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## REMEDIAL PROJECT MANAGERS' MEETING

NASA/JET PROPULSION LABORATORY

27 January 2000

## ATTENDEES:

Richard Atwater, Bookman-Edmonston Eng.

Charles L. Buri, JPL

Alex Carlos, RWQCB-LA

Bruce Garbaccio, DTSC

Mark Cutler, Foster Wheeler

Phoebe Davol, Techlaw

Richard Gebert, DTSC

Mark Losi, Foster Wheeler

Judith A. Novelly, JPL

B. G. Randolph, Foster Wheeler

Mark Ripperda, USA EPA (via telephone)

Peter Robles, Jr., NASA

Richard Zuromski, Navy/NASA

Reported by: Louise K. Mizota, CSR 2818

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Pasadena, California

January 27, 2000

10:08 A.M.

BURIL: I'm going to ask folks to go around the table and introduce themselves. We've got a couple of new folks here that I want to be sure we get on the record. So I'll start.

I'm Chuck Bupil, project manager for JPL.

CARLOS: Alex Carlos, Regional Board.

LOSI: Mark Losi, Foster Wheeler.

CUTLER: Mark Cutler, Foster Wheeler.

ROBLES: Peter Robles, NASA/JPL.

RANDOLPH: B.G. Randolph, Foster Wheeler.

GEBERT: Richard Gebert, DTSC.

DAVOL: Phoebe Duval, Techlaw.

ZUROMSKI: Richard Zuromski, Navy/NASA.

GARBACCIO: Bruce Garbaccio, DTSC.

NOVELLY: Judy Novelly, JPL.

BURIL: Okay. Why don't you tell us -- or Richard, do you want to introduce --

GEBERT: Yes. This is our new geologist from DTSC who has been assigned to JPL. He's basically replacing Craig Chrisman, who is now a supervisor. I think he can go on the tour with you.

1 BURIL: Yes. We have the vehicle all set.

2 GEBERT: He's reviewed the FSSs.

3 BURIL: Welcome.

4 GARBACCIO: Thank you.

5 BURIL: Hopefully you'll last as long as the  
6 rest of us.

7 Okay. Speaking of FSSs, first thing on the  
8 subject list here on the agenda is the OU-2 FS. I  
9 want to be sure, first of all, all you folks did  
10 receive it, you received all the copies you needed.

11 How is it going as far as things? What do  
12 you see in there that you like or you don't like so  
13 far?

14 ROBLES: Can you keep your eyes awake?

15 BURIL: Yeah, is this next to your nightstand at  
16 home keeping you awake at night, or what's  
17 happening? Anybody have anything they want to share  
18 there?

19 CARLOS: I'm pretty much done with the FS for  
20 OU-2. I'm just tightening the comments. I really  
21 don't have any major comments on the FS. I think  
22 it's a fairly well written document.

23 Though a few things I can point out.

24 BURIL: Okay. Great.

25 RIPPERDA: I took a quick look at it yesterday,

1 and this is the nice one. It's an easy one.

2 BURIL: Yeah, I thought it was, too.

3 RIPPERDA: Just on the big level, you know, like  
4 the conclusions, the preferred alternatives, that's  
5 all that we talked about before. It all makes  
6 sense. I'll just have to look through it for  
7 details. But I certainly agree with the preferred  
8 alternative soil vapor extraction and the lack of a  
9 surface pathway risk and all of that.

10 BURIL: Okay. Good.

11 GEBERT: I've gotten through about half of it so  
12 far. And I, too, don't have any major problems with  
13 it.

14 BURIL: Okay. Good.

15 GEBERT: The OU-3 I haven't really looked at too  
16 much.

17 The only thing that's on the alternatives,  
18 I noticed only one of the alternatives went through  
19 the screening and it goes into the detailed  
20 analysis.

21 BURIL: That's for OU-2 you mean?

22 GEBERT: OU-2. Right. Generally we like to see  
23 at least two or three different ones go through the  
24 full detailed analysis. I understand on this site,  
25 because of the problems with the effectiveness and

1 implementability of a lot of them, it may not be  
2 reasonable. But the perception of the public, too,  
3 when they see basically only one alternative there,  
4 even though the treatments that you'll subdivide  
5 probably.

6 BURIL: Yeah

7 GEBERT: There's basically no action in SVE.

8 BURIL: I'm trying to recall now -- I read the  
9 thing a month before you guys got it. But I'm  
10 trying to recall now. I think we did talk about  
11 certain aspects of other types of treatments, but  
12 they got screened out right at the beginning.

13 GEBERT: Right.

14 BURIL: So it's not as though we didn't consider  
15 them. But they just fell from grace, so to speak,  
16 on the first screen.

17 Is there some disagreement with that kind  
18 of an evaluation that you're thinking?

19 GEBERT: No, not really. It's just -- you know,  
20 we'll see. We might have a comment where maybe one  
21 or more other things might want to be run through  
22 the detailed analysis.

23 DAVOL: As for some -- oh, go ahead.

24 GEBERT: But other than that, we do not disagree  
25 with the recommended alternative at all. It's just

1 that you might want to --

2 BURIL: You'd like to see more variety in there,  
3 so to speak?

4 GEBERT: Possibly, yes.

5 BURIL: Phoebe, what were you going to say?

6 DAVOL: I was going to agree with Richard.  
7 Because traditionally, these feasibility studies,  
8 unless you follow different guidance. It's kind of  
9 hard to tell because the presumptive remedy. It  
10 looks like you're choosing a presumptive remedy and  
11 you follow a certain set of guidelines for that  
12 rather than the NCP, which says you take, you know,  
13 identify the different technologies and you go  
14 through the screening, identification screening. So  
15 I think there's a little, you know, difference  
16 there. That's why I kind of agree with him that you  
17 might want to see one carried all the way through  
18 beyond that.

19 BURIL: I would ask both of you, then, to give  
20 us an indication in your comments as to what you  
21 find that's troubling you in that regard because,  
22 like I pointed out, we do have a variety of  
23 technologies up front. And because of the first  
24 screen, forcing one of these to go through the  
25 screen is a little artificial. And I think that

1 we'd want to avoid that. If there is something  
2 there that we haven't looked at that might go  
3 through that screen that would address your  
4 comments, please share it with us. We could take a  
5 look at that.

6 RIPPERDA: I thought about the same thing a  
7 little bit. I've only been back for a couple of  
8 days so I didn't really think about it a lot. But I  
9 thought that. And then, well, of course, we're  
10 doing to do soil vapor extraction and GAC is the  
11 most acceptable way to then treat that. So I  
12 couldn't think of anything else to throw in there.  
13 But I will take a look at EPA's presumptive remedy  
14 guidance to see if there's a way that might better  
15 be explained in this.

16 BURIL: All right.

17 DAVOL: I'd like to throw in one more comment.  
18 I'll have to admit that I'm, you know, fairly new to  
19 this project, much like you are. And I had someone  
20 help me who is very new on this. And so I  
21 appreciate her comments. She's an engineer.  
22 Because she's coming in fresh and everything. And  
23 this is always -- kind of been curious about this  
24 all along, but Stephen Niou, for example, indicated  
25 that it's been investigated. But it's not really

1 clear, where did this VOC contamination come from?

2 I mean --

3 BURIL: Basically, we believe, based on  
4 everything we've done so far in terms of historic  
5 research and field work, that the seepage pits,  
6 cesspools and all the other accoutrements that went  
7 along with the buildings here back in the '40s, '50s  
8 and '60s were used both for sanitary and chemical  
9 waste. And that was the means of introduction into  
10 the environment.

11 DAVOL: Why is it not in the upper soil surface  
12 anymore?

13 BURIL: The only things that we can derive from  
14 that is, one, oftentimes these pits were used for  
15 toilets, sinks, things like that. So you have a lot  
16 of water flushing through there that may have just  
17 pushed the contaminants down. And now they're down  
18 deep.

19 Also, you've got a fairly long period of  
20 time since this occurred. And maybe through  
21 dispersion or something -- my personal theory is  
22 that it was the water basically just continuing to  
23 go into these seepage pits until the times that the  
24 sewers were put in. That basically just flushed the  
25 upper portions of the aquifer out.

1           DAVOL: Perhaps that needs to be talked about.  
2 Because if I'm reading it from this perspective and  
3 someone else, and perhaps you've read it and you've  
4 come in, like, where did it -- why isn't there any  
5 residual left?

6           ROBLES: So it wasn't clear to you in the  
7 document?

8           DAVOL: No. It's not clear. Because a lot of  
9 these comments are -- the public is going to say the  
10 same thing. They're going to go, "Well, you haven't  
11 investigated it. You have not determined the nature  
12 and extent because you've still not found the  
13 source."

14          RIPPERDA: Yeah. I agree with Phoebe. You  
15 know, when I looked at this document, that, you  
16 know, looked at the background section and you look  
17 under contaminate fate and transport you have a  
18 generic discussion of, you know, how VOCs move or  
19 what they're like, but nothing on how they were used  
20 at JPL, how they got into the ground.

21                   So in the background, you know, section I  
22 think you always want to provide a reason for what  
23 you're doing, some kind of conceptual model of where  
24 stuff came from, how it got to where it is now.  
25 That's the kind of stuff we'll put in our comments.

1 BURIL: That's fine.

2 ROBLES: Mark, even if it is just an assumption,  
3 shall we put it in there? Like Chuck was saying is  
4 what we think? Because we don't have any data of  
5 why it's not up there.

6 RIPPERDA: You should always include a  
7 conceptual model, your best guess as to where and  
8 how things got there. If you don't know, you  
9 explain that, that you don't know. But explain why  
10 you think that way and, you know, what seepage pits  
11 you have taken samples from and that you either  
12 found or did not find stuff. But Phoebe is right.  
13 Anybody who is brand new to it is going to say  
14 "Well, where did all this stuff come from?" And  
15 it's good to have it in here.

16 BURIL: That's fine. We may be suffering from  
17 the "too close to the trees to see the forest"  
18 syndrome. But okay. We'll take a look at your  
19 comments, obviously. It sounds like something we  
20 should be able to address with relative ease.

21 RIPPERDA: Yeah.

22 CARLOS: I think what Chuck just mentioned, your  
23 conceptual theory and why you don't see any residual  
24 near surface, but you see most of it somewhere in  
25 the middle and the lower portion of the vadose zone.

1 I've seen similar conditions similar to what you're  
2 seeing here.

3 BURIL: Okay.

4 CARLOS: For example, a solvent tank may have  
5 leaked, say, over, say, 30 years ago. You don't see  
6 much VOCs near surface. But once you get down, say,  
7 50 feet, that's where the high concentrations start,  
8 and in some cases it's all the way to groundwater.

9 DAVOL: And perhaps the stratigraphy is finer,  
10 closer to the aquifer, lack of organic carbon. And  
11 we can talk about this, maybe even -- I don't know.  
12 Maybe cite some examples in this area? The sites  
13 you're talking about within the same geological  
14 regime? Is it similar to other sites that they  
15 could draw upon?

16 GEBERT: I think it's true with other sites that  
17 have the same stratigraphy, sandy deep soils.

18 DAVOL: Right. That might help substantiate  
19 your conceptual model.

20 BURIL: Sure.

21 GARBACCIO: Coarse grains soils is --

22 DAVOL: I agree with that but I keep getting  
23 comments from people, like, "Well, they haven't  
24 found it."

25 BURIL: Actually, we do believe we've found it.

1 Perhaps we just haven't explained it well enough.  
2 And we can certainly put that explanation down on  
3 paper. I don't see that as being a big problem.

4 ROBLES: We're going to have enough questions  
5 being asked by the public. We don't want them to  
6 ask the obvious, that you haven't found it.

7 BURIL: "Where did you get this stuff, anyway?"

8 ROBLES: Phoebe, you said something that  
9 interested me. You said that we're not following  
10 the NCP.

11 DAVOL: Well, no, you are following the NCP.  
12 But I mean in the FS it looks like you're following  
13 the NCP, but in a way, because you've only  
14 identified one technology, you're following the  
15 guidance for presumptive remedies.

16 ROBLES: And certain things have to be in there  
17 if we're going to do that.

18 DAVOL: Right.

19 ROBLES: And they're missing.

20 DAVOL: And I think you probably need to talk  
21 with Mark about it. Mark and I talked about it.  
22 Sorry, Mark. We talked about this. We probably  
23 should have talked before. I think we'll just work  
24 out the comments on this. Because I think you are  
25 following the NCP. But it looks like you could also

1 follow the presumptive remedy guidance. You've  
2 identified just one technology.

3 BURIL: I think it will be helpful to see your  
4 comments and be able to get a better grasp of where  
5 your concerns are. Certainly I get it in concept.

6 ROBLES: That's important to me, because I don't  
7 want anyone to be able to stop the clean-up process  
8 because you're saying that we haven't followed the  
9 NCP.

10 DAVOL: Right.

11 BURIL: I would want that same outcome be  
12 avoided. For the life of me I can't imagine someone  
13 would say "No, stop cleaning up JPL. You didn't  
14 follow up the process." But nevertheless --

15 ROBLES: No. But they could say "No. You're  
16 not -- we don't like your alternative because you  
17 didn't follow the NCP, and we would like this  
18 alternative," and then they have grounds to stop the  
19 process and force us --

20 BURIL: It's possible, certainly. I hope it  
21 never comes to fruition. But we'll address that  
22 comment in a fashion that hopefully resolves it,  
23 then we shouldn't have a problem.

24 CARLOS: Something similar to what Phoebe just  
25 mentioned with regard to perchlorate, for example,

1 and sources of perchlorate contamination. Is that  
2 also the sources are similar to VOCs?

3 BURIL: That's our guess right now. That's  
4 really the only mechanism that we've been able to  
5 identify that would introduce the materials into the  
6 subsurface environment. All the different things we  
7 talked about in the RI are basically the mechanisms  
8 that we think are the method of introduction. Yeah.  
9 That's basically where we're at.

10 We don't have any other understanding  
11 of -- the amount of testing that was actually done  
12 here was relatively small scale. And so we don't  
13 think the actual testing was the thing that created  
14 the problem. We think really it was the  
15 manufacture, the grinding, the mixing and then the  
16 subsequent cleaning out of stuff, you know, mixing  
17 utensils and bowls and rocket casings and all of  
18 that, that ended up going down the drain. That was  
19 probably the most likely location for this stuff to  
20 get into the ground. Okay.

21 Any other comments on OU-2 that folks want  
22 to share with us at this point?

23 CARLOS: I really don't want to get bogged down  
24 with details for the FS.

25 BURIL: Sure.

1 CARLOS: But is there another document following  
2 the FS that would detail, for example, the  
3 operation, sampling, maintenance of the SVE?

4 BURIL: That would ultimately be, I would  
5 assume, in the proposed plan or in the design  
6 document for the remediation, one of those two.

7 That's something we probably ought to talk  
8 about a little bit once we get through the FS  
9 portion of this, is the next steps, the proposed  
10 plans and then public review and where you folks  
11 expect to see certain of these things. Like, for  
12 example, exactly as you pointed out, the  
13 maintenance, monitoring and so forth. Where those  
14 should end up in terms of the documents.

15 My own thoughts all the way along, and we  
16 can discuss this a little bit down the road, have  
17 been that probably those would end up in the design  
18 documents. Maybe proposed plan, but probably more  
19 like design documents where we actually say this is  
20 how we're going to put it together and run it.

21 GEBERT: That's true for us, too, basically. I  
22 mean, all the details tend to go more into the  
23 design, and the proposed plan is more of a public  
24 document. So it's general.

25 BURIL: It's a big concept of how we're going to

1 do this.

2 GEBERT: Generally we stay away from the details  
3 as much as possible.

4 BURIL: Okay. Well, it sounds like that's  
5 probably where that kind of info would come from,  
6 once we get to a design phase where we're laying it  
7 out, saying this is how we're going to build it,  
8 this is what it's going to look like, this is how  
9 we're going to run it, this is how we're going to  
10 watch it, so on. All right.

11 Okay, then. OU-2 FS. I'm trying to  
12 recall now. I promised myself I would look on the  
13 schedule, and naturally I didn't, as to when your  
14 comments were due back to us. We had the document,  
15 I believe, landed in your hands on the 29th of  
16 December. And the FFA calls for 60 days, which I  
17 think puts us --

18 GEBERT: 25th of February.

19 BURIL: Okay.

20 RIPPERDA: Yeah. That's what your letter to us  
21 said.

22 BURIL: I was trying to remember what my letter  
23 said and I couldn't remember that either.

24 GEBERT: We shouldn't have any problem meeting  
25 that date.

1 BURIL: Good. Good. I'm glad to hear that's  
2 going well.

3 Why don't we shift gears to the one that  
4 isn't so friendly and talk a little bit about what  
5 things you've seen already, if you've had a chance,  
6 in the OU-1/3 FS.

7 CARLOS: I haven't even opened the OU-1/3.

8 BURIL: Okay. There's a no vote.

9 CARLOS: I wanted to get OU-2 off my plate.

10 BURIL: Sure.

11 GEBERT: I just skimmed through it. One thing I  
12 do notice is that there is no alternative  
13 recommended, as in OU-2 you recommend SVE. But in  
14 OU-3 there's no recommendation for any technology.

15 RIPPERDA: Yeah. I was going to say exactly the  
16 same.

17 GEBERT: That's the big question.

18 BURIL: That's the big one that's sticking out  
19 right now?

20 GEBERT: Yes. From what I have seen, that's the  
21 big question. Why is that?

22 BURIL: I think basically we're looking at  
23 proposing that under the proposed plan because we're  
24 still in a quandary ourselves as to exactly how  
25 we're going to put this thing together.

1           One of the things, and Richard or Peter,  
2 you might just jump in here, one of the things that  
3 we want to try to utilize to make that ultimate  
4 decision is this on-site source reduction that we're  
5 trying to put together and maybe some of the data  
6 from that will help us do that.

7           Now, we're not talking about delaying the  
8 completion of the FS to deal with that, but we are  
9 still trying to get some kind of better  
10 understanding of how we might want to put things  
11 together in terms of a treatment train or something  
12 like that. So we're looking at trying to put this  
13 together in a proposed plan stage more than at this  
14 point in time. Depending upon the level of detail  
15 that we're able to get from dealing with this, since  
16 we're right on the cutting edge of dealing with  
17 perchlorate, a lot of the details may not even come  
18 out until the design phase, again looking at some of  
19 these things.

20           So we're anticipating right now that a  
21 final recommendation would actually come out of the  
22 proposed plan as opposed to FS.

23           RIPPERDA: I can recognize the need for that.  
24 But the problem with looking at this FS is you've  
25 got each of the alternatives ranked by each of the

1 categories from high to low. There's no way for us  
2 to tell if something is ranked low on one thing, if  
3 that's, I guess, close to being knocked out. Like,  
4 for example, the cost. Your cost ranges are  
5 something like 25 million to 150 million. And your  
6 150 million one is ranked high on everything else,  
7 but obviously could be ranked low on cost. Is JPL  
8 prepared to spend 100, 200 million, or is that like  
9 automatically a no?

10 BURIL: I would turn to NASA and say what do you  
11 think, Pete?

12 ROBLES: Do I have my crystal ball with me?

13 BURIL: Mine is at the cleaners.

14 You've got a good point, I think. We'd be  
15 very interested in any comments that you have to  
16 give to us as to what you would want to see resolved  
17 to address that issue. We personally, here, have  
18 had the idea that we wanted to identify all the  
19 feasible technologies and alternatives.

20 And as far as putting them all together  
21 into a single cohesive recommendation, we felt that  
22 that should be at the proposed plan stage, given all  
23 the things that are going on right now. So if that  
24 poses concerns, then certainly we'd like to know. I  
25 think I hear the beginning of something that says,

1 hey, we're not sure we like this.

2 ROBLES: Please suggest.

3 BURIL: Yes. Suggest how you prefer to see it.  
4 I think that would be very helpful to us. And we  
5 can go from there. Because this is such an  
6 edge-of-technology kind of thrust, we didn't  
7 necessarily do this exactly according to Hoyle, but  
8 certainly we followed the NCP. There may be that  
9 last step that you folks would like to see that we  
10 haven't included, at least at this point.

11 So I would encourage you to let us know  
12 what you think, what you would prefer to see. And  
13 we'll try to address that when we get your comments.

14 RIPPERDA: I'll have to think about this, but in  
15 looking at these, going through, you know, for  
16 helping me to decide which ones to really take  
17 seriously or not, because we haven't looked at all of  
18 them, but even if you don't pick a single preferred,  
19 maybe come up with, you know, a two-tiered like or  
20 something, you know, so that -- I can just imagine  
21 that you're not ever going to select the 150 million  
22 option one on-site and off-site pumping and  
23 treating. And some of the others, you know, I don't  
24 know. But some kind of indication of which ones are  
25 more or less acceptable, possibly. And that's it.

1 BURIL: Okay. All right.

2 ROBLES: Richard, have you got any comments?

3 BURIL: Which Richard?

4 GEBERT: I was just going to reiterate what Mark  
5 said, that maybe it can be narrowed down some. We  
6 have other sites where an alternative is not  
7 recommended in the FS, so it can be done. But if it  
8 can be narrowed down to --

9 ROBLES: A working number?

10 GEBERT: A working number, yeah, would be  
11 helpful.

12 ROBLES: So you'd like to see more development  
13 of that?

14 GEBERT: As much as possible.

15 BURIL: I think what I'm hearing is that they  
16 want us to tell them what we're going to do, more or  
17 less like we did in OU-2.

18 RIPPERDA: At least tell us what you would like  
19 to do or which one you would like to consider more  
20 favorably than the other ones.

21 ROBLES: And Rich?

22 ZUROMSKI: Yeah. I had the same comment. Peter  
23 and I talked about this. Because I looked at OU-1  
24 and 3 as opposed to OU-2, since that's the one I'm  
25 dealing with. My initial comment on looking

1 straight from the executive summary through skimming  
2 the whole document was the fact that there is  
3 nothing really recommended. And we all know where  
4 we're going, because Peter and Chuck and I have  
5 talked about the interim remedial action or the  
6 nontime critical removal or pilot study, whatever we  
7 want to call it. That's one direction we're moving.  
8 But it's really not clear in the OU which way we  
9 want to go. So maybe not necessarily saying we are  
10 going to do this, but saying, like Mark said, I like  
11 his idea of saying "These are more acceptable than  
12 these technologies" would probably be the best way  
13 to go, at least from this point.

14 ROBLES: I'll let you know that I'm facing a  
15 problem in the fact that what we prefer as remedial  
16 alternatives and what NASA headquarters prefers may  
17 not be the same.

18 RIPPERDA: What are those?

19 ROBLES: And I don't want to be that specific.

20 DAVOL: You're not going to give us a hint?

21 ROBLES: I don't want to prejudice this meeting.  
22 I've been given marching orders about what we can  
23 and can't do. And this is a major concern to me.  
24 That's one of the reasons why I'm asking you to  
25 please give us your inputs because I really need to

1 know what the other RPMs are looking for.  
2 Basically, if my people back at headquarters say  
3 "No, that option or remedial alternative is not  
4 politically or legally viable," then I have to bring  
5 that forward.

6           But that's why I'm very much concerned,  
7 because I know where the RPMs want to go -- if we  
8 recommend that option, this document will never fly  
9 back at NASA headquarters. And so that's where my  
10 concern is.

11           That's why we're right now asking for your  
12 inputs on the options and alternatives you are  
13 leaning to. We're asking for your inputs. Okay?  
14 Because we need to know what your feelings are so we  
15 can take that up the chain of command, whatever the  
16 options may be. And I'm very serious about this. I  
17 can't go into any more details because we have  
18 differences of ideology in this matter. But that's  
19 something that we need to negotiate. And I need you  
20 to partner with us so that way we can take those  
21 issues and concerns and then deal with them one by  
22 one. I have been told that certain options and  
23 alternatives do not meet NASA's policy and NASA's  
24 position on this matter.

25           Buri: Okay. On that ethereal note. One thing

1 we would like to re-raise with regard to Operable  
2 Unit 1 and 3 is the discussion of the cleanup goals.

3 Now, I'm only going to raise this up as  
4 kind of a, remember folks, it's in the FS where  
5 we're talking about in terms of establishing both  
6 treatment and aquifer cleanup goals. And in the FS  
7 it's established as the MCLs for water. I know that  
8 we started talking about this back at the last  
9 meeting. And the strongest word I got from you was  
10 "Tell us what you want us to think about. That was  
11 what I got from the agencies. And so that's where  
12 we are at now, that is, we have established as our  
13 position, if you will, that cleanup goals would be  
14 MCLs or, in the case of perchlorate, the IAL.

15 And we'll see how you folks feel about  
16 that, at least at the outset, maybe not having had  
17 opportunity to review the FS. But see how you think  
18 about that in general.

19 Oh, you don't have any feelings at all?  
20 That's good.

21 ROBLES: They do, but --

22 BURIL: They're numb. That's the problem.

23 RIPPERDA: Can I go back to something Peter was  
24 just saying?

25 BURIL: Sure.

1           RIPPERDA: It had me a little worried. Not that  
2 you worry me, Peter.

3                   I can interpret what you said several  
4 different ways. That as a regulator in an  
5 antagonistic position to you guys, like the old NASA  
6 is not going to spend a dime, they're just going to  
7 hope that things down zone is going to be okay, or  
8 maybe you meant that NASA is going to spend a little  
9 bit. But that's where it is important for us to  
10 know at least what NASA considers reasonable or not.  
11 Maybe the only thing NASA considers unreasonable is,  
12 you know, the whole ball of wax (UNINTELLIGIBLE).  
13 So you just -- NASA should at least be able to  
14 indicate in the document what they consider  
15 reasonable and unreasonable. I don't want to turn  
16 Phoebe loose for hours and hours doing a detailed  
17 review of this and then NASA say, "Oh, we don't want  
18 to do any of this."

19           ROBLES: No. We understand that we have to do  
20 something. The question that comes in is, what are  
21 we going to do outside of the NPL site? And what  
22 are the political and legal ramifications of that.  
23 And that's where it's becoming very, very difficult.

24                   And so the key that we're looking for is,  
25 what I really like to do is see what are you guys

1 looking for. That's why I need your input so I can  
2 take that up my chain of command and say, "Look,  
3 this is what the RPMs want and this should be part  
4 of the alternative process.

5           And then that way I can, then, take your  
6 concerns up to NASA HQ and say "If these  
7 alternatives are not part of the document" then the  
8 RPMs can't come on board and endorse it.

9           RIPPERDA: Okay. That's a little different  
10 question than us just providing comments on this.  
11 Like when you say they won't go off the NPL site,  
12 that issue would never come up for me in just  
13 writing comments on this. Like for me, the NPL  
14 site, is the entire extent of your plume. Where you  
15 have a CERCLA hazardous substance is where your NPL  
16 site is, not where your property boundary is.  
17 That's what you're responsible for. And I would  
18 never say that when I'm writing the comments on  
19 this. But if that's, you know, an essential problem  
20 for NASA, then -- that's not being shown in this  
21 document.

22           ROBLES: That's a good comment.

23           BURIL: Okay.

24                   (Mr. Atwater enters the meeting room.)

25           BURIL: Let me just interrupt. Rich Atwater

1 from Raymond Basin just walked in the door.

2 ATWATER: If I walk back out you're going to  
3 announce that, too.

4 BURIL: Now you have to go through the greeting  
5 line, Richard.

6 RIPPERDA: And kind of along the same line, your  
7 ARARs analysis, I'll have to read it much more  
8 carefully. But it doesn't really get into any of  
9 the potential problems. It talks about the State  
10 Board resolutions and the management plan and things  
11 like that. It doesn't really talk about how that  
12 might or might not be a problem for some of your  
13 alternatives, like whether or not you'll be allowed  
14 to reinject.

15 So that's certainly one thing I would like  
16 a little more in depth (UNINTELLIGIBLE) some of the  
17 potential problems with ARARs, or you guys saying  
18 this is what you want to do and potentially there  
19 may be an ARAR that doesn't affect you or not but  
20 you want to do it anyway and to force the State  
21 Board to bring it up right now rather than waiting  
22 for the ROD.

23 BURIL: Okay.

24 ROBLES: Yeah, we got a lot of those.

25 BURIL: Okay. That's good info, Mark. Thank

1 you.

2           We do have a lot to think about. And  
3 certainly we'll look forward to getting your  
4 comments to be able to address those and maybe move  
5 this thing down the road.

6           RIPPERDA: Can I get another copy of the  
7 groundwater FS?

8           BURIL: Well, since you asked so nicely, I guess  
9 so. Yeah. No problem.

10           Okay. Let me jump back to where I started  
11 from, discussion of cleanup goals. Having heard my  
12 pronouncement here as far as what our proposal is,  
13 is there any immediate reaction on part of any of  
14 the agencies, or you haven't had a chance to really  
15 review it yet or --

16           GEBERT: I haven't really had a chance to review  
17 it. So you're referring to those cleanup goals as  
18 opposed to the more stringent ones proposed by OU-  
19 Is that --

20           BURIL: Basically, yes. We're looking at the  
21 MCLs as being, you know, once it's at or below MCL,  
22 or if it's below MCL basically our job is done. And  
23 we would suspend remediation after going through the  
24 appropriate process, of course. But that would be  
25 our treatment goal and our remediation goal. And if

1 we're in a position of needing to do something else,  
2 then we would need to hear that from whatever  
3 regulatory agency would have that requirement, and  
4 what rationale there is for imposing that  
5 requirement.

6 GEBERT: I'll have to talk it over with our  
7 people. But I don't see that it would be a major  
8 problem using the MCLs and the action levels written  
9 in the FS.

10 BURIL: Unfortunately this guy to my left may  
11 have a different viewpoint of it.

12 GEBERT: That's something we'll have to talk  
13 about.

14 CARLOS: I think that's something I need to talk  
15 to Art before I (UNINTELLIGIBLE)

16 BURIL: Sure. No. That's fine. I understand  
17 completely.

18 Anyway, I just wanted to be sure everyone  
19 was aware that that was there. And I suppose that  
20 the discussion will continue into the future.

21 Just as, I guess a kind of preface to this  
22 whole thing, is at our next monthly telecon, if  
23 we've had opportunity to -- "we" being the royal we,  
24 to get into the FS and deal with this issue of  
25 cleanup goals, it would be nice to hear if there is

1 any major concern with what we proposed up front,  
2 because certainly if -- for example, if Alex's folks  
3 are going to tell us "No, we can't accept that  
4 because," then we'd kind of like to know it as soon  
5 as possible to start working on it. Because when we  
6 get your comments, we only have 60 days to respond.  
7 And that particular issue is obviously a very key  
8 issue. And so we would like to have maybe a little  
9 extra time on that particular issue, if we can.

10           If you can't, that's understandable, too.  
11 But as much time as we can get to be able to try to  
12 resolve that working with you folks right up front,  
13 even while we're developing the comment responses to  
14 the rest of the comments, that one itself may be a  
15 very ticklish one and may require more time. So we  
16 would like to be able to get working with you on it  
17 as soon as possible.

18           ZUROMSKI: And it's also going to be a key issue  
19 when we get to item 5 here, as well. So as soon as  
20 we can get some kind of comments back. And that  
21 will help us move forward on number 5 when we get  
22 this.

23           ATWATER: Chuck, if it helps, on behalf of  
24 Raymond Basin Management Board, philosophically  
25 we've always agreed with MCLs being a goal.

1           If you'd like, I'd be happy to see if we  
2 can get a formal letter to that effect.

3           BURIL: Sure. That's fine. If you want to do  
4 that, that would be useful potentially. Certainly  
5 it's not going to hurt.

6           ROBLES: It's greatly appreciated.

7           BURIL: That's fine.

8           ATWATER: I was going to say, if you don't want  
9 us to do it, we won't.

10          BURIL: No. I don't want to force you into  
11 anything, but it's a very generous offer.

12          ROBLES: Yeah. We need the input, because we  
13 need the input from the purveyors.

14          BURIL: I think if Raymond Basin would support  
15 that, then certainly I think that would go a long  
16 way to --

17          ATWATER: We have a special Board meeting on  
18 Monday. I'll bring it up.

19          BURIL: Okay. I know we've been invited to  
20 that. Are we planning to go?

21          ROBLES: I was going to ask you. Because I  
22 can't go.

23          BURIL: Let's talk about it off line.

24          ATWATER: If you can. We can talk. I'll --

25          BURIL: Okay. That would be great, Richard.

1 I'd appreciate that very much.

2 ATWATER: Sure.

3 BURIL: You caught me off guard. That's great.

4 ROBLES: Why I brought this up, because I asked  
5 for this to be put on there, was the fact that after  
6 going up to AeroJet, Sacramento, Rancho Cordova and  
7 listening to where they're being pushed at and then  
8 talking to friends across the United States that I  
9 know of, detection levels are dropping very fast.  
10 Parts per quadrillion is now nondetect. What does  
11 that mean? And so, therefore, I am very much  
12 concerned about the fact of what we're going to look  
13 at. And in the past what I've seen test to  
14 nondetect. Clean up to nondetect. Well, nondetect  
15 now is not parts per billion. It's really -- it's  
16 economically going to be feasibly impossible in some  
17 cases. So that's why I want the action that goes  
18 to -- it's a constant discussion between us and we  
19 need your inputs on that.

20 Also the fact is DHS' policy has a lot of  
21 pushing on this in the State of California and it's  
22 driving a lot of sites crazy. And we need your  
23 comments so that we can work with you on that. It's  
24 very important.

25 RIPPERDA: Well, from an EPA perspective, Peter,

1 MCLs are fine. From a purely legal perspective, 10  
2 to the minus 4, 10 to the minus 6, or to ARARs. The  
3 MCLs are mostly done around the minus 6 range.  
4 Perchlorate to the action level. So I'm totally  
5 happy with MCLs. But the key point is your cleanup  
6 should be MCL throughout the aquifer where you've  
7 impacted it. You have not just on site. But your  
8 remedy ends up being something like source reduction  
9 in the hot spot. So that might be an acceptable  
10 remedy. But you'll have to have it ongoing until  
11 your entire downgradient plume hits MCLs or the  
12 preferred action levels.

13 BURIL: Okay. I think we can understand that.

14 All right, then. Any other comments on  
15 OU-1/3 or the discussion of cleanup goals?

16 We're going likkity split here. We're  
17 doing pretty well as far as time goes.

18 Item 3, then, soil vapor sampling and the  
19 split samples with a second mobile lab.

20 We are in the process right now of  
21 finishing up everything. I was going to hold back a  
22 discovery that we made until other business, but  
23 since it deals with soil vapor, I'll mention it now.

24 During the course of our work we found  
25 an anomalously high reading coming out of one of our

1 soil vapor wells that heretofore showed basically  
2 nothing. We found Freon 113 in our well number 9,  
3 which is located near building 117. And it went  
4 from the 1s numbers, you know, 2, 3, 5, 8 and so on,  
5 went up to well over 1,000, and some cases up near  
6 2,000. Now, that, obviously, kind of piqued our  
7 curiosity as to what's going on here.

8           And we put together some data in terms of  
9 inventory and usage up there that we're still trying  
10 to assemble. Based on what we know now, there  
11 doesn't look like there was enough usage up there to  
12 have really created this as far as the numbers that  
13 we're seeing. Admittedly, some of our inventory  
14 data is not the best. So that may not be the best  
15 answer.

16           Also, we've gone ahead and done some work  
17 with a strata probe, which is basically push a probe  
18 in the ground, pull a vacuum on it and analyze the  
19 stuff. And we're trying to see whether or not there  
20 is something, that we didn't know before, present.  
21 You know, if we stumbled on to something over the  
22 course of time. We just completed that work about  
23 6:00 o'clock last night. And we're still trying to  
24 compile the data.

25           At least on the surface it doesn't look

1 like this area is very large. Maybe 100, 150 feet  
2 long by maybe 30 or 40 feet wide. But now I have to  
3 say that we aren't sure that we've gotten everything  
4 together that we need to get together, too, as far  
5 as understanding the situation.

6           What I was going to do is to give you  
7 folks the heads up that we did discover this just  
8 within the last week and that we're going to  
9 assemble all this data, forward it up to you. And  
10 perhaps this might be a topic of discussion at our  
11 next monthly telecon when you have a chance to see  
12 what we've done, see the information, and then we  
13 can talk about it. But I wanted to be sure to  
14 mention it to you because I didn't want this falling  
15 out of the clear blue sky on you, you know, 30, 35,  
16 40 days after the fact that we found it. It's only  
17 been about a week, week and a half.

18           CARLOS: How deep did you go?

19           BURIL: We went down to 20 feet, which I think  
20 was refusal in certain holes.

21                   How deep did we get in the deepest spot,  
22 B.G.?

23           RANDOLPH: 27.

24           ROBLES: What was the level of contamination?

25           BURIL: I don't think we've got all the data

1 back yet.

2 ROBLES: You don't?

3 BURIL: Yeah. That's part of the problem.

4 Having just finished it last night, we still have to  
5 compile everything and get it all together.

6 RANDOLPH: It ranged from nondetect to about  
7 2,000 parts per billion.

8 BURIL: Toward the edges of the area we think  
9 they just might be zero, nondetect. And right in  
10 the center was the highest. It was up around 2,000.  
11 So we think we got a handle on at least some of the  
12 extent, but we want to take a hard look at what it  
13 is we've got before we make that determination.

14 ROBLES: Going back on our data, we haven't seen  
15 it before?

16 BURIL: No. It's been quite a while since we  
17 sampled this particular well, too.

18 GEBERT: How long has it been since the last?

19 BURIL: It's about four or five years since we  
20 sampled this particular well.

21 Interestingly enough, there is another  
22 well just within, what, 30, 40 feet of it, B.G.?

23 RANDOLPH: About 80.

24 BURIL: Is it that far? Okay.

25 Anyway, that well shows nothing and it

1 showed nothing the last time it was sampled, too.

2 GEBERT: At the same depth?

3 BURIL: At the same -- pretty close to the same  
4 depth, yeah.

5 ROBLES: And we've been sampling that one  
6 continually.

7 BURIL: No, we have not. So this one well, from  
8 initial sampling to today's sampling, showed no  
9 change. You go less than 100 feet away and here is  
10 this huge change. And we're still in a quandary as  
11 to what's going on.

12 RANDOLPH: The other well was probably only  
13 about 60 feet away, the more I think about it.

14 BURIL: That's what I thought, that it was  
15 somewhere around 50 feet.

16 Phoebe is digging out her info here.

17 DAVOL: This is the Freon map from the FS.  
18 There is the locations map. But I was looking --

19 BURIL: It's up here. 9 is the one that's hot.  
20 10 is the one that has zero. And this one basically  
21 is down low, too.

22 CARLOS: How deep did you go?

23 BURIL: We found it all the way down to 70 feet.

24 CARLOS: This one goes all the way to  
25 groundwater?

1 BURIL: No. None of these wells up here went as  
2 far as groundwater. The fault runs literally right  
3 along this road. And previously we hadn't seen any  
4 vapor at all, really, of any magnitude. So we  
5 didn't really suspect that we would have a problem.

6 CARLOS: Where in Monitoring Well 9 do you see  
7 the maximum Freon?

8 BURIL: I don't know. We'd have to compile the  
9 data and see. I think -- I can't even remember.  
10 We'll get it all together.

11 CARLOS: We'll wait for the data.

12 BURIL: But, anyway, like I say, I didn't want  
13 to just drop this on you down the road. I wanted to  
14 sure you folks were aware of it and you can follow  
15 its development with us.

16 DAVOL: Is this like an addendum or, is this  
17 part of --

18 BURIL: That's something we've got to talk  
19 about. That is an issue potentially, and something  
20 that we want to think about. In the larger scheme  
21 of things when you talk about the overall site  
22 remediation, it's my own opinion that this is  
23 somewhat of a blip on the radar screen, but it's a  
24 relatively smaller blip.

25 When you talk about remediation for OU-2

1 you might consider putting a well in there and  
2 putting a vacuum on it and just, you know, draw the  
3 living heck out of it for a while and hopefully  
4 clean it up, or you may just leave it alone.  
5 There's not enough information out there to make  
6 that kind of determination right now. So we still  
7 have to develop this and we'll sit and talk with you  
8 folks as to how we should handle this.

9           But remembering that the area, at least as  
10 we understand it now, is relatively small and we're  
11 still talking in what I view is absolute terms 2  
12 ppm, which is not a whole heck of a lot of stuff,  
13 but it's something to be aware of.

14           Any questions, comments that you'd like to  
15 throw on the table based on that kind of sketchy  
16 dataless information?

17           CARLOS: Do you see any Freon 113 in nearby  
18 groundwater monitoring wells?

19           BURIL: Very scattered. We don't see much of it  
20 at all. In fact, well MW-7 is within 150, 200 feet  
21 or so of Well 9 and we don't see Freon 113 there  
22 very often. And when we do see it, it's very low  
23 concentrations. So there was nothing that gave us  
24 indication down the side of -- going south of the  
25 fault that would give us a reason to believe that

1 there was a large Freon 113 concern up above the  
2 fault. And we've never gone to groundwater above  
3 the fault simply because we just didn't think it was  
4 necessary based on all the information that we  
5 generated during the course of the RI. So this is a  
6 new one. Came out of nowhere. Quite honestly, at  
7 this particular point in time, we're stumped. So  
8 we'll keep pulling information together and we'll  
9 share it all with you and talk about it, hopefully  
10 next telecon, when you folks have a chance to take a  
11 look at it.

12 GEBERT: I have a question on the lab. Who are  
13 the people that are doing the second, or the check  
14 on the --

15 BURIL: You know, I can't remember their name.  
16 I'm going to have to rely on B.G.

17 RANDOLPH: Environmental Support Technology.

18 BURIL: Thank you. As a matter of fact, since  
19 you brought that up, we have done split samples with  
20 the second mobile lab basically to cover any  
21 concerns that might have come up as a result of TEG  
22 and so forth. Based on what we've seen so far,  
23 there's no problem. They've basically given us the  
24 same number.

25 GEBERT: Okay.

1 BURIL: We'll put all that data together and  
2 provide it to you, of course. But I believe at  
3 least on the surface right now, there doesn't appear  
4 to be any problem. Alex was actually here during  
5 the time that both labs were here and I think you  
6 audited both labs, didn't you?

7 CARLOS: Yes. Based on the QA/QC check I did  
8 for both labs, the results are pretty much the same.  
9 I really didn't see any deviation from the QA/QC  
10 limits that the Regional Board set.

11 GEBERT: I didn't know you were on site  
12 monitoring.

13 CARLOS: Yeah.

14 BURIL: Yeah, he came out and gave us the once  
15 over. We got a thumbs up, as far as I can tell so  
16 far. So we're doing all right in that regard.

17 Soil vapor sampling is almost done?

18 RANDOLPH: It's over with.

19 BURIL: I focused so much on that 113 stuff that  
20 I wasn't sure where you were with the rest. We've  
21 completed that latest round and we'll be getting the  
22 reports out to you.

23 Any other questions with regard to the  
24 soil vapor monitoring and the sampling and so forth  
25 that we have?

1 Under Groundwater Sampling, moving right  
2 along. We are getting ready to go back out when,  
3 Mark? End of February?

4 CUTLER: First of March, end of February, next  
5 event.

6 BURIL: And we have the annual report that's  
7 coming out here within the next, oh, couple weeks or  
8 so. And in it is a proposal to deal with the  
9 changes in the monitoring program. But I think one  
10 of the things that we wanted to talk about really  
11 dealt with how much data we'd look at in terms of  
12 establishing whether a well is a plume well or not a  
13 plume well and so forth.

14 Mark, you gave me a great explanation of  
15 that yesterday. Why don't you do that again today.

16 CUTLER: I believe it comes through a little  
17 convoluted. But before we did any changes to the  
18 monitoring program, we had two years of data, eight  
19 quarters, where we did every analyte at every well.  
20 And based on that data, we defined plume wells,  
21 downgradient wells and upgradient wells based on the  
22 criteria that's in the workplan.

23 A plume well was defined as any well that  
24 had a hit of a contaminant during those first two  
25 years. So even if we only had one hit. We're being

1 very, very conservative. In this annual report, our  
2 only comments on this monitoring program is to  
3 continue that. So, for instance, this upcoming  
4 quarterly event we'll look at the previous eight  
5 quarters and if there was ever a hit, say, for hex  
6 chrome in this well, that well is considered a plume  
7 well. And then that would be a rolling  
8 eight-quarter review. So every quarter we'd just  
9 look at the previous eight quarters. This way we  
10 can be a little more current with the plume. If the  
11 plume is shifting a little bit, if a well -- you  
12 know, we'll be starting event 14 next -- in the end  
13 of February, first of March. We won't have to look  
14 at all 14 quarters. Say the first quarter we have a  
15 hexavalent chromium hit, it's not what we call a  
16 plume well at this point. We've got 13 nondetects.

17 BURIL: 13

18 CUTLER: We'll just look at the previous eight  
19 quarters and keep that two-year rolling average. So  
20 that's what we're suggesting in this annual report.

21 BURIL: Any thoughts on that just off the top?

22 ZUROMSKI: B.G., do you have to have a hit in  
23 just one of the eight quarters?

24 CUTLER: We're being very conservative, probably  
25 more than we need to.

1           DAVOL: The next eight quarters you will analyze  
2 that well for hex chrome?

3           CUTLER: No.

4           DAVOL: No.

5           CUTLER: Every quarter we'll make up a list of  
6 which wells we're going to sample for that quarter  
7 based on the previous eight quarters of results.

8           ROBLES: And in the previous eight quarters if  
9 you get a hit on any one of those wells that shows  
10 that the well that you're going to look at had a hit  
11 in those eight quarters, you're going to sample it.

12          CUTLER: Right.

13          ROBLES: For that that you hit.

14          CUTLER: Correct.

15          ZUROMSKI: So you're going to do the same with  
16 each individual constituent?

17          CUTLER: You know, VOCs. If there's a hit of  
18 any VOC we'll do the VOC analysis.

19          BURIL: I think that what Phoebe might be a  
20 little confused on is for how long will it be a  
21 plume well once it's been established as a plume  
22 well. What's its minimum length of time for being a  
23 plume well.

24          CUTLER: Oh. Two years. So you can get it  
25 once, and then after two years if there's no more

1 hits it will fall off the end.

2 DAVOL: Okay. The fact that it had the one hit  
3 makes it a plume well and you need to analyze  
4 samples --

5 BURIL: You've got to go seven quarters of clean  
6 before it stops being a plume well.

7 DAVOL: Right.

8 ZUROMSKI: Are you going to do any like yearly  
9 verification, or -- after it falls out of being a  
10 plume well --

11 BURIL: It changes automatically to an annual  
12 well.

13 ZUROMSKI: Great.

14 CUTLER: Once a year every well gets everything  
15 again.

16 ZUROMSKI: I've heard some of the Navy guidance  
17 on this now, too. I don't know if you have. But  
18 they're really into streamlining monitoring and  
19 sampling according to those kind of --

20 CUTLER: Right.

21 ZUROMSKI: To kind of really define what we're  
22 sampling for, what we're looking for.

23 CUTLER: I think you'll see here we're doing a  
24 little more --

25 ZUROMSKI: A little more conservative.

1 BURIL: A little more conservative.

2 ZUROMSKI: But at least we're moving in that  
3 direction.

4 CUTLER: Right. Exactly.

5 BURIL: Okay. Anything on that kind of a  
6 proposal that strikes anybody?

7 DAVOL: Have you like developed a spreadsheet or  
8 something that shows this what's going to happen the  
9 next quarter or something for each well?

10 CUTLER: We do it every quarter.

11 DAVOL: So you're already planning for the next  
12 quarter.

13 BURIL: Right.

14 DAVOL: That kind of leads -- in the event we  
15 get to do the split sampling I'd like to know which  
16 wells are going to be analyzed for what because we  
17 have to be very specific in our sampling plan about  
18 which well and what we're going to analyze for. I'm  
19 sure you don't want me to analyze a sample for  
20 something you're not analyzing for.

21 BURIL: That wouldn't make any sense.

22 CUTLER: What we do is we'll put together a  
23 sampling schedule and forward it to Judy, primarily,  
24 and for the record.

25 CARLOS: When do you think the annual report

1 will be submitted?

2 BURIL: It's finishing up JPL review right now,  
3 so we hope to have it out the next couple, three  
4 weeks.

5 CUTLER: It's basically, if you look at the last  
6 year's annual report it's pretty much the same  
7 except for defining this two-year rolling average in  
8 the same program.

9 BURIL: Okay. On groundwater sampling, Phoebe,  
10 you had a request in that you wanted to do split  
11 sampling. Can you tell us a little more about that  
12 and what your thoughts are on what you want to do  
13 with it?

14 DAVOL: I still need to talk to Mark. I'm  
15 whispering to you, Mark, that's what I was talking  
16 about when I found out we were going to do, like are  
17 we still planning on doing this.

18 RIPPERDA: Yeah. I guess I'll talk first,  
19 Chuck.

20 BURIL: Okay.

21 RIPPERDA: We would love to do split sampling  
22 for the next event. So I'll send Phoebe or  
23 (UNINTELLIGIBLE) to go around with our people to  
24 get splits, not on every well, but she and I will  
25 get with Mark and decide, you know, 30 to 50 percent

1 of wells based upon the plume or (UNINTELLIGIBLE)  
2 Lincoln Avenue or some kind of interest.

3 My reason for doing this is mostly if the  
4 public, you know, comes to me and says "You really  
5 trust JPL to test their own wells?" I can say "Yes.  
6 But here is where we tested them also and we agree  
7 with them," or "No, they conducted the test all  
8 wrong. That's why we want to do sampling."

9 BURIL: Do we want to strike that last statement  
10 from the record, or no?

11 RIPPERDA: Yeah. There's no reason for that to  
12 go in.

13 BURIL: No. I'm kidding. I'm kidding.

14 I don't see any problem with it,  
15 personally.

16 ROBLES: No.

17 BURIL: Peter is shaking his head it shouldn't  
18 be a problem, so --

19 ROBLES: No.

20 BURIL: Phoebe, I think what we can do, then, is  
21 just when Mark has his information with regard to  
22 which wells we're going to sample, we'll forward  
23 that to you. In fact, I'll ask Mark to forward that  
24 to me by e-mail and I'll bounce it right off to you,  
25 then.

1           DAVOL: I guess I had asked some questions of  
2 Mark and he forwarded them to you.

3           BURIL: You know what, I am not recalling seeing  
4 those. So I don't know --

5           CUTLER: I sent them all. I can send it again.

6           BURIL: I will go back. But honestly, I'm not  
7 recalling seeing these. I got the thing about split  
8 sampling. I don't recall it. I didn't see it.  
9 Maybe you got it, but I didn't. I'll double check.

10          NOVELLY: Well, you know what, just in case it  
11 didn't come to you, I'll forward my copy of it to  
12 you.

13          BURIL: Do that. Because maybe there's  
14 something in the system that may not have gotten it  
15 in there. Because I honestly do not recall seeing  
16 it, but I do remember see the split sample business  
17 in your request. So before you leave, let me go to  
18 my office and just get it and we can get that taken  
19 care of right away.

20          DAVOL: That's what I thought, maybe we could  
21 just get the information logs.

22          BURIL: Because I know that there's been some  
23 weirdness with the e-mail system. You didn't even  
24 get the agenda. I had to re-send it to you because  
25 I had the wrong address for you, apparently.

1           DAVOL: Well, that's another long story about  
2 e-mail. Our address is also -- it's a new system  
3 we're using and they apparently built a firewall for  
4 e-mail that's coming to me and I'm like okay.

5           BURIL: We'll see if we can get those questions  
6 dealt with today. Go down after the meeting.

7           DAVOL: Okay.

8           BURIL: Number 5 is Peter and Richard's show.  
9 What's up?

10          ZUROMSKI: I can say we're in the final  
11 selection, or I mean not selection, but we're  
12 awarding a contract in the next -- if it's not  
13 tomorrow or Monday, at the latest --

14          ROBLES: Where we can get our PR process through  
15 snow-bound (UNINTELLIGIBLE)

16          ZUROMSKI: Right. Add two days of delay because  
17 NASA headquarters were, I guess, closed for the last  
18 two days.

19          ROBLES: Closed for snow.

20          ZUROMSKI: So it kind of delayed our funding.  
21 So we're going to fund what we're calling a phase  
22 one of this interim remedial action or nontime  
23 critical removal or pilot scale, whatever we want to  
24 call it.

25                       And at this point what we're going to do

1 is we're go to start off, we're going to get the --  
2 the contractor we're using is IT Corp. And we're  
3 going to start off doing a kickoff meeting next  
4 week where we're going to give them some of the  
5 initial data on the site, including the RI and draft  
6 FS and have them start looking at the documents and  
7 any other information they need out of the  
8 administrative record.

9           From there they're going to do their  
10 evaluation of what they think we should be doing as  
11 far as some kind of hot spot removal on the site  
12 right now.

13           And then as a third-party validation, in  
14 addition to the work that IT does, we're going to do  
15 what the Navy calls the Tiger Team review of the  
16 documents and of the technology we're going to  
17 implement on the site for hot spot removal. And  
18 that's going to come probably -- well, it's been  
19 delayed -- probably a week or so. I'd say sometime  
20 either towards the end of February, beginning of  
21 March, where the Navy will have probably a one- or  
22 two-day meeting to have a chance to take a look --  
23 well, they'll have the folks who will be involved  
24 will have a chance to look at the documents before  
25 the meeting. But during this meeting they'll have a

1 chance to have maybe a discussion from folks, maybe  
2 from Foster Wheeler, from folks from IT who have  
3 looked at the technologies and done some preliminary  
4 evaluation, some information from a couple of the  
5 vendors who have been looked at through the FS who  
6 may have some information, and then basically take a  
7 third-party validation approach to the technology  
8 we're going to use for hot spot removal and come to  
9 a decision as to which technology we want to use on  
10 the site. And that will be basically in conjunction  
11 with the work that IT does.

12           And then from there we'll probably, you  
13 know, within a week after that we'll come to a  
14 decision as to where we want to go with what  
15 technology we want to put in and roll from there  
16 with putting together a workplan and all the  
17 other, and then --

18           ROBLES: Submit the workplan to you guys so that  
19 you can make your comments.

20           ZUROMSKI: Right. Submit the workplan, go  
21 through any public review that we might have to go  
22 through, et cetera, to get a technology put in place  
23 on site.

24           So we're really starting to move along.  
25 Pretty much once the contract is awarded within the

1 next couple days things will really start rolling.  
2 That's what we're hoping. Just a delay up until  
3 now, but other than that, we're okay.

4 ROBLES: One of the other things about this  
5 phase also is this is a development phase and it  
6 will tell us how much money we need to get the  
7 installation phase going, which is the final phase  
8 on that, because we want to make sure. You know,  
9 we've been bantering numbers around, but we really  
10 want to get an idea, once we select the  
11 technologies, how to put it together so that we can  
12 get the best economy for the government in that  
13 sense.

14 ZUROMSKI: Some of that's been evaluated in the  
15 FS, which is some of the information we're going to  
16 use. We'll be able to, once we really see what's  
17 the best technology to use on site I think we'll be  
18 able to develop a more comprehensive cost estimate  
19 for the entire treatment train so that NASA can  
20 request the funds and get rolling with that end of  
21 the effort as well, because there's --

22 ROBLES: NASA is calling this a nontime critical  
23 removal action. That's what we're looking at. We  
24 kind of know what the technology system. It's the  
25 matrix of how to put these technologies together,

1 what comes first, what comes second, what are we  
2 going to do with waste material, if there is any  
3 waste, depending on what technology we use. If we  
4 can have a closed system where there is no waste  
5 generated would be perfect, you know. And we're  
6 looking about 500 gpm for on site, the source, and  
7 to deal with all the contamination. Because that's  
8 one of the biggest things. Technology usually deals  
9 with one chemical, one remediation. I've never seen  
10 a site that only had one chemical. You have to look  
11 at the commingling of the plumes (UNINTELLIGIBLE) to  
12 deal with the. That's what the Tiger Team is going  
13 to do. The Tiger Team is made up of people that  
14 have no vested interest in the project, that come in  
15 with a third-party opinion and third-party expertise  
16 to look at it.

17 ZUROMSKI: Usually there's a couple people from  
18 the Navy that are in-house experts that are Navy  
19 employees. Then there's a couple of outside  
20 contractors that we use specifically for these teams  
21 that have no interest in the process at all. We'll  
22 bring them in as well. And I will really only be  
23 facilitating, since I've already pretty much got a  
24 vested interest as well in the process. So it will  
25 really be these four or five core people that will

1 be talking a look at all the data put together. And  
2 that's the premise behind the whole project.

3 So if you have any questions -- I mean,  
4 that's where we are right now. Until we get rolling  
5 next week I can't really tell you anything else.  
6 But that's the schedule at this point.

7 BURIL: So the Tiger Team, then, is made up of  
8 individuals who have no previous work on the project  
9 at all?

10 ZUROMSKI: Correct. But they will solicit input  
11 from individuals who have so they can get a  
12 perspective of what's going on on the site in  
13 addition to the documents, because a lot of times  
14 you can only get so much from reading a document,  
15 whereas once you talk with people who have been  
16 dealing with the site, who have read and evaluated  
17 the documents you can get a lot more information.

18 ROBLES: That doesn't mean that other people  
19 can't be at that meeting.

20 ZUROMSKI: Right.

21 ROBLES: It just means that this team will be  
22 the one that will make the recommendation.

23 ZUROMSKI: Right.

24 BURIL: Are they going to be making a  
25 recommendation, or are they going to be evaluating a

1 recommendation made by somebody else?

2 ROBLES: Both.

3 BURIL: Okay.

4 ZUROMSKI: Well, both in the sense that they'll  
5 be looking at what IT says and what Foster Wheeler  
6 has said in the FS. And, then, on the other hand  
7 looking at those and seeing which one would be the  
8 best.

9 DAVOL: They make an independent --

10 ZUROMSKI: Right. It's independent. Exactly.  
11 The whole idea is to be independent.

12 BURIL: So the idea is that when a  
13 recommendation is finally made as to what IT thinks  
14 should be done over all, then these folks are going  
15 to look at that, and if they agree, great. If they  
16 don't agree with it, they make their own  
17 recommendation with regard to what they think should  
18 be done. And NASA gets to pick amongst all the  
19 kids.

20 ROBLES: Because ultimately IT has to do the  
21 workplan which has to be submitted. This gives us  
22 an independent review. Because of the things we  
23 found, particularly perchlorate technology and VOC  
24 technology with perchlorate in it, metals or not,  
25 and what's the best way. And you have a lot of

1 vendors now saying "We have the greatest, latest  
2 best."

3           Like I went up to AeroJet at Rancho  
4 Cordova. They have a great system, a bio system,  
5 but it's not going to be done here because it's too  
6 big. I mean, the size of the place is unbelievable  
7 And we don't have the feasibility of room to put  
8 something that big here. So sometimes the  
9 technology has physical limits, it had regulatory  
10 limits, it has cost limits and so on. And that's  
11 where the Tiger Team is coming in, to look at that.

12           BURIL: Okay.

13           GEBERT: Do you have a time frame when we might  
14 be able to get the workplan?

15           ZUROMSKI: I think we were planning on probably  
16 April, I think, right now. Probably mid-April is  
17 what we're shooting for.

18           ROBLES: We'd like to have the installation  
19 start spring, no later than the summertime. We want  
20 to get this on line before the end of the fiscal  
21 year.

22           ZUROMSKI: Right.

23           GEBERT: By July.

24           ROBLES: Yeah. By July. Because we need to do  
25 something for hot spot removal. I have a fire under

1 me lit by NASA headquarters that says we got to do  
2 something. So we're going to do something.

3 BURIL: Okay. Any other questions?

4 All right, then. It's coming up to  
5 lunchtime and we're already almost done. We're  
6 doing pretty well here.

7 Number 6, Other Business. This one I'm  
8 just going to throw open because my other business I  
9 already had.

10 Thank you, Judy. We passed around the  
11 Superfund newsletter. Mark, I'm holding it up for  
12 your benefit while you're on the phone. Okay? This  
13 is what went out. When I said "went out," it  
14 actually is going out starting today. So this is  
15 literally off the press.

16 So, Mark, we'll mail you a copy.

17 RIPPERDA: Okay.

18 BURIL: And I think we got everybody's comments  
19 addressed pretty well with this. Overall,  
20 personally, I think it looks pretty good. And  
21 hopefully we'll have --

22 Have you got one, Richard?

23 ATWATER: Yes.

24 BURIL: Okay. Good. Hopefully we'll get good  
25 feedback on this from people who receive it.

1 Richard, could you do me a favor? Could  
2 you check with Ron Palmer and see if he gets his,  
3 because even though he's on the list, for some  
4 reason he has not gotten previous issues. I just  
5 want to be sure we've got that straightened out.

6 ATWATER: I will do that.

7 BURIL: Thanks. So enjoy reading it. Put this  
8 at the back of the FS. It will be something a  
9 little lighter to read.

10 As far as other business beyond this,  
11 anybody have anything they want to bring forward?

12 Okay.

13 CARLOS: Next meeting?

14 BURIL: Then it sounds like we're up to the  
15 point of asking about the next meeting and the next  
16 telecon.

17 Judy rightfully points out here that our  
18 normal day for telecons is the first Thursday of the  
19 month. That's a week from today. I don't think  
20 we're going to be ready to do too much on anything  
21 as far as the Freon thing that we described or  
22 anything else that we might expect from you folks.

23 We can do one of two things. We can  
24 either slip it by a week to the 10th of February, or  
25 we could forget about it until the March meeting, in

1 which case we should all be in a position of being  
2 able to discuss things much more thoroughly. So  
3 we're only talking about a week's difference from  
4 here to our regularly scheduled one.

5 I leave that open to the group as to what  
6 you want to do. I have no preference one way or the  
7 other.

8 GEBERT: If there's nothing really we have to  
9 discuss, we'll just leave it and not do it.

10 ROBLES: I would recommend that we leave it open  
11 and if there's nobody has anything, then we can  
12 cancel it.

13 BURIL: Okay. We can do that. Or we can move  
14 to the next week if we want to just take two weeks  
15 to do that.

16 ROBLES: Right. That would be fine, too. But I  
17 really think, because there may be something coming  
18 up, you know.

19 BURIL: All right. Is anybody vehemently  
20 opposed to February 10th at 10:00 A.M.

21 GEBERT: Is that the second Thursday?

22 BURIL: That's the second Thursday.

23 GEBERT: We have staff meetings on second  
24 Thursday.

25 BURIL: Richard is unavailable.

1           How about the week of the 7th? Is there  
2 another day that may work out?

3           GEBERT: Any day but Monday or Thursday.

4           ZUROMSKI: Or Wednesday.

5           BURIL: Or Wednesday. We're down to Tuesday and  
6 Friday.

7           You know, that's probably not a bad idea.  
8 Let's leave it the 3rd. Everybody has got that on  
9 their calendar. We'll just leave it there. If  
10 we've got nothing to talk about, we'll just cancel  
11 it.

12          ROBLES: Right. That's it.

13          BURIL: In fact, what I'm going to suggest is,  
14 unless something does come up, that we just assume  
15 that we are not having it. But if it does come up,  
16 we will simply reconfirm that we are going to meet  
17 to talk.

18          CARLOS: So we will expect a phone call?

19          BURIL: Expect a phone call or an e-mail if we  
20 do need to have it continue on the 3rd. If you  
21 don't hear from us or if we don't hear from you,  
22 we'll just assume that we'll cancel it and then we  
23 can move on to the next one in March.

24          ROBLES: Sounds good.

25          BURIL: How does that sound?

1           Okay. Then I have another request, which  
2 is going to be problematic for Richard,  
3 unfortunately.

4           ZUROMSKI: Which Richard?

5           BURIL: That one.

6           BURIL: Peter and I are going to be at the NASA  
7 Environmental Conference being held in the San  
8 Francisco area March 2nd.

9           ROBLES: Ames. Ames.

10          BURIL: Ames. Okay. Well, that's San  
11 Francisco.

12          ROBLES: San Jose.

13          BURIL: That's only an hour away. So we are  
14 both out the day of our next scheduled telecon in  
15 March. So we'd like to move it to another day. The  
16 following Thursday is the second Thursday, which  
17 shoots Mr. Gebert squarely in the head.

18          ZUROMSKI: That's also the perchlorate meeting  
19 in Azusa.

20          BURIL: Oh, it is?

21          ROBLES: Could we, Chuck, just if we had to,  
22 call up that day? Because I'm going to probably be  
23 back on that day, that Thursday. I'm just going to  
24 stay until Wednesday.

25          BURIL: That's a possibility, I suppose. You're

1 going to be coming back that day?

2 ROBLES: Yeah. I'm going to be driving back.  
3 I'm driving up there and driving back.

4 BURIL: We can do that. I'm planning on staying  
5 through Thursday, myself. If we can arrange a  
6 number to call in to, I suppose that's useful,  
7 although I'm going to be gone. You and I are going  
8 to be gone most of that week.

9 ROBLES: True.

10 BURIL: Coming up to speed in order to be able  
11 to talk intelligently after being gone for a week  
12 may be difficult when you're still getting back from  
13 a trip.

14 ROBLES: Never been accused of intelligence.

15 BURIL: Straight lines. Straight lines.  
16 Straight lines.

17 Why don't we do this. Let's leave it as  
18 it stands now, and if we absolutely have to move it,  
19 we'll call you folks to try to arrange it. But  
20 based on Pete's desire here, I'm going to say that I  
21 will just be calling in from a remote location and  
22 we will have to work that out. Okay.

23 ROBLES: Do you guys think that you're going to  
24 need an extension for 1 and 3 FS?

25 ZUROMSKI: When is the due date, anyway?

1 CARLOS: It's March.

2 GEBERT: March 20th, I believe.

3 CARLOS: Probably not.

4 ROBLES: Okay.

5 BURIL: Yeah, that's right. That's right.

6 March 20.

7 Okay. Well, then, why don't we schedule  
8 our next RPM meeting. Three months hence will be in  
9 April, effectively. And we're looking at probably  
10 the first week of April to keep us on the 90-day,  
11 time schedule. And Thursdays seem to work out.  
12 That's the first Thursday of the month. So it seems  
13 like that one seems to be fairly good for everybody.  
14 Anybody have a problem with April 6th?

15 GEBERT: No.

16 ZUROMSKI: That will be perfect time, actually,  
17 because right after the -- about two weeks after the  
18 Tiger Team and the information will be coming out.  
19 So it will be a good discussion time, push things  
20 along.

21 BURIL: Okay. Are we all in agreement that it's  
22 still here?

23 One of these days, Mark, we'll come up to  
24 your area.

25 Okay.

1 RIPPERDA: One of these days.

2 BURIL: April 6th, 10:00 A.M. here.

3 The meeting minutes from the last RPM  
4 meeting. Anybody have any changes, comments to  
5 these that they want to put on?

6 Hearing nothing, I assume that they are  
7 acceptable as written and we will make them official  
8 on that.

9 Have you got the action items list, or is  
10 it here in the back?

11 Let's see.

12 NOVELLY: For the action items from today's  
13 meeting, Mark is going to take a look at EPA's  
14 presumptive remedy guidance and give us some  
15 feedback on how we handle that for OU-2.

16 Agency comments on OU-2 FS are due  
17 February 25th.

18 Comments on OU-1/3 FS are due March 20th.

19 We're going to send out another copy of  
20 the OU-1/3 FS to Mark.

21 Richard Atwater is going to check into  
22 getting a formal letter from the Raymond Basin  
23 Management Board supporting use of MCLs as cleanup  
24 goals.

25 EPA, through Phoebe, is going to do split

1 sampling for the next groundwater event and we're  
2 going to send her a sampling schedule so she can  
3 plan the number of samples.

4 Our next RPM telecon will be left open on  
5 the 3rd. We will call if the meeting is going to be  
6 held.

7 The March telecon will be on the 2nd. And  
8 the next RPM meeting is Thursday, April 6 at 10:00  
9 o'clock.

10 BURIL: I finally found the action items from  
11 last meeting.

12 We were going to send out the updated  
13 CD-ROM for OU-2 RI that has the QA results included.

14 Have we gotten that taken care of?

15 RANDOLPH: Oh, a long time ago.

16 BURIL: That's what I thought.

17 DAVOL: I received my copy.

18 BURIL: Everyone's got their copy of that?

19 Okay. Good.

20 We said that the newsletter was going out  
21 to the agencies tomorrow. Well, we got another one  
22 today and this is the one that's actually going out  
23 to the public. So I think we're clear of that one.

24 And, Mark, you were going to send us some  
25 guidance on doing an EECA as well as an example.

1 And I think we have that as well. So I think we're  
2 covered as far as the action items for the last  
3 meeting.

4 So it seems we are good to go with just  
5 the ones from the meeting that we had today. All  
6 right.

7 Let me ask Richard and -- I'm sorry, I  
8 forgot your name.

9 GARBACCIO: Bruce.

10 BURIL: Bruce. You want to go now for the tour  
11 or would you like to eat lunch first, or how do you  
12 want to do it?

13 GEBERT: It doesn't matter to me.

14 GARBACCIO: Either Way.

15 BURIL: All right. That's it. Thank you all  
16 very much.

17 (The proceedings adjourned at 11:27 A.M.)

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**MEETING ATTENDANCE RECORD**



**NASA/JPL SUPERFUND SITE  
DHS/RBMB INFORMATIONAL MEETING  
January 27, 2000**

*Please print the information requested below and pass this sheet along to the next person. Thank you.*

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