permit application from the city directly.

25 MR. BURIL: Exactly.

1 MR. ZUROMSKI: Subsequent discussions with
2 Alan Shorcher who then went -- and then went and
3 talked with Vera Miltmelnick from DHS -- that's his
4 boss -- that we accept an initial -- two or three
5 initial stages of the application process from NASA
6 directly with copies to the city so we're
7 coordinating with them to move the process along.
8 And because the issue I brought up with Alan was that
9 our negotiations with the city may take six months to
10 a year, whereas we don't want to wait six months to a
11 year to start this process. So Alan and Vera agreed
12 to go along with that. I'm sure that the city, as
13 long as they're agreeing to at least review the
14 documents, they're not necessarily agreeing to do it,
15 will move along with us, as well.

16 But the issue that comes up with that
17 is if we're trying to fast track 97-005, the data
18 from any pilot study on the facility may become
19 irrelevant because we may have the application
20 process to the point where it's not going to matter
21 what technology we do on the facility. And that's
22 something from a scheduling standpoint that I'm also
23 looking at, too.

24 MR. BURIL: I didn't follow that last part.

25 MR. ZUROMSKI: We might be to a stage in the

1 97-005 process at the end of this year that it won't
 2 matter what technology we're using on the facility
 3 anymore because they're not -- they're basically
 4 going to rely on the data from the actual start-up of
 5 the system being put in to support the permit rather
 6 than the on-facility pilot study that we would do.
 7 Do you know what I mean?

8 MR. BURIL: No, I don't.

9 MR. ZUROMSKI: For example --

10 MR. BURIL: It sounds like you're presuming
 11 there would be a full-scale, off-facility site in
 12 place by the time it comes to that point.

13 MR. ZUROMSKI: Well, what happens is the
 14 97-005 process -- Ken and his folks know more about
 15 it -- but we're thinking that by the end of this
 16 calendar year, we're going to be through four main
 17 steps of -- at least, you know, the four main steps
 18 of the process such that any data that you would get
 19 from a pilot study that, let's say, started up in
 20 January or so of next year, December or January of
 21 this year to next year, would not be a benefit to the
 22 application process at that time.

23 MR. MARTINS: It's going to be too late.

24 MR. ZUROMSKI: It would be too late because we
 25 would be too far along in the process. It wouldn't

1 matter what technology we would use on the site.
 2 It might be helpful, but it wouldn't really matter.
 3 And maybe for NASA, it might be worth saving \$3
 4 million on putting in a technology rather than
 5 putting in the other technology. I mean, it's going
 6 to be something that we're going to have to look at.

7 MR. BURIL: We'll have to discuss that
 8 particular aspect of it because it was made very
 9 clear to me by Vera in our meeting that unless there
 10 is a site specific approval of a technology,
 11 regardless of what it is, you will not use it to
 12 provide water to the public. And the 97-005 process
 13 is an end point. And the end point of that process
 14 is, as I understand it, that permit.

15 MR. ZUROMSKI: I think what Vera was saying --
 16 and, Ken, you might know maybe more about this -- is
 17 that that site specific approval means the system
 18 that's going to operate. Not necessarily anything
 19 that we have operating here.

20 MR. BURIL: And I will have to disagree with
 21 you on that because the approval for the La Puente
 22 Valley County system to even go forward came from the
 23 site specific data that was generated here at JPL, as
 24 well as from the site specific data that they did on
 25 the pilot test from La Puente Valley data.

1 MR. MARTINS: But any actual data we have on a
 2 bioprocess or ISEP here is that this is only going to
 3 benefit us in that process for OU-3.

4 MR. ZUROMSKI: And then on that same point, I
 5 guess, then we just use the site specific data we
 6 already have for ISEP.

7 MR. MARTINS: Plus La Puente.

8 MR. BURIL: You can't.

9 MR. ZUROMSKI: Right. And that's what I'm
 10 saying, is that --

11 MR. BURIL: It's just that you can't use --
 12 you have to use the plus system, and that we don't
 13 have.

14 MR. ZUROMSKI: Absolutely. So anyway --

15 MR. RIPPERDA: So back to up for a minute --

16 MR. ZUROMSKI: Sure.

17 MR. RIPPERDA: In the big scheme of the
 18 process, and I pretty much agree with everything
 19 Chuck said --

20 MR. BURIL: Did you get that down?

21 MR. MARTINS: -- I don't understand what you
 22 mean by "process," though. The regulatory process.

23 MR. RIPPERDA: The regulatory process or the
 24 procedural process. You know, that's pretty much --

25 MR. BURIL: The technical process is the

1 actual treatment system. Those would be the things.
 2 We can debate for days. It's something we can work
 3 on.

4 MR. RIPPERDA: As far as you going to NASA and
 5 saying, "This is the procedures we should follow," I
 6 think Chuck said everything that I was thinking, and
 7 said it more eloquently than I was thinking. Is that
 8 enough kissing up?

9 MR. ZUROMSKI: A little too much, Mark.

10 MR. RIPPERDA: You know, if NASA is willing to
 11 pony up the however many million dollars to do an
 12 on-site extraction system, I would agree that that
 13 should be done as a treatability study, and that it
 14 is a good idea, both for the data you get and for the
 15 immediate mass reduction. Any groundwater
 16 remediation scheme almost always requires a source
 17 reduction. You can't just hang on the downgradient
 18 periphery and do containment without also having
 19 something to address the source. If you were convinced
 20 that your biological in situ would do as much or more
 21 mass reduction than a pump and treat, then maybe you
 22 don't do the on-site pump and treat.

23 MR. ZUROMSKI: The problem is we won't have
 24 that data until --

25 MR. RIPPERDA: But you won't have that data.

1 MR. ZUROMSKI: Exactly.
 2 MR. RIPPERDA: So that would be my one caveat
 3 is if your technical people who are pushing the
 4 biological in situ are really confident, maybe you do
 5 that first as a treatability study. But I don't
 6 really know much about in situ biological studies,
 7 but it seems like that would be a really long one.
 8 It would take a long time to evaluate how much mass
 9 reduction you're getting from in situ biological.
 10 MR. ZUROMSKI: On a pilot scale, when we
 11 talked, I had the guys come up here, it seems like
 12 it -- they would -- from the pilot study, you would
 13 only be able to tell in the general area of what you
 14 could expect from mass reduction. Once you get that
 15 data, if it looked favorable, you would have to
 16 expand it in order to get, you know, more larger
 17 scale type data. So that -- you're right because
 18 even from the data that we're going to get from this
 19 pilot study, we still wouldn't be able to make a
 20 decision on whether that would be the only way to do
 21 the on -- [unintelligible]
 22 MR. MARTINS: -- [unintelligible] that's
 23 always an issue.
 24 MR. ZUROMSKI: Exactly.
 25 MR. RIPPERDA: I'm not too confident about --

1 MR. MARTINS: The biology is certain; it's how
 2 you apply it.
 3 MR. ZUROMSKI: I think that may be the key --
 4 the key use of the in situ would be for attacking the
 5 two main source areas for perchlorate on this
 6 facility, MW-7 area, MW-15 area, and that would be
 7 it. And it might reduce the time you would have to
 8 pump on the facility, but wouldn't maybe reduce the
 9 necessity of having to do it at all.
 10 MARTINS: Right.
 11 MR. BURIL: Absolutely.
 12 MR. RIPPERDA: Whereas with pumping you could
 13 right now guess within a factor of two or three how
 14 many pounds of perchlorate you're going to be getting
 15 out per day.
 16 MR. FIELDS: Initially.
 17 MR. RIPPERDA: Yeah.
 18 MR. ZUROMSKI: That's true.
 19 MR. RIPPERDA: So do you guys have any
 20 thoughts on the regulatory process?
 21 MR. ZUROMSKI: Do you guys have any problems
 22 here?
 23 MR. GEBERT: No.
 24 MR. RIPPERDA: So then on specific physical
 25 processes, I think it's too early right now to make a

1 decision. I think, you know, Chuck's pros for doing
 2 ISEP, ISEP plus, are very strong, but I also maybe am
 3 a little more optimistic that DHS might accept
 4 biological or would accept the ISEP plus with an
 5 update from the vendors that it does not have to be
 6 NASA on-site generated.
 7 MR. BURIL: One quick point, Mark. They have
 8 approved ISEP process. I said ISEP plus. That just
 9 came through like a week and a half ago.
 10 MR. RIPPERDA: Oh, good.
 11 MR. ZUROMSKI: As Chuck said, you do have to
 12 have site specific data to support it.
 13 MR. BURIL: Or to approve it.
 14 MR. RIPPERDA: And so I guess that would -- if
 15 I was going forward with the treatability study, you
 16 know, don't pick today, don't pick next week with
 17 NASA. Leave it open as to whether you're going to go
 18 biological or ISEP, ISEP plus, you know, for the next
 19 three or four months.
 20 MR. ZUROMSKI: There's going to be a point
 21 where you're going to have to select.
 22 MR. RIPPERDA: At some point, you're going to
 23 have to pick, and then we can hammer it out. But I
 24 wouldn't spend any more time today debating one
 25 versus the other. Just they both have their

1 advantages; they both have their disadvantages. And
 2 maybe three, four months from now that will be more
 3 clear when we get more direction from DHS. I don't
 4 want to make a decision now based on a meeting with
 5 DHS a month ago. I want to go back to DHS and talk
 6 about this specific issue.
 7 MR. ZUROMSKI: And that was before the action
 8 level changed, too, so. . . .
 9 MR. RIPPERDA: Right.
 10 MR. BURIL: That's a good point.
 11 MR. RIPPERDA: Then there are details such as
 12 regulatory relief. And I absolutely agree with you.
 13 Although, it's almost unfair to say, well, Regional
 14 Water Quality Control Board has to give us regulatory
 15 relief, but we never say DHS has to give us
 16 regulatory relief. Why is it that DHS gets to be
 17 high and mighty, but the Regional Board can't be high
 18 and mighty. I don't know. It's like it's not fair,
 19 but we have to live with it because Dave is here at
 20 our meetings all the time so we can pick on him
 21 more.
 22 So certainly that is a huge sticking
 23 issue, you know. Whether you can get it from the
 24 Regional Board, in which case you could possibly go
 25 with ISEP, ISEP plus. Or if not, if they're

1 absolutely not going to bend on their basin plan no
2 matter how much pressure everybody brings to bear,
3 you're going to be stuck with biological.

4 MR. BURIL: Which may very well be --

5 MR. ZUROMSKI: Which is still above the level,
6 anyway, because backgrounds are above those levels.

7 MR. RIPPERDA: Right. So I guess the first
8 question would be how to resolve that with the
9 Regional Board.

10 And then there's some other technical
11 issues of where would you put the well? Would you be
12 putting it right in the heart of the plume for the
13 most source reduction, or would you be putting it a
14 little bit downgradient to try to get a little more
15 capture? Where would you be reinjecting? All those
16 kind of questions.

17 MR. ZUROMSKI: To answer your first question,
18 when Dave and I met on this, actually regarding
19 possible relief from the basin plan requirements, not
20 really relief from them, but according to their
21 current waste discharge provisions --

22 MR. YOUNG: That's under general, the general
23 permit.

24 MR. ZUROMSKI: Right. Under the general
25 permit. Actually to -- I don't know what variability

1 Again, it's going to be site specific;
2 but, I mean, we're just starting this process, you
3 know, to hopefully get some relief. And I was hoping
4 to approach it through this general permit, but it's
5 not going to apply. So would it be good, then, once
6 we come up with that idea, to have those individuals
7 come here with everybody else -- maybe it is easier
8 to meet on your facility. But when we get to that
9 point, there's going to be a point kind of like the
10 point of departure where we say these are the folks
11 who make the decisions and maybe they're going to
12 need to be here and everything else as well to hear
13 what we can do to get that in place.

14 MR. BURIL: At the same time, I want to
15 explore, through the Regional Board's folks, how is
16 it that the water from the Colorado River mixed to
17 whatever proportion with California project water is
18 being injected upgradient here. That, obviously,
19 does not meet the basin plan.

20 MR. ZUROMSKI: From the perchlorate levels
21 that we've seen upgradient?

22 MR. BURIL: From the perchlorate levels we've
23 seen upgradient, you know, there seems to be a
24 dichotomy here that needs to be explained. If
25 they're going to be extremely hard on what we're

1 it goes to, but you can, to some extent, extract and
2 reinject water that is of the same general quality.

3 MR. YOUNG: Background.

4 MR. WICKRAMANAYAKE: If it's a pretty good
5 study, pilot study, they can grant a variance.

6 MR. ZUROMSKI: That's what we were saying.
7 Actually, in their requirements. You might -- there
8 is that guidance, I guess.

9 MR. YOUNG: Right. Unfortunately with this
10 general permit, it is not applicable to sites that
11 have emerging chemical problems.

12 MR. ZUROMSKI: Oh, well.

13 MS. GATES: Of course.

14 MR. ZUROMSKI: So forget everything we just
15 said.

16 MR. YOUNG: So, anyway, it's going to be
17 complicated. And from the individuals I've spoken
18 to, the unit chiefs at the Regional Board, I don't
19 see a lot of, you know, flexibility as far as the
20 basin plan. But I think we're approaching it in the
21 correct manner with you coming down and making these
22 presentations and informing the unit chiefs, you
23 know, the people who are ultimately going to be
24 making the decisions as to, you know, the process
25 that you're proposing.

1 trying to do, while people who supply drinking water
2 are more or less given open arms to do whatever they
3 please.

4 MR. YOUNG: Do you know what perchlorate
5 levels are coming in from upgradient?

6 MR. ZUROMSKI: It's in the hundreds.

7 MR. YOUNG: In the hundreds?

8 MR. ZUROMSKI: I think I saw it as high as
9 maybe 150, 125.

10 MR. MARTINS: About the level we're interested
11 in reinjecting if we do the ISEP.

12 MR. YOUNG: Right. Again, the basin plan
13 allows for chloride levels up to -- I think it's a
14 hundred for non-source areas like the Arroyo Seco
15 spreading grounds.

16 MR. ZUROMSKI: But aren't we considered
17 upgradient?

18 MR. YOUNG: You are, yes. So there's some
19 bound that they have considered to be upgradient and
20 not upgradient which allows public discharge of that,
21 those higher levels of perchloride.

22 MR. ZUROMSKI: But we are pretty much
23 considered upgradient, it seems.

24 MR. YOUNG: JPL is.

25 MR. ZUROMSKI: So we need to be 15 to be --

1 MR. MARTINS: And you want to keep the
 2 injection on-site.
 3 MR. RIPPERDA: Yeah.
 4 MR. MARTINS: That's the game plan.
 5 MR. ZUROMSKI: We have an on-facility
 6 injection.
 7 MR. BURIL: So irrespective of upgradient or
 8 downgradient, you still have a known situation far in
 9 excess, by maybe an order of magnitude, that's being
 10 injected into the ground on a regular basis. And
 11 what process they went through to obtain that
 12 permission, assuming they actually have permission.
 13 MR. RIPPERDA: Which they may not.
 14 MR. BURIL: But, who knows That's another
 15 question. But that needs to be explored because
 16 we're not trying to do anything less in this effort
 17 than restore the ability to use the aquifer for
 18 exactly what those folks want to use it for, drinking
 19 water.
 20 MR. RIPPERDA: And those are all absolutely
 21 true. Those are all valid questions. But then it's
 22 who do we ask those questions of? So I guess what
 23 David needs to do is, you know, find out. Because it
 24 seems like the Regional Board has responsibilities
 25 kind of spread out; it's not necessarily a

1 pyramidal structure.
 2 MR. BURIL: Right.
 3 MR. RIPPERDA: So if there are multiple
 4 section chiefs or unit chiefs that -- because a
 5 CERCLA person might be interested in it, and a PBS
 6 person might be interested; subsurface person might
 7 be interested. Identify exactly which people we need
 8 to be talking with, and then I would say we should go
 9 to their office, and try to -- don't try. I mean, we
 10 have to get. If it's two unit chiefs or five unit
 11 chiefs, get them all together in the room at the same
 12 time and kind of lay out your arguments. Basically
 13 to lay out Chuck's arguments, which we all agree
 14 with, not in a confrontational way, but just say,
 15 "Somebody else did it. How can we do it? How can we
 16 get approval for this?"
 17 MR. BURIL: And it may very well be a series
 18 of presentations, as well.
 19 MR. RIPPERDA: Yeah.
 20 MR. BURIL: You know, we could be starting at
 21 a very high level, and the people who do the actual
 22 work and make the decisions lower than the highest
 23 level that we started at, we get them in the room.
 24 So it may be, you know, two presentations, maybe
 25 three.

1 MR. RIPPERDA: And my management is more than
 2 willing to jump into this. Your management, I don't
 3 know, sometimes EPA and the Regional Board have
 4 jurisdictional issues and don't like each other that
 5 much, and sometimes Regional Boards view EPA or DTSC
 6 as a sister agency and trust us a lot more than you
 7 might trust the Navy working for NASA.
 8 But, you know, my section chief can
 9 certainly talk to any one of your unit chiefs, or my
 10 branch chief or my division director can talk to
 11 somebody three or four levels -- like if one of the
 12 problems is that you have four different unit chiefs
 13 who all have some finger in this pie, my division
 14 director four levels up can talk to one of your
 15 people three or four levels up where all your unit
 16 chiefs funnel up to that person and basically lay out
 17 the argument. And then that person, and I don't know
 18 if this works with the regional board or not, but in
 19 my office, when our division director gets a briefing
 20 and make a decision, all of us have to do what he
 21 says.
 22 MR. ZUROMSKI: Well, on some basic level,
 23 David did invite me down to talk about our on-site
 24 pilot study, which doesn't really have anything to do
 25 with what we're talking about here. But this does

1 still address some of these issues. But we do -- I
 2 think that at that meeting, you know, when I talked
 3 with David and his boss, they did say that we will
 4 have to have, not only for that type of pilot study
 5 but for this, some kind of additional meeting where
 6 we would have a more expanded type of presentation
 7 and discussion of these types of issues. So I think
 8 we've begun to broach the subject, but I don't think
 9 we've specified what are we actually going to do that
 10 we can't -- we haven't been able to do that yet.
 11 MR. RIPPERDA: I guess I would suggest that we
 12 would move along. If you can go to NASA and make all
 13 your recommendations, but the one thing that needs to
 14 be resolved soonest on a policy level is reinjection.
 15 And we've been talking about that for three or four
 16 years with Alex, your predecessor, and it's always
 17 been out there. You were kind of like, "How are we
 18 going to reinject? What are we going to do?" It's
 19 just always been out there with no decision. But you
 20 never get a decision until you push, and now you need
 21 to push hard. So I guess you need to be asking for a
 22 meeting in a week or two weeks.
 23 MR. ZUROMSKI: I think that's completely in
 24 the picture here, so. . . .
 25 MR. YOUNG: That's fine, yeah.

1 MR. RIPPERDA: And don't be afraid to elevate
2 it. Like I said, you should get NASA management, get
3 my management talking to Regional Board's management.

4 MR. BURIL: I mean, starting at the deputy
5 executive officer level is not unheard of.

6 MR. ZUROMSKI: Okay.

7 MR. YOUNG: Well, the presentation that you
8 made was to Quan Lee, and he is actually the unit
9 chief responsible for issuing this waste discharge --

10 MR. ZUROMSKI: Even though we weren't talking
11 about that at the time.

12 MR. YOUNG: At the time. But he's familiar
13 with the subject now, so that's a good start.

14 MR. ZUROMSKI: So I think that's the next
15 step, is once -- you know, within the next week, when
16 we do decide that we are going to do this, to set up
17 that meeting and go forward. Okay.

18 We're kind of going into -- well, we're
19 really addressing item number eight, and we're kind
20 of talking about item number seven. I know that
21 that's -- I figured that's how all this would work.

22 Do we want to talk a little bit more
23 about OU-1, or do you think we're at a point where we
24 might want to stop, take a quick break, eat some
25 lunch, maybe go up and show you that trailer-mounted

1 PASADENA, CALIFORNIA; THURSDAY, MARCH 7, 2002
2 (At 12:35 P.M., the hearing was
3 reconvened without the presence of Mr. Buril
4 and Ms. Novelty.)

5 MR. ZUROMSKI: I want to start out with --
6 let's finish up our discussion on OU-1 before we move
7 into OU-3. It sounds like we kind of have an idea
8 where EPA is coming from, which sounds pretty much in
9 accordance with what we're proposing for OU-1 and how
10 we're going to proceed in there.

11 Richard or David, do you guys have any
12 other questions or comments on that?

13 MR. YOUNG: No.

14 MR. GEBERT: No.

15 MR. ZUROMSKI: I mean, I know that the two of
16 you, like I said earlier we did meet with the
17 Regional Board, myself and my contractor from Foster
18 Wheeler about our on-the-facility pilot study, but
19 that was really dealing with surface discharge rather
20 than injection. But we did, during that meeting,
21 discuss things like perchloride levels in the
22 background versus the basin plan, upgradient sources,
23 and things like that. We made them aware that things
24 like that exist, but I think the next step would be
25 moving forward to a more formal setting in trying to

1 SVE system so you can just picture it in your mind,
2 come back, and then finish the remaining couple of
3 things. We can be out of here maybe around 1:30. I
4 think if we move fairly quickly, we can back here by
5 12:30.

6 MR. RIPPERDA: If we go to lunch now it's
7 better than going to lunch half an hour from now.

8 MR. ZUROMSKI: It will be pretty crowded, but
9 it shouldn't be as crowded in a half hour.

10 Okay. Let's take a break, and we'll
11 come back at 12:30.

12 (At 11:42 A.M., the deposition was
13 adjourned for lunch.)

14 /// (Please see next page.) ///

1 decide how we're going to be able to do any
2 on-facility extraction and injection-type action.

3 MR. YOUNG: Would you be prepared to make a
4 presentation within a couple of weeks?

5 MR. ZUROMSKI: Easily, yeah.

6 MR. YOUNG: Okay. All right. Let me see what
7 I can pull together.

8 MR. ZUROMSKI: Okay. That would be great.

9 MR. YOUNG: Maybe next week I'll pull it
10 together.

11 MR. ZUROMSKI: Actually, and I would do it
12 that following week because Peter and Tim will both
13 be gone next week, and I'm sure Peter would want to
14 be there for that.

15 MR. YOUNG: Okay.

16 MR. ZUROMSKI: Does anyone else have any
17 questions or comments on what we're doing OU-1 at
18 this point in time? Okay.

19 Well, let me go through what I put
20 together for here -- really the same thing for OU-3.
21 And how I did this was basically I did it in two
22 options again. The first one was doing this as --
23 skipping the EE/CA and basically turning the EE/CA
24 that we have right now into an FS, and moving forward
25 with OU-3 as an FS. And I think I kind of alluded to

1 some of the time frames earlier, but, you know, would
2 get to your record of decision by August of next
3 year. Of course, again, real relative term. And if
4 you look and see the big blue bar right there, let me
5 move on over and pan over here, that's 97-005. So if
6 you get your ROD right here, 8/25/03, you probably
7 could possibly be done with 97-005 sometime around,
8 you know, February of '04. So that's about six
9 months.

10 Now, the issue is that this 97-005
11 process really isn't a time frame that's set in
12 stone. I put in a year or two years, but we talked
13 about, with DHS, it could be a year and a half. It
14 could be three years. I mean, this is a very -- a
15 variable that we tried to consider, and that's why I
16 put this option together, was to really compare. You
17 know, the ROD is going to be more of a set date
18 because it has a certain process that it goes through
19 and eventually you come to a decision, whereas the
20 97-005 process seems to be a little bit more
21 subjective and not really a
22 set-in-stone-type-review-type process. So you can't
23 really estimate the actual date that it's going to be
24 completed.

25 MR. RIPPERDA: It all depends on Ken; right?

1 If he does a good job, it's a year; if he does a bad
2 job, it's three years.

3 MR. ZUROMSKI: And if they do a good job,
4 that's right, it could be done sooner. It could be
5 done later. It also depends on now trying to address
6 the new four parts per billion level. I mean, that's
7 something we're going to have to address in the
8 97-005 process. So those are things that affect
9 that. So then you would see that, even if you do
10 this as a ROD, you would probably sometimes toward --
11 that arrow that is coming down is going into the
12 remedial design -- assuming you could start your
13 internal draft remedial design before the ROD, which
14 you most likely would at that point, you could have a
15 remedy in place by doing it through a ROD sometime
16 in, you know, June of '04. Which is -- what? --
17 about four to six months after 97-005.

18 However, if you do it as an EE/CA,
19 which is this next one, your EE/CA is done right
20 here. And, actually -- I think I actually have it
21 even sooner. EE/CA is completed almost -- I guess
22 almost a year before your ROD, which means that you
23 can start putting things in the field a lot sooner.
24 And that's why I'm suggesting possibly going with the
25 EE/CA approach because it doesn't depend -- you're

1 going to be done with anything you do for the EE/CA
2 long before 97-005 is done.

3 Now, pros to that being you can start
4 construction sooner; cons being you don't want to go
5 too far and then DHS says, "No, you can't do that."
6 But it gives us more flexibility because the decision
7 documents are completed, and we can move forward.
8 Whereas if we do it the other way, the decision
9 documents take a little longer. So you can see it
10 does duplicate a little effort because you will -- I
11 would say pretty much the EE/CA is going to be as
12 close as you're going to get to seeing what you're
13 probably going to see in the FS.

14 But, of course, then, on the back end,
15 that would reduce our effort in putting together the
16 FS and a lot of our review time, as well, because, I
17 mean, unless there are major changes, it's going to
18 be pretty close. I mean, we've done a lot of the
19 modeling already. We've done a lot of the technology
20 evaluations. We've looked at a lot of this. So that
21 was really the advantage of doing OU-3 as an EE/CA,
22 and then you can see here, this arrow, the black
23 arrow that comes down, goes into the draft FS at that
24 point in time because we would just start the FS at
25 that point and starting working towards ROD. And you

1 can see, you would finish your -- and I think that's
2 in 2/25 of '04, you would start up, whereas I think
3 you're just getting something -- I think you're just
4 getting your design documents done doing it the other
5 way around that same time. So you're really saving,
6 probably, I would say at least six months to a year
7 or more by doing it as an EE/CA. And I think that's
8 significant enough to warrant doing that as a removal
9 action rather than doing it that way, going through
10 the FS right now, just because it would be a lot
11 quicker and you could have a system start up, if you
12 did it this way, in six of '04 versus, down here, I
13 guess in 2/25 of '04. Is that right? No, it
14 couldn't be. I don't know. It's been a while since
15 I've looked at this. Anyway, I know that the result
16 was the fact that really depends on how long 97-005
17 takes.

18 If 97-005 does take like two and a half
19 to three years, then you might want to do it as an FS
20 ROD because you could actually have a ROD, a remedial
21 design, and everything done at the same time and
22 there's no down side. It really is going to depend
23 on how successful we think we can be with 97-005. If
24 we think we can do it quickly using the data we have
25 on the facilities supplementing it to the -- you

1 know, meet the necessary requirements, it might be
2 better doing it that way. But I think that's
3 something we're going to be kind of reevaluating
4 right now over the next couple weeks.

5 MR. MARTINS: Is there anything about the
6 process that would prohibit some of the construction
7 before the FS or ROD is completed?

8 MR. RIPPERDA: No. If you do an EE/CA with an
9 action memo, you can -- you know, that is a decision
10 document. That lets you do all the construction.

11 MR. ZUROMSKI: That's the idea because then,
12 by doing that, we can do the construction, we just
13 have to wait for the actual operational parameters
14 from 97-005. And then, really, the only drawback is
15 that if that process takes over two years, you might
16 have been better off doing it as an FS. And that's
17 the balance we're trying to make right now.

18 MR. MARTINS: But even that financial comping
19 is relatively small because most of the EE/CA
20 materials will feed into that FS.

21 MR. ZUROMSKI: Exactly. And the other issue
22 is that if you do it as an EE/CA right now, as well,
23 there are going to be a lot of new things coming up
24 with the new perchlorate standards. You know, there
25 could be an MCL by that time. You know, if we go

1 brought up with the statutory limit on SuperFund
2 funding, knowing it doesn't apply to us directly
3 here, and there are caveats that you can do a removal
4 action if it fits in the final remedy, but I just
5 wonder: Was the intent of the law to make you go
6 through a more formalized FS ROD process?

7 MR. RIPPERDA: For bigger, more expensive
8 projects?

9 MR. FIELDS: For bigger, more expensive
10 projects. And I think it -- as long as you guys are
11 aware, I don't think it matters on your side, but is
12 that a perception problem that I was bringing up?
13 Would that be some sort of a perception issue at some
14 point down the road if NASA proceeded kind of against
15 the intent of what the law is? I don't know. That
16 was just a thought.

17 MR. RIPPERDA: Yeah. I'll ask because it is
18 purely a limitation on fund-financed actions. But
19 lawyers like to look at the preamble and the intent.
20 And so I'll ask our lawyer to see if -- you know, in
21 general, EPA has always frowned on EE/CA action memos
22 being an end-run around the process. I personally
23 like them, but my management doesn't. And this
24 pushes the boundaries when you're dealing with
25 something that's going to be water given to the

1 ahead and accelerate this, we run the risk of having
2 to change things at the last minute because, you
3 know, probably two, two and a half years from now,
4 if, according to EPA, you know, they do promulgate a
5 federal standard for perchlorate in the next couple
6 years, that's really coinciding with when we were
7 proposing to get a lot of our documents done.
8 So that could change things. So we definitely want
9 to be leery of that, as well.

10 So there are a lot of factors involved,
11 and I think that's the reason why you haven't seen an
12 EE/CA yet because there really are a few things that
13 we're trying to step back, making sure we move in the
14 right fashion before we undertake a very large
15 effort, a very expensive effort at this point and put
16 it together.

17 I think that one concern -- I don't
18 know. Keith, do you remember, that you brought up is
19 the fact of doing removal actions is that there are
20 certain statutory limitations for doing removal
21 actions for SuperFund funded removal actions. They
22 usually say -- isn't there a cutoff of like \$2
23 million or something like that?

24 MR. FIELDS: That would be a good question to
25 Mark. I was just wondering, do you think -- I just

1 public, the FS ROD with the enforced 30-day public
2 comment period, public meeting; you're either going
3 to have a public meeting -- you know, that's partly
4 how you get around the DHS, how you mesh things with
5 DHS because EPA has got a 30-day public comment
6 period. They have some public comment period.

7 So, anyway, I'm happy with you doing an
8 EE/CA, but you are kind of pushing the boundaries of
9 what you both ethically and legally can use it for.

10 MR. ZUROMSKI: I mean, I think that part of it
11 is that the reason we feel fairly comfortable doing
12 it as an EE/CA would be because we've really -- if
13 the intent is to make sure you've gone through a
14 sufficient deliberative process, I think we've done
15 that. It's just the format of the document, and like
16 you're saying, are we trying to go around something
17 or not. I mean, I think that's going to be something
18 that we're going to talk about with NASA, not only
19 from the standpoint of that, but also from the
20 standpoint of, like I was talking about, how certain
21 are we of this 97-005 process being completed in the
22 time frame we think it's going to be completed in?
23 Because, I mean, really, if we're going to take the
24 gamble and say it's going to be get done quickly,
25 then, obviously, we're going to do it as an EE/CA.

1 But maybe at this point in time, with all the things
2 going on with the action levels, discussions with the
3 city, with the Raymond Basin, maybe we just think
4 that maybe it's better to just do it, go through the
5 whole process. It might take a little longer, but
6 maybe it will be better in the long run. And so, I
7 mean, there are pros and cons. It goes back to our
8 OU-1 discussion. We could go either way at this
9 point.

10 MR. RIPPERDA: Right. My advice would be to
11 agree with your -- I think your basic idea, which is
12 do the EE/CA. There are so many variables. Your
13 final remedy two to three years from now might
14 incorporate more wells, slightly different treatment
15 processes. So I guess I would advise -- do what I
16 think you want to do, anyway, which is do an EE/CA
17 that's focused just specifically on the wells you
18 know and want to treat now.

19 MR. ZUROMSKI: Which we don't necessarily know
20 anymore, so. . . .

21 MR. RIPPERDA: Right. But at least you can
22 pick a couple.

23 MR. ZUROMSKI: We've picked two so far.

24 MR. RIPPERDA: Right. And move as quickly as
25 possible, and then in a couple years you might have

1 guess Richard Hoffman who was here at the last
2 meeting, "Where is that EE/CA that was promised" or
3 something like that?

4 MR. GEBERT: No, no.

5 MR. ZUROMSKI: So they're not anxious for it?

6 MR. RIPPERDA: And I would rather wait a
7 couple extra months now to get an EE/CA than to try
8 to have you guys knock it out because at least you
9 can understand a little more of some of the variables
10 and unknowns.

11 MR. ZUROMSKI: That's what we're trying to do.
12 We have an internal draft that was really rough, and
13 that was before -- that was back in, actually,
14 December that they gave me that. And that's when I
15 went to NASA; but, then, right now, they're kind of
16 working on how it's going to affect them. You know,
17 how is the four PPB going to affect them. And so I
18 think it shouldn't take a couple months. It probably
19 won't take -- I don't know. Well, I won't say it
20 won't take a couple months. It shouldn't take too
21 long, but we are actually going back and revisiting
22 some of the assumptions that we've made because of
23 the new action levels.

24 MR. MARTINS: It's hard to find a plume now.

25 MR. ZUROMSKI: Exactly.

1 to be doing many more wells. You might have to be
2 changing some more things, and then that can be in
3 the ROD. But all of these variables have kind of
4 tied your hands for the last two years and kept you
5 from making any final decision. So rather than
6 trying to address all the variables, pick one thing,
7 do the EE/CA, and just move on.

8 MR. ZUROMSKI: That's how I see it, as well,
9 because then we could incorporate the data from the
10 EE/CA and the operations from the EE/CA along with
11 any new standards or anything that comes up or any
12 new wells or anything that NASA is going to agree to
13 treat, incorporate all of that and memorialize it
14 into one ROD at one time. It might be three years
15 from now, but at least that means that there's
16 something happening, as well. I mean, the public is
17 being protected. We're also doing on-site treatment,
18 so the actual ROD treatment isn't that critical. So
19 if it gets delayed another year at this point, maybe
20 it's not that critical of an issue at this point in
21 time. That's kind of how I saw it, so -- but that's
22 something that we will be discussing here in the next
23 two weeks, as well.

24 Did you guys have any -- heard any
25 requests, I guess, from your individuals that -- I

1 MR. RIPPERDA: Since you're not going to be
2 able to implement it, certainly no faster than a year
3 from now because of 97-005, there's no reason to rush
4 forward with it.

5 MR. ZUROMSKI: Okay.

6 MR. RIPPERDA: Certainly no reason to drag
7 your feet and have it not be ready to go a year from
8 now, but if it comes out five months from now or two
9 months from now is irrelevant.

10 MR. ZUROMSKI: Okay.

11 Does anybody else have any other
12 comments?

13 Well, I mean, we really, before lunch,
14 we took care of number eight, and we're really kind
15 of talking about number seven. And I didn't know how
16 much time to allow for both of those just because
17 there are just so many things that we could talk
18 about and there's so much going on. But if nobody
19 else has any other input or questions or comments, we
20 can go ahead and move forward into item nine, and
21 then we'll revisit number five. Do you think you
22 guys are ready? Okay.

23 Pilot study progress. First bullet,
24 SVE and OU-2. As you heard when you were up there,
25 the SVE system has been running since September 18th,

1 and we're actually trying to do right now a monthly
2 evaluation to evaluate whether or not to keep running
3 based on the criteria that we've proposed in both the
4 ROD and the work plan. But we've continued to
5 operate and still are removing a small amount of
6 mass, so it's still worth operating. So we're going
7 to operate it at least or up to six months during
8 this end stage of the pilot study, which would be
9 sometime in May. And then at that point in time, we
10 would be kind of transitioning into our remedial
11 action. So we'll probably stop that operation, you
12 know, wait for rebound and kind of reevaluate the
13 whole thing while we're possibly drilling other wells
14 and looking at starting in another location.

15 MR. RIPPERDA: So do you have mass recovery
16 plots available now?

17 MR. ZUROMSKI: That was in that memo that
18 Keith that put together earlier.

19 MR. FIELDS: It just goes through December.

20 MR. ZUROMSKI: It only goes through December
21 13th. We don't have the actual data from the last
22 month, not in front of me, at least.

23 MR. RIPPERDA: So these two end points here
24 were just like the first couple of --

25 MR. FIELDS: Eighteen through 31.

1 MR. ZUROMSKI: Here's the January report, so I
2 can tell you what it was.

3 MR. RIPPERDA: I thought Marvin already told
4 us.

5 MR. MARTINS: Yeah, 1.6. 17.6 total. It's
6 right there.

7 MR. ZUROMSKI: Well, we'll rely on Marvin's
8 answer until I can actually confirm or deny. So
9 that's basically the pilot study progress. It is
10 still operating.

11 MR. HILLSTROM: Go back to the prior page.

12 MR. ZUROMSKI: Maybe over here? You guys will
13 get a copy of this soon, anyway. I don't see it
14 offhand. No big deal. We don't have to waste time
15 looking for that.

16 So that's the pilot study for the SVE
17 progress. I'll skip over the second bullet and go to
18 the third. In-situ pilot study, I showed you the
19 schedule. Like I said, I'm hoping to, by October of
20 this year, have the things instituted and operating
21 up at monitoring well seven site. The only reason
22 it's going to take that long is because the drilling
23 of wells -- probably going to have to drill somewhere
24 between four and six wells, you know, both for the
25 monitoring and for injection of substrate, plus the

1 MR. ZUROMSKI: There was still mass there to
2 be recovered, so we are continuing operation.

3 MR. RIPPERDA: I couldn't tell from this plot
4 how much mass that was, you know, because it's a
5 cumulative plot. There's no way to tell how much
6 those points represent.

7 MR. ZUROMSKI: Not offhand.

8 MR. FIELDS: You know, we'll have to look --
9 you know, we don't -- there's not enough data there
10 to make a good determination. But the data was sent
11 to us, I think, end of last week or early this
12 week -- no. Early this week, the February and
13 January book reports.

14 MR. HILLSTROM: It was like 1.64.

15 MR. FIELDS: Oh, okay. A pound a month.

16 MR. WICKRAMANAYAKE: Keith, you may want to
17 put the monthly residue that's cumulative so that you
18 can see how much you are doing.

19 MR. RIPPERDA: Just like put a little caption
20 on this and just say 1.9 pounds --

21 MR. WICKRAMANAYAKE: Over here --

22 MR. RIPPERDA: Oh, a whole separate curve?

23 MR. WICKRAMANAYAKE: A whole separate curve
24 right here so that you can see how much it is.

25 MR. RIPPERDA: Yeah.

1 review time for doing that. So it's probably going
2 to take us, you know, a good six to eight months just
3 to get to that point. But I'm assuming that probably
4 sometime in October of this year we should have that
5 running and --

6 MR. FIELDS: That may be -- just to go back,
7 that may be a better time to do perchlorate samples.

8 MR. ZUROMSKI: Yeah. That's where you --
9 probably be a good placement for OU-2.

10 MR. RIPPERDA: I have almost no interest in
11 having perchlorate soil samples taken from your three
12 new SVE wells.

13 MR. FIELDS: Right.

14 MR. ZUROMSKI: It's kind of unbalanced.

15 MR. FIELDS: There is no indication that there
16 would be significant perchlorate concentrations
17 there.

18 MR. ZUROMSKI: Moving forward, that's kind of
19 the procedure we're going with that, is I think
20 what's going to happen is we're going to start it and
21 do it for a couple of months up there at that site,
22 evaluate how effective it was. If it was effective,
23 then we're going to move over to the monitoring well
24 16 site, which is the hot spot well on the site, do a
25 similar action over there. And then based on those

1 two, and looking at mass removal-type information, we
2 would then go ahead and either do more injections in
3 that area or expand to other areas on the site.

4 But I think that definitely doing the
5 MW-7 site, depending on the results there,
6 definitely would move to the MW-16 site, and then
7 from there we would have to do more evaluation. But
8 that's moving forward.

9 And then the second bullet, which I
10 skipped over. This goes back to our meeting with
11 David back in the Regional Board. I met with David,
12 and you guys both got the letter that -- the chloride
13 letter that we sent to you on the pilot study. So
14 David gave me a call and said maybe it would be
15 better if we met to clarify the letter and clarify
16 the pilot study work plan. So we met back in --
17 what? -- about two or three weeks ago. Sat down.
18 I gave him a short presentation, really kind of
19 summarizing the operations of the pilot study, and
20 tried to kind of explain, you know, what we were
21 planning on doing. And, you know, we really didn't
22 get like a real definite answer or firm answer.
23 And so, David, I'm going to -- we're going to ask you
24 if you guys have heard anything. And if not, I think
25 that we might want to all sit here and kind of

1 based on background levels. So you would not be
2 eligible, again, for that general permit under NPDES,
3 which is a great permit because it expedites the
4 whole process. So now you'd have to go to a
5 site-specific NPDES permit. And I asked about, you
6 know, that process, and it sounds lengthy; and it's
7 going to be your choice. If you have time for that,
8 if it's worth your effort, fine, pursue it. You
9 know, you can come down to the Board next week and
10 make a, you know, brief presentation to the NPDES
11 section to see if you can sway them in any way. But
12 I think, regardless, you're going to be faced with a
13 challenge, again, for this permit. And it's going to
14 be a lot of time involved.

15 MR. ZUROMSKI: And that's even considering
16 that it's a CERCLA site?

17 MR. YOUNG: Yes.

18 MR. RIPPERDA: So your unit chief has no
19 arm-twisting capabilities with the other unit
20 chiefs?

21 MR. YOUNG: I guess not. It doesn't appear
22 that's the case.

23 MR. GEBERT: Who is the unit chief for the
24 NPDES? Do you know?

25 MR. YOUNG: I can't remember his name. It's

1 evaluate, number one, should we finish this pilot
2 study, and, number two, do we want to use this data
3 to be evaluating anything we're going to do for
4 on-site actions? How do we go about finishing it as
5 quickly as possible?

6 So have you heard anything, David?

7 MR. YOUNG: So the question you posed was -- I
8 mean, the decision as to whether you're going to be
9 able to discharge this into the storm drain --

10 MR. ZUROMSKI: Yes.

11 MR. YOUNG: -- or if you'll have to truck it
12 off the site?

13 MR. ZUROMSKI: Correct.

14 MR. YOUNG: So yesterday I spoke with the unit
15 chief. You guys are getting familiar with our unit
16 chief.

17 MR. ZUROMSKI: Which unit chief?

18 MR. YOUNG: This is the unit chief for the
19 NPDES, which is the approach that we would have to
20 take to get authorization to discharge this to the
21 storm drain.

22 And there is also a general permit
23 under the NPDES; however, unlike the general permit
24 for the waste discharge requirement, there's no
25 leniency when it comes to discharging, you know,

1 kind of a difficult name. I can't remember what it
2 is.

3 MR. ZUROMSKI: Well, I think that what it does
4 is -- what we're looking at is a difference of about,
5 you know, \$75,000. We would probably spend \$75,000
6 going through that process in time and possibly
7 additional monitoring, which we wouldn't have to do
8 as much of if we truck off the water. So I'm not
9 sure --

10 MR. YOUNG: However, before you make that
11 decision, it may be worth spending another hour down
12 at the Regional Board and talking to this unit chief.

13 MR. ZUROMSKI: Okay.

14 MR. RIPPERDA: It's always worth trying. And
15 the philosophy on these permits is general permit
16 that meets requirements minus boilerplate. If you're
17 not going to meet the requirements, you look at it
18 site specific. And they want to take a lot more time
19 because they're looking at a new source of chloride
20 or whatever the contaminant might be, and they have
21 to evaluate the economic, sociologic impact, the
22 environmental impact, and take all that into
23 consideration. There's a lot of politics. There's a
24 lot of environmental review. But it's looking at an
25 industrial process that's adding to the system.

1 They can't just give you an A-priority,
 2 "Oh, you're treating groundwater, therefore it's
 3 okay." They can't do that just off the shelf. But
 4 if the guy's at all reasonable, some NPDES people do
 5 look at as, "Oh, even though the site specific
 6 process is supposed to take this long," because
 7 you're just taking water, removing, putting it back
 8 in, the reasonable argument that we all like, "Well,
 9 how come this doesn't happen?" You know, they might
 10 be able to say, "Even though our normal site specific
 11 process takes a year or six months, because of all
 12 the politics and review, we can do this one quick."
 13 You might not, but --

14 MR. ZUROMSKI: I'm just wondering.
 15 It sounds like, then, we should possibly do it
 16 separate from the other meeting because it sounds
 17 like there are different people involved; or would it
 18 be beneficial to have one big meeting?

19 MR. YOUNG: No. Let's keep it separate. In
 20 fact, I'd say if you're available, let's arrange it
 21 for early next week.

22 MR. ZUROMSKI: Okay. I'm open Monday,
 23 Tuesday, and Wednesday. Tuesday being the best day.
 24 No, I'm not open Wednesday or Thursday. Tuesday is
 25 the best day.

1 MR. YOUNG: Yeah. I don't want to discourage
 2 you; but, then, again, I don't want to mislead you.

3 MR. ZUROMSKI: I'm seeing it from our
 4 standpoint right now. We've been kind of on hold for
 5 a year, really, because of the project. Not all
 6 because of the Regional Board issues, but also some
 7 other issues that we've had to deal with, on-site
 8 issues. And so I think that we're also now at a
 9 point where NASA wants to, you know, move forward,
 10 make a decision; but I'd hate to not use the data
 11 from this in that decision-making process because it
 12 could be a viable technology to be compared with the
 13 other two technologies. I mean, it's not as
 14 developed to this date, but we need to see if it's
 15 even worth pursuing any further in the future.

16 And we're trying to also -- you know,
 17 there are other costs involved and having the
 18 facility on the -- you know, sitting up there and
 19 just being idle at this point in time right now,
 20 we're kind of going, now, where is the breakpoint?
 21 Where do we say go, and where do we say, well, maybe
 22 we'll just, you know, pull it out and not worry about
 23 it because we have enough data already.

24 MR. YOUNG: Okay.

25 MR. ZUROMSKI: Okay.

1 MR. YOUNG: Okay. Then tentatively let's plan
 2 on Tuesday.

3 MR. ZUROMSKI: Okay.

4 MR. YOUNG: And I'll confirm that on Monday.

5 MR. ZUROMSKI: Maybe Tuesday in the morning or
 6 something like that.

7 MR. RIPPERDA: The only reason for the big
 8 meeting was a big meeting regarding injection in case
 9 multiple unit chiefs had overlapping authority on
 10 injection. I wasn't trying to lump all Regional
 11 Water Control Board Control issues into one meeting.

12 MR. ZUROMSKI: Right. I know similar issues
 13 are going to come up for both, but I think most
 14 likely those NPDES folks probably wouldn't be at that
 15 other one.

16 MR. RIPPERDA: Right.

17 MR. ZUROMSKI: So it's better just to keep
 18 them separate at this point.

19 MR. RIPPERDA: Yeah.

20 MR. ZUROMSKI: Well, then, what we'll do is we
 21 will meet with you guys, then, on Tuesday. Probably
 22 give a similar presentation that I gave last time.
 23 I'll probably modify it a bit and get rid of some of
 24 the other ancillary issues that we don't need to talk
 25 about, and we'll talk about it on Monday.

1 (Mr. Buri and Ms. Novelty enter the
 2 meeting room.)

3 MR. RIPPERDA: Just some advice that you can
 4 take away, knowing people in my office, which are
 5 probably very similar to people in your office, if
 6 you go there asking for their help as opposed to a
 7 very cut and dried presentation, if your approach is,
 8 "We have contamination in the groundwater. We want
 9 to clear it up. We have regulators telling us, we
 10 have the public telling us, that they want us to
 11 clean it up. How can you help us? You know,
 12 something we want to do is pump it, treat it, and
 13 discharge it. How can you help us?" Kind of leave
 14 it at that level.

15 And then with your technical data for
 16 perchloride levels and the alkaperchloride levels in
 17 your discharge, how many gallons, how long? But the
 18 less presenting you do and the more, like, "This is a
 19 problem. How can you help us?" type attitude you
 20 have, usually gets the regulators more on your side.

21 I know our permit writers can be
 22 downright ornery if they think they're being pushed,
 23 whereas if somebody is asking for one of the permit
 24 writer's help, then they're a lot friendlier.

25 MR. ZUROMSKI: Okay.

1 MR. YOUNG: I agree with that.

2 MR. MARTINS: Actually, I'm going to get out.

3 MR. ZUROMSKI: We're done with all those
4 issues. Thank you.

5 (Discussion held off the record.)

6 MR. ZUROMSKI: So what I want to do now, and
7 Peter is not on the phone, and I don't think he's
8 going to call back in. So I do want to go through
9 and show you guys -- we got some comments from Chuck
10 and Judy -- and, Judy, raise your comments again
11 today because I went through, did some searches the
12 other day that worked, and so I don't know, maybe if
13 we try some of your searches and show everybody
14 today --

15 MS. NOVELLY: I just went in, and I think
16 Leticia did, too, in trying to duplicate what
17 somebody in the community might do to try to find out
18 what's in their drinking water. And I didn't find
19 any help in the document to say, "If you're looking
20 for this type of information, here's a good phrase to
21 use, here's a key word." You just kind of flounder
22 around. So when you get something like analytical
23 results, it brought up some documents, but every
24 document that you clicked on, you just got a message
25 back saying, "This isn't available to you," which is

1 information on groundwater quality," or something,
2 "Type in this," or something like that. Anything
3 outside of that, that's something we have to kind of
4 deal with.

5 MS. NOVELLY: I think most of what you will
6 get from the librarians is a point in the right
7 direction. But they are very busy people, and I
8 don't think you're consistently going to have them
9 handing someone a sheet.

10 MR. ZUROMSKI: Maybe a sheet on the website.

11 MR. FIELDS: It could be on-line.

12 MS. NOVELLY: For that to help, I would put it
13 on the site.

14 MR. ZUROMSKI: Okay.

15 MR. FIELDS: You know, that's a good point.

16 MR. ZUROMSKI: That's a good point.

17 MR. FIELDS: Because we didn't -- you know,
18 like you were doing, as a member of the public, you
19 want analytical results, and that's a terrible key
20 word to search for in the database because --

21 MS. NOVELLY: You could go for groundwater,
22 but you can't get to groundwater, either.

23 MR. FIELDS: Right. And how many reports have
24 analytical results in them? Yeah, I think you're
25 right. Some sort of a help information to kind of

1 very irritating. So we need to find some way that
2 you can have the information out there in a very
3 guy-on-the-street friendly manner because they're
4 supposed to be able to get this information
5 easily, you know.

6 And comparing it to the repository in
7 paper, anybody could walk in and see that there were
8 documents there called "Quarterly Groundwater
9 Monitoring," that would give you a fairly good idea
10 that the results would be in there, whereas it's hard
11 to find it in the electronic version.

12 MR. ZUROMSKI: So maybe giving some specific
13 key words or help? "If you're looking for" --

14 MS. NOVELLY: Maybe some tutorial in the
15 beginning or a list of things that they can pick
16 phrases or at least give them a list of the documents
17 that they can find in there. But for somebody to go
18 in and time after time have something brought up that
19 says, "This isn't available to you," we're going to
20 tick off a lot of people.

21 MR. ZUROMSKI: I think part of what we talked
22 about with the librarians was providing an
23 instruction sheet. But that instruction sheet could
24 actually have, you know, regular search terms or
25 something like that. "If you're looking for

1 guide people in what we think the most common
2 searches would be with the most common data that
3 they're really looking for would be helpful to
4 people.

5 MS. NOVELLY: Yeah. Some streamlined way
6 because you know, basically, the information they're
7 looking for, and they don't know what word they have
8 to look under for it.

9 MR. ZUROMSKI: Did you guys have a chance to
10 click through the site at all?

11 MR. RIPPERDA: I haven't.

12 MR. GEBERT: I haven't.

13 MR. ZUROMSKI: Okay. Well, it's not
14 significantly changed from what we showed you back in
15 December. I think we incorporated the changes that
16 we had talked about during the meeting, but it's not
17 really a significant change.

18 We had talked about this, and did
19 receive the IP addresses from all the libraries,
20 except for La Canada. They said they sent it to me,
21 but I haven't received it. But I'm trying to get
22 them from them.

23 So we had talked about, once we get
24 kind of your comments put together, doing really more
25 of a dry run out there at the libraries. Leaving the

1 paper copies as-is for, you know, six months or more,
 2 right now. But let's get the electronic one out,
 3 once we can all agree that everything we like is on
 4 the site. And then leave the paper copies there in
 5 case people still have questions, but start to get
 6 them familiar with using the electronic version. And
 7 then as we hear -- you know, have a comment card or
 8 something, once we get it up and running, where if
 9 people do have comments, we can modify it as we go.
 10 And, then, hopefully, six months to a year from now,
 11 we can officially remove our paper copies from the
 12 repositories and have the electronic one there ready
 13 to go. And, hopefully, as much as we can, as
 14 friendly as possible.

15 So what I want to do is -- Keith, I
 16 guess we're going to have to hook your computer up to
 17 this real quick. We're going to go ahead and hook up
 18 Keith's computer. We'll run through it.

19 David, when you went through it, did
 20 you have any --

21 MR. YOUNG: I just browsed through it. I
 22 didn't have a chance to go into much detail.

23 MR. ZUROMSKI: Did you see anything glaring
 24 that you might want to change? I mean, it will be
 25 easier once we get it up on the screen here.

1 MS. NOVELLY: Because we had the lady complain
 2 in the public meeting, and we said it was going to be
 3 done.

4 MR. ZUROMSKI: It's supposed to be done
 5 quarterly.

6 MR. RIPPERDA: So when was the last time it
 7 was done officially?

8 MR. ZUROMSKI: Back when we were there in
 9 December, I guess. I think -- so it's been three or
 10 four months. But I think that --

11 MR. BURIL: Richard, if I could make a
 12 request, please.

13 MR. ZUROMSKI: Sure.

14 MR. BURIL: We haven't been seeing the notes
 15 from the meetings.

16 MR. ZUROMSKI: I'll E-mail them to you. Sure.
 17 I have them all on Acrobat.

18 MR. BURIL: I would really appreciate it.

19 MR. ZUROMSKI: Actually, I might even have
 20 hard copies from the ones before that for you sitting
 21 in my records, so let me -- you can even, before you
 22 leave today, get a copy.

23 MR. FIELDS: We may want to take a little bit
 24 of a break, Richard, just to get things set up.

25 MR. ZUROMSKI: Let's take five minutes and

1 MR. YOUNG: Yeah, I can't recall. It seemed
 2 pretty straightforward.

3 MR. FIELDS: The good thing about the approach
 4 we're taking --

5 MR. ZUROMSKI: Let's go ahead and get this
 6 hooked up.

7 MR. FIELDS: Yeah, but the good thing about
 8 the approach that we're taking is that we can have a
 9 comment at any time, we make it on the server, and
 10 it's done. It's not a redeployment after it's out
 11 there of a piece of software.

12 MS. NOVELLY: One question, though, Richard.
 13 Are you actually keeping the current paper
 14 repositories up to date because I got a complaint
 15 that we don't have any of these meeting minutes in
 16 there.

17 MR. RIPPERDA: Was that from Luster Lynn, as
 18 well, that we got the other day?

19 MR. ZUROMSKI: Yeah, actually Mark -- I think
 20 Luster's office sent it to Mark, and Mark forwarded
 21 it to me. And I went out and personally updated the
 22 repositories to make sure they were updated.

23 MS. NOVELLY: So how often is it done?

24 MR. ZUROMSKI: Well, it was supposed to have
 25 been done quarterly.

1 get -- we'll get set up.

2 (Recess taken.)

3 MR. ZUROMSKI: Let's try to schedule our next
 4 meeting. The first Thursday in April is the 4th for
 5 the next teleconference. Does that sound good for
 6 everybody? 10 A.M. teleconference April 4th. That's
 7 in.

8 Second teleconference would be
 9 May 2nd. Everybody okay with that? May 2nd,
 10 10 A.M. Okay.

11 And the next face to face would be --
 12 June 6th, would be the next face-to-face meeting.

13 MS. GATES: Don't look at me.

14 MR. ZUROMSKI: No, I'm just -- I know that I
 15 will not be present, but I know that we're going to
 16 have to have one, anyway.

17 MR. KRATZKE: You really won't be here?

18 MS. GATES: Well, I might.

19 MR. ZUROMSKI: Maybe. Kimberly might be here.
 20 We don't know yet. Robert probably will be here.

21 MR. KRATZKE: I'll be here.

22 MR. ZUROMSKI: Does June 6th work?

23 UNIDENTIFIED SPEAKER: We'll make it work.

24 MR. ZUROMSKI: Okay. Excellent.

25 MR. BURIL: Did you say you won't be here?

1 MR. ZUROMSKI: I will not be here on June 6th.
2 I will be gone for a couple of months during that
3 time.

4 So that meeting will be at nine A.M.,
5 as opposed to the teleconferences which are at
6 10 A.M. Okay. We've got those scheduled.

7 (Discussion held off the record.)

8 MR. ZUROMSKI: Okay. With that, Mark, feel
9 free to go whenever you want. Keith is going to just
10 kind of run through the website again, and if you
11 guys see any big glaring issues that you want to deal
12 with -- I think that the main issues right now would
13 be, number one, really provide kind of what Judy was
14 talking about, some kind of help information on the
15 search page. And, then, you know, once we get these
16 final comments in and we get the IP addresses, we'll
17 institute it on a trial-type basis so that people can
18 start using it without moving the paper repositories.
19 I think that the sooner we get this going and the
20 sooner we make it available for use, probably the
21 better from the long-term perspective of getting this
22 really kind of integrated with the public.

23 MR. YOUNG: Is there any sort of FAQ on here?

24 MR. ZUROMSKI: Yeah. I think we have -- the
25 first home page kind of has just some general

1 made.

2 We adjusted the schedule a little bit;
3 but, as we know, the schedule is changing daily, so
4 the schedule is probably not worth looking at at this
5 point.

6 The primary changes came in the
7 administrative record, but let's go to the feedback
8 portion first. Before we had that discussion room --
9 and that caused quite a bit of discussion and unrest
10 when we did that. It will come up in a second. It
11 has trouble with this page for some reason on the
12 analog line.

13 But in the feedback room, what we
14 thought we'd do here is give the community members
15 some options. One is they could submit a comment
16 from here. And now that comment submittal would be
17 just where they could fill out some information.
18 Submit this comment. And then what that does is
19 sends an E-mail to me. It could be sent to anybody.
20 At this point when we're testing it, it's sent to me.
21 And then that will be more of like a managed comment
22 area where we can take those comments and determine
23 if it's an appropriate comment to post a response to.
24 If somebody is just fooling around and doing
25 something silly, we'll just ignore them. But that's

1 information on what's going on at the site. It has
2 some really just --

3 MR. FIELDS: We could come up with a FAQ, a
4 shot at some frequently asked questions.

5 MR. ZUROMSKI: And, actually, we have some
6 from the OU-2 meetings. We have that whole list that
7 everybody agreed on. I think we could include that
8 on the site.

9 MR. FIELDS: Yeah. It is on there.

10 MR. ZUROMSKI: Oh, it is. Okay.

11 MR. FIELDS: I believe. It should be under
12 the recent files. Yeah. Answers to frequently
13 asked questions is a downloadable PDF file on there.

14 Basically the changes -- I think maybe
15 the thing to do is just go through the changes that
16 resulted from the December meeting first, and then we
17 can -- if there's any general questions, we can dig
18 into it a little bit.

19 But as far as this home page or the
20 main page, that didn't change that much. We did
21 change the contacts based on Chuck's recommendation
22 to just official contacts. We can put that there.
23 And then we ordered them in an order that we kind of
24 want people to contact, with Peter Robles being
25 first. But that was the primary change within this

1 one change that we made.

2 MR. BURIL: Do you plan on keeping a record of
3 questions that you deem to be inappropriate to
4 respond to?

5 MR. FIELDS: The way the system is set up now,
6 at least on the server side, keeps track of
7 everything. So we would have a full record there.
8 But we probably should take -- I mean, we can
9 definitely make two lists. It's not like Battelle
10 would be making the decision on which comments to
11 disregard. We would send those on to NASA, and they
12 could say yes or no.

13 MR. BURIL: I submit it would be a good idea
14 so if someone stands in a public meeting and says,
15 "You never answered my comment," you would at least
16 know what they're talking about if it was chosen to
17 not be responded to.

18 MR. KRATZKE: And, Keith, I think those
19 comments should come, not to Battelle, especially if
20 you have your name there. It should at least say it
21 has been sent to JPL for review or to Peter directly
22 or something like that. It shouldn't say it's going
23 to Battelle.

24 MR. FIELDS: Yeah. We can do that however we
25 want to do it, at this point, for testing of the

1 system.

2 And then the other aspect of this that
3 we added, we have a review responses, which that's
4 where we would post the comments and the responses.
5 Right now it just says there's no comments received.

6 And then the last piece is this mailing
7 list addition. And this is the same thing. They
8 could put in this information.

9 UNIDENTIFIED SPEAKER: Do they have to fill in
10 all the blocks, Keith, in order to enter that?

11 MR. FIELDS: Probably. Let's keep them --

12 MR. ZUROMSKI: Yeah, I guess so.

13 MR. FIELDS: You have to fill in -- otherwise,
14 it wouldn't do us any good to have it, anyway.

15 MS. GATES: Well, but if you don't have an
16 organization, if you're just a member of the
17 community, that should be a field that's optional.
18 It shouldn't be a field that's mandatory.

19 MR. FIELDS: Let's see if that's mandatory.

20 MR. ZUROMSKI: Right.

21 MS. GATES: Well, it says, "All fields must be
22 filled in."

23 MR. ZUROMSKI: You might want to remove that
24 one, Keith.

25 MS. GATES: Well, and the other thing is I

1 MR. KRATZKE: Too fancy.

2 (Discussion held off the record.)

3 MR. KRATZKE: Richard, have you thought before
4 we even go out final with this, well, do you have a
5 PAO that has to review it, too?

6 MR. BURIL: We would like our folks to review
7 this, yes.

8 MR. KRATZKE: We need to have the Navy PAL
9 review it, too.

10 MR. ZUROMSKI: Probably on our next review
11 round, we'll require everybody that needs to review
12 it review it.

13 MR. BURIL: In fact, along the same lines as
14 the issue of NASA's website, I would -- go back to
15 the opening page, if you could, please. The NASA JPL
16 CERCLA program website. That is incorrect. This is
17 NASA's CERCLA program website for the Jet Propulsion
18 Laboratory.

19 MR. ZUROMSKI: Right, right.

20 MR. KRATZKE: And you may even want something
21 on there when someone found this when they wanted
22 more stuff on JPL, you might want -- well, you had a
23 JPL thing up there, but you might want to say more
24 for general information on the JPL facility, you can
25 contact --

1 think what Robert was talking about, is just as the
2 comments are sent to you, just as the printed line,
3 have it say something else so that we don't see your
4 E-mail address.

5 MR. ZUROMSKI: I knew there was a reason we
6 had Kimberly come back.

7 MR. KRATZKE: Just general comments, it's like
8 JPL's. We can talk about that kind of stuff --
9 (Discussion held off the record.)

10 MR. BURIL: Say that one more time.

11 UNIDENTIFIED SPEAKER: It's not NASA's CERCLA
12 program website. It's Jet Propulsion Laboratory.

13 MS. GATES: It's not NASA's overall; it's
14 NASA's JPL --

15 MR. BURIL: Mark's right. It's NASA's CERCLA
16 program at the Jet Propulsion Lab.

17 MS. NOVELLY: Because no where in there does
18 it say Jet Propulsion Lab. It isn't indicated.

19 MR. RIPPERDA: Well, I'm going to take off.

20 MR. ZUROMSKI: Thank you, Mark.

21 MR. FIELDS: What we should do there -- I
22 think if you watch it now, up there, it has NASA Jet
23 Propulsion Lab. I mean, it's there, but it probably
24 should just be all there.

25 MR. ZUROMSKI: It's all fancy.

1 MR. BURIL: It could give you a link to JPL's,
2 hopefully, available home page.

3 MR. ZUROMSKI: There is a link at the top.

4 MR. BURIL: Oh, I didn't see that.

5 MR. ZUROMSKI: But it's not obvious. It's
6 small.

7 MR. BURIL: No. That's fine.

8 MR. FIELDS: You can see that my computer is
9 just slow.

10 MR. BURIL: There's graphics aplenty on that.

11 MR. FIELDS: I'll change around that title,
12 make it less fancy and make sure that it's clear that
13 it's NASA's program at JPL.

14 On the admin record page of this
15 website, we added some help information like commonly
16 used acronyms just for clarification for those folks
17 who may get confused with those.

18 MR. BURIL: Stop right there, if you would,
19 please. "Welcome to the JPL Administrative Record
20 Database." No. NASA's Administrative Record
21 Database for Jet Propulsion Laboratory.

22 MR. FIELDS: For JPL, right.

23 MR. ZUROMSKI: I think that will be a common
24 change throughout the database.

25 MR. BURIL: As I see them, I'm pointing them

1 out, is all.
 2 MR. FIELDS: Yeah, I appreciate that.
 3 MR. ZUROMSKI: And the same thing on the thing
 4 that your finger point is on right now, JPL CERCLA
 5 program and that's a CERLA program.
 6 MR. FIELDS: You don't like this CERLA
 7 program?
 8 (Discussion held off the record.)
 9 MR. HILLSTROM: I think the comment about
 10 primary documents, I didn't know whether you -- you
 11 know, those were primary documents that you
 12 considered to be primary, as opposed to primary
 13 documents on the FFA. And I don't know whether we
 14 want to keep --
 15 MR. ZUROMSKI: Kind of haven't really made
 16 a --
 17 MR. FIELDS: We can call it something else.
 18 MR. ZUROMSKI: We probably have to just call
 19 it something else because it's not an FFA primary
 20 document, right. Why not just put "Documents," get
 21 rid of the word "Primary."
 22 MR. FIELDS: Now, what that is is just some of
 23 the most common documents are there that we thought
 24 that the public may be looking for like the FFA or
 25 the community relations plan, FSs, RODs.

1 MR. TALLEY: Could you call it related
 2 documents instead of primary. We're talking about
 3 the public just trying to identify it.
 4 MR. BURIL: How about important documents?
 5 MR. TALLEY: Important key documents.
 6 MR. FIELDS: Yeah. I think they're important
 7 documents.
 8 MR. ZUROMSKI: This would be a good place to
 9 link, like Judy's comment from the search page, have
 10 a link from the search page to this so that you could
 11 say, "For these important documents," or whatever,
 12 "click on this link," so they could go straight to
 13 this.
 14 MS. NOVELLY: Or you could do something like
 15 assisted search.
 16 MR. ZUROMSKI: Exactly.
 17 MS. NOVELLY: Go on assisted search and click
 18 on assisted search and it gives you a list of all the
 19 documents, and it might give you a list of certain
 20 key words that would be helpful. Probably 90 percent
 21 of the people will go there.
 22 MR. ZUROMSKI: That's what I would think.
 23 Those would be a couple good ways to handle that
 24 community friendliness requirement.
 25 MR. FIELDS: Okay. And then we also put some

1 initial help in there to kind of describe some of the
 2 fields. But we can definitely enhance this, too,
 3 help out with some of the other concerns.
 4 MS. NOVELLY: Just for the people who have no
 5 knowledge of this project in mind.
 6 MR. ZUROMSKI: I think the key is having it
 7 where the search takes place, too, because are these
 8 links, you know, where the search takes place?
 9 That's the key, that if you could have links to these
 10 things right underneath the search box, or before the
 11 search box, they could click on those things before
 12 they did a search so that they could -- the would
 13 read this because right now it's not intuitive that
 14 they would go and read the help before they would do
 15 a search.
 16 MR. BURIL: Could you back up one page,
 17 please. No, to the list of ones that you had up
 18 there.
 19 MR. FIELDS: Of the primary?
 20 MR. BURIL: Yeah. I just wanted to see if I
 21 saw it correctly. Slow down. Here's a question,
 22 just in general. There it talks about the draft
 23 final feasibility study for OU-2, and then it talks
 24 about replacement pages for a final feasibility study
 25 for OU-2. Why do you have the replacement pages

1 there?
 2 MR. ZUROMSKI: Because that's what made it
 3 final.
 4 MR. BURIL: Why don't you have just the final
 5 document as opposed to replacement pages? The thing
 6 that strikes me about this, it's a nit, perhaps, but
 7 it makes me wonder, if I was someone looking in here,
 8 you have the draft final and then you have the
 9 replacement pages for the final. Okay. What was
 10 wrong with the final in the first place, and what are
 11 you taking out?
 12 MS. NOVELLY: Usually you only put final
 13 documents in the administrative record.
 14 MR. BURIL: It just the way it's set up, it's
 15 confusing. I can understand why because I put it
 16 there, but --
 17 MR. FIELDS: There's some weird rules on that,
 18 as well, and what is required to be in there. If
 19 there were decisions or comments made that affect the
 20 final version on a previous version you have to
 21 include information. So you want whether -- I'm
 22 guessing that it was never done --
 23 MR. ZUROMSKI: Right.
 24 MR. FIELDS: -- by the people who scanned in
 25 the documents.

1 MR. ZUROMSKI: It was scanned in according to
2 what they received, not how it should have been,
3 right.

4 MR. FIELDS: If you want us to replace those
5 pages within --

6 MR. HILLSTROM: Well, everybody was given a
7 package of replacement pages, and some people
8 incorporated them, others didn't.

9 MR. ZUROMSKI: We'll talk about how we're
10 going to have to address that.

11 MR. BURIL: Yeah, but the key behind all that
12 was a cost saving measure because the reports were so
13 large and the pages so few that needed replacement.
14 So, you know, the fact that we sent out 20 pages of
15 to be replaced just saved us from having to produce a
16 thousand dollar document.

17 MS. NOVELLY: But you do have a final
18 document.

19 MR. BURIL: Yeah.

20 MS. NOVELLY: When you sent out replacement
21 pages, you also get a new cover that said it was
22 final. So you have a final document. That's what
23 should appear.

24 MR. FIELDS: And it's easy to do within a PDF
25 is to just replace the pages you want to. It's as

1 they should be?

2 MS. NOVELLY: I would, yeah.

3 MR. FIELDS: Maybe just the annual up to the
4 most recent quarter?

5 MS. NOVELLY: Yeah, you could probably do that.

6 MR. BURIL: Something like that would be more
7 helpful, I think.

8 MS. NOVELLY: But if you're going in and you
9 want to find out what you're drinking, that's a good
10 place to look.

11 MR. FIELDS: Good point.

12 MR. BURIL: Out of curiosity, again, another
13 thing to look for systemically but using this as the
14 example, is environmental plan fact sheet number one,
15 number two, and number four. What happened to number
16 three?

17 MR. FIELDS: Wasn't it in our database.

18 MR. BURIL: Well, those kind of things, in the
19 public eye, you know, it's like, "Well, gee, they've
20 got the replacement pages and they hid number three.
21 What's going on?"

22 MR. FIELDS: We'll have to look into why those
23 aren't there.

24 MR. HILLSTROM: It probably wasn't in the
25 record.

1 easier than doing in a hard copy.

2 MR. BURIL: It just doesn't look good. I
3 would encourage you to go through that and find where
4 those situations occur. Just looking at this, I see
5 a draft final and I see replacement pages, but I
6 never see a final. And, you know, as a member of the
7 public, I would question, well, how --

8 MR. KRATZKE: It's semantics. You're where
9 you had comments, comments on the draft final.

10 MR. ZUROMSKI: So where's the final would be
11 the question from the community.

12 MR. BURIL: Among others, but that would be
13 the first one, yeah.

14 MR. FIELDS: It looks to me like we do need to
15 search into that more in depth, but at least on the
16 other important documents, you don't see that.

17 MR. BURIL: Yeah. Like you see there the
18 final community relations plan. Bam. There it is.
19 And if I wanted to see that, I would know to look
20 there. If I wanted to look at the final feasibility
21 study for OU-2, I wouldn't know where to look.

22 MR. FIELDS: Right.

23 MS. NOVELLY: Do you have the quarterly and
24 annual groundwater reports there?

25 MR. FIELDS: Not listed there. Do you think

1 MR. BURIL: It depends, yeah.

2 MR. FIELDS: That's my guess that it wasn't in
3 the admin files we were provided.

4 MR. KRATZKE: And to take that even further,
5 what are these number one, number two, number three?
6 I mean, are they by dates? Is that why the sheets
7 are labeled like that?

8 MS. NOVELLY: Just the order they were issued.

9 MR. BURIL: Chronological order.

10 MR. KRATZKE: Maybe you want to put the dates
11 in there because to me just seems like --

12 MR. TALLEY: One is replacing the other, just
13 like in --

14 MS. GATES: Or that way they might be able to
15 find out often they go out.

16 MS. NOVELLY: I think that's actually the
17 title. It's in the title.

18 MR. ZUROMSKI: Of course what we're talking
19 about would be beyond the scope of what we were
20 planning to do here, I think that we're talking
21 about. These are things that are inherent in the
22 database that we're working with right now.

23 MR. BURIL: Understood, understood.

24 MR. ZUROMSKI: I mean, one of the tasks of us
25 hearing what we're hearing today, one of the tasks

1 that we might want to undertake in the future is
 2 going through every document that we have and making
 3 sure that it's the final or whatever, making sure
 4 that the title in the database is a correct title, I
 5 mean, things like that. We might have to do a QAQC
 6 or something like that might be appropriate. But
 7 that's what this seems to raise right now.

8 MS. GATES: I just want comments -- I've done
 9 a lot of --

10 MR. ZUROMSKI: Okay.

11 MR. KRATZKE: Like we've done on some of our
 12 other web sites, Keith, perhaps we want to click
 13 on -- when they click on it, they could also get an
 14 abstract of what that document is rather than having
 15 that whole document come up and then having to kind
 16 of go through it?

17 MR. FIELDS: I would say for -- I was thinking
 18 maybe for the important documents, that's definitely
 19 would be great, but are you suggesting for all 2000?

20 MR. KRATZKE: Just a thought. I'm not even
 21 saying it has to be done. It's just an idea. I
 22 don't know.

23 MR. TALLEY: Well, are some documents
 24 summarized in here. If it's at least a couple of
 25 pages long, then you wouldn't need an abstract.

1 documents, maybe it would be appropriate here, but
 2 whether or not it's appropriate everywhere, that's --
 3 maybe we could handle that in a more general --

4 MR. BURIL: The idea is to help someone on the
 5 website versus a requirement of the administrative
 6 record. The way I look at this, these are the
 7 documents of the administrative record. They should
 8 be, you know, not messed with. They're cast in
 9 concrete.

10 MR. FIELDS: Right.

11 MR. BURIL: The answers to the kinds of
 12 questions people may pose like what's in these
 13 documents would be something that you could have in
 14 an explanation section. That's under your control
 15 through the website, and not necessarily a part of
 16 the administrative record.

17 MR. ZUROMSKI: Have it on, again, on that page
 18 where you do the searches, have help.

19 MR. BURIL: Right.

20 MR. ZUROMSKI: You know, have several things
 21 to click for help on that page, the overall help, the
 22 link to this, the frequently asked questions, and
 23 then -- so that it kind of assists them in making a
 24 search if they decide to do a search.

25 MR. BURIL: Right.

1 MR. FIELDS: A lot of the database is like
 2 transmittal letter, fax transmittal letter.

3 MR. KRATZKE: Not stuff like that, no.

4 MR. FIELDS: This is a transmittal letter.

5 MR. BURIL: You might have something, say,
 6 like the frequently asked questions, rather than
 7 trying to develop an abstract for every report and so
 8 forth, which is a good idea. But in order to cut
 9 down the amount of work you would have to do, maybe
 10 have something in there that says to the effect,
 11 "Large reports have executive summary sections that
 12 you could review rather than reviewing the entire
 13 report." Things like that that you could identify
 14 within the documents so you just don't have more work
 15 to generate.

16 MR. ZUROMSKI: I like that idea.

17 MR. FIELDS: I do agree that the way this is
 18 laid out now for somebody that may not understand
 19 what documents are, it would be nice, at least at
 20 this level, to be able to say, "What would I find in
 21 this document?"

22 MR. ZUROMSKI: You might want to say what an
 23 RI is, or what is an FS.

24 MR. FIELDS: Right. And I think, particularly
 25 since we're only talking a very small group of

1 MR. ZUROMSKI: So more a part of the utility
 2 of the website rather than administrative record.

3 MR. BURIL: Right, exactly.

4 MR. ZUROMSKI: Leave it as it is in the
 5 administrative record. It is what it is.

6 MR. FIELDS: And then the other change that we
 7 made or feature that we added would be this simple
 8 versus advanced search. And a simple search within
 9 that search, you just enter your key words and hit
 10 go, and there's no other option. So let's say you
 11 wanted to look under --

12 MR. ZUROMSKI: Look under "Analytical
 13 results."

14 MR. FIELDS: I bet that won't be a good one.

15 MR. BURIL: He already knows.

16 MR. FIELDS: One thing we did add I think
 17 since last time is we put, based on our opinion, the
 18 priority of the document, low, just to help us in
 19 another field within the database to help us refine a
 20 search. So all those documents that showed up on the
 21 previous page, the important documents, would have a
 22 high priority, these are lower.

23 MR. BURIL: Let me ask a question now with
 24 regard to that being made available to the public,
 25 your rationale for that again is what?

1 MR. FIELDS: What being made available?
 2 MR. BURIL: Prioritization of the documents.
 3 MR. ZUROMSKI: You mean don't show that field?
 4 MR. BURIL: I want to understand before I just
 5 come out and say, you know, "Don't do that."
 6 MR. ZUROMSKI: I don't think -- actually, it
 7 should be a hidden-type function. If it's just a
 8 function to help the search move along by itself.
 9 It's to help the search search.
 10 MR. BURIL: Oh, okay.
 11 MR. ZUROMSKI: I don't think it should show up
 12 on here because what you're saying is it's not our
 13 duty to prioritize documents.
 14 MR. BURIL: Exactly.
 15 MS. NOVELLY: Actually some are not available.
 16 If you click on some of them, they say it's not
 17 available.
 18 MR. BURIL: I didn't want to address the issue
 19 of what high, low, and medium priority within the
 20 public realm was because what's very important to
 21 someone may be viewed as low to us. Don't have it on
 22 there.
 23 MR. ZUROMSKI: Right. It think that we should
 24 remove -- keep it as a search function, but take it
 25 off of the --

1 MR. BURIL: Yeah, that's fine. Something
 2 that's an internal flag to help the search is fine.
 3 MR. ZUROMSKI: I agree with that.
 4 MS. NOVELLY: Of some of them, when you click
 5 on them, it will tell you it's not available.
 6 MR. ZUROMSKI: I know what you're talking
 7 about. It's basically just a slip sheet that says,
 8 "This document is not available. You have to go to
 9 the main administrative record to get it." Yeah.
 10 And that was from a copying perspective. That was
 11 the boxes of analytical data that was that thick, we
 12 didn't scan them.
 13 MR. BURIL: And those are the most recent
 14 ones.
 15 MS. NOVELLY: I think it depends on the type.
 16 If it's a letter, it will be there; if it's
 17 analytical results, it won't.
 18 MR. KRATZKE: But we shouldn't have it there
 19 if they can't get it.
 20 MS. NOVELLY: Well, that was my point because
 21 it would be kind of frustrating for somebody to go
 22 in, try to get a document they think they want, and
 23 be told they can't have it. Why even put it there?
 24 MR. ZUROMSKI: This is it right here.
 25 MR. KRATZKE: It's a perception of "Why can't I

1 have this document?"
 2 MR. TALLEY: There's an analytical report.
 3 MR. BURIL: For some reason all of these work.
 4 MR. ZUROMSKI: So Judy --
 5 MR. BURIL: Something is wrong here. It's
 6 functioning the way it's designed.
 7 MR. ZUROMSKI: I know what you're talking
 8 about, though.
 9 MS. NOVELLY: Was more stuff scanned in since
 10 then or what?
 11 MR. ZUROMSKI: No.
 12 MS. NOVELLY: I know on the first page that
 13 came up on this, the first one I hit had that message.
 14 MR. HILLSTROM: Try the first one, then.
 15 MS. NOVELLY: I went down for a while and just
 16 tried one.
 17 MR. BURIL: Here's the distinction. You
 18 notice all these are labeled as analytical results,
 19 but this is a tiny, tiny fraction of what is actually
 20 available throughout the course of the project.
 21 Somehow this subset got pulled out as analytical
 22 results, and perhaps sample results will yield a
 23 different kind of thing.
 24 MR. ZUROMSKI: Possibly.
 25 MR. FIELDS: You know, it's searching the

1 subject line and keywords in a simple search. So
 2 when we're coming up with keywords analytical results
 3 isn't a good keyword because we would have to apply
 4 that to like every report there is. So it would only
 5 be if analytical results showed up in the subject
 6 line, and so that could be sample results, like
 7 you're saying.
 8 MR. BURIL: Yeah. What this is doing -- I
 9 recognize some of these documents. What this is
 10 doing is that we received letters, say, from Foster
 11 Wheeler, or whomever contractor was during the time
 12 JPL ran the project, that was transmitting data from
 13 work that had been done that was ultimately
 14 incorporated into the RI. For example, you got this
 15 July and November 1994 data. That's a letter
 16 transmitting that data. That probably has the data
 17 attached to it. But that was ultimately incorporated
 18 into the RI.
 19 MR. ZUROMSKI: If you go down and look at the
 20 fourth page, if that is the page that might say --
 21 might be a slip sheet page.
 22 MS. NOVELLY: I don't know, Richard. It's
 23 just whatever one you hit. If you hit on the wrong
 24 one, you get the message. I don't think that if they
 25 can't see the data on the website that they should

1 even have the option to click on it and be told you
 2 can't have that. It just gives the wrong sort of
 3 impression, don't you think?
 4 MR. ZUROMSKI: Or maybe those sheets need to
 5 be modified saying the amount of data here is so
 6 large that you need to contact us to get it, or
 7 something. Maybe the language needs to be changed.
 8 I'll have to find one of those, and that's fine. I
 9 think what this is going to require is we're going to
 10 have to go back the QA and QC the database itself.
 11 MR. FIELDS: Right.
 12 MR. ZUROMSKI: Let's move on because I know we
 13 could go through this for hours, and this is
 14 something we're going to have to address on a larger
 15 scale, I guess.
 16 What other types of changes did you
 17 make?
 18 MR. FIELDS: Why don't we just look quickly at
 19 the advanced search and some of the options that are
 20 there and we can comment on the appropriateness of
 21 those options.
 22 MR. ZUROMSKI: Get rid of the priority level.
 23 MR. FIELDS: Yeah, that's what I was
 24 wondering. We do have a priority level here.
 25 MR. BURIL: Get rid of it. I don't think that

1 anything there dealing with community relations is
 2 very important, but I certainly think that everything
 3 that deals with water purveyors is. You might have a
 4 completely different way of looking at it.
 5 MR. ZUROMSKI: Here's the question, though,
 6 you could leave that priority level there -- nah, but
 7 then it would still be selecting things from what we
 8 deemed --
 9 MR. BURIL: You're placing a value judgement
 10 on it, which you don't really want to have.
 11 MS. NOVELLY: Exactly.
 12 MR. FIELDS: How about if use we the priority
 13 level this way: We will organize the result of your
 14 search according to the priority level. So you
 15 wouldn't see it, but the highest priority documents
 16 would show up first on top so that as you went down
 17 further you would see what would be considered --
 18 MR. BURIL: I would strongly suggest that
 19 whatever list of documents you general be in
 20 chronological order, that way you can attach no
 21 importance other than the fact that one came before
 22 the other.
 23 MR. ZUROMSKI: I would think so, too.
 24 MR. BURIL: Because those value judgments
 25 could really play havoc in a public forum.

1 MS. GATES: Who makes that objective?
 2 MR. BURIL: That's what I mean.
 3 MS. GATES: I mean, yeah. Who in the world
 4 makes that decision?
 5 MR. FIELDS: In fact, it's somewhat logical
 6 when you have an RI versus a transmittal letter.
 7 That's kind of the distinction we were making.
 8 MR. BURIL: That makes sense, what you're
 9 saying. But the idea that somehow there was value
 10 placed upon one document over the other leads people
 11 to wonder, you know, "What's the criteria? Why isn't
 12 this more important than? That I disagree with this
 13 whole thing. This whole thing is messed up."
 14 You know, kind of like the same
 15 attitude you're getting right now from us.
 16 MR. KRATZKE: You obviously have to put
 17 something into the system for the search to work
 18 correctly.
 19 MR. ZUROMSKI: Or to make the search more
 20 effective.
 21 MR. KRATZKE: Right.
 22 MR. ZUROMSKI: Maybe we can just call it
 23 something different. We'll figure out a way.
 24 MR. KRATZKE: But there's no need to show that
 25 to the public, how your internal search engine is

1 working.
 2 MR. FIELDS: Well, yeah, that was my
 3 suggestion with just organizing them. But let's
 4 organize them chronologically, number on the
 5 document, ID number, whatever. We can just drop that
 6 entirely.
 7 MR. KRATZKE: Could you hit on "Select the
 8 Record Type."
 9 MR. FIELDS: The database had several
 10 different record types, data, fax, photograph,
 11 letter. These were from that database provided to us
 12 by --
 13 MR. BURIL: Miscellaneous. Holy cow.
 14 MR. FIELDS: Yeah. Miscellaneous can cover
 15 quite a bit.
 16 But this is nice if you know you're
 17 looking for an RI report and you put in remedial --
 18 you know, it returns a much smaller number of
 19 documents.
 20 MR. BURIL: Let me ask you, if someone put in
 21 remedial I-N-V-E-S-T period, what would they get?
 22 MR. ZUROMSKI: With a period?
 23 MR. BURIL: With or without a period.
 24 MR. FIELDS: I-N-V-E-S-T period?
 25 MR. BURIL: Yeah.

1 MR. FIELDS: "File not found."

2 MR. ZUROMSKI: Get rid of the period and try
3 it, see what happens. So the period screws you up,
4 but it doesn't matter how much of the words you use,
5 of course, if you put like "re in" you might get more
6 because you'll get anything that --

7 MR. BURIL: If you put "rem in," it could
8 might be a whole different series.

9 MR. ZUROMSKI: Yeah. It might be the remedy
10 inventory. You never know.

11 MS. NOVELLY: On the one subject, the second
12 one on that last page, you had multiple files listed
13 on the side.

14 MR. ZUROMSKI: Yes.

15 MS. NOVELLY: What are they supposed to
16 actually click on?

17 MR. FIELDS: These encompasses these and
18 everything else.

19 MR. BURIL: So all of those incorporate the
20 draft RI for one and three?

21 MR. ZUROMSKI: Yes, because you couldn't put
22 them all into one big PDM file.

23 MR. BURIL: That's something you should tell
24 people right up front.

25 MR. ZUROMSKI: That some documents may be too

1 MR. BURIL: Gee whiz.

2 MR. KRATZKE: We don't need to see them.

3 MR. FIELDS: We can go through each one and
4 open them up.

5 MR. ZUROMSKI: I think we should go through
6 and QA QC the titles right now.

7 MR. FIELDS: There's no time like the present.

8 And on the advanced, we'll give a
9 little more instruction on the sheet. We give a list
10 of authors since one of the fields to search on is an
11 author field. We give just some general things like
12 that to help a more advanced search.

13 MR. KRATZKE: Type in "John Grisham."

14 MR. BURIL: Let me ask a question, okay?
15 If you put the author in, what do you get?

16 MR. FIELDS: It gives the number of files per
17 author.

18 MR. ZUROMSKI: You see that last one on
19 there.

20 MR. BURIL: No. What was it?

21 MR. ZUROMSKI: W. Macarley.

22 MR. BURIL: One, two. Yeah, T. Howell.

23 MR. ZUROMSKI: Only one.

24 MR. HILLSTROM: Go up a little further.

25 That's where Peter Robles. See, there's the period.

1 large to be in one file.

2 MR. BURIL: And so that they are broken into
3 pieces, and that one, hopefully, follows the other.
4 It looks like it does.

5 MR. ZUROMSKI: Yeah.

6 MR. BURIL: So you want to be sure to tell
7 people that up front because otherwise, I mean,
8 they'll be wondering, "Well, gee, does everything go
9 on A and all then all rest are just drafts? What is
10 it?"

11 MR. FIELDS: On this search, area, Richard, we
12 do have the help, that same help, but we can expand
13 that.

14 MR. HILLSTROM: Just type in "remedial."
15 That's one of your examples.

16 MR. ZUROMSKI: You might get a lot.

17 MR. HILLSTROM: I didn't think I got any
18 results when I did that. Oh, 20.

19 MR. FIELDS: It picked up one more than
20 remedial investigation, but I still had the qualifier
21 of a report on there. If we put all types, we may
22 get a significant number of documents. Yeah.

23 MR. ZUROMSKI: It's going slow.

24 MR. FIELDS: Yeah, a significant number. You
25 might want to stop that. Oh, just 389.

1 MR. BURIL: These are alphabetical according
2 to first initial?

3 MR. FIELDS: Yeah.

4 MR. BURIL: It might be helpful if you could
5 make it by last name.

6 MR. ZUROMSKI: Who was P. Cooley?

7 MR. BURIL: Pamela Cooley. She was the
8 project manager before 1989.

9 MR. ZUROMSKI: From EPA?

10 MR. BURIL: From JPL.

11 MR. ZUROMSKI: Oh.

12 MR. BURIL: And Bandino is her married name.

13 So you've got a real mish mash of things in there.

14 MR. FIELDS: What is there?

15 MR. ZUROMSKI: You've got overlaps and
16 duplicates of some names.

17 What else is up with this search?

18 MR. FIELDS: I'm sorry?

19 MR. ZUROMSKI: Anything else?

20 MR. FIELDS: I don't think there's anything
21 new. We can certainly take all these comments and
22 chug out another round of --

23 MS. GATES: I think if we all go back and look
24 at it again, look at it more closely, we can come
25 back and give you comments on that. I don't think

1 sitting here looking at it anymore is --
 2 MR. ZUROMSKI: Think what is going to happen
 3 now is we'll probably have -- Keith will make these
 4 changes that we talked about, and major changes such
 5 as retitling documents and things like that, those
 6 are going to take longer. I don't think those should
 7 delay getting the thing up and running, but I think
 8 that -- let's get it to a point where we can send it
 9 on all these people who need to review it, give them
 10 the review time, review it. Once everybody is on
 11 board with it, let's get it up and running, and then
 12 we can start do things like starting to change these
 13 little by little.
 14 As long as we still have the paper
 15 copies available and this, you know, we can kind of
 16 gradually work on it and make sure that eventually it
 17 gets to the product that we're looking for.
 18 So does anybody have any major comments
 19 at this time on this? Okay. Seeing none, I think
 20 that's pretty much it for the day. Thank you.
 21 We've already done our meeting
 22 selections for the next three months, so thank you
 23 everybody, and this meeting is adjourned.
 24 MR. BURIL: Just one other thing, Richard.
 25 MR. ZUROMSKI: Oh.

1 MR. BURIL: I would like to be on the record
 2 in stating that when you meet with the regional board
 3 in any dealings with NPDES, I need to be there.
 4 MR. ZUROMSKI: Okay. Now the meeting is
 5 adjourned.
 6 (Whereupon, at 1:57 P.M., the meeting
 7 was adjourned.)
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 9 I hereby certify that I am not interested
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 11 IN WITNESS WHEREOF, I have subscribed my
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