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TRANSCRIPT OF PROCEEDINGS  
  
NASA/JPL CERCLA RPM MEETING  
  
August 7, 2003  
  
Raymond Basin Management Board  
  
4536 Hampton Road  
  
La Canada Flintridge, CA

1 APPEARANCES:

2 NAME AFFILIATION

3 DAVID AMIDEI NASA

4 KEITH FIELDS BATTELLE

5 DAVID CLEXTON BATTELLE

6 MARK RIPPERDA USEPA

7 RICHARD GEBERT DTSC

8 DAVID CROUCH NAVY

9 LINDA HOLLINGSWORTH SWDIV

10 JUDY NOVELLY JPL

11 CHUCK BURIL JPL

12 MUHAMMAD ZAIDI LA RWQCB

13 KIMBERLY GATES US NAVY

14 ALAN SORSHER CA DHS

15 SEAN KWAN City of Pasadena

16 KAREN ARTEAGA GeoSyntec Consultants

17 TONY ZAMPIELLO Raymond Basin Management Board

18 ROBERT HAYWARD Lincoln Avenue Water Company

19 JEFF O'KEEFE DHS

20 VERONICA MC GREGOR JPL

21 RON PALMER Consultant to the Raymond Basin

22 Management Board

23 RICH ATWATER Raymond Basin Management Board

24

25

1 La Canada Flintridge, California, Thursday, August 7, 2003

2 10:02 A.M.

3

4 MR. AMIDEI: With respect for everybody's time, let's  
5 get started.

6 This is a slightly different forum from the  
7 normal thing, so the first thing to do is go through some  
8 introductions, starting with myself.

9 About a month ago, we had some relatively  
10 high-level folks, very high-level folks from NASA  
11 headquarters come out, and they recognized that they needed  
12 a permanent, full-time RPM on this project. So they made a  
13 commitment to go hire a high-level engineer, senior level  
14 engineer, to do that job and let Peter Robles actually do  
15 his -- the rest of his real job that has become more  
16 complex than could be distributed to one person.

17 They also recognized that that would take about  
18 three or four months to get somebody onboard, so they  
19 recognized they didn't have three or four months to get  
20 somebody onboard, so I am the interim RPM.

21 My name is David Amidei. I'm from headquarters.  
22 And I've only been -- let me see. To untaint myself from  
23 that last remark, I've only been at headquarters for about  
24 20 months. Before then, I was an RPM out at White Sands  
25 test facility in New Mexico, where we have a relatively

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1 large plume of nitrosodimethylamine. And I was RPM out there for  
2 a decade. So don't think I'm from headquarters quite yet.

3 So anyway, with that in mind, it's my  
4 introduction, and seeing that -- or no, I can't say I know  
5 what's normal because this is my first RPM meeting out  
6 here. But we made some extra invitations to some other  
7 local interests. And with that in mind, let everybody  
8 introduce themselves for both the recording purpose and to  
9 get everybody to know each other.

10 So with that in mind, start, Kimberly.

11 MS. GATES: Kimberly Gates, G-a-t-e-s, with the Navy.

12 MR. AMIDEI: The other thing, from a reporting  
13 standpoint, would you please spell your last name.

14 Thanks.

15 And I'm David Amidei, A-m-i-d-e-i.

16 MR. KWAN: Sean Kwan, K-w-a-n, City of Pasadena.

17 MS. ARTEAGA: Karen Arteaga, A-r-t-e-a-g-a, with  
18 GeoSyntec Consultants, consultants to the City of Pasadena.

19 MR. ZAMPIELLO: Tony Zampiello, Z-a-m-p-i-e-l-l-o,  
20 with Raymond Basin Management Board.

21 MR. HAYWARD: Robert Hayward, H-a-y-w-a-r-d, Lincoln  
22 Avenue Water Company.

23 MR. RIPPERDA: Mark Ripperda with the U.S. EPA,  
24 R-i-p-p-e-r-d-a.

25 MR. GEBERT: Richard Gebert, G-e-b-e-r-t, with the

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1 State Department of Toxics.

2 MR. O'KEEFE: Jeff O'Keefe, O apostrophe K-e-e-f-e,  
3 with the State Department of Health Services.

4 MR. SORSHER: Alan Sorsher, A-l-a-n S-o-r-s-h-e-r. I  
5 am also with the State Health drinking water program.

6 MS. HOLLINGSWORTH: Linda Hollingsworth with the Navy,  
7 H-o-l-l-i-n-g-s-w-o-r-t-h.

8 MS. MCGREGOR: Veronica McGregor with the JPL,  
9 M-c-G-r-e-g-o-r.

10 MR. PALMER: Ron Palmer, consultant to the board,  
11 formerly staff with Raymond Basin, last name Palmer,  
12 P-a-l-m-e-r.

13 MR. FIELDS: Keith Fields with Battelle, F-i-e-l-d-s.

14 MR. CLEXTON: David Clexton with Battelle,  
15 C-l-e-x-t-o-n.

16 MR. CROUCH: David Crouch with the Navy, C-r-o-u-c-h.

17 MS. NOVELLY: Judy Novelly, JPL, N-o-v-e-l-l-y.

18 MR. BURIL: Charles Buril, JPL, B-u-r-i-l.

19 MR. ATWATER: Rich Atwater, Atwater, A-t-w-a-t-e-r,  
20 Consultant, Raymond Basin Management Board.

21 MR. AMIDEI: Fabulous. With that in mind, I don't  
22 know how familiar all of you are with the way we are  
23 structured. You might even be asking why is the Navy and  
24 Battelle here. The Navy because Cal-Tech is an FFRDC.  
25 They're only a very small contingent of NASA people there.

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1 The rest of it is -- the rest of the facility is operated  
2 by Cal-Tech. The Navy is helping the NASA portion with  
3 their expertise in the remediation world, and their  
4 contractor is Battelle, so if that clears anything up that  
5 way.

6 With that in mind, the way the normal route of  
7 things go here, that I know about, anyway, is that we go  
8 through the three operable units, discuss things about  
9 them. My -- let's see. I've only been here a week, and  
10 I'm learning. So with that, most of what you will be  
11 hearing is from the Navy and Battelle.

12 Don't know if you understand how the operable  
13 units are set up. I'm at a loss here on how much people  
14 know.

15 Our OU-1 is the groundwater underneath the  
16 facility. OU-2 is the soil at the facility. And OU-3 is  
17 the groundwater outside the facility.

18 So with that in mind, we'll start with OU-2,  
19 which is SVE.

20 Kimberly.

21 MS. GATES: The pilot study is still ongoing. They  
22 are pumping at VEO-4 and pulling out the chemicals there.

23 Chuck might be able to tell me a little better  
24 about the chart recorder issue we had. I know that it  
25 doesn't work, and they're replacing it. I remember there

1 was condensation in the tube, but since you are the closest  
2 one, you know, helping work it, what actually didn't work?

3 MR. BURIL: Well, the problem stemmed from two areas.  
4 One was the chart recorder apparently was not calibrated to  
5 the sensor itself. And secondly, there was water that was  
6 condensing in the lines leading from the tubes in the pipe  
7 to the sensor. And we emptied out the water, trying to get  
8 the sensor to work. It appeared to try to work but then  
9 stopped, for whatever reason. And so now, Navy's decided  
10 to go ahead and simply replace the entire assembly to be  
11 sure it's functioning properly.

12 MS. GATES: And actually that's happening as we speak.  
13 Geofon and Saliko (phonetic) are on the facility replacing  
14 the chart recorder on the pilot study.

15 We're also working with the facility to put in  
16 the electrical at VEO-2 so that once we finish pumping at  
17 VEO-4, we can move the system up to VEO-2 right afterwards.  
18 The electrical hookup wasn't there, so that's what they're  
19 doing right now as well.

20 And then, as it states, we've got quarterly  
21 sampling that's going to take place in mid-August.

22 That's about the excitement for Operable Unit 2.

23 MR. RIPPERDA: So when's it going to go to remedial  
24 action instead of calling it a pilot?

25 MS. GATES: Right. We're actually -- similar to

1 something we'll discuss in OU-1, we're still waiting for  
2 approval or concurrence with Muhammad on the comments that  
3 we received from him on the final action.

4 MR. GEBERT: So when can we expect the final remedial  
5 design document?

6 MS. GATES: I really couldn't tell you. I'm hoping by  
7 September. I really am. But I don't know. We're still  
8 trying to get ahold of him for another document as well. I  
9 don't know.

10 MR. GEBERT: It's important to get the document for --

11 MS. GATES: Yes.

12 MR. GEBERT: You know, like Mark says, it's almost two  
13 years doing the pilot study, and I need to show my bosses  
14 that there's --

15 MS. GATES: Right.

16 MR. GEBERT: -- progress being made --

17 MS. GATES: Exactly.

18 MR. GEBERT: -- and the way to do that is through the  
19 milestones.

20 MS. GATES: Right. Absolutely.

21 MR. GEBERT: If you can get that approved.

22 MR. RIPPERDA: So you're waiting for the regional  
23 board, but what's the -- is it a different -- it's too bad  
24 Muhammad is not here --

25 MS. GATES: Right.

1 MR. RIPPERDA: -- but is there something that you want  
2 us to call the Regional Board? Sometimes DTSC or us  
3 talking to another agency can be friendlier than --

4 MS. GATES: Possibly. I don't know.

5 MR. RIPPERDA: Well, we will. But --

6 MS. GATES: Right.

7 MR. GEBERT: Okay. I don't recall the comments were that of  
8 major nature.

9 MR. RIPPERDA: Yeah.

10 MS. GATES: It was -- the thing is we have response to  
11 comments and we haven't heard back.

12 MR. GEBERT: Okay.

13 MS. GATES: Because it was before Muhammad came  
14 onboard. He looked at them again, and we haven't heard  
15 back as to whether or not Dixon and Muhammad agree with the  
16 responses to the remedial action plan.

17 MR. AMIDEI: How long have they had it?

18 MS. GATES: About three or four months.

19 MR. AMIDEI: I will make an introductory call, since  
20 he's not here for me to introduce myself, and I'll take  
21 that opportunity to ask what's up. And if that doesn't  
22 receive action, then I'll ask for you guys' help.

23 MR. RIPPERDA: We work friendly anyways. So we'll  
24 call him anyway in our own way.

25 MR. AMIDEI: Okay. That's fine.

1 MR. RIPPERDA: As a quick aside, I feel a little weird  
2 with, like, an audience at our back.

3 Does anybody want to move up to the table?  
4 Everybody's sitting on their hands.

5 MS. NOVELLY: We've got a better shot from here.

6 MR. AMIDEI: Okay.

7 MS. GATES: That's all for OU-2.

8 Do you want me to move on to OU-1?

9 MR. AMIDEI: Unless there's something further.

10 MS. GATES: Okay. For our Operable Unit 1, where this  
11 is actually what I was talking about before, moving on to  
12 the expanded treatability study, we're waiting for Regional  
13 Water Quality Control Board's -- as Mark recalled from the  
14 DHS meeting, we had a discussion with Muhammad on the  
15 comments that he had sent to us regarding that -- that  
16 plan.

17 And we sent formal letters per Dixon's request  
18 back to the Water Quality Control Board, and we haven't  
19 heard back from either Dixon or Muhammad regarding whether  
20 our comments were sufficient enough and whatnot. So we're  
21 still waiting to finalize that plan to begin the expanded  
22 treatability study as well. So that's the other document  
23 that we're waiting for them. To move forward  
24 with --

25 MR. RIPPERDA: So kind of a comment to you, David, now

1 that you're onboard and you have time, regulatory agencies  
2 respond to squeaky wheels. And this project, just in  
3 general, many, many facets of it, but it's just dragging.  
4 There's always a reason.

5 But if you started calling two times a week, you  
6 know, just like -- whether it would be to me because I'm  
7 late or to Regional Board because they're late or whatever,  
8 just don't let -- like, "Oh, well, we're waiting." I would  
9 really like to see that stop.

10 MR. AMIDEI: Okay. Take and consider it done.

11 MS. GATES: The only other thing happening in OU-1 is  
12 the in situ pilot study. We did -- we're continuing with  
13 injections. We are hoping to have the data back from the  
14 first injections within about a week or so. And so once I  
15 get that data, I'll actually e-mail it out to you so that  
16 you can see some of the preliminary data for what's going  
17 on in the pilot study. It's expected to be completed by  
18 mid October. So we're on schedule for that.

19 MS. ARTEAGA: How are you determining when to add --  
20 when to inject, if you don't have any results from the  
21 prior --

22 MS. GATES: We're only on our second injection. So  
23 it's planned injections until you get results.

24 MS. ARTEAGA: Okay. So you're injecting in the  
25 absence of results, basically?

1 MS. GATES: Kind of. I mean, you've got  
2 preliminary --

3 MS. ARTEAGA: So you have data. It's just not  
4 available?

5 (Whereupon Mr. Muhammad Zaidi enters the  
6 proceedings.)

7 MR. GEBERT: So is it true that the in situ pilot  
8 study would be completed before the start of the --

9 MS. GATES: Treatability study.

10 MR. GEBERT: -- expanded treatability study?

11 MS. GATES: Yes. Absolutely. And I'll get you that  
12 data as soon as it's been validated, and I can get it out  
13 to you. And that's all for Operable Unit 1.

14 MR. AMIDEI: It's a good break point. We've had  
15 somebody new join us.

16 MR. ZAIDI: I'm Muhammad Zaidi. I'm from the  
17 Water Quality Board.

18 MR. AMIDEI: Okay. I'm Dave Amidei. I'm the interim  
19 remedial program manager.

20 MR. ZAIDI: Nice to see you.

21 MR. AMIDEI: Good seeing you too.

22 And just so that she can take down your last  
23 name, would you spell it for her, please.

24 MR. ZAIDI: Zaidi, Z-a-i-d-i.

25 MR. AMIDEI: Thanks.

1 MR. RIPPERDA: And since you were late, Muhammad, we  
2 have to put you on the spot.

3 MR. ZAIDI: Sure.

4 MR. RIPPERDA: We were just talking about the OU-2  
5 treatability stuff and wondering about comments from the  
6 Regional Board back to NASA.

7 MR. ZAIDI: Well, actually confirmed from my management,  
8 that we have to treat before we inject. So previously, I  
9 think we were talking about, that we might be  
10 able to put it in without treating, but we always require  
11 treating.

12 MS. GATES: Even for the pilot study?

13 MR. ZAIDI: Yes. Because the actual pilot study is the  
14 actual study. It is not in the lab. So basically, the  
15 groundwater is coming out of the ground and then going back  
16 into the ground. So when it goes back into the ground, it  
17 should be treated.

18 MS. GATES: Okay.

19 MR. ZAIDI: It's not a lab environment.

20 MS. GATES: Right. Okay. We'll have to look at the  
21 implications of that, then, to the treatability study.

22 MR. AMIDEI: Is that something that will be formally  
23 transmitted back, or do we ask the question formally?

24 MS. GATES: Yes. Would we receive a letter saying as  
25 such?

1 MR. ZAIDI: Yes .

2 MS. GATES: Okay. Great.

3 MR. AMIDEI: Okay. Good.

4 MR. ZAIDI: It will be in our WDR also.

5 MS. GATES: Okay.

6 MR. ZAIDI: Here, say that general waste discharge  
7 requirements which you have referred in  
8 January 29, 2002.

9 MS. GATES: Right.

10 MR. ZAIDI: So I have marked those places. It said,  
11 "Groundwater quality will be monitored before addition of  
12 any materials during treatment, and after treatment is  
13 completed, verify no long-term adverse impact to the water  
14 quality."

15 MR. RIPPERDA: So I haven't read the whole thing, but  
16 just from what you've read, you might still want to maybe  
17 talk about it with your management.

18 MS. GATES: Right.

19 MR. RIPPERDA: Either in person or as a conference  
20 call. Because just the words "no long-term impact to  
21 groundwater quality," you know, I would say that  
22 contaminants are being removed, and some contaminants are  
23 still in there, but the stuff being injected is cleaner  
24 than what's there. And as part of the treatability study,  
25 it seems like there's some -- some wiggle room in the WDR

1 language.

2 MR. ZAIDI: WDR normally specifies some cleanup levels  
3 also. What should be the extent of cleanup (inaudible).

4 MS. GATES: But I agree that maybe we can have a  
5 conference call and maybe discuss it further and see.

6 MR. ZAIDI: Yeah. I just actually asked today,  
7 because I wanted to make sure that what is (inaudible) --

8 MR. AMIDEI: Yeah.

9 MR. ZAIDI: So I asked our section chief, because  
10 (inaudible) was not available. So he was in a board  
11 meeting. And he said that, "Yeah, we require treating  
12 before the injection."

13 MR. AMIDEI: The injection for the in situ treatment?

14 MS. GATES: Yes.

15 MR. AMIDEI: Is it possible that those documents were  
16 written with the basic assumption of ex-situ treatment and  
17 that they did not consider the possibility of in situ  
18 treatment?

19 MR. ZAIDI: I can -- okay. The in situ cleanup may  
20 require -- it's under No. 6.

21 It says, "The implementation of in situ cleanup  
22 may require a small scale pilot testing program or  
23 demonstration study prior to the design and implementation  
24 of a full scale remediation project. The discharges from the  
25 pilot test programs or demonstration study are also covered

1 under these general" WDRs.

2           So if it's in situ, then that's also covered by  
3 this general WDR. Because, in my common sense, I think if  
4 groundwater is coming out of the ground and it's  
5 contaminated, and when it's treated -- if it's not treated,  
6 or partially treated, it goes back into the ground. When  
7 it's going back into the ground, we require everybody else  
8 to treat it before it can be -- because it's disposed to  
9 the land. Basically, the term "disposed to the land."

10           So when it's disposed to the land, it should be  
11 treated. I don't know what the levels are, what levels  
12 will be required to be treated, but it should be treated.  
13 But we can confirm the levels.

14           MR. AMIDEI: I understand your comments.

15           MR. RIPPERDA: And maybe, just to back up for a  
16 minute, because there are people here who aren't usually at  
17 our RPM meetings.

18           So NASA has perchlorate in the groundwater  
19 underneath their facility at much higher levels than what  
20 you see at the drinking water wells down gradient, and  
21 that's called the source area. And they want to lower the  
22 perchlorate levels in that source area underneath their  
23 property, and one way of doing that is injecting,  
24 basically, sugar water into the ground to give a carbon  
25 source so naturally occurring bugs will start to break down

1 the perchlorate.

2           It's known that bugs can eat perchlorate, reduce  
3 it into, basically, CO2 and water. It works very well in a  
4 lab, but you don't really know how well it's going to work  
5 in the field. It may not work at all. It may work only  
6 marginally. So NASA wants to do a pilot study, you know,  
7 injecting small quantities in.

8           But I think the problem is that they're taking  
9 water out that's got perchlorate in it. They're adding the  
10 bugs and then injecting it back in, and it violates a legal  
11 technicality of you can't inject contaminated water into  
12 the ground, even if it's water that came out of the ground.  
13 So it's kind of a Catch 22.

14           So if the Regional Board's interpretation is, you  
15 know, it's fixed, they are just not allowed to change, even  
16 though it might be convenient for us, what would be your  
17 alternative?

18           MS. GATES: That's what -- we're going to have to go  
19 back and see.

20           MR. RIPPERDA: You better start planning for it.

21           MS. GATES: Oh, yeah.

22           MR. RIPPERDA: Yeah. It's like, you know, tap water  
23 or --

24           MS. GATES: Right. We'll have to make some changes  
25 in the study.

1 MR. RIPPERDA: How much -- he just had a good  
2 question.

3 How much water are you talking about in the pilot  
4 study?

5 MS. GATES: Aren't we now talking 200 GPM?

6 MR. ZAIDI: For how long?

7 MS. GATES: For how long? The treatability is six  
8 months.

9 MR. ZAIDI: That's a lot of water. 200 GPM, that's  
10 not a pilot study. That's actually basically ... (inaudible).  
11 They might be done in those six months.

12 MS. GATES: Clean? No. I wish.

13 MR. ZAIDI: It is a long term -- it's basically a long  
14 term. 200 GPM is a pretty good discharge coming out of the  
15 ground. It's -- if it's a pilot study, it's just something  
16 in the lab, or maybe in the field, but on a very small  
17 scale. That's not a small scale, in my opinion.

18 MR. AMIDEI: We'll go back and look at it.

19 MS. GATES: Oh, yeah.

20 MS. ARTEAGA: Can I ask just a point of clarification?  
21 I may be a little behind.

22 But, Kimberly, the pilot study is already  
23 ongoing?

24 MS. GATES: These are two separate pilot studies.

25 MS. ARTEAGA: Oh, two separate pilot studies.

1           So the first pilot study, there was a work plan  
2 and it was approved --

3           MS. GATES: Yes.

4           MS. ARTEAGA: -- by the Regional Board?

5           MS. GATES: Yes.

6           MR. PALMER: I have two quick comments on that.

7           Number one, I think you have a letter on file,  
8 Kim, with the Raymond Basin Board regarding any water that  
9 is produced. They need to be -- they need to bless that,  
10 so to speak.

11           And number two, in these studies you're doing and  
12 evaluations, because each of the purveyors here are  
13 directly regulated by the State Health Department, we would  
14 really think that you need to have DHS in the loop of this  
15 whole discussion you're having, conference call, et cetera,  
16 because, with all due respect to the regulators, it's DHS  
17 that sets the rules for the water purveyors. And they need  
18 to be, we think they need to be parties to any of these  
19 discussions you're having. or (inaudible) particularly --

20           MR. O'KEEFE: Certainly we're interested, but we're  
21 more involved in the OU-3 portion of this project.

22           MR. PALMER: My concern, though, is that if you're  
23 going to be taking water and putting it back in at 200 GPM,  
24 putting it back into the basin, that's water that does make  
25 its way in some form to the purveyors for production. So I

1 really think that we need to be sure that they have a  
2 comfort level of what's going on as well as all the other  
3 regulators.

4 MR. SORSHER: We really rely on the Regional Board as  
5 far as things that are being put into the water. The  
6 Regional Board is to protect the ground water so...

7 MR. O'KEEFE: We really have no authority over that  
8 portion of the project, but we're certainly an interested  
9 party.

10 MR. SORSHER: We don't want to get in your  
11 business.

12 MR. RIPPERDA: So just to back up again, because there  
13 are people who don't know all the little things we just  
14 threw around, so just give a thumbnail sketch of the  
15 difference between the two studies.

16 MS. GATES: Okay. The difference between the two  
17 studies is the first study, which is ongoing right now, is  
18 an in situ pilot study where they're injecting just the  
19 substrate into the ground.

20 MR. RIPPERDA: What does that mean?

21 MS. GATES: Oh, the food for the bugs. They're  
22 injecting the food for the bugs into the ground. And we're  
23 tracking how it's treating the water at the source on the  
24 facility.

25 MR. AMIDEI: Using what carrier? Tap water?

1 MS. GATES: Oh, portable water, yes.

2 MR. RIPPERDA: And how many GPM?

3 MS. ARTEAGA: And corn syrup?

4 MS. GATES: Yes.

5 How much GPM? I'm not sure of the GPM that  
6 they're injecting.

7 MR. FIELDS: I think it's like a thousand  
8 gallons injected.

9 MR. FIELDS: Like 2 percent corn syrup, then it's like  
10 (inaudible).

11 MS. GATES: The second pilot study is the expanded  
12 treatability study which will work off of the results that  
13 we're getting from this one that is going right now, and  
14 that's actually -- if you want to explain it, since  
15 Battelle will be the one performing the expanded  
16 treatability study.

17 MR. FIELDS: Basically, the way that this had evolved  
18 was NASA and the Navy had done several treatability  
19 studies, including ion exchange, fluidized bed reactors,  
20 now in situ and some other technologies. And what  
21 we had come together to say now let's go to an expanded  
22 scale before we move forward to some action at OU-1.

23 And so the topic we are discussing is an expanded  
24 treatability study. And the expanded treatability study  
25 proposes to extract water from the source area, as Mark

1 indicated, treat it, and then reinject it into the source  
2 area. So you create like a circulation loop within that  
3 area, so it's all contained up in the central -- north  
4 central portion of the facility.

5 Now, because there was some discussion thought as  
6 to whether or not you could use in situ treatment to remove  
7 the perchlorate, there was discussion of part what the plan  
8 proposed, was to have a slip stream that added the bugs --  
9 not the bugs, but the carbon source and then inject that in  
10 there, which would still become part of the circulation  
11 system, but then use the aquifer to achieve substantial  
12 reduction of the perchlorate, rather than treating it with  
13 aboveground process like fluidized beds.

14 Now, there was -- the bulk of the water was going  
15 to be treated with a fluidized bed reactor, and so it would  
16 go and be reinjected basically clean according to the Water  
17 Board's requirement. So the discussion was whether or not  
18 that slip stream to test the efficacy or the capabilities  
19 of an in situ treatment would work.

20 And, in fact, GeoSyntec has a similar approach  
21 that you guys did at Aerojet. They would treat the VOCs,  
22 they'd add the carbon source, and then inject it, and let  
23 the aquifer be the bioreactor.

24 So that's what we were proposing to test. And so  
25 basically, there's the EPA and the Water Board, based on

1 EPA's memoranda, indicate that they both agree the water  
2 has to be treated before it's injected. However, EPA's  
3 interpretation is that the substantial reduction can occur  
4 in the ground. So they're saying when you add the carbon  
5 source, you're treating it, but it's actually just  
6 substantial reduction occurring in situ.

7           And the difference in opinion is the Water Board  
8 said, "We want the substantial reduction and the treatment  
9 to occur above ground before you inject it."

10           So that's sort of where we are at right now. And  
11 it's just so there's a treatment train  
12 aboveground with the activated carbon to remove  
13 VOCs, and a fluidized bed. And then part of the  
14 water was proposed to be sort of a slip stream before the  
15 fluidized bed be injected and treated in situ, or  
16 substantially reduced in situ treated aboveground.

17           MR. SORSHER: And that slip stream, was it 200  
18 gallons --

19           MR. FIELDS: No. The slip stream, you know, 15 or  
20 20 --

21           MS. GATES: The whole thing is 200.

22           MR. SORSHER: The whole thing is 200 gallons.

23           MS. GATES: But it looks like what we may do is have  
24 the slip stream on the back end.

25           MR. FIELDS: Yeah. Once we do that, then we just kind

1 of forget that piece --

2 MS. GATES: Right.

3 MR. FIELDS: -- if that's the determination.

4 But what the benefit would be is that you don't  
5 have -- you eliminate a unit process aboveground, and so  
6 your overall cost is cheaper. And it's certainly a process  
7 that has been -- that has some -- it's been tested by  
8 GeoSyntec at Aerojet, and it appears to work there. So  
9 propose to attempt that approach here.

10 MS. GATES: That's the thumbnail.

11 MR. RIPPERDA: That was perfect.

12 And then the treatability study, the injecting a  
13 thousand or so gallons, just -- since that's actually been  
14 done, what's the -- let everybody know what the -- like  
15 what the results or what the time line for results is.

16 MS. GATES: Oh, time line for results, as soon as I  
17 get the first set of data, I'll e-mail it out to you guys.  
18 I don't have the validated data yet. It's expected to be  
19 done, as I said, probably the middle of October, the whole  
20 study, last injection.

21 MR. O'KEEFE: I have a question regarding the  
22 reinjection. It's really more of a Regional Board issue,  
23 but if you're not able to reinject this water, if it  
24 doesn't meet their cleanup levels, what would you do with  
25 that water otherwise? You couldn't baker tank it?

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1 MS. GATES: No. And that's kind of what Keith was  
2 saying, is we will probably just pull that part of the work  
3 plan out and everything will go through the FBR.

4 MR. O'KEEFE: Okay.

5 MS. GATES: So there won't be an in situ part of the  
6 treatment study. It will all be ex situ.

7 MR. RIPPERDA: Although you'll still be adding a  
8 carbon source to the now treated water so that it will  
9 still be in situ remediation happening.

10 MS. GATES: Of some sort.

11 MR. RIPPERDA: Yeah.

12 MS. GATES: Unit 3 --

13 MR. RIPPERDA: Does anybody have more questions on the  
14 OU-2?

15 MR. BURIL: Quick question on the larger study.

16 The discharge of the overall system, where does  
17 that end up at?

18 MS. GATES: On the facility.

19 MR. BURIL: The 200 gallons, is that reinjected?

20 MS. GATES: Yes.

21 MR. AMIDEI: Interesting. I learn something every  
22 day.

23 MR. RIPPERDA: And then, before we go to OU-3 -- I  
24 misspoke and said OU-2 twice when I meant OU-1.

25 But on the vadose zone treatability study, we're

1 waiting for comments from the Regional Board --

2 MS. GATES: On the remedial action plan.

3 MR. RIPPERDA: -- on the remedial action plan.

4 MS. GATES: Right.

5 MR. ZAIDI: Which one?

6 MS. GATES: Yes. The remedial action plan based on

7 the OU-2 ROD --

8 MR. RIPPERDA: For the (inaudible).

9 MS. GATES: -- we never got your formal comments for

10 SVE.

11 MR. ZAIDI: I thought my comments in the meeting were

12 enough. There were not many substantial comments.

13 MS. GATES: Well, no, but I thought you said you were

14 going to send us a letter so we had called and asked for

15 the letter.

16 MR. ZAIDI: Okay. I apologize.

17 MS. GATES: Fabulous.

18 MR. ZAIDI: I thought it was already done.

19 MS. GATES: No.

20 MR. ZAIDI: Okay.

21 MS. GATES: Thanks.

22 MR. AMIDEI: You're going to send a letter?

23 MR. ZAIDI: I will, yes.

24 MS. GATES: We got two letters coming.

25 MR. AMIDEI: Cool.

1 MR. RIPPERDA: See, that was easy.

2 MS. GATES: Painless. Now OU-3?

3 MR. RIPPERDA: Now OU-3.

4 MS. GATES: Now OU-3.

5 Do you want me to start off?

6 MR. AMIDEI: Yes.

7 MS. GATES: Okay. Starting with Operable Unit 3, just  
8 to first begin off with the 97-005 policy meeting. Did I  
9 get the title right this time? It's a policy meeting;  
10 right?

11 MR. SORSHER: Yeah. Policy of document.

12 MS. GATES: Document. Okay.

13 We had a meeting on July 15th with DHS, City of  
14 Pasadena, EPA, L.A. Regional Water Quality Control Board.

15 DTSC was in the field, though; right?

16 MR. GEBERT: Correct.

17 MS. GATES: So he wasn't able to be there.

18 We went through the policy and got an  
19 understanding of the way the documents work and the  
20 organization of the different pieces that are going to be  
21 required throughout this process. And so I think we  
22 understand what we're supposed to be doing now, finally.

23 We also went over the City of Pasadena's comments  
24 for the source water assessment. So we've got all those  
25 now and are incorporating them, and we sent you the source

1 water assessment and are awaiting comments on that.

2 We should be receiving the raw water quality  
3 characterization report within the next week or so, which  
4 then I'll pass along to DHS, as well as City of Pasadena  
5 for comment.

6 So we're now moving along on that. So that's a  
7 good sign.

8 MR. RIPPERDA: So when is the source water assessment  
9 going to go out to everybody else?

10 MS. GATES: I can send it to you.

11 MR. RIPPERDA: That will be great.

12 MS. GATES: I was hoping to wait for DHS's comments to  
13 incorporate it and finalize it and send it to you, if  
14 that's alright, or would you like the drafts?

15 MR. RIPPERDA: I would love to look at all the  
16 drafts --

17 MS. GATES: Sure.

18 MR. RIPPERDA: -- just in case I have comments.

19 MR. SORSHER: There is a website which someone had  
20 posted up.

21 MS. GATES: I can send it to the RPMs, if you would  
22 like to look at --

23 MR. GEBERT: Yes. Yes. I would like to see it.

24 MR. RIPPERDA: I think -- I know that DHS is the only  
25 agency that's kind of officially passed in approving and

1 reviewing --

2 MS. GATES: Right.

3 MR. RIPPERDA: -- the 97-005, but I think that the  
4 Regional Board, DTSC, and myself will probably all want to  
5 look at all the documents as they get generated.

6 MR. SORSHER: By the way, I printed out the -- this is  
7 the text of the source water assessment. It's about 29  
8 pages. I didn't print out all the maps and tables yet.

9 Yes. One of the items in -- especially the  
10 source water assessment, is -- involves some  
11 hydrogeological implications of it. And I'm not a  
12 hydrogeologist. I don't pretend to be one. And so I would  
13 appreciate if DTSC or the Water Board could have their  
14 hydrogeology professional people look at it and, you know,  
15 if there's any issues, you know, please raise them.

16 I will -- I didn't get to study this in great  
17 detail, but I did glance over, and it looks very well  
18 prepared. I'm looking forward to getting into the  
19 nitty-gritty of it, but it looks like -- I guess Battelle  
20 did this?

21 MS. GATES: Uh-huh.

22 MR. SORSHER: Did a good job. So far, so good.

23 MR. FIELDS: CH2 did --

24 MS. GATES: The bulk of it. But you did it. You  
25 revised it.

1 MR. RIPPERDA: They're not here, so take full credit.

2 MR. FIELDS: But what if you don't like it?

3 MR. SORSHER: It seems to be well written and well  
4 presented, so that's a good sign.

5 MS. GATES: Good. It's always good to have the first  
6 document look good.

7 MS. HOLLINGSWORTH: I just wanted to say that the raw  
8 water characterization study will be closer to Labor Day.

9 MS. GATES: Oh, okay. We're looking at a bit of a  
10 delay, I guess.

11 MR. SORSHER: I wouldn't want you to get too far into  
12 it until you get the comments back.

13 MS. GATES: Right.

14 MS. HOLLINGSWORTH: Do you want us to hold it until we  
15 get your comments?

16 MS. GATES: No.

17 MS. HOLLINGSWORTH: Okay.

18 MS. GATES: Okay.

19 MR. AMIDEI: Go as far as you can. What you just  
20 heard was that on the surface, it sounds pretty good.  
21 Let's not hold this process up. As much as we can do in  
22 parallel, let's get it done, even at the risk of we got to  
23 go back and modify it a little bit.

24 MS. HOLLINGSWORTH: That's fine. As a matter of fact there  
25 will be certain sections that are the same. And as far as

1 the text and various other discussions, and so those we  
2 can't (inaudible). You do like the text.

3 MR. SORSHER: So far so good, yes.

4 MS. HOLLINGSWORTH: Okay.

5 MR. HAYWARD: Kimberly, I don't want to get ahead of  
6 you, but what we're talking about now -- and data from  
7 OU-2, and particularly the monitoring wells, we -- as the  
8 end retailers, we used to get copies of this data whenever  
9 it was released. We were in the loop --

10 MS. GATES: Okay.

11 MR. HAYWARD: -- and for some time now, we've been  
12 outside of the loop.

13 MS. GATES: The monitoring reports?

14 MR. HAYWARD: Yes.

15 MR. AMIDEI: Monitoring reports. And I don't really  
16 understand exactly why. I just heard about this this  
17 morning. And when I understood the who of why this got  
18 changed, I tried to call them and figure out why that  
19 decision was made. I have not been able to get ahold of  
20 them. I don't understand the decision, so I can't say,  
21 "Well, of course, just do it."

22 So if the decision to do that is no longer valid  
23 or effective, or if something's changed in the process, my  
24 theory is, just release it and put you back in the loop.  
25 There shouldn't be that kind of delay. But I have to

1 understand the why behind it first.

2 MR. RIPPERDA: And if there is a why and whoever it is  
3 you're talking about says that it can't be released to  
4 water purveyors, then let us know why, because I think that  
5 my lawyers would want to talk to your lawyers.

6 MR. AMIDEI: And that's who it is.

7 So I don't understand it. I --

8 MR. RIPPERDA: Yeah. 'Cause my lawyer, certainly,  
9 EPA's position is that monitoring reports, that kind of  
10 data, is part of the public record, and it's available for  
11 everybody.

12 MR. AMIDEI: That's mine too.

13 MR. RIPPERDA: You check with your lawyer, and if he  
14 says no, then my lawyer will call him.

15 MR. AMIDEI: Let's just say the reasoning behind it  
16 was not obvious to me.

17 MS. ARTEAGA: The monitoring reports appear to --  
18 continue to be put in the public record in the repository,  
19 so I think it's just a matter of, you know, making the  
20 purveyors go an extra step to go pull them out of the  
21 library rather than just having them distributed directly.

22 MR. AMIDEI: Right now you're preaching to the choir.  
23 'Cause I don't understand their decision why. But --

24 MS. ARTEAGA: And I would also ask, I guess, the  
25 question that the repository be updated. I don't think any

1 of the information regarding the pilot tests in OU-1 are  
2 available, any of the work plans are available in the  
3 public repository. And the City of Pasadena has requested  
4 copies and --

5 MR. AMIDEI: From?

6 MS. GATES: Operable Unit 1 pilot studies.

7 MR. AMIDEI: From -- you requested copies from the  
8 repository?

9 MS. ARTEAGA: No. No. From the NASA, Navy folks.

10 MR. GEBERT: I thought a lot of that information is  
11 available on-line now on the JPL website?

12 MS. GATES: The information repository is not. The  
13 administrative record is, but it's only for the RPMs and  
14 for us for review purposes. It's not available on-line.

15 MR. GEBERT: The new documents are not available?

16 MS. GATES: No. The drafts.

17 MR. GEBERT: They would still have to go to the  
18 repository?

19 MS. GATES: Yes.

20 MR. ZAIDI: Mark, please correct me if I'm wrong;  
21 these drafts, until they are totally commented on and those  
22 comments are incorporated by us, all the agencies, do --  
23 are they still public records, the drafts you mean, or the  
24 final documents are?

25 MR. RIPPERDA: Right. In kind of a circle of

1 community relations plans, you know, final documents, after  
2 comments by the agencies go into the admin record, but  
3 almost all sites release drafts to the public at the same  
4 time as they release them to the regulatory agencies, you  
5 know, on this new world of involving the public, you know.  
6 So all the other sites I work on release drafts to the  
7 public at the same time as they release them to us.

8 MR. ZAIDI: Is that our official policy?

9 MR. RIPPERDA: What?

10 MR. ZAIDI: Is that our official policy of the agency?

11 MR. RIPPERDA: You know, it's not in the regulations,  
12 so you can kind of choose to do it or not choose to do it.  
13 But, you know, we choose to do it.

14 MR. ZAIDI: Because it might delay the process.  
15 That's the only thing I think might --

16 MR. RIPPERDA: Yeah. I guess I usually look at it the  
17 other way. The more you involve the public from the very  
18 beginning, the less delays you end up with on the back end.  
19 Some sites disagree.

20 MR. ZAIDI: High visibility projects.

21 MR. RIPPERDA: Yeah. But it's a valid point. There's  
22 nothing that forces you to release drafts, but we just  
23 think it's a good idea.

24 MR. AMIDEI: Okay.

25 MR. RIPPERDA: And --

1           MR. AMIDEI: I didn't think about that because it  
2 sounds like there's a potential downside. So maybe there's  
3 a halfway point in the process that we can say, "Okay.  
4 This is" -- even though it's still a draft, at least  
5 everybody has seen it once and not seen any show stoppers  
6 as opposed to misinform the public if there is a show  
7 stopper in there. Let's consider where in that process  
8 that's valid. I think there's good sense in the earlier  
9 the better, but not at the risk of misinformation.

10          MR. RIPPERDA: Right. And as an intermediary point,  
11 what some sites do is they release drafts to the interested  
12 parties, which would be people like, you know, this site,  
13 the water purveyors, the municipalities --

14          MR. AMIDEI: Okay.

15          MR. RIPPERDA: -- you know, people with engineering  
16 staffs have a vested interest in the whole process.

17          MR. AMIDEI: Okay. We can talk about that some more.  
18 That's something I want to talk about. Maybe we'll put  
19 that on our -- whenever it is -- 20th or 21st meeting  
20 agenda. Talk about how other sites do that and the  
21 effectiveness there.

22                       Yes?

23          MR. PALMER: I'm the former executive officer with  
24 Raymond Basin, and up until a year ago, we were designated  
25 as a repository. I just talked to Tony before he went out,

1 and he said he hasn't received any of the public record  
2 repository information. And that's what we were generating  
3 to send out to all the purveyors. We were basically  
4 taking those tables out and sending them out.

5 MS. GATES: You were -- the Raymond Basin was the  
6 repository?

7 MR. PALMER: Yes. Yes. I can show you a cabinet in  
8 the back room there with tons of these white reports we  
9 were getting on all your sampling analyses, and when those  
10 would come in, we would generate copies of the key --

11 MS. GATES: Right.

12 MR. PALMER: -- analyses results and send them out to  
13 all the purveyors so everybody was up to date on them. So,  
14 I mean, that's public information.

15 MS. GATES: Yeah. I'm glad to know. I had no idea.

16 MR. AMIDEI: Let's talk more about that, so I can kind  
17 of figure out what went awry, you know.

18 MR. BURIL: Well, actually, to add on to what Ron has  
19 said, I don't think you were an official repository, but we  
20 had arranged to provide copies of all documents and all  
21 data to the Raymond Basin Management Board for the use of  
22 their members.

23 MS. GATES: Okay.

24 MR. BURIL: And --

25 MR. AMIDEI: That doesn't sound unreasonable to me.

1           MR. BURIL: That's why they have all of those  
2 documents that would basically mimic what's in the  
3 repository.

4           MS. GATES: Okay.

5           MR. PALMER: We aren't insulted by not being an  
6 official repository, but we sure would like to have those  
7 reports so we can forward that information to our producer.

8           MR. SORSHER: Sounds like you need an updated mailing  
9 list.

10          MR. AMIDEI: Well, sounds more direct than that to me.  
11 When we go on our tour tomorrow, can we talk about that?  
12 Okay.

13                    Something will be done about the communications  
14 process that has somehow -- and I don't understand how --  
15 gone not in the best direction over the course of the past  
16 year, and that will change. But I need to understand a  
17 little bit about the history before we figure out what the  
18 best way is to change that but it will change.

19          MS. GATES: To move on to the next item, sampling.

20          MR. SORSHER: One other thing.

21          MS. GATES: Okay.

22          MR. SORSHER: We also talked about the CEQA process as  
23 far as the ultimate permitting for the treatment for the  
24 wells. I sent out a little sketch to folks.

25                    Did you get that PDF?

1 MS. GATES: Yes, I did.

2 MR. SORSHER: And I sent it to Gary.

3 Did that help clarify?

4 MS. GATES: Yes. I think it did. Keith actually is  
5 the one who's leading that up as well. As long as he  
6 understands, that's the most important.

7 MR. FIELDS: The 97-005 is proceeding concurrently  
8 with the CEQA, and the first step is the initial study, as  
9 we had talked about, and then also concurrently with the  
10 design and implementation. All those things are going to  
11 converge at some point.

12 MR. SORSHER: Right.

13 MR. FIELDS: Public hearing and a public meeting is moving  
14 forward.

15 MR. O'KEEFE: Is the City of Pasadena the lead agency?

16 MS. GATES: Yes.

17 You had a question?

18 MR. GEBERT: Yes. I wonder -- I wasn't present at the  
19 97-005 meeting, and for other people here, could you  
20 discuss where you are overall with the permit process?  
21 Like is it halfway completed?

22 MS. GATES: No.

23 MR. GEBERT: A quarter?

24 MS. GATES: No. We're at the very beginning.

25 MR. GEBERT: Okay. So as far as the time line, we're

1 still like in the initial stages?

2 MR. O'KEEFE: We don't have, really, a design for  
3 the --

4 MS. GATES: Right.

5 MR. O'KEEFE: -- project yet.

6 MS. GATES: We're at the very beginning. We just gave  
7 them the first document, the source water assessment. We  
8 just got it for review.

9 MR. GEBERT: Okay.

10 MR. O'KEEFE: You have to understand the maximum  
11 design concentrations that you will be treating at these  
12 drinking water wells, which is the first couple steps of  
13 this process. After you have all that information, then  
14 you go towards the design phase.

15 MR. RIPPERDA: So do the water purveyors want to get  
16 a -- we're actually moving pretty fast, even with all these  
17 side tracks.

18 Do the water purveyors want to get a little quick  
19 overview of the NASA's 97-005 process?

20 MR. ZAMPIELLO: From being new to the process, I would  
21 like to.

22 MS. GATES: Do you want to explain the process, since  
23 you're the most familiar with it?

24 MR. SORSHER: All right. I'll -- okay. It doesn't  
25 hurt. It doesn't really hurt.

1           In 1997, our department developed a policy,  
2 policy 97-005, and it's regarding how we are supposed to  
3 evaluate requests from water systems to utilize extremely  
4 impaired sources as sources of drinking water, which is not  
5 the sort of thing we have historically done. Historically,  
6 we've looked for the cleanest sources. But in certain  
7 cases, in certain situations, we are asked to utilize water  
8 from cleanups or other extremely impaired sources.

9           So this policy document lays out a process, a  
10 series of steps that the applicant, the water agency,  
11 should go through to show how they will be able to treat  
12 this water and provide safe, clean, drinking water.

13           We were talking about what we call the source  
14 water assessment. That's basically the first step.  
15 Basically, what it is, is a vulnerability assessment. It  
16 involves some historical information, some hydrogeology,  
17 inventories of potential sites, source -- contamination  
18 sources, the chemicals used historically, and that sort of  
19 thing, to -- basically to discuss -- to reach a conclusion  
20 about the vulnerability of the sources to the contamination  
21 sources.

22           The next step, which we have heard mentioned  
23 here, is the raw water characterization. This follows  
24 and -- on the first step, and you're going to look at some  
25 projections into the future and maybe some hydrogeological

1 modeling to come to some conclusion about the contaminant  
2 concentrations that are going to be actually reaching the  
3 drinking water wells over a long period of time. And based  
4 on those concentrations, that's going to be the  
5 concentrations that your treatment equipment is going to be  
6 facing that it's going to have to treat.

7           So then, further down, there's another step on  
8 ensuring that there's no further contamination, things like  
9 on-site cleanups that's -- for example, the in situ to try  
10 to reduce the source of the contamination and prevent new  
11 sources of contamination.

12           But once you get into the treatment stages,  
13 there's the design of the treatment reliability, the  
14 applicant -- it's always the consultant from the  
15 applicant -- they have to look at the failure modes of what  
16 happens if the treatment fails, what are the risk  
17 assessments of that, that sort of thing.

18           There's -- what else? The evaluation of  
19 alternative water sources, and --

20           MR. O'KEEFE: CEQA in a public area.

21           MR. SORSHER: Well, you know, this 97-005 document, to  
22 kind of step back and give you the overview, it's really a  
23 support document for the permit application. The applicant  
24 still has to submit a permit application with all the  
25 technical description of the treatment that they're going

1 to be doing, along with the 97-005 document.

2           So it is a permanent amendment for the water  
3 system. And then, of course, as part of the permit  
4 process, there's a CEQA California Environmental Quality  
5 Act, analogous to NEQA, which has to be complied with also.

6           So essentially there's three parallel activities  
7 which come together towards a public hearing we generally  
8 will have for the permit. The CEQA, the 97-005, it's  
9 really an evaluation. Those both feed into the permit  
10 process, and eventually there's a permit decision.

11           So that's kind of it in a nutshell.

12           MR. O'KEEFE: And I just want to point out that during  
13 the public hearing, basically DHS has to present the  
14 project to the public and with -- you know, all this  
15 background information is basically to give us comfort to  
16 present it to the public and say that this supply would  
17 present no greater health hazard than alternative sources.

18           So that's why there's all -- there's a high level  
19 of review and reliability requirements and multi-barrier  
20 treatment requirements, et cetera, and the risk assessment.

21           So it's basically because we're on the line  
22 presenting this to the public as a safe drinking water  
23 supply.

24           MR. AMIDEI: Sounds like your goals are the same as  
25 ours.

1           MR. KWAN: Alan, yesterday we met, and there was a  
2 question that was brought up about this. One -- if any of  
3 the processes or treatment processes were objected to by  
4 the public at the public hearing, but the process has been  
5 approved by DHS, it's been proven to work somewhere else,  
6 and it's been approved, how do you take the public  
7 objections when you --

8           MR. SORSHER: Make a decision?

9           MR. KWAN: Make a decision; right. Knowing that these  
10 processes are approved processes, but they are objected to  
11 by the public.

12          MR. SORSHER: Right. Well, typically, when we have --  
13 well, we don't have too many formal public hearings in the  
14 drinking water program because most of our permit  
15 amendments are not controversial. But I would think, you  
16 know, when we have a hearing, we would probably need to  
17 prepare a document responding to the public comments.

18                   And, you know, if the -- and you can correct me  
19 if I'm wrong. If there's no valid reason why the  
20 application will be denied, we wouldn't deny it just, you  
21 know, for no good reason.

22          MR. KWAN: Well, specifically, what we want -- what we  
23 talked about yesterday was a bio treatment. There may be a  
24 public perception that bio treatment introduces another  
25 unwanted source of contamination in the groundwater, the

1 bugs. So if there's a big public outcry that this is not a  
2 treatment that we, the public, want, and although that  
3 treatment process has been approved by the Health  
4 Department, how would you take that?

5 MR. O'KEEFE: Well, for one, the department has  
6 reviewed the Envirogens (phonetic) fluidized bed reactor,  
7 and we reviewed -- it wasn't a drinking water project, but  
8 in Sacramento they have a full-scale treatment system which  
9 is remediating the Aerojet facility in the Sacramento  
10 area.

11 We did evaluate it for the purpose of determining  
12 whether it was a reliable process to treat drinking water  
13 sources. And as part of the findings of that technical  
14 review, we put a lot of restrictions on the use of that  
15 type or other types of biological treatment processes, such  
16 as almost basically similar to surface water treatment of  
17 the product water. And so there is a filtration and  
18 disinfection requirement for any affluent of a fluidized  
19 bed reactor, bio reactor.

20 So essentially that would be our argument to the  
21 public is if you adhere to all of the DHS requirements for  
22 the operation of that type of treatment process, we believe  
23 that it is safe to the public.

24 So you should just be aware, if you are  
25 considering biological treatment, that DHS does have some

1 post-treatment requirements, which may or may not make the  
2 project feasible.

3 MR. KWAN: And we don't have a problem with that.  
4 It's just relaying that message to the public.

5 MR. RIPPERDA: Right. It's the hypothetical of they  
6 did everything you want --

7 MS. GATES: Right.

8 MR. RIPPERDA: -- you know, the engineers all agree  
9 it's safe, but enough people in the community say, "I don't  
10 want some microorganism pathogens in my drinking water  
11 source. Even if you're going to chlorinate it or ozone it  
12 or whatever, I don't want" -- "that's not where I want to  
13 get my water," would you then go to the public and just  
14 forcefully say -- and this might be too hypothetical --

15 MR. O'KEEFE: This is very hypothetical. It hasn't  
16 occurred.

17 We don't have an approved biological treatment  
18 process for perchlorate operating as a drinking water  
19 treatment system. However, we do have a few proposals in  
20 the works that may hit the streets before this project,  
21 such as happening up in Santa Clarita. They have a cleanup  
22 site up there near the Whitaker Bermite facility that has  
23 impacted some drinking water wells. And they are now  
24 piloting two different biological processes along with some  
25 ion exchange processes for perchlorate removal.

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1                   And it's possible but that one might have a  
2 public hearing before this project because I think that  
3 one's a little further along than this project. So maybe  
4 by the end of next year, would be probably around the final  
5 stage of the public hearing process. And I think we're  
6 maybe another six months out from there.

7           MR. AMIDEI: What time frame did you say?

8           MR. O'KEEFE: Probably towards the end of 2004, we  
9 would be having a public hearing for the Santa Clarita  
10 project.

11          MR. KWAN: We're on that same schedule.

12          MR. O'KEEFE: You are sort of on a similar schedule.  
13 I can't anticipate whose is first. Certainly, the public  
14 in the Santa Clarita area is probably better organized than  
15 this area. And there's many people in the public that are  
16 antigrowth.

17                   You don't agree with me? But anyway, there's --  
18 there's an issue with growth up in there so there's many  
19 active people in the community that could present a problem  
20 when we reach the public hearing stage.

21                   This area, I think people would see the overall  
22 benefit of cleaning up, you know, basically the  
23 contamination in their backyard at JPL, and I don't  
24 anticipate a resistance from the public. You may -- you  
25 may know otherwise, but I don't anticipate that.

1           MR. SORSHER: That also leads back to something that  
2 we mentioned when we first met, I think, a year and a half  
3 ago, and that is to start getting some public meetings  
4 going to discuss --

5           MR. O'KEEFE: Yeah.

6           MR. SORSHER: -- these potential treatment schemes  
7 with the public so if there is problems, we know about it  
8 early. You may have to adjust your process, your  
9 treatment, find out what the issues are so we can take  
10 appropriate steps so it doesn't torpedo your project at the  
11 11th hour.

12                    You know, they may have some valid -- you know,  
13 there may be some valid issue that they raise that we  
14 haven't thought of. So, you know, I say let's find out  
15 what it is early on.

16           MR. AMIDEI: It's in the works. It's the other thing  
17 I am going to change.

18           MR. O'KEEFE: The other thing about biological  
19 processes that might make it look a little easier to take  
20 from the public is whether this -- what are the origins of  
21 the microorganisms. If you use microorganisms that are  
22 naturally present in this area as part of the process, or  
23 things that come from the food industry, it seems better  
24 than if you put a wastewater origin bug in the water. And,  
25 you know, I think the public will understand that.

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1           So that's -- so just think about that during the  
2 design phases of this project. And especially if you're  
3 going to be proposing any type of biological process that  
4 our department hasn't reviewed yet, anticipate that that  
5 could cause some project delays because our technical  
6 programs branch would have to come in.

7           We're the field office, but if there was a new  
8 process, we would have to bring in our experts, and they  
9 would have to become involved in the technical review of  
10 this project. And certainly it would require some type of  
11 pilot scale study.

12           MR. SORSHER: In any case, I feel it would be good if  
13 you keep us in the loop as far as your brainstorming, your  
14 treatment options, and what you're thinking, because we  
15 would have various concerns, you know, that we would want  
16 to let you know about.

17           For example, I heard that you're thinking instead  
18 of using the air strippers for the VOC removal, to go to  
19 activated carbon. We have policies on activated carbon.  
20 For example, we would want you to use carbon vessels in  
21 series to give you the dual barrier feature that we look  
22 for in the 97-005.

23           So in a way, I'm glad that we're early in the  
24 process so we could give our input on that. So please keep  
25 us in the loop on that.

1 MS. GATES: Absolutely.

2 MS. ARTEAGA: You mentioned that DHS had a policy  
3 regarding biological treatment. That is site specific?

4 MR. O'KEEFE: Well, let me back up.

5 When we're approached with a new treatment  
6 technology, our technical programs branch has to review  
7 pilot scale studies to determine if it's acceptable -- an  
8 acceptable treatment.

9 MS. ARTEAGA: Okay. But talking exclusively, let's  
10 say, about the FBR that you've already reviewed.

11 MR. O'KEEFE: Okay. That's past that phase. And  
12 assuming you're not making many significant changes to the  
13 design that was reviewed by our technical programs  
14 branch -- because often these things change significantly  
15 with time and with each installation. But assuming that  
16 there's no significant changes, then, yes, all that's  
17 required is basically some type of start-up, testing  
18 regime, and then it's a site specific approval that comes  
19 from our office.

20 But if you were to go with, say, a different type  
21 of biological process, such as the biological membrane  
22 process or fixed bed bioreactor, that would be a technology  
23 that our department hasn't yet reviewed pilot scale data  
24 on.

25 So that -- on either of those types of designs, I

1 would have to bring in Rick Sigagi (phonetic) from our  
2 technical programs branch.

3 MR. AMIDEI: From an FBR standpoint, the pilot scale  
4 is the Aerojet facility?

5 MR. O'KEEFE: Yes.

6 MR. AMIDEI: Which is -- the pilot scale is a factor  
7 of two larger than we were talking about pumping, so...

8 MR. O'KEEFE: Okay. But certainly, if the City and  
9 their consultants are -- you know, want to have a separate  
10 meeting on feasibility of different treatments, even though  
11 we haven't completed these initial source water  
12 characterization, raw water quality phases of the  
13 97-005 project, but we would certainly want to be in  
14 discussion if you had some ideas, you know, just so that it  
15 doesn't happen too late in the game, and we hit you with  
16 some requirements that you were not aware of.

17 MR. AMIDEI: Absolutely.

18 MR. O'KEEFE: Because, as of now, all we've heard of  
19 is the Calgon ISEP process, and followed by air stripping.  
20 And that was what has been the proposal all along, and it's  
21 only recently that we've started hearing that there may be  
22 some changes to that proposal, which is fine. We'll --  
23 when we get to that point, we will evaluate whether we  
24 think it is an effective treatment, but certainly keep us  
25 involved.

1 MR. AMIDEI: You got it.

2 MR. O'KEEFE: Alan and I are there every day. Give us  
3 a call. We'll discuss it. We'll have side meetings.  
4 Whatever we need to do.

5 MR. AMIDEI: Okay.

6 MS. GATES: Are we ready to move on?

7 MR. AMIDEI: I am.

8 MS. GATES: Okay. The next bullet is the sampling of  
9 the Monkhill wells, and actually, that's moving along. We  
10 have a meeting with Gary Takara (phonetic), as well as -- I  
11 believe you said there's somebody from facilities as well  
12 as the field crew, that's going to be there on Monday at  
13 about 10:00. And then we're going to have Battelle, as  
14 well as General Pump there.

15 We're going to go over the scenario for the  
16 pumping -- for the sampling and what it's going to involve,  
17 what the concerns of the City are to ensure that we protect  
18 the pump heads and whatnot as we are sampling, so -- and  
19 then setting an exact schedule of when everybody can get  
20 out into the field to do the sampling.

21 So that should happen by the end of August, first  
22 week of September, get out in the field to start sampling.  
23 It's scheduled right now for the 22nd. We'll hopefully get  
24 out there by then.

25 MR. ZAMPIELLO: Is this going to be a component of a

1 groundwater model that is being developed, or is there a  
2 groundwater model being developed?

3 I sent a letter about two months ago, two and a  
4 half months ago, to Peter Robles. Raymond Basin is  
5 currently working -- we've got the database almost  
6 completed, and we're going to construct -- we have a  
7 consultant that's going to construct a model of the entire  
8 area. And my suggestion to him at the time was if we could  
9 coordinate our consultants with your consultants as much as  
10 possible, I think the end product would be more beneficial  
11 to everybody.

12 MR. AMIDEI: If we can supplement the database that  
13 you're running, work together collaboratively, that  
14 makes sense.

15 MR. O'KEEFE: For clarification, could you name the  
16 wells that are being monitored?

17 MS. GATES: Yes. The ones that we're going to sample  
18 are Arroyo well, Well 52, the Ventura well, the Windsor  
19 well, the Atlanta well, and the Casitas well. So there's  
20 six.

21 MR. O'KEEFE: I'm not familiar with the Atlanta and  
22 Casitas.

23 MS. GATES: They're not --

24 MR. KWAN: They're not production wells. They're old  
25 wells that we haven't produced in probably 10, 15 years,

1 but they're still there. They haven't been abandoned. And  
2 they're just additional sampling and monitoring sites that  
3 NASA and Pasadena --

4 MR. O'KEEFE: They have been maintained for monitoring  
5 purposes?

6 MS. GATES: No.

7 MR. AMIDEI: None of these are monitoring wells.

8 MR. KWAN: That's why they're meeting us, to have  
9 General Pump take a look at it to see if --

10 MR. O'KEEFE: Okay. They don't -- they're not  
11 equipped with pumps at the present time?

12 MR. KWAN: No. No.

13 MR. O'KEEFE: Okay.

14 MR. SORSHER: I was wondering what are you going to  
15 do -- how are you going to dispose of all the water?

16 MS. GATES: Actually, we're doing a micro-purge  
17 method, so it's going to be very little water. We're not  
18 going to do volume cases.

19 MR. O'KEEFE: Might not be truly representative.

20 MR. AMIDEI: That's the goal of the tests, to  
21 correlate them with the multiple wells that are in the area  
22 to determine if the method is effective when -- being able  
23 to -- is it feasible to gather data from different levels  
24 within the well using the micro-purge technique that are  
25 representative of those layers within the aquifer. And

1 since these holes already exist in the ground, although  
2 they are not designed to be monitoring wells, it is the  
3 goal of the test, can they be correlated with the  
4 multiple wells located in the area.

5 MR. O'KEEFE: I would just comment that since you're  
6 working on the raw water quality portion of the 97-005  
7 document, I would expect that it would include, you know,  
8 significant amounts of monitoring at the production site as  
9 well as the monitoring wells on-site at JPL. And so it  
10 sounds like you don't have any intention of including  
11 this -- these data in the raw water study.

12 MS. GATES: We're trying to see if this micro-purge  
13 method works. So if it does, we can incorporate it.

14 MR. SORSHER: I never heard of it.

15 MR. AMIDEI: You never heard of micro-purge?

16 MR. SORSHER: No. Can you give me --

17 MR. AMIDEI: Do you want to do it?

18 MS. GATES: I will let Dave do it. Dave's going to be  
19 our field guy out there sampling anyway.

20 MR. CLEXTON: It's essentially low flow sampling to  
21 reduce the amount of waste generated during the sampling.  
22 In essence, now, these are production wells, and so you are  
23 right in your assumption that it will probably not be truly  
24 representative of formation water surrounding a well  
25 bore.

1           So we're going to do this sampling event, see how  
2 the data correlates. Also, in conjunction with that, we're  
3 going to evaluate the condition of the interior of the well  
4 and the flow across the well, and combine all that data to  
5 make that evaluation.

6           And so low flow, in essence, is just low flow,  
7 low purge waste reduction.

8           MR. FIELDS: In the environmental industry, low flow  
9 is gaining popularity because of the minimization of waste  
10 water or production water. And there's been a lot of  
11 studies to correlate results from a traditional three purge  
12 volume technique to, you know, low flow or even no-flow  
13 technique.

14           And typically, based on your site conditions,  
15 those can match up well, but it's very site  
16 specific. If you are getting flow across the well from  
17 just the formational water, it may be a very effective --  
18 it may be an effective technique, it may work well.

19           If there is something dynamic that's going on in  
20 the well where there's maybe some vertical flow gradients  
21 or something within the well that you don't -- then there  
22 are uncertainties to it, but that's -- you know, part of it  
23 is it could be a very cost effective technique for  
24 evaluating purposes.

25           MR. SORSHER: So basically you're going to evaluate

1 and see if it's going to give you any useful data?

2 MS. GATES: Uh-huh.

3 MR. RIPPERDA: I want to ask some more questions about  
4 the raw water assessment.

5 So the raw water assessment, you mostly care  
6 about the water quality that's going to be produced at the  
7 well head that's supposed to be treated; right? And so --

8 MR. O'KEEFE: Yes. Most interesting in worst cases --

9 MR. RIPPERDA: I mean, you want source water and you  
10 want what's going to be coming to it --

11 MR. O'KEEFE: Right.

12 MR. RIPPERDA: But for the actual design, would you  
13 guys want to see them turn these wells back on under  
14 production conditions and, you know, sample it after, or is  
15 the historical levels that are there correlated with the  
16 historical levels of nearby monitoring wells? With current  
17 conditions of monitoring wells, you can see how the aquifer  
18 changes.

19 Do they basically have to, like, turn these wells  
20 on and produce hundreds of thousands of gallons for the raw  
21 water assessment, or can they just use, you know, this  
22 data, plus monitoring well data, plus historical production  
23 data?

24 MR. O'KEEFE: I don't know if I should answer that.

25 MR. SORSHER: I would think not. But, you know, we're

1 going to be relying on all that other -- if you're not  
2 going to have the ability to run the wells first, then you  
3 are going to be relying on all this other --

4 MR. RIPPERDA: Right.

5 MR. SORSHER: -- projections and modeling and  
6 everything. And basically, we're going to write the permit  
7 and the permit for vision requiring certain levels to be  
8 met at with the effluent. And if your modeling is wrong  
9 and your concentrations are wrong or something was amiss,  
10 it's going to be -- you know, it's going to be the -- the  
11 water system or whoever is operating it or paying for it is  
12 going -- their neck is going to be out to meet our  
13 requirements, basically.

14 MR. RIPPERDA: Okay. That's what I wanted to check.  
15 It seems like there's not always questions being asked, and  
16 it seems like there was a slight disconnect there. So as  
17 long as their science is good, and they make a good  
18 argument, you know, with the data they have, that's  
19 basically their liability in the long term.

20 MS. GATES: I also think that we had sent the sampling  
21 plans before the raw water quality and characterization,  
22 and it had been approved.

23 MR. RIPPERDA: Okay.

24 MR. SORSHER: Well, that was some supplementary  
25 sampling --

1 MS. GATES: Right.

2 MR. SORSHER: -- back then.

3 You know, part of doing this source water  
4 assessment, you're going to identify data gaps, and there  
5 was some additional sampling.

6 MS. GATES: Right.

7 MR. SORSHER: For example, when we went through this  
8 several years ago at Glendale, you know, they had their  
9 plans already built and everything before we had the permit  
10 and everything set up. And for various reasons, they  
11 wanted to test the -- I don't think they had even the  
12 carbon vessels ready to go, but they had to test the air  
13 strippers for their warranties and shake down.

14 So they ran their system for a couple of days and  
15 discharged the water. They were able to discharge the  
16 water to the river. They didn't have a perchlorate issue,  
17 it was just VOCs.

18 But when they were doing that, that gave them an  
19 opportunity to take some samples out of their production  
20 wells. You know, and so they used that to supplement their  
21 97-005. It just worked out well.

22 So if, for any reason, it becomes available to  
23 use the production wells, that would be helpful. We  
24 wouldn't say don't use it if you can get it.

25 MR. AMIDEI: Okay. We understand.

1 MR. HAYWARD: Kimberly, clarification, is this  
2 perchlorate exclusive, this field trip that you're going to  
3 be doing tomorrow, the sampling you're doing tomorrow?

4 MS. GATES: No.

5 MR. HAYWARD: So it's the entire list of perchlorate  
6 VOCs and everything --

7 MS. GATES: I believe it's the entire list of  
8 perchlorate VOCs, yes.

9 MR. HAYWARD: Okay.

10 MR. CLEXTON: And it's not tomorrow.

11 MS. GATES: Yes. And it's not tomorrow. We have a  
12 meeting on Monday.

13 MR. CLEXTON: We're meeting with the City on Monday,  
14 and then we'll determine a schedule.

15 MS. GATES: Right.

16 MR. HAYWARD: Okay. And the wells that you mentioned,  
17 that you noted, they were Pasadena's wells exclusively --

18 MS. GATES: Yes.

19 MR. HAYWARD: -- either -- either current production  
20 wells or abandoned wells, none of your just monitoring  
21 wells.

22 My concern is, number one, Lincoln has been  
23 excluded from -- but I understand why, because we're not --  
24 we're not -- we don't have to deal with 97-005, you know,  
25 fortunately. But I'm concerned about the proximity of the

1 closest well that you're going to sample, the proximity of  
2 Lincoln's closest production well. And I asked Sean --  
3 we're not clear yet, but you mentioned the Casitas well.  
4 And we have a well -- a production well on Casitas. So we  
5 will talk about that after.

6 MS. GATES: Okay.

7 MR. AMIDEI: Actually, that's something that I'd like  
8 to talk to you about after the meeting, and that's the  
9 step-wise fashion and progression if the technique works,  
10 and we definitely need to work out something.

11 MS. GATES: But actually to talk about the monitoring  
12 wells, that's a separate thing that will be going on at the  
13 same time --

14 MR. HAYWARD: Yes.

15 MS. GATES: -- is the quarterly monitoring.

16 MR. HAYWARD: Yes.

17 MS. GATES: Right. This is a separate special effort.

18 MR. HAYWARD: The data that we have not been receiving  
19 for a year.

20 MS. GATES: Right. Now I realize.

21 MR. O'KEEFE: Can I just point out something? There  
22 is a broader issue that is not really the purpose of this  
23 group, but there is some migration beyond OU-3, lower  
24 levels impacting Lincoln water, Sunnyslope, one other.

25 MR. SORSHER: They got the Sunnyslope.

1 UNIDENTIFIED SPEAKER: Countland.

2 UNIDENTIFIED SPEAKER: Las Flores.

3 MR. O'KEEFE: And we're talking hits of maybe four,  
4 five, six PPB, not consistently at that level, but pops up  
5 every now and then.

6 Of course, everyone's patiently awaiting DHS to  
7 set a maximum contaminant level. And, you know, if we set  
8 it at four PPB, there may be some other wells that may be  
9 lost as a drinking water supply and may require some form  
10 of treatment or blending to meet that future standard.

11 So I know the remedy for OU-3 doesn't really  
12 involve those other water --

13 MR. RIPPERDA: I got to jump in there because OU-3 is  
14 not geographically limited to these wells at Pasadena.  
15 OU-3 is off-site migration of JPL contamination. So if it  
16 happens that the perchlorate hits Lincoln Avenue wells or  
17 hits farther down gradient Pasadena wells, that's still  
18 NASA's responsibility.

19 MR. O'KEEFE: Any level above --

20 MR. RIPPERDA: Any level above DHS that, you know,  
21 promulgated or whatever --

22 MR. O'KEEFE: Okay. I'm glad to hear that.

23 MR. RIPPERDA: And so it's two parts.

24 MR. AMIDEI: Let me clarify that one little bit.

25 It is our responsibility to determine the extent

1 of contamination that is driven out by -- from JPL, and we  
2 intend to do that. And the sampling of Pasadena's water  
3 wells with this technique is the next step in approaching  
4 that to either sight new monitoring wells, accept the data  
5 like that towards the next step. And we realize that the  
6 plume is not limited by the political boundaries or  
7 anything like that. It's going out, and we intend to  
8 address that. So it's not -- however, if it gets detected  
9 in Orange County, it may not be ours.

10 MR. RIPPERDA: That's why I very clearly said, NASA's  
11 contamination, not all down gradient contamination. So  
12 down gradient NASA contamination is part of OU-3.

13 MS. GATES: Right.

14 MR. RIPPERDA: And it's also why getting this first  
15 set of wells treated is so important because, you know,  
16 they would then form a containment so that, you know,  
17 perchlorate doesn't continue to grow downstream.

18 MR. O'KEEFE: Yes.

19 MR. ZAIDI: And Arroyo well will make hydraulic  
20 boundary ultimately, so basically you can draw a line to  
21 what extent your plume can extend --

22 MR. AMIDEI: Modeling line in particular.

23 MR. ZAIDI: Right.

24 MS. GATES: Is there a comment from Rich?

25 MR. ATWATER: Yeah. The only thing I would like to

1 add to that, over the last few years I've  
2 attended the RPM meetings. And the Raymond Basin Board has  
3 been real clear, both here for these wells where this office  
4 is located. And going downstream, we have  
5 always suggested you look at the historic water levels over  
6 the last 30 or 40 years.

7           And at that time we asked JPL and NASA to  
8 coordinate with the groundwater modeling and the historical  
9 water levels that go back to the last 30 or 40 years, the  
10 California Department of Water Resources, does that water  
11 level measurement in the Raymond Basin Management Board.

12           And we were trying to suggest that they look at  
13 that historic record, perchlorate contamination here at  
14 valley and the other smaller systems around here,  
15 historically, it's probably the result of JPL.

16           I realize there's better theories like Chilean  
17 fertilizer and that somehow the use of the Colorado River water  
18 may have filtered through the soil column and all that. Those  
19 are certainly interesting theories. But the most likely  
20 suspect for these low levels that DHS very accurately  
21 pointed out at Las Flores and Rubio wells, said that clearly,  
22 those need to be addressed at OU-3.

23           So when you put on record and you suggest today  
24 that you are going to make that determination, you do get  
25 everybody at the Raymond Basin a little concerned because

1 we were clearly told it's been in the record for a long  
2 time that that long-standing background level is the most  
3 likely suspect.

4           When you go back and look at the oral history in  
5 the '30s, '40s, and '50s, you realize that JPL was on  
6 septic tanks until '57, and that they did testing all over  
7 in these canyons. To suggest that historic low levels of  
8 perchlorate are from somebody else, given that you're the  
9 only major industrial source particularly  
10 perchlorate, again, we want to put on the record then when  
11 you make those kind of statements, that's inconsistent with  
12 the history and what we know historically the sources have  
13 been.

14           I realize sometimes people suggest that people  
15 who live in La Canada -- maybe you can argue that  
16 (inaudible) -- sure you can't argue that people live a few  
17 blocks from here because they're on septic tanks, they've  
18 dumped perchlorate down their septic tank. And I realize  
19 that sometimes it has been suggested.

20           But again, we include Valley and all of the  
21 mutual -- all of the title 22 records (inaudible), DHS has  
22 required us to monitor since 1997, we have always shown  
23 these low levels of perchlorate in the basin.

24           In fact, we would suggest that it may have even  
25 leaked out of the basin. If you look at the data along the

1 fault with the main San Gabriel, that's been one of the big  
2 concerns with us developing a storage program in the  
3 Raymond Basin that some people, like the city of Alhambra,  
4 and you brought up Sunnyslope, that in fact is their  
5 concern, storing water in the basin, that somehow the  
6 (inaudible) ground. And that's been their concern with the  
7 City of Pasadena when they talk about managing their wells.  
8 So we are concerned about that.

9 MR. AMIDEI: And you should be concerned about that.  
10 And what I said was we will determine the extent of our  
11 contamination, and that's the commitment.

12 MR. ATWATER: Okay. But alluding that somehow  
13 Orange County, whatever, clearly we have to discuss this at  
14 length.

15 MR. AMIDEI: Okay.

16 MR. ATWATER: And it's throughout the basin. We would  
17 certainly suggest that. We do have a basin-wide model. As  
18 Tony pointed out, updating that model, we have asked for  
19 two or three years to coordinate that to look at the  
20 low levels of perchlorate.

21 In light, in the last year and a half, when the  
22 DHS action level was at 18, frankly it wasn't as much of a  
23 concern because it was in the low range, as DHS indicated  
24 today. But clearly, if they do adopt an MCL that matches  
25 up with their --

1 UNIDENTIFIED SPEAKER: DH level.

2 MR. ATWATER: Yeah. Exactly. Which is 2 to 6, then  
3 clearly all these low levels, it's going to be a big issue.

4 MR. O'KEEFE: Yeah. I have something to add about  
5 projecting an MCL. There was some recent information from  
6 our headquarters that stated that if indeed the public  
7 health goal came back below the detection limit of 4, that  
8 we would definitely adopt an MCL at the detection level.

9 So I'm not anticipating any MCL below 4. But  
10 that's just my assumption. But that is -- that is recent  
11 information from our headquarters, and I believe that I  
12 don't anticipate an MCL below 4. Everyone is worried if it  
13 is at 2.

14 MR. AMIDEI: And I understand what you're saying, and  
15 the commitment is there to do that. You know, I can't say  
16 what the results of the studies are going to be.  
17 Otherwise, we wouldn't need to study them. So that's the  
18 point. Okay.

19 MR. PALMER: David, on behalf of Raymond, I agree 100  
20 percent with what Rick said, but I think one thing you have  
21 to understand, we have had comments made by NASA people  
22 that the perchlorate is not coming from NASA, that it's  
23 from Met Water or Chilean fertilizers.

24 So I'm glad to hear what you're saying in that  
25 you are going to take a fresh look at this. And I'm not

1 saying that it is, making any predeterminations, but --

2 MR. AMIDEI: Good.

3 MR. PALMER: -- I think a lot of what Rick said is the  
4 same concern I have. We've had statements from NASA saying  
5 it's not coming from us --

6 MR. AMIDEI: Okay.

7 MR. PALMER: -- La Canada or Las Flores or other  
8 places. We just want to make sure there's a fresh approach  
9 to this.

10 MR. AMIDEI: There's going to be a fresh approach.  
11 The answer may be the same in the end.

12 MR. PALMER: Then I will respect that, but it --

13 MR. AMIDEI: Okay. Good.

14 MR. PALMER: It's wrong, but I'll respect it.

15 MR. AMIDEI: We'll work, especially with the modeling  
16 effort. I think that's really important to collaborate.

17 MS. GATES: The data call from Sean Kwan, so...

18 MR. AMIDEI: Yeah. We need to work together. If we  
19 both believe the same model, that takes us far. If we both  
20 believe our own models, who cares? So let's do that.

21 MR. ZAMPIELLO: Yes.

22 MR. KWAN: And again, just to re-emphasize that  
23 there's -- we got an interim draft report on the data  
24 collection, and there's a lot of historical information on  
25 the VOCs and the perchlorate. So we are open to giving it

1 to you guys and your consultants so you don't duplicate a  
2 lot of work.

3 MR. AMIDEI: Please.

4 MR. KWAN: This may fit into your model as well as the  
5 model we're going to produce. So there's a lot of  
6 trending information on the contaminants. We would like  
7 to, at the end, agree to the information and what it means  
8 and all that. But we don't want to work separately and  
9 then at the end disagree on what the assumptions were, what  
10 the -- what we may assume the results might be or the trend  
11 may be or whatever.

12 MR. AMIDEI: It sounds like what we need to do is get  
13 the modelers in the same room at the same time.

14 MR. ZAMPIELLO: Absolutely.

15 MR. AMIDEI: That way we don't --

16 MR. ZAMPIELLO: And just to point out, Sean --  
17 Sean mentioned these -- we've got actually, I think, three  
18 technical memos, but they're all in draft form. And the  
19 board -- the committee has seen it, and next month they're  
20 going to present their comments. But we'll be happy to  
21 share.

22 MR. AMIDEI: Wonderful.

23 MR. SORSHER: One final comment on the upcoming  
24 sampling event. I would hope or I assume that you're going  
25 to use this to kind of fill in any data gaps that may have

1 appeared in the source water assessment or draft --

2 MR. FIELDS: That sampling effort was performed by  
3 CH2, I think, in January; is that correct?

4 MS. HOLLINGSWORTH: Yeah. I think that's about right.  
5 Yeah.

6 MR. FIELDS: That was the intent of that, would be to  
7 fill in those gaps, if there are additional gaps.

8 MR. SORSHER: And this event -- and this event is just  
9 to test the micro-purge approach?

10 MS. GATES: Yes. I mean, we're hoping to see if it  
11 works. If it does work, then we'd like to utilize the  
12 data, but we don't want to promise utilizing the data if it  
13 doesn't work.

14 MR. SORSHER: What I'm saying, if there's some  
15 chemical constituent that's been identified that's come up  
16 between January and now that needs to be tested for -- I  
17 would assume you are going to add this to your list of  
18 constituents to analyze for any testing that you do. Okay?

19 MS. GATES: Okay.

20 MR. FIELDS: I can imagine the emerging chemicals  
21 you're talking about. I imagine those are part of the --

22 MS. GATES: Right.

23 MR. FIELDS: -- CH2 effort.

24 MS. HOLLINGSWORTH: I just want to clarify that on the  
25 August 22nd (inaudible), this is going to be analyzing the

1 VOCs and perchlorates. The list that was developed for the  
2 supplementary sampling, that's not the same thing. This is  
3 just to check the practicality of it and then (inaudible).

4           So the way I recall -- Kimberly, I hope this  
5 comment is helpful instead of the other direction -- is  
6 that it was desired to get the results from the wells that  
7 we're going to be sampling now. However, the traditional  
8 sampling techniques were not practical for including in  
9 that study. And essentially, you know, we needed the  
10 cooperation with the City.

11           So now we're at the stage where we're going to  
12 give this a try and see if it will work. But, yes. In  
13 other words, I think your additional question was is this  
14 to answer a data gap, and it's an attempt to try to answer  
15 the data gap. But the August 22nd is not answering the  
16 data gap.

17           Does that make sense? The August 22nd is a  
18 preliminary, if it works, then the data gap we will be able  
19 to fill.

20           MR. SORSHER: I see. Okay.

21           MR. ZAIDI: I have a little comment on that.

22           Micro purging normally assumes that the rate at  
23 which the input and the output are almost the same  
24 with very little drawdown.

25           And I would suggest -- I don't know how long

1 these wells have not been sampled before. If they have not  
2 been sampled for a while, I would suggest that we may  
3 compare the micro-purge method, take the samples with  
4 micro-purge, and then maybe evacuate only -- purge only  
5 maybe one well volume so that we can at least remove that  
6 standing water, and then take another sample, then  
7 compare --

8 MR. O'KEEFE: Where are they going to discharge the  
9 water?

10 MR. ZAIDI: That's what I am saying, one volume. One  
11 volume may not be enough. That probably can be put in a  
12 drum or something like that and later on --

13 MR. O'KEEFE: But they have to tank the discharge  
14 water.

15 MR. CLEXTON: These are production wells. They're  
16 rather large wells, 24-inch casing diameter.

17 MS. GATES: That would be a lot --

18 MR. CLEXTON: and constructed with a large amount of screen--

19 MR. FIELDS: Maybe a couple hundred feet of screen.

20 You know, like at Pendleton, we both worked on  
21 Pendleton. Those are very low-producing wells, and you use  
22 the purge there so that you don't draw down and then  
23 volatilize constituents.

24 Here what we're trying to do is get some  
25 stratification data, some depth specific data from existing

1 production wells, and the three-purge volume is very  
2 different, or even one-purge volume. But --

3 MS. HOLLINGSWORTH: Okay.

4 MR. FIELDS: -- also the other issues are these  
5 production wells have a pump in them that goes down, and  
6 you can't get equipment down there. It is -- we may not  
7 even be able to get the low-flow equipment down there  
8 because it's that tight, and we definitely couldn't get a  
9 pump large enough down there without removing everything.

10 MR. CLEXTON: That's what Monday's meeting will be, is  
11 to look at the well construction, look at the logistics for  
12 getting sampling equipment into the holes.

13 Based on the results of that meeting, we'll then  
14 determine a schedule for either moving into the field to  
15 attempt to sample without removing any well equipment or  
16 keeping the wells as they are, or discuss with -- the  
17 possibility with the City of pulling some of the pumps out  
18 and actually keeping these wells temporarily as sampling  
19 locations based on the -- based on the results of the  
20 initial sampling.

21 There will also be some preliminary evaluations  
22 of the conditions of the wells. Not only the condition of  
23 the well, the integrity of the well, but also the flow  
24 conditions within the well.

25 MR. ZAIDI: Right.

1 MR. CLEXTON: And we'll try to correlate that with the  
2 data that we collect.

3 UNIDENTIFIED SPEAKER: (Inaudible) full velocity --

4 MR. CLEXTON: Full velocity across the screen,  
5 exactly. And then from there, this is proposed as a phased  
6 approach, take that data, evaluate it, and try to correlate  
7 it as best we can with the existing monitoring wells. And  
8 beyond that, potentially perform some well rehabilitation  
9 to increase the flow across the wells and move into the  
10 next phase, which would be low flow as well.

11 MR. ZAIDI: I think one solution would be, if you do  
12 not need any extra purging and micro purging will work, is  
13 if there's any nearby monitoring wells close to these  
14 collection wells, you may compare the micro-purge data with  
15 the monitoring well data and that'll give you --

16 MR. CLEXTON: That's the ultimate intention.

17 MR. ZAIDI: That'll be good for the --

18 MR. FIELDS: David, I'm going to indicate that that's  
19 what we are going to do, take that data and compare that  
20 with the multi-port wells.

21 MR. ZAIDI: That will be excellent.

22 MR. AMIDEI: Anything else on the Monkhill stuff?

23 MS. GATES: Ready to take the last one.

24 MR. AMIDEI: The removal action status. One of the  
25 things that I was tasked with coming out here is accelerate

1 the schedule with respect to the removal action. And --

2 MR. RIPPERDA: Can you just tell everybody else what  
3 the removal action is?

4 MR. AMIDEI: Oh, the removal action is to basically  
5 contain the plume of the -- emanating from JPL, in order to  
6 contain any further migration of the major part of the  
7 plume. This is what all this is about, is the extracting  
8 of water, containing the plume, and then providing it to  
9 Pasadena for their purveyance.

10 I'm working -- I've been there a whole week. I'm  
11 working on a couple of strategies to accelerate that  
12 objective. As any time you accelerate things, you impact  
13 budget as well. So these are being flushed out at the  
14 moment. I have a meeting with NASA's senior management on  
15 the 18th to present these ideas, see if we can quantify the  
16 impact, both time and money.

17 When they -- if they say, "Here is the holy  
18 water," we will then -- we have -- we can, using your  
19 words, conditionally put a meeting together for the 25th --  
20 not for the 25th -- the week of the 25th.

21 I'd also like to set something up with y'all to  
22 discuss exactly the same thing, or sometime that week.

23 MR. O'KEEFE: Which week?

24 MR. AMIDEI: The week of August 25th.

25 Meanwhile, the 97-005 stuff is progressing, which

1 is also part of that progress.

2 So my intent is to accelerate the schedule as far  
3 as the removal action.

4 MR. SORSHER: What do you have in mind?

5 MR. AMIDEI: Let me flush it out first. What I've got  
6 is some conceptual ideas, and one of the requirements that  
7 I see is all the conditional improvements that go along  
8 with the 97-005 process and the -- looking to see if it  
9 matches that.

10 Let me flush it out first. Keep you in the loop.

11 MR. O'KEEFE: I don't mean to push you further, but  
12 there's a lot of plans going on for this watershed park  
13 that's between the JPL site and these impacted wells. And  
14 are you -- you must be considering the impact of that  
15 project, good or bad, on the downstream production wells.

16 MR. AMIDEI: Yes.

17 MR. O'KEEFE: And perhaps it could be some type of  
18 hydraulic barrier between the sites.

19 Is that kind of what you're talking about?

20 MR. AMIDEI: Not really. The --

21 MR. O'KEEFE: Regardless, it just needs to be  
22 considered in the overall scheme of things.

23 MR. AMIDEI: Okay. We'll do that.

24 My -- I've been here a whole week, and I've heard  
25 about the watershed park, and this is where the

1 consideration is, is to make a relatively permanent water  
2 body out of that park.

3           Maybe I need to gain some data. What is the  
4 probability of that actually happening?

5           MR. O'KEEFE: I don't (inaudible) the one to go to on  
6 that.

7           MR. KWAN: Not likely.

8           MR. AMIDEI: Okay.

9           MR. KWAN: Although we do have -- politically, we do  
10 have to address the concern of that. But practically,  
11 probably --

12           MR. ZAMPIELLO: It's not in the City's proposed plan  
13 right now. Is that--

14           MR. KWAN: Right. I may be shooting myself in the  
15 foot in saying that, but politically we have to address the  
16 issues, but practically, even if it happens, it's way down  
17 the line.

18           MR. AMIDEI: I understand what you're saying. It's a  
19 big proposed project that might -- it's a big question  
20 mark. If it does get implemented, it will have  
21 implications. And we'll consider that when -- in any  
22 design, I think what you have to do is you have to assume  
23 it's going to happen, even though the likelihood is  
24 relatively low, and go from there, or at least provide  
25 contingencies to say that if it does happen, we'll have to

1 change -- we'll have to alter the plan somehow.

2 MR. O'KEEFE: Okay.

3 MR. AMIDEI: But thanks. Yeah, that's a good point.

4 So let me flush it out and see what happens.

5 MR. SORSHER: I mean, if you have any thought of  
6 pumping out the water, treating it somehow, and then giving  
7 it to the City to use as drinking water, forget it, without  
8 going through our process.

9 MR. AMIDEI: We wouldn't think of that.

10 MR. SORSHER: Okay. I didn't know what you're  
11 thinking.

12 MR. RIPPERDA: Throwing out a CEQA hypothetical is  
13 always dangerous, so maybe you should just back up and say  
14 you're thinking about how to speed the process up and leave  
15 it at that.

16 MR. SORSHER: Send it to a hazardous waste treatment  
17 facility, and then we've got no qualms about that.

18 MR. AMIDEI: I can tell you that the thoughts about  
19 accelerating the schedule aren't to knock you guys out of  
20 the loop; that's not the way to do it.

21 UNIDENTIFIED SPEAKER: And we'll formalize a meeting  
22 day at some other time, or do you want to set something up  
23 now?

24 MR. AMIDEI: We can talk afterward briefly. I don't  
25 know what your schedules are like. I know what mine is

1 turning out to be.

2 MS. GATES: Awful.

3 MR. KWAN: Yeah. I don't think he meant to say  
4 speeding up the process might eliminate. He meant whatever  
5 we can do to go through it a lot quicker following that  
6 process.

7 MR. SORSHER: Okay.

8 MR. AMIDEI: Very well put.

9 MR. KWAN: And even our -- their working and our  
10 workings outside of that process, we want to speed up also.  
11 And whatever we can do to work with you and speed up that  
12 process.

13 MR. AMIDEI: Good deal. So for that, let me just  
14 leave it at that for the moment before I dig myself in  
15 deeper.

16 Well, since I wasn't here, you want to tell us  
17 about the meeting?

18 MS. GATES: We're on to the other items, and I thought  
19 in the other items that I would kind of give you just a  
20 summary of what happened July 16th.

21 Dave is the result of the July 16th meeting that  
22 we had with the principals that came out from NASA  
23 headquarters. Their intent was to meet with Lincoln  
24 Avenue, as well as with the City of Pasadena, to express  
25 their continued interest in cooperatively working towards

1 the removal action, as well as other actions that may be  
2 involved as a result of the CERCLA program.

3           So their main result of that was to get someone  
4 who is completely dedicated to running this process, and  
5 that's how Dave came along, as well as the new RPM that  
6 they are in the process of hiring. So that's the -- I  
7 guess the thumbnail, as Mark said, summary of that meeting.

8           I don't know if anyone has any additional  
9 questions about that. But if there's any other items for  
10 discussion as well, now would be the time.

11           MR. PALMER: Just a question.

12           Dave, you are the point person, the contact  
13 person from now on --

14           MR. AMIDEI: Yes.

15           MR. PALMER: -- for Raymond Basin or the purveyors?

16           MR. AMIDEI: Sure.

17           I've set up an e-mail address. I don't know what  
18 the normal communication path is, but I have set up an  
19 e-mail address that's just RPM at NMO dot JPL dot NASA dot  
20 gov. The reason I set that up that way is that if you plug  
21 that into your e-mail system, when the permanent guy comes  
22 along, it's still going to work. And I set that up so that  
23 they'll just switch the forwarding on that from me to the  
24 new guy and that will be --

25           MR. PALMER: What was the second element? RPM at

1 what?

2 MR. AMIDEI: NMO. That's the NASA management office.

3 MR. PALMER: And while I'm talking, I know the link of  
4 both chairmen of the Raymond Basin Board Quality, or  
5 (inaudible) Tony ZAMPIELLO with Pasadena, in your efforts  
6 to speed up this process, if there's anything that they can  
7 do as producers and people that are relying upon --  
8 terribly relying upon this groundwater, whether it be  
9 contacting federal representatives for assistance, both  
10 financially as well as any other measure, I think I'm safe  
11 in saying that's how we felt for the last number of years.  
12 Anything, anything, anything, that we can do to assist you  
13 to speed up this process, I know they stand ready to do  
14 that.

15 MR. AMIDEI: Okay. Well, my first goal with -- in  
16 regard to that is to increase the communications that are  
17 going on between us. And I understand that they had lapsed  
18 somewhat, and one of my goals is to bring that up to no  
19 surprises level. That's the first thing.

20 MR. ZAMPIELLO: I think one of the things to mention  
21 too is that Peter attended our quarterly board meetings,  
22 so --

23 MR. AMIDEI: Please invite me.

24 MR. ZAMPIELLO: -- obviously, the invitation extends.  
25 We'll keep you informed as to the dates.

1 MR. AMIDEI: Please do.

2 MR. RIPPERDA: And this is up to you to decide, but I  
3 kind of like meeting here.

4 MR. ZAMPIELLO: Fine with us.

5 MR. RIPPERDA: If you guys would want to come -- the  
6 way it's been for the last few years is that Rich Atwater,  
7 who is now gone, has been the only person who has been  
8 formally invited, and got Pasadena kind of begrudgingly  
9 added to the list, but I would rather have any water  
10 purveyor who wants to come, able to come. If you guys like  
11 coming to this? Does it help you to feel involved?

12 MR. ZAMPIELLO: Yeah. Rich always did a good job of  
13 informing me. Ron -- at the suggestion of Lincoln, Ron has  
14 been included because Ron, you know, his history and his  
15 background and -- so, yeah. I mean, I said it's -- the  
16 facility is available. I don't know if it's what you're  
17 looking for. We can rearrange the tables so that nobody --  
18 we don't have to watch your back or -- but, yeah, that --

19 MR. AMIDEI: Good.

20 MR. KWAN: And actually, this meeting being here is a  
21 result of the meeting on the 16th where I mentioned that  
22 meetings at the JPL sites are inconvenient. So just to  
23 give them a little credit, they did agree to three or four  
24 things that we mentioned that day, and we got immediate  
25 response the next day.

1                   And hopefully, this continues on because we have  
2 been informing our City Council of the status, and they've  
3 been kind of frustrated with the lack of progress on this  
4 project. We've been doing this for the last three, four  
5 years, and we really haven't gotten any results.

6                   And having management -- senior management from  
7 NASA come out from Washington and having them promise us  
8 something, we had some mixed results with that already.  
9 So -- but we've also had some things that happened very  
10 quickly. So we just hope that the good response continues  
11 on and some of the other nonresponsive things will turn the  
12 other way.

13                  MR. AMIDEI: We will do our best.

14                  MR. KWAN: So -- just some of the people that have --  
15 don't know that NASA management came out, they have made it  
16 their commitment, and some of the things have been  
17 responded to very quickly.

18                  MR. RIPPERDA: I've got seven action items that I  
19 wrote down. I think, at previous meetings, things get said  
20 but there's sometimes a lack of follow-up, so I think  
21 adding action items would be a good idea.

22                         So things I picked out were that NASA's going to  
23 check with your lawyer and find out about the public  
24 availability of documents or the release of documents.

25                  MR. AMIDEI: Right.

1           MR. RIPPERDA: And then I think you should send an  
2 e-mail to -- you should probably create a group e-mail list  
3 and just send out an e-mail to all of us saying what the  
4 answer is.

5           MR. AMIDEI: Okay.

6           MR. RIPPERDA: If the answer is yes, go ahead and  
7 release it --

8           MR. AMIDEI: I'll let you know that it's released.

9           MR. RIPPERDA: Then you would, like, let us all know  
10 that it's releasable, send the monitoring reports to  
11 Lincoln Avenue, update all the info here at the Raymond  
12 Basin office, send the OU-1 work plans to the City of  
13 Pasadena to pass on to their consultants.

14          MR. AMIDEI: Okay.

15          MR. RIPPERDA: And just kind of check with all of them  
16 whether in the future -- like right now, he doesn't have  
17 the monitoring reports. You should send them directly to  
18 him.

19                    I think in the past, the way it worked is NASA --  
20 I think back when Chuck was managing it, it got sent here  
21 and then disseminated to the interested parties from here.  
22 So just see if that's the way they want to do it in the  
23 future.

24          MR. ZAMPIELLO: We can do that.

25          MR. RIPPERDA: Yeah.

1           MR. ZAMPIELLO: Let me see how you want to do  
2 it --

3           MR. RIPPERDA: Yeah. But since some things are  
4 missing, send the OU-1 work plans directly to Pasadena, and  
5 send the monitoring reports directly to Lincoln Avenue, as  
6 well as updating the database and records here.

7           MR. AMIDEI: Okay.

8           MR. RIPPERDA: And then Regional Board needs to send a  
9 letter approving the SVE remedial action plan. And then  
10 the Regional Board needs to send a formal letter about the  
11 in situ bio treatability -- not treatability -- expanded --  
12 I guess expanded treatability study, at which point you can  
13 decide whether or not you want to discuss it with their  
14 management or just design around it.

15                     That was my -- oh, and then so that's my seven  
16 immediate action items. And then a bigger picture thing,  
17 kind of one of those issues that is just left hanging all  
18 the time, and it goes back to what Rich and Ron were  
19 talking about, the assessment of what is NASA's plume? How  
20 far down gradient does it extend? How far this way does it  
21 extend?

22                     You know, for your information, the old remedial  
23 investigation study, it kind of went before perchlorate  
24 became an issue, looked at cation ratios, looked at, you  
25 know, whatever water level records they had, and pretty

1 much concluded that this was upgradient and any  
2 contamination here is not from NASA.

3 Rich, at every single meeting, would say, "Go way  
4 back in the records and look at, you know, historical water  
5 levels and maybe there was a reverse gradient." And he  
6 never really felt like that got addressed.

7 So I don't think it's an action item for this  
8 immediate meeting. Maybe after you settle in at the next  
9 meeting, we can discuss some kind of tech memo that I'd  
10 like to see that actually looks at that.

11 MR. AMIDEI: Okay. I understand what you're saying.

12 MR. KWAN: I think we should add two more items that  
13 we need to set up a meeting with the Health Department to  
14 lay out all the options for considering and see what the  
15 issues are for all and each of those options. And I think  
16 we mentioned the week of the 25th.

17 MS. GATES: Uh-huh.

18 MR. KWAN: And the other one is the meeting between  
19 the board's consultant on the baseline study and your  
20 consultant --

21 UNIDENTIFIED SPEAKER: The modelers.

22 MR. KWAN: Get the modelers.

23 MS. GATES: Uh-huh.

24 MR. O'KEEFE: There's a minor one. DHS is going to  
25 provide formal comments on the source water assessment, but

1 we don't anticipate there will be any substantial problems.

2 MS. GATES: Okay.

3 MR. RIPPERDA: So another little one. You are going  
4 to send out the source water assessment to --

5 MS. GATES: To you guys. I have that written on  
6 there.

7 MR. RIPPERDA: Yeah.

8 MR. O'KEEFE: I just have a minor issue. DHS --

9 MR. RIPPERDA: Most of us have major issues.

10 MR. O'KEEFE: I don't know. Somehow we weren't in the  
11 loop about the setup of this meeting. So I'd just like to  
12 make sure that in the future that everybody gets advance  
13 notice of meeting times and dates.

14 MS. GATES: Yes.

15 MR. AMIDEI: It was my understanding that it was DHS's  
16 preference to have a separate meeting.

17 MR. O'KEEFE: No. That was just because there was too  
18 much to talk about during the regular quarterly meeting.

19 MR. AMIDEI: You are absolutely more than welcome. I  
20 thought it --

21 MR. O'KEEFE: We have attended these quarterly  
22 meetings for about a year now.

23 Is that right?

24 MR. SORSHER: Yeah.

25 MR. RIPPERDA: Yes.

1 MR. AMIDEI: These are quarterly?

2 MS. GATES: These are person to person. It's a conference  
3 call, the other one.

4 MR. O'KEEFE: I got it.

5 MS. GATES: We can add you to the list.

6 MR. O'KEEFE: Great.

7 MS. GATES: I wrote that down.

8 MR. AMIDEI: Just for my -- you are more than welcome.  
9 We want to make sure and have you on the list.

10 For my education, where are all of you physically  
11 located? I know you're in San Francisco, and --

12 MR. GEBERT: Yeah. I'm in Glendale.

13 MR. AMIDEI: Glendale. Okay. So relatively close.

14 MR. O'KEEFE: We're both in downtown Los Angeles.

15 MR. AMIDEI: So worlds away.

16 Okay. Now I understand the inconvenience of  
17 getting together on a monthly basis face-to-face.

18 Okay. Next meeting?

19 MS. GATES: Speaking of which? To set up the next  
20 meeting, a conference call -- I'm kind of cheating and  
21 looking behind Sean at the calendar. It looks like  
22 September 4th -- is that Thursday? -- the first Thursday?  
23 Is that right?

24 MR. AMIDEI: Uh-huh.

25 MS. GATES: Is that good? I know it's after Labor

1 Day, but hopefully everybody's back by Thursday.

2 MR. AMIDEI: Yeah.

3 MS. GATES: Okay. How about a conference call on  
4 September 4th at 9:30 or 9:00? Preference? 9:00 o'clock,  
5 then, Thursday. Thursday, 9:00 o'clock.

6 MR. RIPPERDA: Okay.

7 MS. GATES: Conference call October 2nd, I believe, is  
8 a Thursday.

9 MR. AMIDEI: Yes.

10 MS. GATES: Okay. At 9:00 o'clock as well?

11 MR. AMIDEI: Probably be on furlough.

12 MS. GATES: And then the in-person, the quarterly  
13 in-person, would be November 6.

14 Does that work for --

15 MR. KWAN: Yes.

16 MS. GATES: Okay. And that one would be -- it will  
17 depend on when we can have the room. I don't know if  
18 10:00 o'clock or 9:00 o'clock or whatever is good.

19 10:00 o'clock? Okay. I heard 10:00 o'clock.

20 MR. ZAMPIELLO: I was going to say 10:30, but that's  
21 fine.

22 MS. GATES: 10:00 o'clock on November 6. And I'll  
23 send out, obviously, reminders for each one and also with  
24 the conference call numbers, so that everyone will have  
25 that.

1           MR. SORSHER: Can we get copies of the sign-up sheet  
2 for today?

3           MS. GATES: Absolutely.

4           MR. RIPPERDA: Yeah. Does somebody have a sign-up  
5 sheet?

6           MR. GATES: I can get a copy and e-mail it out to  
7 everyone. How's that?

8           MR. ZAMPIELLO: So if we're listed on that sheet, we  
9 will get a notice of the conference call?

10          MS. GATES: Yes. Unless told otherwise.

11          MR. ZAMPIELLO: No. That's fine.

12          MS. GATES: Okay.

13          MR. ZAMPIELLO: I hate to keep going backwards, but  
14 part of the problem was that we weren't getting the notices  
15 until like 4:00 o'clock the afternoon before the meetings.

16          MS. GATES: Right. I understand.

17          MR. O'KEEFE: Are minutes also distributed to the  
18 group, or is that -- we've never received minutes.

19          MS. GATES: No. They normally go into the information  
20 repository. If there's a request for minutes, I can send  
21 someone.

22          MR. O'KEEFE: That's okay.

23          MR. PALMER: Would that mean that Raymond Basin will  
24 get a copy of those if we are treated as a repository?  
25 Even though we aren't officially, would we get a copy if

1 someone wants to see it in this office? Is that possible?

2 MR. AMIDEI: I don't see why not.

3 MS. GATES: I don't see why not.

4 MR. PALMER: I think that would probably be a good  
5 idea. I was getting those before.

6 MR. AMIDEI: Sounds to me like we need to bring your  
7 repository up to date, period.

8 MR. PALMER: He may have to add onto the office for  
9 me.

10 MR. AMIDEI: Well --

11 MR. KWAN: Want him to write a check?

12 MR. PALMER: Right.

13 MS. GATES: Sure.

14 You have the official copy.

15 MR. AMIDEI: Anybody have anything else?

16 It's been very productive. I've enjoyed meeting  
17 all of you. It's been good putting names and faces  
18 together. This is great.

19 I look forward to the individual meetings we'll  
20 be having. We'll send everything early for next month, and  
21 we will talk to you next month. I'm sure we'll talk to  
22 each other much sooner than that on the way.

23 Have a nice day.

24 (At 12:02 P.M. the proceedings were concluded.)

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1 STATE OF CALIFORNIA )  
2 COUNTY OF LOS ANGELES ) ss.

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4 I, ANN BONNETTE-SMITH, C.S.R. No. 6108, do hereby  
5 certify:

6 That said Transcript of Proceedings was taken before  
7 me at the time and place therein set forth and was taken  
8 down by me in shorthand and thereafter was transcribed into  
9 typewriting under my direction and supervision, and I  
10 hereby certify the foregoing transcript is a full, true and  
11 correct transcript of my shorthand notes so taken.

12 I further certify that I am neither counsel for nor  
13 related to any party to said action, nor in any way  
14 interested in the outcome thereof.

15 IN WITNESS WHEREOF, I have hereunto subscribed my  
16 name this \_\_\_\_\_ day of \_\_\_\_\_, 2003.

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ANN BONNETTE-SMITH

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