1 BY MS. WITKOWSKI:

2   Q.   And hypothetically speaking, if those cost

3 numbers came from Anchor, would they be included in the

4 administrative record?

5   A.   I would assume so.

6   Q.   If we look back at Table A 31-2, which is

7 entitled "Data Used For Table A 31-1," and then flip

8 over to Table A 31-1, can you explain to me how these

9 tables work together?

10   A.   Well, since I'm not familiar and hadn't been

11 until today familiar with A 31-2, I'm probably not a

12 person most knowledgeable about how to make that link.

13   MR. CARRIGAN: We have designated Mr. Barker as

14 the cleanup team's person most knowledgeable on the

15 economic feasibility analysis.

16   MS. WITKOWSKI: I appreciate that.

17 BY MS. WITKOWSKI:

18   Q.   And I just wanted to ask some questions of you

19 because of your extensive background in economic

20 feasibility analyses that if you could take a look at

21 these and could understand how they fit together, just

22 take a minute to look. If you don't understand, that's

23 fine. But --

24   A.   Okay. I think if you take the first six

25 polygons in Table A 31-2, they're going to match up

1 with, I believe, the first bar graph in Figure 31-1. I

2 would have to study it some more to verify that.

3   Q.   Let me ask a more specific question instead of

4 just asking the general question about how they fit

5 together.

6   Do you know the table column that says

7 "Construction Seasons Required" in Table A 31-1, do you

8 know where those numbers come from?

9   A.   No.

10   Q.   Do you know why 2 is listed twice?

11   A.   No.

12   Q.   What about under the column "SWAC PCB" in

13 Construction Season 1, the number 249 is in there, do

14 you know where that number comes from?

15   A.   I assume it comes from when you remove a number

16 of polygons, there is a certain amount of dredge volume

17 during Construction Season 1, your remaining subsequent

18 SWAC would be that number indicated.

19   Q.   How would you make that determination?

20   A.   Well, right now, we have a calculation that

21 estimates the SWAC, S-W-A-C, surface area weighted

22 average concentration for individual chemicals, in this

23 case PCBs. And then if you remove, let's just say, the

24 most contaminated polygon, you take that out of the

25 calculation and the remaining polygon's concentrations

1 on evaluated on a surface weighted average basis. And

2 you are going to see that number continually go down.

3   Q.   And that's for the entire site?

4   A.   The surface weighted average concentration is a

5 site-wide concentration.

6   Q.   Do you know where I could find the numbers for

7 the starting SWAC numbers for each of these

8 contaminants?

9   A.   Not offhand. I would assume it's in the DTR or

10 the appendices.

11   Q.   Do you know where I could find the calculations

12 demonstrating how each of these numbers was arrived at?

13   A.   Not offhand.

14   Q.   What about the "Exposure Reduction" column in

15 Table A 31-1 for PCB, we have in Construction Season 1,

16 26.3 percent; do you know where that number comes from?

17   A.   The calculations explained on Page 31-2. It

18 doesn't give the individual numbers used in the

19 calculation, but it explains how a percent exposure

20 reduction is calculated.

21   Q.   Do you know where I could find the actual

22 calculations?

23   A.   No.

24   Q.   Is there a reason that --

25   MR. CARRIGAN: Are you asking for where we did

1   100 minus 10 equals 90? That kind of calculation? I

2   mean, I'm not sure what your question is. What

3   calculation?

4   BY MS. WITKOWSKI:

5   Q.   I'm looking for the calculations of the

6   exposure reduction for PCB in Construction Season 1.

7   MR. CARRIGAN: Okay.

8   THE WITNESS: Well, I would pore through the

9   document, the DTR and find your starting SWAC. I'm

10   pretty sure it's in there somewhere for PCBs. And then

11   you take that number minus 249 and then you divide it by

12   that number minus background and you multiply it by 100.

13   I'm referring to the equation in the middle of

14   Page 31-2.

15   BY MS. WITKOWSKI:

16   Q.   Do you know the document in which those

17   calculations are included or shown?

18   A.   No.

19   Q.   Do you know if it's in the administrative

20   record?

21   A.   No.

22   Q.   Is there a reason that those calculations

23   weren't included in either the DTR or the appendix?

24   MR. CARRIGAN: Misstates testimony. He said he

25   doesn't know whether they're included.

1   THE WITNESS: I think it's highly likely. All

2   of the numbers needed to do that simple mathematical

3   calculations are in the DTR, the DTR appendices or the

4   administrative record.

5   BY MS. WITKOWSKI:

6   Q.   Is there a reason that citations were not given

7   in either the DTR or the appendix to Section 31 so that

8   these calculations could be easily located?

9   A.   What is your definition of "easily located"?

10   I just indicated I'm the person not most

11   knowledgeable, probably another person on the cleanup

12   team could point you to them much quicker than I could.

13   Or answer your question about whether they exist or not.

14   Q.   As a standalone document, is there a reason

15   that the -- neither the DTR nor the appendix explains

16   where the numbers of the calculations came from?

17   A.   I don't understand what you mean by "a

18   standalone document." They're not standalone documents.

19   You need to have the DTR, the appendices and the

20   administrative record.

21   Q.   Is there a reason that there weren't any

22   citations included to where in the administrative record

23   the calculations could be found?

24   A.   I assume the reason is that given the size of

25   the total project and the administrative record, which

1   is, I don't know, what is it, 15 gigabytes, some large

2   number of gigabytes of thousands of records that it

3   would just be too onerous of a task to provide the

4   pathway for every single calculation in this -- such a

5   complex project.

6   This only took ten years to put together. If

7   we spent 20, maybe we could provide a better pathway for

8   every single calculation.

9   Q.   I can understand why you would characterize it

10   as an onerous task to put in the pathways, but it would

11   also be an equally onerous task for someone trying to

12   figure this out trying to find where those are located.

13   Let me ask you a question about you referred

14   earlier to the six polygons at a time. Do you know why

15   the calculations were done with six polygons at a time?

16   A.   No.

17   Q.   Were any calculations done with seven polygons

18   at a time?

19   A.   No.

20   Q.   Do you know why on Table A 31-1, the plot data

21   table, exposure reduction was calculated per 10 million?

22   A.   I'm sorry, can we go back to your previous

23   question?

24   Actually, there is data in here that could show

25   you the calculations for one polygon at a time, not

1 carry it all the way through to the economic result.

2 But you could take each individual row in the appendices

3 in Table A 31-2 and do 'em one at a time if you like,

4 seven at a time, two at a time.

5   Q.   And how would I -- how I would do that?

6   A.   You take a row with one polygon and you use the

7 data in that row and you run it through the same process

8 that was used with the highlighted yellow rows, because

9 that's cumulative for six. But you have got the data

10 for each individual one. So you could break it down

11 however you like.

12   In other words, extrapolate in between because

13 you have all the data for all of the data points in

14 between 1 through 6.

15   Q.   And that would include using the assumptions

16 that are somewhere in the administrative record?

17   A.   You could use the same assumptions. In

18 Table 31-1, you have got the dollar assumptions, the

19 cost range is zero to $24 for the --

20   Q.   So where did that zero to $24 number come from?

21   A.   Anchor.

22   Q.   Anchor?

23   A.   Probably.

24   Q.   And that -- those numbers, you believe, are

25 somewhere in the administrative record?

1   MR. CARRIGAN: Asked and answered.

2   THE WITNESS: I believe I have answered that.

3   BY MS. WITKOWSKI:

4   Q.   Do you know when the economic analysis was

5   done -- do you know anything about the -- let me ask

6   again.

7   Do you know anything about the economic

8   assumptions that were used?

9   A.   Could you be more specific?

10   Q.   Like the cost assumptions.

11   A.   I think I answered that also.

12   My understanding was we used a contractor that

13   was familiar with cost of environmental dredging and/or

14   the shipyards who had experience with the cost of

15   dredging. And transportation costs are also known by

16   those entities and disposal costs. So --

17   Q.   So can you explain to me or do you know which

18   of the variables were used or considered?

19   MR. CARRIGAN: Vague.

20   THE WITNESS: Yeah, I am not sure I understand

21   the question.

22   BY MS. WITKOWSKI:

23   Q.   I believe earlier, you had mentioned dredging

24   volume or to figure out the cost of dredging a specific

25   polygon you need to dredging volume. And I assume one

1   of the cost factors or elements in there figuring out

2   the cost would be cost per cubic yard of dredging.

3   Do you -- so I would assume that is one

4   variable. Do you know which of the variables were

5   considered?

6   A.   My recollection is if you look at the Exponent

7   report appendices, there's a lot of detail on dredging

8   costs. And that's -- when I say "dredging costs," I

9   mean all of the costs, like preparation of documents to

10   get approvals, staging, you know, there's fixed costs,

11   there's variable costs. And that was done in great

12   detail in the appendix, I believe it's in the appendix.

13   It is definitely in one of the volumes of the Exponent

14   2003 reports. And I believe that was done by Anchor.

15   And it's my understanding Anchor was asked to

16   update those costs since that was done probably even

17   prior to 2003, the date of the Exponent report. It's my

18   understanding that was updated and provided for this

19   analysis.

20   Q.   One question I have about those assumptions and

21   how they work, if you know, from my look at this 1-to-65

22   ranking of the polygons from most contaminated to least,

23   they're not necessarily all adjacent to one another.

24   So for example, those in the first six polygons

25   may be in separate areas of the dredging site.

1   My question for you was: Were they considered

2 as we're going to do these six and then the next six and

3 look at the cost for those? Or was there any sort of

4 economies of scale, oh, look, once we get down to 12,

5 we're already doing several in one area and then we will

6 do several in another area. So by economies of scale,

7 it would reduce the cost?

8   MR. CARRIGAN: Incomplete hypothetical.

9   But you can answer if you understand.

10   THE WITNESS: I'm not positive I understand,

11 but let me try and answer it anyway.

12   When you do a cost estimate, like the one I do

13 remember reviewing years ago in the 2003 Exponent

14 report, as I said, there's fixed costs. Before you even

15 turn over a -- you know, remove a cubic foot, you are

16 going to have -- let's just throw out a number, say a

17 million dollars in just lining everything up, getting

18 approvals, that sort of thing, mobilization.

19   And then they probably didn't take into account

20 the idea that, gee, if you move Polygon 1 and the one

21 right next to it, it's going to cost less than if you

22 move Polygon 1 and Polygon 3 that's a little bit of

23 distance away.

24   You know, that's the actual -- so there is two

25 separate things here is what I'm trying to say. There's

1   the cost estimates that are done a priority. And then

2   there's, okay, now we're going to go out in the field

3   and actually put a barge out there and start dredging.

4   Then they will say, okay, here's the footprint we

5   finally got ordered to clean up. We can decide now

6   whether to go from Polygon 1 to 6 or get 1 and 2 over

7   here and then move over there.

8   They're both active shipyards, so I'm pretty

9   sure that sort of operational coordination of how to

10 actually implement the cleanup was not taken into

11 account to a large degree in doing just the pure cost

12 estimate of how much to remove "X" thousand cubic yards.

13 BY MS. WITKOWSKI:

14   Q.   And that was exactly my question so thank you

15 for understanding even if it wasn't complete.

16   With that said, my understanding is that,

17 again, these are all cost estimates and that the --

18 they're highly dependent on what your underlying

19 assumptions are; is that correct?

20   A.   Correct.

21   Q.   And if you changed or altered some of the

22 assumptions, it could very well change the outcome of

23 this economic feasibility analysis?

24   A.   The dollars would change. And let me point out

25 based on my 20-plus years of experience of doing cost

1   estimates and then going out and implementing that

 2   remediation. I have learned, especially when I was in

 3   consulting, to put a plus or minus almost an order of

 4   magnitude. And I don't recall one project that ended up

 5   costing less than the initial estimate.

 6   MS. WITKOWSKI: I think that might be all of my

 7   questions for you.

 8   Do you mind if we take a break, I will look

 9   through my notes and I think we may be done.

10   MR. CARRIGAN: Very good. Off the record?

11   MS. WITKOWSKI: Yes.

12   (9:13 a.m.)

13   (A brief recess was taken.)

14   (9:22 a.m.)

15   MS. WITKOWSKI: I have no further questions.

16   Thank you, Mr. Carlisle, for your time.

17   THE WITNESS: You're welcome.

18

19   EXAMINATION

20   BY MS. REYNA:

21   Q.   Good morning, Mr. Carlisle. My name is

22   Kristen Reyna, I'm one of the attorneys who represents

23   the City of San Diego in this matter.

24   I would like to take you back to some of the

25   areas of questioning that were -- that you responded to

1 yesterday for Mr. Carlin and Mr. Brown. And I have a

 2 series of follow-up questions for you on a couple

 3 categories in that area.

 4   Yesterday Mr. Carlin asked you whether you had

 5 been involved in any of the development of the factual

 6 or historical allegations regarding the City of

 7 San Diego and the tentative cleanup and abatement order

 8 or draft technical report.

 9   And I have down that you responded to that

10 question "maybe."

11   Is that a fair characterization of your

12 response to Mr. Carlin?

13   A.   I assume that's what I responded yesterday. We

14 could change that to a yes.

15   Q.   Okay. What specific involvement did you have

16 in developing the factual or historical allegations

17 against the City of San Diego and the CIO or the DTR?

18   A.   I recall working with the team, David Barker,

19 and then some of the staff, I think Benjamin Tobler was

20 one to look through the MS4 permit reports, specifically

21 the discharge data and compare it to the California

22 toxic rule criteria.

23   Q.   Is that the extent of your involvement in the

24 development of those allegations?

25   A.   No, as I --

1   MR. CARRIGAN: Yeah, let her finish.

2   THE WITNESS: As I recall, part of that

3   involved looking through the MS4 permits, the various

4   ones that the City of San Diego had and looking at the

5   requirements of those permits. And then applying that

6   to any information we had to see if they were in

7   violation of discharging.

8   BY MS. REYNA:

9   Q.   Have you now expressed the total of your

10 involvement in the development of the factual historical

11 allegations against the City of San Diego?

12   A.   If you like, I can review the City of San Diego

13 section and see if there is any more aspects I

14 participated in.

15   Q.   Yeah, please, if that would help refresh your

16 recollection, please.

17   A.   So in addition to the MS4 discharges, the

18 permit requirements and the associated discharges, which

19 are -- fall under the category of NPDES requirements and

20 regulations, the Chollas Creek outflow creates a plume

21 that contributes to the contaminants of the shipyard

22 sediment site. That's evaluated in part in

23 Section 4.7.1.3.

24   And then there's some data, for example, in

25 Table 4-4 where some sediment samples were taken from a

1 catch basin that had PCBs and pHs. I was involved

2 somewhat in that.

3   I think that covers most everything in general

4 that's in Section 4 of the DTR regarding the City of

5 San Diego.

6   Q.   Did you have any involvement in the factual or

7 historical allegations regarding the City of San Diego's

8 trusteeship of the shipyard site from the early 1900s

9 time frame to approximately 1962?

10   A.   I may have reviewed that section. I don't

11 think I was the primary author in development of that.

12   Q.   With respect to the MS4 or

13 Chollas Creek-related allegations that you just

14 described, would you consider yourself the primary

15 author of any of the sections of the DTR with respect to

16 any of those allegations?

17   A.   No, there's probably very few sections in the

18 DTR where we had one primary author, because it was --

19 as we said yesterday, it's been a collaborative effort.

20 My role would be sometimes to identify some areas to

21 look into. A lot of it, though, was directed by my

22 supervisor, David Barker, or others. And then it

23 sometimes went from David Barker directly to staff.

24 Sometimes it went through me to staff. Sometimes it

25 went through other senior staff down to the line staff.

1   So again, I'm just trying to describe the

2   collaborative effort where it was always a team mix of

3   responsibilities and authorship and review and revision

4   to any written -- written drafts and subsequently final

5   report.

6   Q.   So then it would be fair to say that as far as

7   the San Diego sections or allegations, what you just

8   identified, to your knowledge, those were a

9   collaborative effort of multiple people?

10   A.   Yes.

11   Q.   Including Mr. Barker, Mr. Tobler and possibly

12 others?

13   A.   Yes.

14   Q.   Do you know whether Mr. Barker would be the

15 person most knowledgeable regarding the development of

16 the factual and historical allegations regarding the

17 City of San Diego?

18   A.   I don't recall. I think we named Mr. Barker as

19 the PMK for the section.

20   Q.   Okay.

21   A.   I think you have that information on who's been

22 named as PMK. I don't have that in front of me.

23   Q.   Well, I believe -- I believe Mr. Barker was

24 designated as the PMK on sediment and site

25 investigation. That was the area that I was thinking

1 might be covered by the factual and historical

2 allegations regarding the responsible parties.

3   Do you have any understanding if that's an

4 accurate -- if my understanding is accurate?

5   A.   I don't understand your understanding.

6   MR. CARRIGAN: Yeah. I think it calls for a

7 legal conclusion. You're certainly welcome to ask any

8 questions you might have of Mr. Carlisle about the

9 allegations specifically, see if he has any knowledge

10 about 'em.

11 BY MS. REYNA:

12   Q.   Yesterday, Mr. Carlin also asked you regarding

13 whether you would be providing expert opinions on any of

14 the potentially responsible parties. And I have down

15 that you responded that you might be asked to provide

16 expert opinions on some of the potentially responsible

17 parties.

18   Is that a fair characterization of your

19 testimony?

20   A.   Yes.

21   Q.   Have you been asked, as you sit here today, to

22 actually provide expert opinions on any of the

23 potentially responsible parties?

24   A.   I don't understand what that means. What's the

25 definition of --

1   Q.   Well, I guess what I'm trying to do is draw the

2 distinction between whether you have actually been asked

3 thus far by the cleanup team to provide expert opinions

4 regarding any of the potentially responsible parties or

5 if it's more just that you might be called upon to

6 provide such opinions.

7   A.   I don't recall the cleanup team making that

8 distinction. I mean, I'm available to provide expert

9 opinions.

10   Q.   Do you have any specific expert opinions

11 regarding the City of San Diego?

12   A.   Well, I have what I assume you might call an

13 expert opinion, because I'm not even that knowledgeable

14 about the legal definition of expert opinion as opposed

15 to any other type of opinion.

16   But the -- for example, it's pretty black and

17 white and it doesn't take a whole lot of knowledge to

18 recognize that there is a California toxic rule criteria

19 that determines what levels are potentially toxic and

20 then compare that number to a number for that same

21 chemical that's in a report provided by the City of

22 San Diego. So I could provide an expert opinion about

23 whether your discharge data shows exceedence of the

24 California toxic rule.

25   Q.   And this is specifically in reference to the

1 MS4 discharges?

2   A.   Yes.   Similarly, I could provide an expert

3 opinion about whether the PCB concentrations provided in

4 the catch basins provided in Section 4, whether those

5 concentrations would be at a level that would contribute

6 to the contamination and unacceptable levels at the

7 shipyard sediment site.

8   Q.   So would it be fair to say, then, the areas of

9 your expert testimony with respect to the City of

10 San Diego would be regarding whether the levels of data

11 show that there were exceedences of the toxic rule?

12   A.   I could certainly provide those opinions.

13   Q.   Are there any additional areas of opinions that

14 you would potentially provide regarding the City of

15 San Diego?

16   A.   How is that question any different than one of

17 the first questions where I looked through the whole

18 section and pointed out all of the areas that I worked

19 on?

20   Q.   Right now I'm asking more regarding expert

21 opinions. The first question was more your level of

22 involvement in the development of the factual or

23 historical allegations regarding the City. But if --

24 but if your answer is the same, I mean, that can -- I

25 mean, that can be your answer. But that -- that is the

1 distinction between the two.

2   A.   I'm willing and available to provide expert

3 opinions on those areas we mentioned.

4   Q.   Okay. I just want to make sure that I

5 understand all of the areas on which you might provide

6 expert opinions. So I'm not trying to trick you, I'm

7 just trying to make sure that I'm not going to miss an

8 area that you might be providing an expert opinion on

9 the City of San Diego on. So if we have covered all of

10 the areas, then that's all I need to know.

11   A.   I'm under the impression I cited all of the

12 areas that are covered in the section on the City of

13 San Diego.

14   Q.   Well, I guess one area that isn't covered by

15 the MS4 discharges or Chollas Creek discharges is the

16 liability allegations regarding the City of San Diego's

17 trusteeship regarding the site. Aside from I believe

18 you said you might have reviewed some of those

19 historical or factual allegations regarding the City's

20 trusteeship of the site, do you have any additional

21 opinions or actual opinions regarding the City as its

22 named as a trustee of the site?

23   A.   I assume you're referring to the trusteeship

24 prior to the Port becoming the trustee for the --

25   Q.   Correct.

1   A.   Yeah, I'm not planning on offering any expert

2 opinions on that.

3   Q.   Okay. That's perfect. That's exactly what I

4 was looking for.

5   Now yesterday, I think during Mr. Brown's

6 questions and you actually just mentioned it earlier, I

7 believe you testified that you do have some opinions

8 regarding fate and transport in this action and specific

9 as to what might bear on the City of San Diego, you said

10 that one of those opinions was that Chollas Creek is

11 causing contamination at the site; is that correct?

12   A.   I believe I said it contributed.

13   Q.   Contributed to contamination of the site.

14   I have down that you cited Katz's report as

15 support for your opinion in that respect; is that

16 correct?

17   A.   Yes.

18   Q.   Are there any other documents or materials upon

19 which you rely in making that opinion?

20   And if it helps to reference the DTR, that's

21 totally fine if that helps to refresh your recollection.

22   A.   Thank you.

23   Yes, I see that Katz et al. 2003 cited, which

24 is probably the Katz report you mentioned; Chadwick

25 et al. 1999 would be another reference that might have

1 been used to support those -- those evaluations of how

2 far the outflow during storm events extends from

3 Chollas, mouth of Chollas Creek on into San Diego Bay

4 including the shipyard sediment site.

5   Q.   Do you have any understanding of how many storm

6 events the Katz et al. study studied?

7   A.   I would have to refer back to the study.

8   To add to my previous answer, I see there is

9 reference to Schiff 2003. So, you know, I'd have to --

10 to completely answer your previous question, I would

11 have to go through the entire Section 4 and see what all

12 the references we used to discuss or to support our

13 conclusions about Chollas Creek being a contributor to

14 this contamination of the shipyard sediment site.

15   Q.   Do you want to take a look at Section 4.7.1.3

16 just to refamiliarize yourself with the references cited

17 in that section?

18   A.   Yes. It appears that the primary reference is,

19 again, in Katz et al. 2003 and Chadwick et al. 1999

20 regarding the extent of the plume outflows from

21 Chollas Creek to San Diego Bay which would include the

22 shipyard sediment site.

23   Q.   Does anything in this section refresh your

24 recollection as to how many storm events were studied in

25 the Katz et al. study?

1   For example, the first bullet point under the

2   discussion of the U.S. Navy studies including Katz

3   et al. on Page 4-15.

4   A.   Yeah, it appears from this that that was one

5   storm event in 2001.

6   Q.   Do you have an understanding that the Katz

7   et al. study's main conclusion was that storm water from

8   Chollas Creek was contributing to excess levels of

9   certain constituents at the mouth area of Chollas Creek

10   versus actually out into the bay area?

11   MR. CARRIGAN: The document speaks for itself.

12   But you can answer if you have an

13   understanding.

14   THE WITNESS: As I said yesterday, there's an

15   overlap between the mouth of Chollas Creek and what I'm

16   referring to as the shipyard sediment site which is

17   beyond just purely the shipyard's leasehold.

18   BY MS. REYNA:

19   Q.   In your mind, does that encompass an area

20   outside of the NA22 area that's designated for remedial

21   work in the context of the Chollas mouth TMDL?

22   A.   Could you define the word "that" in your

23   question? You used the -- is that a pronoun? "That"?

24   I didn't know what you were referring to with "that."

25   Q.   Let me look at my question, come up on the

1 LiveNotes.

2   MR. CARRIGAN: Do you want to read it back?

3   MS. REYNA: Yeah, that might be easier. I

4 thought it would be easier to do that.

5   (The record was read.)

6 BY MS. REYNA:

7   Q.   By "that," I meant your prior reference to

8 saying that the Chollas mouth area overlapped with the

9 bay area.

10   MR. CARRIGAN: With the shipyard sediment site.

11 BY MS. REYNA:

12   Q.   It was a reference back to your -- your answer,

13 I think, from the previous question.

14   A.   I'm a little confused now. Can you reform the

15 question and we'll --

16   THE COURT REPORTER: I can read back his answer

17 if you want.

18   MS. REYNA: I think maybe reading back his

19 answer would help.

20   THE WITNESS: And maybe the question before my

21 answer.

22   (The record was read.)

23   THE WITNESS: Yes. I'm going to expand on that

24 because I want to make sure that "yes" applies to what

25 you were asking.

1   If you are asking is it my understanding that

2   the plume that Katz studied extend beyond just the mouth

3   of Chollas Creek area by NA22 and my answer to that is

4   yes. The Katz study talks about going out with toxicity

5   being detected up to a kilometer from the mouth of

6   Chollas Creek and that kilometer will take you well

7   beyond NA22.

8   BY MS. REYNA:

9   Q.   Do you have an understanding as to in what

10 direction that kilometer was measured?

11   A.   I recall looking at his figures and part of it

12 at least went toward the shipyard sediment side as

13 opposed towards Naval station.

14   Q.   Aside from the Schiff Study and the Katz study

15 and the Chadwick study, are there any other reports or

16 documents which you rely on to support your opinion

17 regarding Chollas Creek contributing to excess levels of

18 certain constituents in the bay or the shipyard sediment

19 site?

20   THE WITNESS: Would you repeat the question, I

21 missed the beginning of it.

22   (The record was read.)

23   THE WITNESS: Well, potentially, you can

24 extrapolate from the Exponent data and compare the

25 chemicals found in the sediment with the chemicals

1 reported by the City of San Diego and their storm water

2 run off.

3   As you know, the urban runoff has a lot of

4 typical metals, copper, lead, zinc. And so there's some

5 tangential or some evidence one could use to surmise

6 that some of it could have come from urban runoff.

7 Maybe not necessarily from Chollas Creek but from other

8 discharges from the MS4 system. But not -- but if your

9 question was just specific to studies on Chollas Creek

10 plumes, no, I don't recall looking at any other specific

11 Chollas Creek plume studies. If that answered your

12 question.

13 BY MS. REYNA:

14   Q.   I think you answered my question.

15   But if we took it beyond just looking at the

16 plume studies, you would cite an extrapolation which

17 could be performed regarding certain data; is that

18 correct?

19   A.   Right. It's my understanding, and I recall

20 asking the City of San Diego for their data from the

21 system that exits is discharged via SW4 and SW9 and I

22 was told they don't have data. They have limited funds

23 and they have only collected data for Chollas Creek. So

24 we don't have -- it's my understanding we didn't have a

25 lot of -- or if any, the City didn't provide data for

1 what's in that portion of the MS4 system. Meaning SW4

2 SW9 areas that discharge directly to the shipyard

3 sediment site.

4   Q.   Have we now covered all of the bases for your

5 opinion regarding Chollas Creek's contribution to any

6 contamination at the shipyard sediment site?

7   A.   The fact that the mouth at Chollas Creek TMDL

8 study, which stands for total maximum daily load, it's

9 another project that is done on the sediments at the

10 mouth of Chollas Creek and there was a lot of work done

11 there that showed accumulation of pollutants right at

12 the mouth of Chollas Creek. And that -- you know, that

13 contend to be used to draw the conclusion that some of

14 that, if not all or most of it, came from discharges

15 from the Chollas Creek which is a portion of the MS4

16 system.

17   Q.   But that specific issue deals with the

18 constituents within the mouth area of Chollas Creek; is

19 that correct?

20   A.   Yes.

21   Q.   Which is being handled in the TMDL for the

22 mouth of Chollas Creek?

23   A.   Yes, but I was using that to point out the

24 types of pollutants that come out with storm water.

25   Q.   Okay.

1   A.   And are discharged to San Diego Bay.

2   Q.   I think yesterday you also discussed SW9 to

3 some extent with Mr. Brown's questions. And I had down

4 that you also held the opinion that SW -- discharges

5 from SW9 were potentially a contributor to contamination

6 in San Diego Bay; is that correct?

7   A.   Yes.

8   Q.   Are there any reports or studies which you rely

9 on as the basis of your opinion in that respect?

10   A.   The TMDL data for the sediment in the vicinity

11 of SW9 and the Exponent sample in the vicinity of SW29.

12   MR. CARRIGAN: SW09.

13   THE WITNESS: SW09, I'm sorry, show the

14 chemistry levels in the sediment in the vicinity of that

15 outfall.

16 BY MS. REYNA:

17   Q.   But is the vicinity of that outfall which you

18 are referring to within the polygon NE22?

19   A.   Yes.

20   Q.   Are there any other bases for your opinion

21 regarding SW9 that we have been discussing that you

22 haven't voiced?

23   A.   Not that I can think of.

24   MS. REYNA: I think that's all the questions I

25 have. Thank you.

1   THE WITNESS: Thank you.

2   MR. CARRIGAN: Okay. Let's go off the record

3   briefly.

4   (9:53 a.m.)

5   (A brief recess was taken.)

6   (10:00 a.m.)

7   (Exhibit No. 1003 marked for identification.)

8

9   EXAMINATION

10   BY MR. BENSHOOF:

11   Q.   Good morning, Mr. Carlisle. My name is -- we

12   have met. My name is Ward Benshoof, and I'm with the

13   firm of Alston & Byrd. I'm co-counsel in this matter

14   with Ms. Tracy on behalf of SDG&E, and I have some

15   questions to ask.

16   I have marked initially as Exhibit 1003 the

17   notice of deposition that we filed joining in this

18   deposition. That's just for the record, there's nothing

19   in there that we need to examine.

20   MR. CARRIGAN: It's okay. This is -- we're not

21   going to look at it, he is marking it for the record.

22   THE WITNESS: Okay.

23   BY MR. BENSHOOF:

24   Q.   In terms of the background that you went over,

25   Mr. Carlisle, yesterday, I don't mean to repeat any of

1 it, but I was curious as to how many projects like this

2 you have been involved in and let me define what I kind

3 of mean "like."

4   Involving the same multi-year tasks of a

5 assembling an administrative record to support a

6 technical support -- excuse me, to support a technical

7 report which, in turn, is intended to support a cleanup

8 and abatement order which I understand has been your

9 role in or you have been involved in those tasks in this

10 particular base sediment case, correct?

11   A.   Yes.

12   Q.   And have you had -- you have mentioned other

13 projects you were involved with, the Convair lagoon

14 issues for a brief period of time, it sounded like, and

15 you have discussed a variety of other sites that you

16 have had responsibilities for.

17   And I was just wondering whether any of your

18 prior projects or even current projects involve the same

19 sort of scope and scale of projects that this one has

20 for you?

21   A.   Are you asking do the projects have the same

22 sort of scope and scale or my involvement of the same?

23   Q.   Has your involvement been the same in any other

24 project as it has been in this one?

25   A.   And your definition of "project" is just

1 projects with a regulatory agency that have a cleanup

2 and abatement order?

3   Q.   Right, I'm not addressing your experience in

4 private practice. Now I'm addressing your experience

5 with the Water Board, that period of time.

6   A.   My involvement in other Water Board cleanup and

7 abatement order projects wasn't to the level of the

8 involvement in this project that's gone on for almost

9 ten years.

10   Q.   Have you been involved -- I take it you have

11 been involved, though, as a professional and one of your

12 tasks at the Water Board has been to gather information

13 to support a decision as to whether or not to name

14 someone as a responsible party in a cleanup and

15 abatement order?

16   A.   Yes.

17   Q.   That's a fairly typical task of yours and other

18 Water Board employees?

19   A.   Yes.

20   Q.   And that is part of what you did in this

21 instance?

22   A.   Yes.

23   Q.   You described the manner in which there was

24 almost -- there was a three-tier process or three tiers

25 of personnel that were involved in that task?

1   Tier 1 being -- I believe you mentioned

2   Mr. Barker; Tier 2 being yourself; and Tier 3 being the

3   staff. At least that's what I wrote down yesterday.

4   A.   That's a fair generalization of our

5   organization.

6   Q.   And my interest today is going to be

7   principally on four different sections of the DTR,

8   Sections 3, 5, 6 and 9.

9   So you might have guessed that at the outset

10 that I'm concerned about the section that addresses

11 SDG&E, my client. I'm also concerned about the sections

12 that deal with the shipyard that is south of the SDG&E

13 facility.

14   Now, if I -- and I read the depositions of

15 Cynthia Gorham, Lisa Honma and Ben Tobler.

16   Have you read those depositions, by the way?

17   A.   No.

18   Q.   Did they talk with you at all about the

19 depositions afterward?

20   A.   Probably not more than a minute or two worth of

21 conversation.

22   Q.   I get the sense, and we have got the

23 transcripts here that we can go over if you would like,

24 but I get the sense from reading those depositions that

25 it basically worked in the following fashion, and just

1 correct me if I misunderstand it, that you would give

2 direction to your staff as one would expect a supervisor

3 to do to investigate or draft, in many cases, particular

4 portions of the DTR. They would then follow your

5 direction to create drafts. There would be a meeting

6 following their creation of a draft that typically

7 Ms. Gorham, Ms. Honma or Mr. Tobler would be in with you

8 and Mr. Barker, you and Mr. Barker would have comments

9 on the draft and then they would go back and respond to

10 those comments.

11   Is that a fair generalization of the

12 collaborative process that was followed in putting

13 together particularly Sections 3, 5, 6 and 9 of the DTR?

14   A.   And 3 is BAE?

15   Q.   BAE, excuse me. 5 is --

16   A.   5 is --

17   Q.   -- San Diego Marine Construction, Star &

18 Crescent; 6 is Campbell and 9 is SDG&E.

19   So it's my client and the three shipyard

20 operators are going to be my concern today.

21   A.   And back to your generalization of the process,

22 it's fairly accurate. Up front, though, the first part

23 you have mentioned I think was me giving direction to

24 the staff and it was more like collaboratively,

25 David Barker and I and probably others gave direction to

1 the staff.

2   Q.   Okay.

3   A.   So staff -- we don't follow strict chain of

4 command in our office staff, you know, get direction

5 from me and report back to me or they get direction from

6 Barker and report back to me or they get direction from

7 Barker and report back to Barker. So we -- you know, we

8 blur the lines quite a bit depending upon who is

9 available, whose door is open. You know, we have got

10 cubicles and open communication and we don't follow a

11 strict chain of command.

12   Q.   Let me ask whether or not Mr. Tobler was the

13 one witness in particular that described this process of

14 creating drafts and then coming into a room and

15 discussing those drafts with you and Mr. Barker and then

16 going and reworking those.

17   Were any of those drafts saved to your

18 knowledge?

19   A.   No.

20   Q.   So -- and you're absolutely sure about that?

21   A.   I'm fairly sure about that.

22   Q.   Okay. Because the process was in place was to

23 not save drafts. Would that be a fair and accurate

24 description?

25   A.   The bulk of Tobler's work, at least I remember

1 one aspect clearly, was to, as I mentioned earlier, pore

2 through the -- for some of these entities, pore through

3 their discharge data, their NPDES reports, and compare

4 numbers to the -- to the DTR.

5   The other aspect was to pore through their MS4

6 permits or their NPDES permits and see what requirements

7 are in there that they might have violated. Sometimes

8 there were narrative, mostly they were narrative

9 requirements to not discharge toxic pollutants, for

10 example.

11   And so, you know, there wasn't a -- his output,

12 as I recall, there wasn't a lot of draft to it in terms

13 of it was just saying this report had this number for,

14 say, copper and the DTR number for copper is this. So

15 it was, you know, prepare a table, I guess you could

16 call that a draft. But it's not a big pro's analysis.

17   Q.   Not something that goes through multiple

18 changes?

19   A.   Right.

20   Q.   So these were -- they might have been a draft,

21 but they were relatively simple and oftentimes what he

22 came in with was the final?

23   A.   Oftentimes it was a table that he came in with.

24   Q.   While I'm -- now, does Mr. Tobler still work

25 for the Water Board?

1   A.   Yes.

2   Q.   How did you find his performance as a

3 supervisor?

4   A.   He didn't perform as a supervisor.

5   Q.   No, no. As his supervisor, you were his

6 supervisor. I take it you found that he was timely and

7 accurate in his job?

8   A.   Yes.

9   Q.   Performed well?

10   A.   Yes.

11   Q.   Understood your instructions?

12   A.   On this project.

13   Q.   Did you discuss with him the conversation that

14 you and he had about how it was that SDG&E came to be

15 named as a PRP, after his deposition?

16   A.   No.

17   Q.   Because he testified that he asked you when

18 he -- when he was assigned to the project, he testified

19 that he asked you how it was that SDG&E came to be named

20 and at Pages 16 -- 116 and 117 of his transcript, he

21 says, "I think he told me something like NASSCO and

22 SW Marine wanted more people on board."

23   Do you recall that -- and he identified that

24 that conversation, what the basis was for naming SDG&E

25 was sometime in 2004.

1   Is that a conversation that you remember, too,

2   Mr. Carlisle?

3   A.   No.

4   Q.   You would agree that it would be inappropriate

5   to simply name somebody as a PRP because somebody else

6   wanted them on board?

7   A.   No. I would agree that it would require some

8   additional information. Are you saying solely?

9   Q.   Well --

10   A.   I mean, what would that person's wants be based

11   on? That would be the defining question.

12   Q.   Do you think you told him in 2004 that NASSCO

13   and Southwest Marine had wanted more people on board and

14   that's why SDG&E was named? Can you imagine telling him

15   that?

16   MR. CARRIGAN: Asked and answered.

17   THE WITNESS: I don't recall telling him that.

18   BY MR. BENSHOOF:

19   Q.   Do you think it would be appropriate? I take

20   it your testimony is you can imagine a circumstance

21   under which it would be appropriate for the Water Board

22   to simply name somebody as a PRP because two other PRPs

23   wanted them involved.

24   A.   Let me explain that it's my recollection that

25   in the sequence of events which you might recall better

1   than me, we sent an investigative order to NASSCO and

2   Southwest Marine perhaps at the time that became BAE to

3   investigate the shipyard sediment site to determine, you

4   know, whether it needs to be cleaned up, which triggered

5   the Exponent report investigation. And I recall getting

6   input from Southwest Marine/BAE, specifically

7   Shaun Halvax, indicating that for starters they have

8   only been there since -- I believe it's 1979. So there

9   were other tenants, in addition, there's other

10   dischargers in the neighborhood or potential

11   dischargers.

12   So our process is to try to expand any cleanup

13   and abatement order to include any PRPs or even better

14   yet, before we go to the stage of issuing a cleanup and

15   abatement order, we issue an investigative order

16   requesting a technical report to potential responsible

17   parties, not parties that we already decided are

18   responsible parties, but potential responsible parties

19   who we suspect may have discharge waste contributing to

20   a condition of pollution and nuisance.

21   So it was not based on just, as your question

22   implies, some blind notion that, gee, we better drag

23   some more people into this. There was a lot of good

24   reason to suspect that a major power plant was in

25   operation for 50 years, plus or minus, might have had

1 some discharges into the neighborhood.

2   Q.   And so you would agree that it would be wholly

3 inappropriate to add somebody as a PRP just because two

4 of the major PRPs wanted them involved?

5   A.   The question leaves out a step. I believe the

6 sequence of events was we sent an investigative order to

7 all of these PRPs, or the ones we could readily

8 identify, and asked them to submit a technical report,

9 that we were going to use that information to make a

10 decision about whether to name them in a cleanup and

11 abatement order.

12   Q.   Did you conclude from the information you got

13 back as a result of that order that the contamination in

14 the base sediment couldn't be explained solely by

15 discharges from the BAE San Diego Marine Construction

16 Campbell shipyard site?

17   A.   That isn't the way my thought process went.

18   Q.   I appreciate that.

19   So the answer is no, you didn't. You describe

20 that you sent out an investigative order, got a bunch of

21 stuff back from their consultant. And my question was:

22 Because you're implying that that -- it was that data

23 product that lead you to name SDG&E and I'm just -- I

24 inferred, then, that you must have concluded that what

25 you got back from Exponent necessarily lead you to

1 believe that the contamination present could not be

2 explained by discharges solely from -- and I'm now up at

3 the northern shipyard -- BAE, Campbell or San Diego

4 Marine Construction? Or haven't you gotten to that

5 point yet?

6   Long question. Do you want me to --

7   A.   Yeah, I'm waiting for the question mark.

8   Q.   Question mark.

9   Did you conclude, based upon the results of the

10 investigative order issued to the shipyards -- I'm

11 talking -- can we call them northern shipyard? Does

12 that make -- I'm excluding NASSCO for most of my

13 questions. I'm really interested in the ones just south

14 of the SDG&E facility.

15   A.   I'm comfortable with you referring to that as

16 BAE or Southwest Marine.

17   Q.   By BAE, I mean BAE and all of its predecessors.

18   A.   I'm comfortable with that.

19   Q.   So when you got the technical data back from

20 the investigative order, did you conclude that that data

21 excluded the possibility that the sediment contamination

22 you were concerned with had to have been contributed to

23 by somebody other than the BAE shipyard?

24   A.   That doesn't describe my process at all. So

25 the answer would be no.

1   Q.   Okay. Have you, at any time, ever reached -- I

2 mean, you described at some length your expertise,

3 applying that expertise, have you, at any time,

4 concluded on the basis you reviewed in the whole course

5 of this that the shipyard, BAE shipyard necessarily

6 could not have been the sole contributor to the

7 contamination or the condition of pollution or nuisance?

8   A.   I'm having trouble with the way you are using

9 the phrase, based on the data, concluding that so-and-so

10 couldn't have been the sole contributor. Because that's

11 not how I go looking about for PRPs.

12   I approach it -- if you would like me to

13 explain.

14   Q.   Please do.

15   A.   I approach it with the idea of what entities

16 could be a contributor not going backward from the way

17 you are describing it, but I look in the neighborhood of

18 a known contaminated site and try to identify all of the

19 potential responsible parties, whether they have

20 contributed, you know, 1 percent, 10 percent,

21 90 percent, you know. That's not our job to allocate,

22 but I'm just saying if there is an entity in the

23 vicinity that -- and a completed or potentially

24 completed pathway to the contaminated -- to the

25 contamination, we consider them for issuing an

1 investigative order or a cleanup and abatement order.

2   Q.   The -- are you the person most knowledgeable

3 about that judgment insofar as SDG&E is concerned?

4   A.   I was -- participated in that judgment. No, I

5 don't --

6   Q.   And I don't mean to use that person most

7 knowledgeable as a legal phrase, Mr. Carlisle. I mean

8 to use it in a sense of in which most lay people

9 understand it as somebody that knows the most. And you

10 have worked with this group for ten years, you're

11 probably the one in the best position to tell us who

12 would, amongst your group, be the individual that knows

13 the most about Section 9 of the DTR.

14   A.   Given the collaborative process, I think it

15 would be difficult to pin down any one person. I was

16 involved in this section. David Barker, the staff. And

17 I --

18   Q.   I appreciate that.

19   A.   I'm having -- I have a little trouble with you

20 using the "person most knowledgeable" phrase. I

21 understand you're an attorney, but you are telling me

22 not to use the legal definition of a legal term?

23   Q.   Correct.

24   A.   By the way, I had not heard the term "person

25 most knowledgeable" or "/PMK" until two weeks --

1   Q.   Let me rephrase the question.

2   A.   May I finish my answer?

3   Q.   Please do.

4   THE WITNESS: Could you read back the beginning

5   of my answer so I --

6   BY MR. BENSHOOF:

7   Q.   You said you hadn't heard about it. And I

8   don't want to use that phrase, Mr. Carlisle, because we

9   are fencing over that and I don't want to do that --

10   A.   You're not letting my finish my answer.

11   Q.   -- wasting all of our time.

12   THE WITNESS: Could you read back the beginning

13   of my answer before he interrupted.

14   (The record was read.)

15   THE WITNESS: Until two weeks ago.

16   Thank you.

17   BY MR. BENSHOOF:

18   Q.   Okay. Let's just put the delete key on that

19   phrase. And let's talk about it in the lay sense of

20   people that worked together, and I'm asking you about

21   that, you have worked with other people. Many have been

22   named.

23   Who do you think knows the most about what went

24   into Section 9 of the DTR, of the whole group? If you

25   had to rank the whole group that you have worked with

1 for ten years, who would you say knows the most about

2 the content of Section 9 of the DTR?

3   A.   I don't know. I can't rank them.

4   Q.   Okay.

5   A.   It's a collaborative process.

6   Q.   If somebody that you really wanted to give the

7 answer to asked you that question, where would you go?

8   A.   You don't want me to guess, so I'm not going to

9 guess on a ranking.

10   Q.   Mr. Brown gave you an example of the difference

11 between a guess and an informed estimate of something.

12   I had nothing to do for ten years with what you

13 had to do with. So if I were to have to try to rank

14 people, it would be a complete guess. But you're

15 obviously a very talented individual who spent a lot of

16 time on this project for ten years. That gives you,

17 Mr. Carlisle, a foundation upon which to make what the

18 law calls an informed estimate.

19   Understood? The difference between a guess --

20 me guessing who was in charge and who knew the most

21 versus you?

22   A.   I understand the concept. I don't understand

23 exactly where that line is. Because you are -- you are

24 implying that is a bright line.

25   Q.   No. No.

1   A.   Well, there has to be a line between --

2   Q.   You have been around too many lawyers.

3   What I'm trying to --

4   A.   I know that.

5   Q.   And we all sympathize with that.

6   Because I'm trying to take it out of that

7   context, Mr. Carlisle, and yet we are fencing over a

8   legal concept. And I am trying to take it out of that

9   and get you to respond as an ordinary person in an

10   office who has worked with a group of people for ten

11   years. And if your answer is you have no idea who knows

12   the most about the Section 9 the DTR, then that is your

13   answer. But I want to make sure you're answering it as

14   a lay witness and not as a jailhouse lawyer.

15   A.   So trying to help you out and give you a more

16   definitive answer that you are looking for, I would rank

17   David Barker No. 1 and I don't know who No. 2.

18   Q.   We are talking about Section 9?

19   A.   Yes. That's the --

20   Q.   San Diego Gas & Electric?

21   A.   SDG&E section, yes.

22   Q.   So if we wanted to find out from the person

23   that knows the most why the different findings reflected

24   in Section 9 were arrived at, we would have to take the

25   deposition of Mr. Barker?

1   A.   That's --

2   Q.   As far as you're concerned?

3   A.   That's my estimation.

4   Q.   He will thank you for that, by the way.

5   Sorry, that's facetious.

6   And you wouldn't rank yourself second?

7   A.   Let me explain why I ranked Barker No. 1,

8 because he tended to have final review as the

9 most-senior person on the project with the longest

10 history on the project with the most knowledgeable about

11 water quality regulations, because he has been there

12 30 -- 30 years, plus or minus. I have been there 11

13 years in terms of applying the water code, for example.

14 So -- and again, he was the senior final reviewer of

15 most of the sections in the DTR, or a lot of the

16 sections in the DTR.

17   Potentially, I could be ranked No. 2. We had

18 attorneys involved, one or more, that also had input on

19 allegations naming parties. You know, as you know from

20 my background --

21   Q.   Sure.

22   A.   -- I'm a technical type, not a -- interpreting

23 of the water code and our authority to name parties.

24   Q.   Was there any -- in the course of developing

25 the DTR and specifically the sections on San Diego Gas &

1 Electric and the BAE shipyard operators, did you have

2 any type of fact check verification process in place

3 where factual statements or assertions were subject to

4 some kind of review before they were put in the

5 document?

6   A.   That's a pretty general question. Do you have

7 any specific statements?

8   Q.   Yeah. Could you turn to Page 9-4 of the DTR.

9   There is a statement in the beginning of the

10 third paragraph. It's a factual statement. It states,

11 "The evidence of PCB discharges is of particular concern

12 as PCB sediment concentration levels in the vicinity of

13 the MS4 storm drain SW4 are the highest in the shipyard

14 sediment site."

15   That's one of many factual statements of that

16 sort. Whose responsibility was the accuracy of that

17 statement? Anybody?

18   A.   Well, it would be the team. In terms of an

19 individual, it might have been me at the time or

20 David Barker.

21   Q.   You're not sure. And I appreciate,

22 Mr. Carlisle, that you worked on this section in

23 2005/2006, in that time frame; am I correct?

24   A.   Probably.

25   Q.   So it's taking you back a little time. And by

1 all means, because it is, feel free to answer just as

2 you have or if you need time to think about an answer,

3 this isn't a beat-the-clock exercise. We are going back

4 in time and in fairness to you, you need to be able to

5 think about the question. Okay? I mean, I want you to

6 know that's part of the ground rule because when you

7 answer, it's like you have thought about the question

8 and I'm going to assume that you know what you are

9 saying. But if you are at all hesitant, just say, you

10 know, I am not sure. I need to think more about that or

11 whatever the facts are.

12   But that particular statement we think is

13 inaccurate and we'll go through it. But I'm wondering

14 who was responsible for it. And you say it could have

15 been yourself, it could have been Mr. Barker, you're not

16 sure?

17   A.   And it could have been someone else.

18   Q.   Okay. But when a statement -- your job was to

19 review the document. Am I correct?

20   A.   Portions.

21   Q.   Okay. Did you have a responsibility to review

22 Section 9?

23   A.   Portions.

24   Q.   I have a feeling you're going to say any

25 question I ask you didn't have a responsibility to

1 review that section.

2   How many portions of Section 9 did you have a

3 responsibility to review?

4   A.   I don't have that specific of a recollection on

5 stuff I did -- what are we talking -- seven years ago,

6 1,000-page document not counting appendices.

7   Q.   Okay. So you don't know if you had a

8 responsibility to review the accuracy of representations

9 regarding evidence of PCB discharges?

10   A.   If you wish, potentially, this paragraph refers

11 to the Exponent data, specifically the samples in the

12 vicinity of outfall SW49. So we could go look at the

13 Exponent data for the stations.

14   Q.   Yeah, we can -- fair enough. I mean, I raise

15 it. We can show you why we're concerned with the

16 accuracy of that statement together with several others

17 in Section 9. But let's go to the Exponent data and

18 we'll mark this as 1004.

19   (Exhibit No. 1004 marked for identification.)

20 BY MR. BENSHOOF:

21   Q.   It's an excerpt, Mr. Carlisle, if you recognize

22 the full Exponent report is rather lengthy.

23   MR. DART: Counsel, do you have other copies?

24   MR. BENSHOOF: I'm sorry, I don't.

25   MR. CARRIGAN: Just let the record reflect that

1 this is an incomplete copy of Volume I of the document.

2   MR. BENSHOOF: We can bring the full document

3 in at the appropriate time if you have concerns with it,

4 Counsel, but, yeah, I --

5   MR. CARRIGAN: Yeah.

6   MR. BENSHOOF: All of my exhibits are going to

7 be excerpts because the documents are so bulky that

8 there is no other way to physically handle them.

9 BY MR. BENSHOOF:

10   Q.   And before you criticize the excerpt that I

11 identified, Mr. Carlisle, let me ask you whether SAR

12 Page 105787 illustrates the -- well, back up.

13   As far as the Water Board was concerned, the

14 identification of the sampling points in the vicinity of

15 outfall SW4 are illustrated on Table 9-6, Page 9-15 of

16 the DTR. Let's go to that first. And those sampling

17 points that the Water Board considered to be in the

18 vicinity of SW4 outfall or SW20 through SW25, correct,

19 as illustrated in Table 9-6?

20   A.   Yes.

21   Q.   And those sampling points, in turn, are

22 displayed on Figure 2-4 of the Exponent exhibit at SAR

23 Page 105787; is that correct?

24   A.   On Figure 2-4, I can't seem to locate the

25 outfall.

1   Q.   I can't either, but do you know from your --

2 even though it's not marked, I take it you know from

3 your participation in putting this data together that

4 it's in the vicinity of sampling points SW20 through 25.

5 I mean, that's what your report table says, correct?

6   A.   I'll agree.

7   Q.   Now, let's then turn to the data from those

8 sampling points, but just preliminarily, the factual

9 statement that I have concern about in the DTR that you

10 were -- had some responsibility for is that PCB

11 discharge or the evidence is that PCB sediment

12 concentration levels in those five -- at those five

13 sampling points are the highest of the sediment site,

14 correct?

15   A.   Yes.

16   Q.   Now, I think you will agree with me when you

17 have a chance to look at it that that's an incorrect

18 assertion, and I would ask you to look at what we'll

19 mark as 1005, again, excerpts from Volume II of the

20 Exponent report and we will have that marked and I would

21 like you to turn to SAR Page 651 when we do.

22   (Exhibit No. 1005 marked for identification.)

23   THE WITNESS: What page?

24 BY MR. MR. BENSHOOF:

25   Q.   The data is on Table B1-7. And I want you to

1   look at, if you would, sir, Page 10651.

2   Would you agree that that reflects the PCB data

3   for Sampling Points -- Sampling Points 1 through

4   extending to the next page, 36?

5   A.   It's not the complete data.

6   Q.   It shows -- excuse me, it's not what?

7   A.   The complete data. There is also core data.

8   Q.   Correct. We can turn to that later. This is

9   the surface sediment data, correct?

10   A.   Probably.

11   Q.   Now, looking at that, would you agree that the

12   highest concentration of total Aorchlor is -- for the

13   Sampling Points 20 through 25 is 3400 parts per -- these

14   are in parts per billion?

15   A.   Would you repeat that?

16   Q.   Do you see that the highest concentration for

17   the sampling points in the vicinity of SW4, which is

18   referred to in your statement in D9, is 3400 parts per

19   billion at SW21?

20   A.   Yes.

21   Q.   And it's clear that the statement in the DTR is

22   inaccurate, is it not, sir, to you in looking at other

23   sampling points. Clearly the higher concentrations are

24   elsewhere. You agree with me on that?

25   A.   It appears that you are correct based on the

1   surface data and --

2   Q.   Do you think it's different if we looked at the

3   core?

4   A.   And --

5   MR. CARRIGAN: Okay. Just -- Ward, if you just

6   let him finish.

7   MR. BENSHOOF: Okay.

8   MR. CARRIGAN: I recognize that -- please just

9   let him finish.

10   THE WITNESS: And perhaps if the draft DTR gets

11 revised, that paragraph on Page 9-4 it should say are

12 some of the highest.

13 BY MR. BENSHOOF:

14   Q.   Well, that might make a difference in terms of

15 the implication of the finding, correct?

16   I mean, the point of this was to try to link

17 SDG&E with the PCB concentrations, correct? That was

18 the whole point?

19   A.   The point was to show there are high PCB

20 concentrations in the vicinity of SW4.

21   Q.   Now, you said if it gets revised. Are your

22 plans to change the DTR?

23   A.   Draft reports always get revised, because the

24 board doesn't act or finalize, you know, it doesn't make

25 their final decision with a draft.

1   Q.   Would you agree it appears that this report

2   should be revised to correctly reflect the PCB sediment

3   concentration data?

4   A.   Yes.

5   Q.   Now I don't want to leave any implication that

6   the core data is different, Mr. Carlisle, so if you

7   would look at SAR 106107, and I know you didn't mean to

8   say that. But let's just make sure that we don't leave

9   here thinking that the statement could have been at all

10   accurate.

11   Looking at the core data, I take it you see

12   that a correct statement would be that the PCB

13   concentrations at that location, SW4, are much less

14   than, for example, SW4 or SW8?

15   A.   And you are pointing to Stations SW4, SW8, that

16   are closer to SDG&E's cooling water outfall.

17   Q.   And also a good number of other shipyard

18   operations, correct?

19   A.   I don't know what you mean by good number of

20   shipyard operations. The whole site's got a good number

21   of shipyard operations. I don't know one portion of the

22   site versus another that you would characterize as

23   having more shipyard operations.

24   Q.   Because the whole site had ample shipyard

25   operations that contributed PCB contamination to the

1 bay, correct?

2   A.   No, that's not what I'm saying.

3   Q.   Oh, you're not. What were you saying?

4   A.   I would just explaining my understanding of the

5 site has a lot of shipyard operations. I wasn't adding

6 the term "PCBs" to that statement.

7   Q.   And as a matter of fact, I went through

8 Sections 3, 5 and 6, Mr. Carlisle, and I counted one

9 time in each section that the word "PCB" was even

10 referred to.

11   And my question is: Were you unaware when you

12 were putting this together that shipyard operations of

13 BAE and their predecessors contributed substantial PCB

14 contamination to the bay sediments?

15   MR. DART: Objection. Assumes facts, lacks

16 foundation.

17   THE WITNESS: I could answer that if you would

18 show me some facts to that effect. But let me back

19 up --

20 BY MR. BENSHOOF:

21   Q.   No, I'm not --

22   A.   Can I finish --

23   Q.   You answered it.

24   A.   -- or not?

25   No, how does this work? I thought I get to

1 finish my answer.

2   Q.   If you are answering the question.

3   MR. CARRIGAN: I think you're consistent --

4   THE WITNESS: You're not --

5   MR. CARRIGAN: Hold on a second.

6   I think you're consistently, Mr. Benshoof,

7 interrupting the witness' response. I understand that

8 may be your technique or you may think that is

9 persuasive. But please allow the witness to finish.

10   MR. BENSHOOF: I'm duly admonished.

11   THE WITNESS: Could you read back up to my word

12 "and," please.

13 BY MR. BENSHOOF:

14   Q.   You wanted me to show you some facts and --

15   MR. CARRIGAN: Okay. Hold on. So the previous

16 question is withdrawn? Is that it? I mean --

17   MR. BENSHOOF: I'm going to --

18   MR. CARRIGAN: You're not letting the witness

19 respond.

20   MR. BENSHOOF: The witness' last answer was I

21 could if you showed me some facts. Is that what you

22 want me to do.

23   THE WITNESS: No, my last question ended in the

24 word "and."

25   MR. BENSHOOF: Okay. Sorry.

1   THE WITNESS: My last answer ended in the word

2   "and."

3   (The record was read.)

4   THE WITNESS: So I was trying to back up to

5   point out that what I -- or reiterate what I already

6   answered and that is you're describing a process that I

7   don't follow, we typically don't follow as opposed to

8   the process we do follow and find out -- identify

9   potential responsible parties based on is there a

10   likelihood did they contribute anything, not the way you

11   are describing that we shouldn't identify additional

12   responsible parties because the ones we already have

13   identified, i.e., the shipyards may have discharged

14   PCBs.

15   I guess what I'm trying to describe is kind of

16   the joint and several liability CERCLA concept of, you

17   know, in for a penny, in for a dollar.

18   And thank you for letting me finish.

19   BY MR. BENSHOOF:

20   Q. Pardon me, yeah, I shouldn't. Sometimes I rush

21   my questions, too. And that's not -- that's a bad

22   habit. So don't -- Mr. Carrigan is quite right, I need

23   to slow down to make sure you have time to fully answer.

24   Did you instruct your staff to comprehensively

25   evaluate the various sources of shipyard operations that

1   could lead to PCB contamination of the bay?

2   A.   No.

3   Q.   Why not?

4   A.   Because we had sufficient evidence that the

5   shipyards were dischargers contributing to the

6   contamination, therefore, we had sufficient evidence to

7   name them in the cleanup and abatement order.

8   Q.   Is it your testimony you weren't trying to link

9   SDG&E to the cleanup and abatement order through PCB

10   contamination in the sediment? I mean, that's what you

11   were trying to do in Section 9, correct?

12   A.   That's one aspect.

13   Q.   But I take it, Mr. Carlisle, it would make a

14   difference to you, would it not, who discharged the PCB

15   concentrations that are present in the bay sediment?

16   A.   No, what made a difference to me was could

17   SDG&E have had PCBs that may have been discharges and

18   discharged to the land where they may have been further

19   discharged to waters of the State to the site. And that

20   answer was clearly yes.

21   Q.   We'll get to that. But I'm trying to

22   understand why the word "PCB" occurs once and once only

23   in Sections 3, 5 and 6. And it looks, from my vantage

24   point, Mr. Carlisle, that it was ignored. But I take it

25   that's not what you are saying?

1   A.   Correct.

2   Q.   So you are saying that you did want your staff

3 to comprehensively investigate the degree to which the

4 shipyards were responsible for the PCB contamination

5 found in the bay sediments?

6   A.   No, I didn't say that either. I was trying to

7 explain my process of identifying PIPs. Once we have

8 them in, meaning NASSCO and BAE identified as

9 dischargers to participate in a cleanup and abatement

10 order, there was no need to dig further and get to the

11 specifics, because as you know, probably better than me,

12 the regional board does not determine allocation and

13 apportion responsibility.

14   Q.   You were seeking to develop an explanation for

15 the contamination that was -- had been detected in the

16 bay sediment, correct? What was it caused by? Was that

17 of concern to you in putting this together?

18   A.   We were seeking to identify potential

19 responsible parties.

20   Q.   Now -- but are you saying that it didn't make

21 any difference to that determination whether the

22 concentrations present of PCBs present in the bay

23 sediment or any other chemical of concern could have

24 been solely due to shipyard operations?

25   THE WITNESS: Would you please read back the

1 question.

2   (The record was read.)

3   THE WITNESS: It would have made a difference

4 if there was evidence that the PCBs in the sediment were

5 solely attributed to the shipyards. But I didn't see

6 any evidence to that effect.

7 BY MR. BENSHOOF:

8   Q.   And yet you agree that no comprehensive

9 evaluation of shipyard contributions to PCB

10 contamination was ever made?

11   A.   Yes.

12   Q.   And do you agree that -- and we can go through

13 all of the sections, but in Sections 3, 5 and 6, nowhere

14 does the Water Board ever describe that any chemical

15 used by the shipyards or any material used by the

16 shipyards contained PCB constituents?

17   MR. DART: Objection, misstates the documents.

18   MR. CARRIGAN: Join.

19   MR. DART: Document speaks for itself.

20 BY MR. BENSHOOF:

21   Q.   Well, would you consider it, knowing -- I mean,

22 you have described your expertise in the field. As an

23 expert in the field, would you consider it a major fault

24 of any assessment, and you've done lots of environmental

25 assessments, would you consider it to be a major fault

1 to fail to identify a significant chemical of concern

2 used in a particular business operations at multiple

3 points of that business?

4   A.   That sounds like a theoretical, and so I think

5 the answer would be no. Depends upon the investigation

6 and the situation.

7   Q.   Okay. Let's take it out of the theoretical and

8 into the real.

9   Could you turn to Page 3 -- let's just take 3.4

10 of the DTR. You are talking about BAE's operations but

11 the same description of operations is contained in other

12 portions of the document for the other shipyards.

13   Just look through that. Do you see PCB

14 mentioned a single time as a chemical used in any of

15 these many applications of the shipyard?

16   A.   No, but it could be inferred.

17   Q.   You are an expert in, amongst other things,

18 conducting Phase 1s?

19   A.   Yes.

20   Q.   And isn't it a minimal criteria in Phase 1s to

21 accurately describe the chemical usage of the business

22 being examined?

23   A.   Depending upon the objective, but yes,

24 typically.

25   Q.   And if you were -- you know from your

1 background that beginning in the late 1920s, shipyards

2 used PCBs in any number of different operations,

3 correct?

4   A.   Yes.

5   Q.   And you know from your background that ships

6 indeed beginning in the 1920s had paints and gaskets and

7 lubricating oils, cutting oils, hydraulic fluids, all

8 manner of facilities and equipment that contained PCBs,

9 correct?

10   A.   Yes.

11   Q.   Honestly, Mr. Carlisle, wouldn't you give this

12 an F if you were grading it for purposes of being the

13 sufficiency of Phase 1 and accurately describing the

14 chemicals used by a facility being evaluated --

15   MR. CARRIGAN: Objection.

16 BY MR. BENSHOOF:

17   Q.   -- to not mention -- excuse me.

18   MR. CARRIGAN: Go ahead and finish, Ward.

19   MR. BENSHOOF: Yeah.

20 BY MR. BENSHOOF:

21   Q.   -- to not mention a significant chemical

22 constituent that was not only a significant chemical

23 constituent used throughout the shipyards, but one found

24 in significant concentrations adjacent to the shipyard?

25   MR. CARRIGAN: Objection. Document speaks for

1 itself and it is not a Phase 1 report.

2   MR. DART: Join. Argumentative, document

3 speaks for itself.

4 BY MR. BENSHOOF:

5   Q. Do you not regard this, sir -- applying the

6 standards of your expertise, do you not regard this

7 description of materials used by BAE as totally

8 inadequate for failing to mention, even mention once, a

9 significant usage of PCBs?

10   MR. DART: Objection, the same.

11   MR. CARRIGAN: Yeah, same objections and I

12 think also incomplete hypothetical.

13   MR. DART: The term was mentioned multiple

14 times. Where are we going to this? Should we point to

15 the pages where it's mentioned?

16   MS. TRACY: Could you read back the objection

17 for counsel for BAE, please.

18   MR. CARRIGAN: Do we have a question pending?

19   MS. TRACY: Yes, we did have a question pending

20 and he started an objection and you started to answer

21 and I wanted to read --

22   THE WITNESS: He actually said another question

23 before I could answer the first question.

24   MS. TRACY: Complete havoc.

25   I'm sorry, could you please read back the

1 objection.

2   (The record was read.)

3   THE WITNESS: If you like, we could read back

4 the question and I'll --

5 BY MR. BENSHOOF:

6   Q.   I'll state it again.

7   MR. CARRIGAN: I think we have a question

8 pending.

9 BY MR. BENSHOOF:

10   Q.   Applying the professional standards that you

11 followed before joining the Water Board for an adequate

12 Phase 1 description of a facilities operations and

13 chemicals used, wouldn't you regard this as inadequate?

14   And by "this," I mean Page 3.4 description of

15 the BAE chemicals.

16   MR. CARRIGAN: Just the page, not the section?

17 BY MR. BENSHOOF:

18   Q.   The description's on the page.

19   A.   You may notice Page 3.4 doesn't mention a lot

20 of chemicals at all. It is more about processes. As a

21 matter of fact, the lead-up into that page says the

22 indust- -- on the previous page, 3-3, the industrial

23 processes, not the chemicals, processes at the BAE

24 systems facility include the following, and I'll add the

25 word "processes."

1   And the third-to-the-last bullet, electrical

2   repair, maintenance installation, the repair,

3   maintenance, installation of electrical systems involve

4   the use of numerous hazardous materials including, and I

5   will add the words "but not limited to," it just says

6   including trichlorethylene, trichloroethane, methylene

7   chloride, and acetone.

8   So anybody with experience knows that you could

9   easily add the conclusion, the knowledge, that

10 electrical components of certain vintage likely had

11 PCBs.

12   Q.   Did you work -- oh, excuse me.

13   A.   Maybe I can even help you out with my answer a

14 little more is I'm not denying that it's extremely

15 likely there are PCBs at various locations at BAE and as

16 I explained, we didn't think that was necessary to

17 investigate because, again, we felt under the water code

18 we had sufficient evidence to name BAE as a discharger

19 in this action.

20   Q.   Were you concerned that had a fair and full

21 evaluation of PCBs been done that that might exonerate

22 SDG&E?

23   A.   No.

24   Q.   Was a reason that PCBs were never associated

25 with any of the materials used because you were

1   concerned that that would exonerate SDG&E?

2   MR. CARRIGAN: Misstates the document,

3   misstates the DTR and the cleanup order.

4   BY MR. MR. BENSHOOF:

5   Q.   Let me ask another --

6   MR. DART: Join.

7   BY MR. BENSHOOF:

8   Q.   -- related question.

9   A.   Can I answer that question first?

10   Q.   I'm going to withdraw it.

11   A.   You're confusing me.

12   Q.   It's objected to.

13   A.   You ask questions and they get objected to and

14   with all of the previous attorneys, then I go ahead and

15   answer the question. Instead, you're firing question

16   after question and now we gotta read 'em back until I

17   know which question we're on. But yeah, if you clearly

18   withdraw it, that will help me.

19   Q.   I will ask it again.

20   Was the reason that PCBs were never associated

21   with any of the shipyard operations your concern that

22   that would exonerate SDG&E?

23   MR. CARRIGAN: Misstates facts in the record,

24   misstates the document.

25   THE WITNESS: No, I wasn't concerned.

1 BY MR. BENSHOOF:

2   Q.   Are you aware, as a result of all of your

3 expertise, Mr. Carlisle, that up to its ban in 1979 it

4 was typical for paints, and marine paints in particular,

5 to contain substantial concentrations of PCBs?

6   A.   I'm a little troubled with your term, undefined

7 term "substantial," but I am aware that marine coatings

8 and a lot of other materials contain PCBs.

9   Q.   Did you ever look at any EPA data that talked

10 about the concentrations?

11   A.   I may have. I don't recall the numbers, but

12 again, I'll agree that a lot of facilities, especially

13 in the vicinity of waterways, the ocean, the bays,

14 contained PCBs.

15   Q.   And you also are aware that various studies

16 have found that paint chips from shipyard blasting

17 operations as well as overspray in the process of

18 painting marine hulls contributed substantially to PCB

19 impacts to sediments?

20   A.   I don't have specific knowledge about the paint

21 chips part of your question.

22   Q.   Okay. We'll get to that.

23   How about the overspray paints in general

24 leading to PCB contamination from shipyards?

25   A.   I'm not personally familiar with that -- any

1   studies along those lines either.

2   Q.   Did you ever ask your staff to investigate

3   whether or not -- you were aware that the shipyard

4   operations involved very substantial sandblasting and

5   painting operations over the years?

6   A.   Yes.

7   Q.   And these are operations that went on for what,

8   100 years, correct?

9   A.   I don't know if it was 100 years.

10   Q.   97?

11   A.   But approaching that.

12   Q.   I will take 97.

13   Okay. So there are operations in effect for 97

14 years. You're aware that paints have PCBs and that they

15 do a lot of painting and sandblasting that scattered

16 paint around the facility, correct?

17   MR. DART: Objection, vague as to time.

18 BY MR. MR. BENSHOOF:

19   Q.   97 years.

20   A.   I would have to run the numbers here. When

21 were PCBs first used in paints.

22   Q.   Late 1920s. So for 50 years.

23   A.   Seemed like yesterday. That was 97 years ago,

24 1920?

25   Q.   1920 was -- or 1914 was when the shipyards

1 began operation. 1929, late '20s, is when PCBs began be

2 to used. Banned in 1979. So we are talking 50 years.

3   A.   So now we are down to 50 years.

4   Q.   Right.

5   A.   So what was the question?

6   Q.   You didn't look at it either way, right?

7   MR. CARRIGAN: Vague.

8   THE WITNESS: No, and I explained why.

9 BY MR. BENSHOOF:

10   Q.   Now, is there some reason why the DTR does not

11 even mention that PCBs are in marine paint?

12   A.   My reason would be it doesn't need to. It's --

13   Q.   Everybody understands it?

14   A.   Yes.

15   Q.   Look at Page 5.5. At this point, we are

16 talking about the description for the Star & Crescent or

17 San Diego Marine Construction Company. And this is the

18 facility that operated there between 1914 and 1972.

19   And again, applying the standards that you

20 followed in preparing Phase 1s, wouldn't you regard the

21 description here of materials used by Star & Crescent as

22 fundamentally deficient for never mentioning that these

23 materials included one of the principal contaminants in

24 the base sediment, PCBs?

25   MR. CARRIGAN: Misstates the document,

1   misstates facts in evidence and this is not a Phase 1.

2   MR. BENSHOOF: If there is a mention of PCB,

3   Mr. Carrigan, I will stand corrected.

4   MR. CARRIGAN: You have already represented on

5   the record there isn't mention of PCBs in this section.

6   MR. BENSHOOF: I said there isn't and you said

7   I mischaracterized the document.

8   MR. CARRIGAN: You said there was a mention of

9   PCB, you characterized it as a single mention.

10   MR. BENSHOOF: No, no, no. The word "PCB"

11 shows up later, it is never associated with materials

12 used.

13   THE WITNESS: Let me make sure I understand the

14 question now. You're saying if this was a Phase 1,

15 would it be deficient?

16 BY MR. BENSHOOF:

17   Q.   I'm saying applying the standard. I don't want

18 to get into Mr. Carrigan's trap of you only answering

19 that this is a document, which it isn't.

20   You described 25 years of expertise that you

21 have and a lot of that expertise was in putting together

22 Phase 1s. You further testified that important in

23 Phase 1s is an accurate description of chemical usage.

24 Otherwise it's meaningless.

25   Fair enough?

1   MR. CARRIGAN: Same objections.

2   THE WITNESS: I'm confused by the question.

3   Because I thought you were asking me if this was a

4   Phase 1, would it be deficient.

5   BY MR. BENSHOOF:

6   Q.   I said applying the standards that you followed

7   in measuring adequacy of a Phase 1, wouldn't this

8   description of materials used by the shipyard be

9   deficient?

10   A.   And can you explain why that's any different

11 than asking me if this was a Phase 1, would it be

12 deficient? I'm just simplifying your question so it's

13 something I can understand.

14   Q.   Look, I mean if you were an attorney, we could

15 argue all day, but you're a witness. And so you have

16 got to answer questions.

17   A.   I'm asking for clarification on the question.

18 Is that okay as a witness?

19   Q.   Sure. What don't you understand?

20   A.   I don't understand why my understanding is

21 incorrect that you are asking me if this was a Phase 1,

22 would it be insufficient.

23   Q.   Applying the standards -- listen to the

24 question -- applying the standards that you used in

25 preparing Phase 1s, wouldn't this description of

1 materials used by the shipyard be deficient for never

2 once mentioning PCBs?

3   MR. CARRIGAN: Same objections.

4   THE WITNESS: If that was the only information

5 that was in the Phase 1, yes.

6 BY MR. BENSHOOF:

7   Q.   You see that under the description of paints,

8 you recognize that that's deficient, correct?

9   A.   Deficient with what?

10   MR. CARRIGAN: Same objections.

11 BY MR. BENSHOOF:

12   Q.   For not mentioning PCB.

13   A.   It's taken out of context. You mean if this

14 was lifted out of here and put into a Phase 1 and that's

15 all the discussion that was in the Phase 1, would it be

16 deficient? And the answer is yes.

17   Q.   Just getting to the -- cutting to the chase,

18 the fact that PCBs are not mentioned at all in terms of

19 the materials used by the shipyards, that doesn't

20 concern you at all in terms of the adequacy of the DTR?

21   MR. CARRIGAN: Misstates the document,

22 misstates facts in evidence.

23   MR. DART: Join.

24   THE WITNESS: This section we are talking about

25 is titled "Materials Used by Star & Crescent Company,"

1 not chemicals. So it wasn't intended to be a complete

2 description of all the chemicals.

3   Similarly, the next section is activities not

4 chemicals. So you are asking me about specific chemical

5 in a section that's not intended to list all the

6 possible chemicals.

7 BY MR. BENSHOOF:

8   Q.   What was the intent of Section 4.4.4 on the

9 next page?

10   MR. CARRIGAN: 5.4.4.

11 BY MR. BENSHOOF:

12   Q.   Excuse me, yeah, waste generated by Star &

13 Crescent.

14   A.   According to the lead-in, it says it's

15 industrial activities. And categories of waste.

16   MR. CARRIGAN: Counsel, you --

17 BY MR. BENSHOOF:

18   Q.   Categories of waste.

19   MR. CARRIGAN: Counsel, you have had the

20 witness for an hour on the record, is it near time for a

21 break?

22   MR. BENSHOOF: Sure, let me just wrap it up.

23 BY MR. BENSHOOF:

24   Q.   Waste generated by Star & Crescent. We're on

25 that section, correct?

1   A.   Yes.

2   Q.   And you recognize that one of the wastes that

3 shipyards created in quantity were PCBs, correct?

4   A.   One of the wastes could be oils and oils

5 contain PCBs. So maybe we are haggling over specificity

6 in this section.

7   Q.   Yeah, and that does get to my question. Why

8 weren't PCBs mentioned in this section?

9   A.   It wasn't necessary to mention.

10   Q.   Okay. As a professional, you don't regard it

11 as deficient in describing waste generated by a shipyard

12 to not mention PCBs. I take it that's your answer?

13   MR. CARRIGAN: Asked and answered.

14   THE WITNESS: Because I explained the intent

15 was not to identify all of the chemicals. The intent of

16 this section is to name Star & Crescent as a discharger,

17 and again, there was sufficient evidence to name them as

18 a discharger in our minds, with or without the citing of

19 all of the specific chemicals. We didn't mention every

20 metal that could be in waste generated by shipyard

21 activities. We didn't generate every polynuclear

22 aromatic hydrocarbon that could have been generated,

23 et cetera.

24 BY MR. BENSHOOF:

25   Q.   And the omission of PCB descriptions in the

1   shipyard sections was -- your testimony was not meant to

2   in any way provide evidence that might exonerate SDG&E?

3   A.   Absolutely not. And let me explain, if I may.

4   Q.   No, you have answered the question.

5   Is there something -- I mean, if you want to go

6   beyond it, go ahead.

7   A.   Yes, if you would like.

8   Q.   I don't like, but I mean if you -- you're

9   entitled to add as much to your answer as you think is

10   necessary for it to be accurate. But I'm entitled to

11   that your answer be limited to the question. So it's

12   sort of what -- so if you think more is required to be

13   accurate, go ahead.

14   THE WITNESS: Would you please repeat the

15   question.

16   (The record was read.)

17   THE WITNESS: And my answer.

18   (The record was read.)

19   THE WITNESS: Yeah, I believe -- no, my

20   absolutely not answer is sufficient to answer your

21   question.

22   MR. BENSHOOF: I'm going to go a little bit

23   longer on this so let's take a break. I thought it

24   would be briefer. But --

25   MR. CARRIGAN: Thank you. An hour of

1 rapid-firing question on the record is good enough for

2 the court reporter and your witness. You can have your

3 next hour.

4   MR. BENSHOOF: Fair enough.

5   (11:09 a.m.)

6   (A brief recess was taken.)

7   (11:25 a.m.)

8 BY MR. BENSHOOF:

9   Q.   Back on the record, Mr. Carlisle.

10   The rope that's on the table, that's in

11 Mr. Carrigan's hand is to jerk when I run too fast. So

12 just wanted to explain what that was about.

13   I will try to -- I realize that I speed up and

14 it's valid concern of your counsel that that rushes you.

15 So I will try to not do that and Ms. Tracy will kick me

16 if I do.

17   I want to go through a series of research items

18 on PCBs just to, for the benefit of both introducing

19 those to you and for your quick review to just let us

20 know whether or not this is the sort of knowledge that

21 you brought to this project regarding that particular

22 chemical.

23   I will begin with -- mark as 1005, is that next

24 in order?

25   THE COURT REPORTER: 6.

1 BY MR. BENSHOOF:

2   Q.   6, a PCB fact sheet published by the Oregon

3 Department of Environmental Quality. And I had a couple

4 questions to ask you on Tables 2 and 3.

5   (Exhibit No. 1006 marked for identification.)

6 BY MR. BENSHOOF:

7   Q.   While you are looking at it, Mr. Carlisle,

8 environmental agencies, I take it you're familiar with

9 the fact that environmental agencies in a number of

10 states oftentimes publish fact sheets on different

11 chemicals of concern. And I'm wondering whether or not

12 as part of your own education, you recall reviewing

13 information similar to that which is summarized on

14 Table 2 in terms of PCB uses and Table 3, PCB sources of

15 waste materials. And if you could review those two

16 tables before you answer, I would appreciate it.

17   A.   May I ask a clarifying question about this

18 document?

19   Q.   Sure.

20   A.   It doesn't have any identifying -- identifying

21 information about who wrote it, who published it and its

22 source except for the little footer that's just .doc.

23   Q.   Well, it says -- you see the purpose?

24   A.   Right.

25   Q.   Fact sheet?

1   A.   But that doesn't tell me the author.

2   Q.   Fair enough.

3   A.   The publisher, the document this came out of.

4   Q.   So noted.

5   Now, if you would just review Table 2 and 3,

6   and I assume you haven't seen this particular document

7   before?

8   A.   No.

9   Q.   And that wasn't the point of the question.

10   My point really is looking at Table 2, let's

11   just focus on that, that sets forth a number of uses of

12   PCBs categorizing both primary and other applications.

13   Would you agree that that table sets forth PCB

14   uses that you're familiar with?

15   A.   Yes.

16   Q.   Anything in there in terms of a PCB use that

17   wasn't in your own professional background when you

18   contributed to the DTR?

19   A.   I'll agree for the majority of these I was

20   familiar with them being potential sources of PCBs.

21   Q.   Okay. And then Table 3, would you agree that

22   that table describes PCB sources and waste materials,

23   and it says waste materials and recycling operations

24   that you were generally familiar with when you

25   contributed to the DTR?

1   A.   Yes.

2   Q.   Now, there are some other reports regarding PCB

3   usage in shipyards that I would like to go through with

4   you to just see if this -- if you were either aware of

5   them or if they reflected knowledge that you had when

6   you contributed to the DTR, and I will begin with a

7   report by Young et al. titled "Marine Inputs of

8   Polychlorinated Biphenyls and Copper From Vessel

9   Antifouling Paints."

10   MR. BENSHOOF: This will be Exhibit 1007.

11   (Exhibit No. 1007 marked for identification.)

12   BY MR. MR. BENSHOOF:

13   Q.   This is a 1974 document, Mr. Carlisle. Do you

14   recall ever having reviewed this before? It's a study

15   by the Southern California Coastal Water Research

16   Project.

17   A.   It doesn't look familiar.

18   Q.   Okay. You will note that I just turned to the

19   introduction, that paragraph has a description of vessel

20   antifouling paints.

21   Do you see that?

22   A.   Yes.

23   Q.   It states, "Vessel antifouling paints

24   constitute a potential significant source of certain

25   trace contaminant to coastal marine waters."

1   I take it you agree with that?

2   A.   Yes.

3   Q.   And it continue on to state, "For example,

4 copper, mercury and lead have been used extensively in

5 bottom paints or primers in relatively high

6 concentrations of polycarbonated biphenyls, PCB, have

7 also been found in such materials."

8   Do you see that?

9   A.   Yes.

10   Q.   I take it you agree with that?

11   A.   Yes.

12   Q.   And you were aware of that when you contributed

13 to the DTR?

14   A.   Yes.

15   Q.   And could you turn to Table 10, please, there's

16 some specific findings of Page 15, Table 10. You will

17 see this happened to have been a sampling done at a boat

18 yard in Marina Del Rey and certain paint samples were

19 taken.

20   Do you see it displaying that data?

21   A.   Yes.

22   Q.   From different vessels.

23   And you see that in some instances, rather high

24 concentration of PCBs were found, in particular

25 Aorchlor 1254?

1   A.   Yes.

2   Q.   And you agree 150,000 parts per million is --

3   found in one sample of paint from a wood hull, it's a

4   rather substantial concentration?

5   A.   Yes.

6   Q.   Were you aware -- I take it you were aware when

7   you contributed to the DTR that -- I think you have

8   already said, that paints contained PCBs, marine paints,

9   were you aware that there was literature out there that

10   found PCBs in this high of a concentration, 150,000

11   parts per million?

12   A.   Not specifically that number. But I was aware

13   that high concentrations of PCBs have been found

14   associated with industrial activities in general.

15   Q.   And marine paints in particular?

16   A.   That's not clear to me that this is data from

17   marine paint. It's from a wood hull scraping.

18   Q.   Well, the title says concentration of

19   polychlorinated biphenyls measured in bottom paints

20   removed from boats in Southern California dry docks.

21   MR. CARRIGAN: I think the question was were

22   you aware of the concentrations this high in marine

23   paints.

24   MR. BENSHOOF: Correct.

25   THE WITNESS: Yeah, I wasn't.

1 BY MR. BENSHOOF:

2   Q.   You weren't?

3   A.   I haven't seen those sort of numbers. And

4 actually, I don't know the sampling methodology. Did

5 they sample pieces of boat material with the paint? Was

6 it pure paint? You know what I mean? The sampling

7 protocols are -- come to mind for a scientist like me.

8   Q.   Fair enough. So you were aware that when you

9 contributed the DTR that PCBs occurred in marine paint.

10 You weren't aware of specific studies showing their

11 concentrations?

12   A.   Correct.

13   Q.   Now let's go to the second document,

14 Exhibit 1008.

15   (Exhibit No. 1008 marked for identification.)

16 BY MR. BENSHOOF:

17   Q.   This is an EPA publication that you may be

18 familiar with. It's called a guide for -- a guide for

19 ship scrapers. Scrappers. Scrapers. Nails on a

20 blackboard.

21   Is this EPA document at all familiar to you,

22 Mr. Carlisle?

23   A.   No.

24   Q.   You see that on Page 1-1, "Introduction," it

25 states, "This guide is intended to provide a site

1   supervisor of a ship-scrapping facility with a good

2   understanding of the most pertinent federal

3   environmental and worker safety and health requires

4   affecting ship scrapping, ship-breaking operations."

5   Was it your understanding that those sorts of

6   operations were amongst the various operations conducted

7   at the BAE shipyards?

8   A.   Yes.

9   Q.   And indeed I'm -- I will be using the plural

10 "BAE shipyards" to refer to everything going back to

11 1914.

12   Are we okay with that?

13   A.   Yes.

14   Q.   And I take it you were consistent with your

15 earlier testimony you were generally aware that PCB

16 discharges occurred in connection with those activities?

17   MR. DART: Objection, vague as to time.

18 BY MR. BENSHOOF:

19   Q.   During the time that shipyards were in

20 operation at the BAE shipyards location.

21   MR. DART: I going to have objection to each

22 one of those questions based on that time frame

23 associating shipyards from the 19-teens and '20s to all

24 the way up to the 2000's as one and the same in terms of

25 activities and practices.

1   THE WITNESS: The overall shipyard activities

2   were a much broader time frame than the potential

3   presence of PCBs due to the limited range within the

4   larger time frame of shipyard activities.

5   BY MR. BENSHOOF:

6   Q.   Fair enough. The -- well, let's take it we

7   generally understand that PCBs were in use in the late

8   1920s, correct?

9   A.   I would have to look that up.

10   MR. CARRIGAN: We'll take your representation

11   of that for purposes of this line of questioning,

12   Counsel, yes.

13   MR. BENSHOOF: The DTR says 1929?

14   MR. CARRIGAN: Yeah, yeah.

15   THE WITNESS: Okay. Thank you.

16   BY MR. BENSHOOF:

17   Q.   And they were banned, PCBs were banned

18   approximately 1979, correct?

19   A.   That's my recollection.

20   Q.   And when they were banned, did they disappear

21   from wood hulls and metal hulls?

22   A.   Probably not.

23   Q.   Probably not. When they were banned, did they

24   disappear from transformers used by the BAE shipyard?

25   A.   I have no knowledge of transformer content of

1 BAE shipyard.

2   Q.   Did you not know that there were transformers

3 there?

4   A.   I think it's extremely likely there is

5 transformers at BAE shipyard but their content I have no

6 knowledge of.

7   Q.   They didn't run on gerbils. Shipyards consume

8 a lot of electricity, correct?

9   A.   I just agreed that there is transformers at BAE

10 shipyard and those transformers probably contained oil

11 and depending upon the age of the transformers, there's

12 a high likelihood that those transformers contained some

13 concentrations of PCBs.

14   Q.   When PCBs were banned in 1979, those PCBs

15 didn't disappear that were in those transformers?

16   A.   If there were PCBs there and the transformers

17 remained there, one could easily assume that they didn't

18 disappear.

19   Q.   And the PCBs didn't disappear from the

20 hydraulic oils used in the wenches and the cranes in the

21 BAE shipyards in 1979, did they, to your knowledge?

22   A.   If there were PCBs in those hydraulic oils, I

23 think your characterization is likely correct.

24   Q.   And the -- and the PCBs didn't disappear in

25 1979 from the ships that were repaired and serviced in

1   the BAE shipyard, did they?

2   A.   Let me hopefully maybe speed this along and I

3   will agree that it's extremely likely, approaching near

4   certainty, that PCBs were present at the BAE and other

5   shipyards at the site.

6   Q.   In 1979?

7   A.   In a number of applications.

8   Q.   And just to sort of complete this particular

9   exhibit, the EPA goes on at Page 3-3 to talk about where

10 can PCBs be found on a ship. And they list -- the EPA

11 lists about a dozen different locations where PCBs are

12 found on ships.

13   And not focusing on each and every one, but

14 just in general, Mr. Carlisle, does this data set forth

15 by the EPA roughly accord with your understanding of the

16 kinds of materials present on ships that used PCBs?

17   A.   Yes, that potentially use PCBs. In other

18 words, not all of these would always have PCBs.

19   Q.   And the EPA noted at Page 6.1 under "Abrasive

20 Blasting" that abrasive blasting that they say -- EPA

21 says generates large amounts of dust, abrasive waste and

22 paint chips.

23   I take it you are aware that one of the

24 activities undertaken at the shipyards, the BAE

25 shipyards, over the course of their entire history was

1 abrasive blasting?

2   A.   Generally, yes. I mean, there might be

3 portions in their overall near 100-year history that

4 there wasn't abrasive blasting.

5   Q.   But you understand that to be an activity

6 commonly associated with shipyards?

7   A.   Yes.

8   Q.   And would you agree with the EPA's conclusion

9 that, quote, blasting generates large amounts of dust,

10 abrasive waste and paint chips?

11   A.   Generally, depending upon your definition of

12 "large."

13   Q.   You were aware in the BAE shipyards that this

14 abrasive blasting was done literally either on a marine

15 railways that were in the water or on dry docks that

16 were right adjacent to the water, correct?

17   A.   That was -- that's my understanding.

18   Q.   And you were also -- you also understood that

19 those operations of the shipyards led to substantial

20 amounts of fugitive emissions that caused various waste

21 material to be deposited by aerial deposition outside of

22 their properties, correct?

23   A.   I will agree depending upon your definition of

24 "substantial."

25   Q.   Fair enough. But you recognize that when you

1   were contributing the DTR that all of that blasting

2   activity caused dust and waste materials associated with

3   the dust to transport beyond the shipyard's property?

4   A.   That's likely.

5   Q.   Next, let me ask you to -- I'm going to try to

6   go through these pretty briefly.

7   The EPA did a study in 2006 that I want to ask

8   you very briefly about.

9   MR. BENSHOOF: This will be 1009.

10   (Exhibit No. 1009 marked for identification.)

11   BY MR. BENSHOOF:

12   Q.   This is a 2006 study by the EPA, it has

13   "Guidance For Best Management Practices For Vessels

14   Intended to Create Artificial Reefs."

15   It's comforting to know that the EPA studies

16   everything and publishes -- but I wanted to just ask you

17   about whether you agree with the statement on Page 36,

18   and I take it you do, where the EPA states at the top of

19   Page 36, "Although no longer commercially produced in

20   the United States, PCBs are most likely to be present in

21   vessels deployed before the 1979 PCB ban."

22   I take it you agree with that?

23   A.   Yes.

24   Q.   And so you would agree that with the EPA's

25   description of the material on items that could contain

1   both solid and liquid PCBs that would have been present

2   in vessels serviced at the BAE shipyards after 1979.

3   Would you agree with that?

4   A.   Yes.

5   Q.   Now let me next go to -- we were talking about

6   concentrations earlier. And there is an EPA publication

7   on that. So I wanted to just ask you about that

8   briefly.

9   MR. BENSHOOF: It's 1010.

10   MR. CARRIGAN: Thank you.

11   (Exhibit No. 1010 marked for identification.)

12 BY MR. MR. BENSHOOF:

13   Q.   In 1999, the PCB -- or excuse me, the EPA --

14 get my acronyms -- the EPA published a federal register

15 notice on a variety of issues related to PCBs. And I

16 wanted to direct your attention to the notice's

17 reference on 69360 to paint formulations.

18   It's in the left-hand column on 69360. And you

19 had asked about concentration indications and do you see

20 that at least the EPA is indicating that in the 1950 to

21 '60 time frame, PCBs were added as drying agents and

22 plasticizers to paints. And the EPA find that they were

23 in concentrations that ranged from 10 to 12 percent to

24 20 to 30 percent by -- I'm assuming that is by weight of

25 the paint.

1   Do you see those scope traces? They don't

2   report how they measured the concentration. But their

3   concentrations raising up -- that are as high as 300

4   parts per million in paint?

5   A.   It's not clear to me if these are the

6   concentrations of the subsequent created paint or if

7   it's the concentrations of the PCB material or

8   PCB-containing material that was added to the paint and

9   what the subsequent concentration was.

10   Q.   Okay. Fair enough.

11   I take it, though, that when you were

12 contributing to the DTR, you were aware of the fact that

13 PCBs were used both as drying agents and plasticizers in

14 paints, correct? You are aware of that fact?

15   A.   Correct.

16   Q.   Next let's look at a report that I believe was

17 done for your agency by the EPA in 1974.

18   MR. BENSHOOF: And we'll mark that as 1011.

19   (Exhibit No. 1011 marked for identification.)

20   MR. DART: Can I get the title of that document

21 again.

22 BY MR. BENSHOOF:

23   Q.   Draft report to San Diego Regional Water

24 Quality Control Board, yeah, it's a SAR number, pardon

25 me. It's SAR 374317. So this is in the administrative

1 record and I believe was referred to by you if I'm not

2 mistaken, Mr. Carlisle, in putting together the DTR.

3   Am I correct on that?

4   A. Well, I'm familiar with the document.

5   Q. Okay.

6   A. Generally, I mean, it's been a long time, but

7 it looks familiar.

8   Q. And you noted that -- I'm sure it's SAR 374319,

9 the third full paragraph states as follows: "It is

10 concluded that San Diego Bay is being polluted by heavy

11 metals from shipyards and that the most significant

12 source of these pollutants is materials including

13 antifouling paints and primers removed from ship hulls."

14   Do you see that reference?

15   A. Yes.

16   Q. And you were aware of that when you were

17 contributing to the DTR, correct?

18   A. Yes.

19   Q. And I take it you have no reason to question

20 this conclusion of the EPA in its report, your agency,

21 correct?

22   A. I have no hesitation that this was EPA's

23 conclusion as of that year.

24   Q. Do you think it was -- its accuracy is limited

25 to that year as you put it?

1   A.   No, I think the accuracy could change. I mean,

2 if it was done again in 2000 or 2010, the EPA might come

3 to a different conclusion.

4   Q.   But I take it you would agree that this is a

5 accurate statement for the time period and, frankly, the

6 substantial period of time preceding 1974?

7   A.   I really can't extrapolate through time from

8 this information, not knowing the evolution of the

9 activities of the shipyards with any detail.

10   Q.   Were you aware of the EPA's finding when you

11 were preparing the DTR that their examination of the

12 sediment revealed -- I'm reading now at 74318,

13 "Microscopic examination of the sediments revealed a

14 similar pattern freshly blasted abrasive and paint chips

15 were most evident in surficial sediments nearest the

16 shipyards"?

17   A.   Yes.

18   Q.   And were you, in fact, aware in the files of

19 your agency where a number of reports, NPDES monitoring

20 reports, that documented, in fact, the concentration of

21 PCB-containing paint chips in the sediment from

22 shipyards?

23   A.   I didn't quite follow the way you worded that.

24   Q.   Were you aware that the agency had and you had

25 available to you when preparing the DTR NPDES monitoring

1 reports that the shipyards prepared?

2   A.   Was I aware that there were NPDES reports

3 prepared by the shipyard around the time we -- yes.

4   Q.   And you had -- in fact, your staff or you

5 consulted many of those, correct?

6   A.   Yes.

7   Q.   And did -- were you aware that those reports

8 routinely reported on a variety of matters including the

9 concentration of paint chips containing PCBs in the

10 sediment?

11   A.   I don't specifically recall that, but I think

12 it's likely. And that's why the study design, meaning

13 the sample locations for the Exponent report, was biased

14 with more samples closer to the shoreline based on

15 the -- your thought process that I have agreed with

16 about the worst stuff would tend to be near shore.

17   Q.   And that stuff would include substantial

18 paint-chip contamination of the sediments containing

19 PCBs in all likelihood?

20   A.   Paint chips and the mechanism that removed the

21 paint chips meaning the abrasive waste.

22   Q.   And just as an example of a report that was --

23 that you put in the administrative record that reflects

24 this, we'll mark that as 1012, a Southwest Marine NPDES

25 marine sediment monitoring report of August 2000.

1   (Exhibit No. 1012 marked for identification.)

2   BY MR. BENSHOOF:

3   Q.   The SAR number is 035020 and there's a number

4   of data in here, but I wanted to refer you to the --

5   specifically the paint chip samples and those begin with

6   the sampling description at SAR 35025 and -- and you

7   agree that this report reports on replicate samples

8   taken from the upper 7 centimeters of sediment, which is

9   described at the bottom of 025?

10   MR. CARRIGAN: Take a minute to get located in

11   the document.   Okay.

12   THE WITNESS: Yes.

13   BY MR. BENSHOOF:

14   Q.   And then would you agree, then, that at Page --

15   SAR Page 35032, this is, again, just one example of a

16   report in the Water Board files that shows the

17   concentration of paint chips and at that page it states,

18   "Paint chips collected for this report were screened

19   from 9 liters of sediment taken from each of the type

20   localities designated by the RWQCB," and it gives the

21   weight and there's, on one of these 3-liter splits,

22   there's reported .49 grams of paint chips, correct?

23   A.   Actually, I would need you to define these

24   acronyms in that item you're pointing to.   It's got

25   three acronyms I don't know the definition of.

1   Q.   I believe those were referring to the each of

2 the type localities designated by the board. And I

3 don't know exactly where they were either. I mean, we

4 could reconstruct it from the report.

5   My point is that in one of the sediment

6 localities, the regulated entity reported that there

7 were .49 grams of paint chips in that particular 3-liter

8 split, correct?

9   A.   That was a statement, I believe.

10   Q.   Pardon me?

11   A.   I believe you didn't form that into a question.

12   Q.   Is that what you understand this to be

13 reporting?

14   A.   No, I -- no, because I need to know the

15 definition of the acronyms. "SWM" maybe stands for

16 Southwest Marine. "STD," I don't know what it stands

17 for, and "PC" may be paint chip. Where are the acronyms

18 defined? And "G," we might assume is grams.

19   Q.   Yeah, this was more as an example of a

20 monitoring report that's in the record that would be a

21 source for you and your staff to reconstruct the extent

22 to which paint chips from shipyard operations are

23 presently found in the bay sediments.

24   Would you agree with that?

25   THE WITNESS: Would please repeat the question.

1   (The record was read.)

2   THE WITNESS: I would agree that this could

3   potentially be a source if it was -- some of my

4   questions were answered about acronyms, sample location,

5   the rest of the report, I think this is just the first

6   few pages of the report.

7   BY MR. BENSHOOF:

8   Q.   Correct. It's an excerpt.

9   Do you recall ever asking anybody,

10 Mr. Carlisle, to go back and look in the files,

11 attempting to reconstruct the degree to which the BAE

12 shipyards contributed to the contamination of the

13 sediments solely through their abrasive waste and paint

14 chips accompanying that waste?

15   A.   What do you mean by "contributed to the" -- you

16 mean did we try and -- or direct somebody to go back and

17 try and calculate actual mass, volume, deposition rates?

18   Q.   Or any other -- I mean, you instructed your

19 staff to use NPDES monitoring reports for other

20 purposes, correct?

21   A.   To demonstrate that there was a discharge that

22 may have contributed to condition of pollution in

23 this --

24   Q.   Specifically you covered earlier today with

25 counsel for the City that your staff was instructed to

1 find those instances where the discharge exceeded the

2 California toxic rule?

3   A.   I don't think that was in a form of a question.

4   Q.   Did you instruct your staff to go to the

5 shipyards, NPDES monitoring reports, to identify

6 discharges where the discharge exceeded the California

7 toxic rule concentrations for particular chemicals?

8   A.   Yes.

9   Q.   And incidentally, what is the California toxic

10 rule applicable to? Toxic in what media?

11   A.   Water.

12   MR. CARRIGAN: Calls for legal conclusion.

13 BY MR. BENSHOOF:

14   Q.   No, no, yeah, I don't mean who's subject to it.

15 What does it relate to? It's an expression of

16 concentrations of a chemical that are toxic in water,

17 correct?

18   A.   Yes, that's my understanding.

19   Q.   And am I correct that you assumed in preparing

20 the DTR that it also meant concentrations that were

21 toxic in sediments?

22   A.   No.

23   Q.   You didn't equate the two?

24   A.   Might have been equated through some other

25 mechanism, but it wasn't equated directly. You can't

1   take a sediment concentration and compare it to a water

2   criteria.

3   Q.   So you would agree that it would be wrong for

4   somebody to conclude that because there was a presence

5   of a chemical in a discharge that exceeded the CTR for

6   that chemical, that that necessarily contributed to

7   pollution or nuisance in a bay sediment?

8   A.   That's an awful complicated question.

9   The CTR was used, among other things, to

10   determine whether a discharge, a water discharge, had

11   concentrations that would impair beneficial uses. And

12   therefore, be in a violation of the basin plan and the

13   narratives in the basin plan.

14   Q.   Let me ask the question again.

15   Would you agree that it would be wrong for one

16   to conclude that because there was the presence of a

17   chemical in a discharge that exceeded the CTR, that that

18   chemical necessarily, because of that fact, contributed

19   to a condition of pollution or nuisance in sediment?

20   A.   It might be, but it depends upon other steps

21   one could take to make that the possible line of drawing

22   a conclusion.

23   Q.   So once again, it wouldn't necessarily indicate

24   that conclusion, but it might; is that your

25   understanding?

1   A.   Correct.

2   Q.   And that's because the two -- CTRs and it's an

3 expression of toxicity in water, doesn't directly apply

4 to what is necessarily toxic in sediment; is that a fair

5 statement?

6   A.   And that's also because concentrations detected

7 in water, especially say surface water, freshwater, I

8 mean coming out of, say, mouth of Chollas Creek, when it

9 reaches a velocity change, a salinity change, a

10 chemistry temperature change, it can precipitate out and

11 contribute to contamination of sediment. That's why I

12 was hedging my previous answer as opposed to giving an

13 absolute yes or no.

14   Q.   There are several other factors, then, one

15 would need to know in addition to the fact that it

16 exceeds the CTR as to whether or not it would constitute

17 or contribute to a condition of pollution or nuisance in

18 sediment?

19   A.   I would agree with that.

20   Q.   Now, back to the 1974 EPA report to the --

21   MR. CARRIGAN: What's the number on that one,

22 Counsel.

23   MR. BENSHOOF: 1011.

24 BY MR. BENSHOOF:

25   Q.   Just a couple of closeups and then I have one

1 more document to go over and then we can break for

2 lunch.

3   At SAR 374334, there's a statement by the EPA

4 which states "Spent Abrasive and New Paint. The most

5 significant pollutants from shipyards are the heavy

6 metals present in spent abrasive."

7   And then it talks about --

8   MR. CARRIGAN: Hold on one second, Counsel,

9 please, I'm going to have to try to locate him in the

10 document here.

11   One page back.

12   MR. BENSHOOF: Go ahead.

13   MR. CARRIGAN: I think he is here,

14 second-to-last paragraph on 374334, "Spent Abrasives."

15   THE WITNESS: Thank you.

16 BY MR. BENSHOOF:

17   Q. I take it you agree that, as we have discussed

18 before, that --

19   MR. CARRIGAN: Have you had a chance to read

20 this?

21   THE WITNESS: Yes.

22   MR. CARRIGAN: And now --

23 BY MR. BENSHOOF:

24   Q. Okay. Do you agree that with the EPA that the

25 most significant pollutants from shipyards are the heavy

1 metals present in spent abrasive?

2   A.   If we remove the word "most" because I don't

3 have any independent knowledge about them being the most

4 significant, but I would agree that they are a

5 significant source.

6   Q.   And you also -- there is a sentence which

7 states, "The old paint particles present in the used

8 grit are a potential source of pollution." I take it

9 you, consistent with your testimony earlier, also agree

10 with that?

11   A.   Yes.

12   Q.   Then over on the next page, 4335, there's the

13 statement at the top, "Estimates have been made of paint

14 losses indicating approximately 5 percent of the total

15 paint to be applied to the hull is lost to the dry dock

16 and can be discharged to receiving waters."

17   I believe you were aware of that fact when you

18 were helping to contribute to preparation of the DTR,

19 correct?

20   A.   Are you asking about the percent number?

21   Q.   Yeah.

22   A.   I don't even know exactly what year their

23 estimate is based on. Some year prior to '74. So

24 again, I have the same answer previous about I'm not

25 willing or comfortable extrapolating that on into the

1 future another 20, 30 years or into the past another 20,

2 30 years. But it seems reasonable for the EPA to

3 conclude that. I don't know what they measured to get

4 that.

5   Q.   But nevertheless, you were moving from a

6 specific percentage. You were aware that there was some

7 percentage of paint material that went directly into bay

8 waters from the shipyards as a result of their spray

9 painting?

10   A.   Well, now you're specifically mentioning spray

11 painting. Is this paragraph referring to just spray

12 painting?

13   Q.   Not necessarily. So from any painting?

14   A.   Okay.

15   Q.   You were aware that from any painting, any

16 method of painting at the shipyards, some percentage of

17 their paint went directly into the waters of the bay.

18   A.   Yes.

19   Q.   And you were aware that that was a source of

20 pollution caused by the shipyards?

21   A.   At least during certain time frames. Yes.

22   Q.   Are you aware of any time frame when paints

23 used by the shipyards were not directly discharged into

24 the bay as a result of their painting operations?

25   A.   If they did any painting that wasn't in the

1   immediate vicinity of the bay and even more recently,

2   and I'm not sure what time frame they -- they

3   encapsulate the paint area to -- my understanding

4   virtually eliminate any overspray that might be fugitive

5   emissions.

6   Q.   And your understanding is that is a recent

7   development at the shipyard?

8   A.   Depends upon the definition of "recent." I

9   don't recall the year. But, you know, I don't know if

10 it's been ten years or more.

11   Q.   You said "even more recently," what did you

12 mean by "and even more recently"?

13   A.   Well, you started this shipyard operations

14 stuff going back 100 years. So ten years ago might be

15 pretty darn recent.

16   Q.   You don't know for sure?

17   A.   No, I would have to look in the record and see

18 what the shipyards have submitted in terms of when they

19 started shrink wrapping essentially the ships to capture

20 the fugitive emissions.

21   Q.   Okay. Let's just finally look at what we'll

22 mark as 1013, I'll stop with the numbers and let the

23 reporter -- 13, it's SAR 374265.

24   (Exhibit No. 1013 marked for identification.)

25

1 BY MR. BENSHOOF:

2   Q.   Do you know -- this is a report of your agency,

3 correct, Mr. Carlisle? And go ahead.

4   A.   Yes, it's a report done under the supervision

5 of Ladin Delaney with the Water Quality Control Board.

6   Q.   Now, do you recall -- obviously, this was in

7 the administrative record.

8   Do you recall referring or relying upon this in

9 preparing or contributing to any part of the DTR?

10   A.   I'm not sure how much I relied on it in my

11 contributions to the DTR. But I have reviewed it more

12 recently, meaning in the last week. And it seems

13 consistent with some of our findings in the DTR.

14   Q.   And what was the occasion for you to have

15 looked at this within the last week, preparing for this

16 deposition?

17   A.   Yes.

18   Q.   When was that?

19   A.   When was what?

20   Q.   When were you -- I take it you sat down and

21 went through this document for -- to prepare yourself

22 for the deposition?

23   A.   Yes.

24   Q.   And that was sometime within the last week?

25   A.   Yes.

1   Q.   And did you go over any other documents at that

2 time to prepare yourself for this deposition?

3   A.   Yes.

4   Q.   And what other documents did you go over?

5   A.   I went over the DTR, the draft technical

6 report, the tentative cleanup and abatement order. And

7 then I loaded up the hard drive and started perusing the

8 hard drive. So I probably glanced at half dozen

9 documents, maybe a dozen in the -- in the record, the

10 hard drive record.

11   Q.   Out of all of the hundreds and thousands of

12 documents in the administrative record, how did you pick

13 out this one?

14   A.   I was looking for documents that were reporting

15 on waste discharges that were sent to the Port of

16 San Diego. And I believe SAR number before this number

17 might be the transmittal letter that shows that it was

18 copied to the Port of San Diego.

19   Q.   Oh, okay. So you were not necessarily looking

20 for shipyard studies but anything that went to the Port?

21   A.   That's -- that was one aspect of my review that

22 I recall.

23   Q.   Now, did you see that on Page 3 --

24   MR. BROWN: Excuse me, can I get a copy of this

25 if you're starting to talk about my client?

1   MR. BENSHOOF: No.

2   MR. BROWN: Thank you. Had to wake up there

3   for a second.

4   MR. BENSHOOF: Yeah, I know, hate to disturb

5   you.

6   BY MR. BENSHOOF:

7   Q.   And I'm going to try to conclude quickly on

8   this, Mr. Carlisle, so we can break for lunch, but I do

9   have three or four questions.

10   I just wanted you to turn to SAR 4269, because

11   while this report is referenced in the DTR, the data

12   isn't. And I'm specifically asking you about the data

13   that's referred to on the first full paragraph on Page 3

14   wherein it states, An attempt was made to quantify the

15   amount of metals in bottom sediments at various

16   locations -- or excuse me -- at various selected sites

17   within San Diego Bay. Talks about replicate core

18   samples. And these cores were analyzed for arsenic,

19   chromium, copper, lead, mercury, nickel and zinc.

20   Do you see that?

21   A.   Yes.

22   Q.   What happened to that data? Do you know where

23   it is and why it's not referenced in the DTR?

24   A.   I know why it's probably not in the DTR,

25   especially in the allegations naming parties. As I have

1   said probably more than once during our conversation, we

2   were trying to meet the threshold in Port of Cologne, to

3   name a discharger and not trying to quantify the wastes

4   and for consistently throughout this process, since the

5   2003 Exponent report came out, we relied primarily on

6   2000 -- data reported in the Exponent report. For

7   consistency purposes, our objective in preparing the DTR

8   was not to calculate masses and volumes of various

9   chemicals that may be present in the sediment.

10   Q.   I take it it's your view that a condition of

11 pollution or nuisance under the water code can be

12 determined without any reference to mass or volume?

13   A.   Potentially.

14   Q.   Well, in this instance, I take it that's the

15 standard that you applied?

16   A.   Well, mass volume is related to concentration

17 and we definitely use chemical concentrations in

18 determining impairment.

19   Q.   I will return to that later. But let's just

20 conclude this.

21   This report by the Water Board at SAR 4272

22 talking about work in the graving dock area states,

23 "Perhaps 5 to 10 percent of the sand debris may get

24 blown or washed into the water pump-out system and

25 eventually reach the bay."

1   I'm looking at the second-to-last paragraph.

2   I take it that information was available to you

3   when you contributed to the DTR?

4   A.   I think it's clear in the DTR that we had no

5   doubt that shipyard activities discharged grit,

6   sandblast material, paint, and other things to

7   San Diego Bay.

8   Q.   And then at Page 7, there's a fourth paragraph

9   on that page. First to the sandblasting work done on

10 the dry dock.

11   Do you see that? I'm on SAR 4273.

12   A.   Which paragraph?

13   Q.   The fourth paragraph says sandblasting is

14 performed in the dry dock.

15   A.   Okay.

16   Q.   And it states that the conclusion the Water

17 Board's found perhaps 10 to 20 percent of the fine

18 material may be washed into the bay. That's consistent

19 with the -- I take it your understanding of the

20 contribution by the shipyard sandblasting operation to

21 bay contamination, correct?

22   A.   Generally, just recognizing that I believe most

23 of the statements are trying to summarize across

24 multiple shipyards.

25   Q.   Correct. And then at Page 4295, there's a

1 description of the shipyard that's just south of my

2 client's facility, the San Diego Marine Construction

3 shipyard, correct?

4   A.   What page?

5   Q.   SAR 4295.

6   A.   Oh, 95.

7   Yes.

8   Q.   And for example, that -- at that page, the

9 Water Board is reporting that San Diego Marine

10 Construction used in the year 1971, 8,000 gallons of

11 paint and primer, correct?

12   A.   Yes.

13   Q.   At 20 to 50 percent of the ships were

14 sandblasted, correct?

15   A.   Yes.

16   Q.   So it gives the scale of the work done there.

17 And it also -- under the "General Observations," it

18 talks about how sandblasting was done not only in dry

19 docks but on the ways, do you see that, under "General

20 Observations"?

21   A.   Yes.

22   Q.   And those ways are -- what do you understand

23 what is meant by "ways"?

24   A.   They might be the marine railways or other

25 areas likely close to the bay.

1   Q.   So this is sandblasting, as you understand it,

2 done by the shipyards directly over the water?

3   A.   Or immediately adjacent to the water.

4   Q.   But the marine railways are the ways and they

5 go into the water, correct?

6   A.   But I think they pull the ship out of the water

7 before they sandblast it. It's hard to sandblast under

8 water.

9   Q.   Probably is.

10   A.   It's probably doable, but --

11   Q.   Those are my questions on this document.

12   MR. BENSHOOF: Why don't we then break for

13 lunch if that's convenient.

14   MR. CARRIGAN: Sounds good. Yeah.

15   (12:18 p.m.)

16   (A lunch recess was taken.)

17   (1:18 p.m.)

18 BY MR. BENSHOOF:

19   Q.   Good afternoon, Mr. Carlisle. We're back on

20 the record and all of the rules of the proceeding and

21 admonitions you have been -- you received before apply.

22   I would like to ask you to turn next,

23 Mr. Carlisle, to Section 9.9 of the DTR. It's

24 Page 9-13. And that section is entitled "Unauthorized

25 Discharge of Toxic Pollutants Into MS4."

1   A.   Excuse me, what page?

2   Q.   9-13.

3   A.   Oh, 13.

4   Q.   Section 9.9.

5   A.   Okay.

6   Q.   And you recognize this, do you not, as a

7   section regarding certain allegations of discharge by

8   SDG&E to a catch basin that is alleged to have

9   discharged into the municipal storm drain system from

10   there to San Diego Bay, correct?

11   A.   Yes.

12   Q.   Now, in fact, you directed your staff to

13   contact the City of San Diego to obtain their -- the NOV

14   that they were in the process of issuing, correct?

15   A.   Yes.

16   Q.   And you did so in order to obtain evidence to

17   bring SDG&E within the cleanup and abatement order,

18   correct? It was part of your effort to build a case

19   against SDG&E?

20   A.   Well, yes. Generally.

21   Q.   And generally, you did nothing to verify

22   whether or not the City's information was truthful at

23   all, correct?

24   A.   No.

25   Q.   What did you do to verify that any of the City

1   information was truthful?

2   A.   I talked to Ruth Kolb and I believe one of the

3   staff members went out in the field at one or more

4   occasions to observe the situation and meet with, I

5   believe, Ruth Kolb and maybe others on the site.

6   Q.   Well, Mr. Tobler testified that -- Page 123 and

7   124 of his deposition that we just took the City's

8   information at face value. So are you contradicting

9   Mr. Tobler?

10   A.   I'm not trying to. I guess my recollection was

11 incorrect then. I thought perhaps one of the staff

12 members might have gone out there and met with Ruth Kolb

13 to observe the catch basin.

14   Q.   Basically what happened was, if I understand

15 it, was that the City was in the process of issuing a

16 notice of violation to BAE, and then BAE responded by

17 saying no, SDG&E is really at fault. The City jumped on

18 that to issue an NOV against SDG&E and the Water Board

19 simply copied the City's information at face value?

20   MR. DART: Objection. Misstates testimony,

21 assumes facts not in evidence.

22   MS. REYNA: Join.

23   MR. CARRIGAN: Do you have a question for the

24 witness?

25

1 BY MR. BENSHOOF:

2   Q.   Is that what your understanding is that

3 happened?

4   I mean there is a number of documents and we

5 can go through them, but I'm trying to summarize them.

6   A.   That seems correct, what happened, but not

7 entirely what happened. As I indicated, I also

8 contacted Ruth Kolb on one or more occasions to verbally

9 discuss the situation.

10   Q.   Right, and Ms. Kolb advised you that the City

11 hadn't done anything to verify BAE's allegations either,

12 correct?

13   MR. DART: Objection again, same objections.

14   MS. REYNA: Join.

15   THE WITNESS: No.

16 BY MR. BENSHOOF:

17   Q.   You don't remember her saying that?

18   A.   No, I'm saying no, that's not correct.

19   Q.   Did Ms. Kolb say that the City had done

20 anything to verify BAE's allegations that the party

21 discharging into that catch basin was SDG&E?

22   MR. DART: Same objections.

23   THE WITNESS: I'm a little confused by the

24 question.

25   Are you asking me what the City might have done

1   in addition to the letters that they have sent that are

2   in the record?

3   BY MR. BENSHOOF:

4   Q.   What I have got in the record, and we'll go

5   through them all, is BAE says we didn't do it, it's

6   SDG&E. City accepts that at face value, issues an NOV

7   to SDG&E and the Water Board accepts that at face value.

8   Nobody investigating whether BAE was telling the truth

9   or not. Now, am I misunderstanding what occurred?

10   MR. DART: Same objections.

11 BY MR. BENSHOOF:

12   Q.   Let me reask it.

13   Did anybody with the City or the Water Board

14 ever inquire whether BAE was telling the truth or was

15 simply trying to deflect responsibility from itself?

16   MR. DART: Same objections. Argumentative and

17 assumes facts.

18   MS. REYNA: Lacks foundation, calls for

19 speculation.

20   MR. CARRIGAN: Join on the City's objections.

21   Go ahead.

22   THE WITNESS: It is my understanding that the

23 one entity, apparently the City of San Diego took

24 samples and so the way you're characterizing it omits

25 the fact that it's -- somebody had data from the catch

1 basin.

2 BY MR. BENSHOOF:

3   Q.   No, I didn't -- we know that.

4   My question is -- and there may be information

5 that's not in the record, Mr. Carlisle, but looking at

6 the record, the way it looks to me is that BAE says we

7 didn't do it, SDG&E did it. The City accepts that at

8 face value, doesn't inquire whether that was truthful or

9 not. The Water Board then took the City's finding at

10 face value and nobody investigated whether or not BAE

11 was truthful in saying that they didn't cause the

12 discharge, but SDG&E did.

13   Now please fill in whatever information I'm

14 missing.

15   MR. DART: Same objections.

16   MS. REYNA: Objection, document speak for

17 themselves.

18   THE WITNESS: I don't have any personal

19 knowledge about what happened prior to our being advised

20 of a situation going on out here. So in other words,

21 the beginning of your statement about BAE contacting the

22 City and City doing such-and-such on a certain amount of

23 data or lack of information, I have no personal

24 knowledge of that aspect of the --

25

1 BY MR. BENSHOOF:

2   Q.   Fair enough.

3   A.   -- issue.

4   Q.   We'll just go through what's in the record,

5 then, that establishes what I have referred to and we'll

6 begin with the City's letter to BAE indicating that it

7 was BAE's responsibility dated October 14, 2005 found at

8 SAR 285412.

9   MR. BENSHOOF: If the reporter would mark that

10 next in order.

11   MR. DART: Do you have copies of those,

12 Counsel?

13   MR. BENSHOOF: Same number that I have of the

14 other.

15   MR. DART: Can we stop and take a break, make

16 copies in the copy room?

17   (Exhibit No. 1014 marked for identification.)

18   (Discussion held off the record.)

19   MR. BENSHOOF: Thank you.

20 BY MR. BENSHOOF:

21   Q.   Now, do you recognize Exhibit 1014,

22 Mr. Carlisle, is in the administrative record and it

23 reflects the fact that the City was intending to assess

24 this violation against BAE, correct?

25   MR. DART: Objection. Document speaks for

1   itself.

2   MS. REYNA: Join.

3   BY MR. BENSHOOF:

4   Q.   I agree with that.

5   Are you familiar with this letter that -- where

6   the City states it appears that this unauthorized

7   discharge into the municipal storm drain system

8   originates from your facility addressed to BAE dated

9   October 14, 2005?

10   A.   Yes.

11   Q.   So you understand that originally, the City was

12   proposing to cite BAE, correct?

13   A.   Yes.

14   Q.   All right. Then next, I want you to look at

15   SAR 285411, a letter from the City, again, to BAE dated

16   November 18, 2005?

17   MR. BENSHOOF: And that will be marked next in

18   order.

19   (Exhibit No. 1015 marked for identification.)

20   BY MR. BENSHOOF:

21   Q.   Now, do you recognize and this is SAR

22   Document 285411 and do you recognize this letter as the

23   City thanking BAE for its cooperation, thanking them for

24   providing information that SDG&E was responsible and

25   apologizing basically for the purported notice of

1 violation and withdrawing or rescinding any intent to

2 issue the violation against BAE?

3   MR. DART: Same objection.

4   MS. REYNA: Join.

5   MR. CARRIGAN: I will join on that one.

6 BY MR. BENSHOOF:

7   Q.   I will restate it.

8   Do you recognize this letter, Mr. Carlisle, as

9 the letter that the City wrote to BAE giving BAE notice

10 that they intended to rescind any effort to issue a

11 violation notice against BAE?

12   A.   My reading of this letter doesn't say that they

13 intend to rescind any notice of violation. It says that

14 they do rescind notice of Violation 5409.

15   Q.   Got it. And it says it was based upon

16 information you provided, that is BAE, correct?

17   A.   Information I provided?

18   Q.   No.

19   MR. CARRIGAN: BAE.

20 BY MR. BENSHOOF:

21   Q.   The statement is based upon information you

22 provided, so the City, based upon what BAE told them,

23 rescinds the notice of violation to BAE; is that how you

24 understood it?

25   MR. DART: Same objection.

1   THE WITNESS: That's what one of the sentences

2   in this letter says.

3   BY MR. BENSHOOF:

4   Q.   Would you agree with me there is no indication

5   in this letter that the City did any investigation

6   whatsoever to determine whether or not BAE's information

7   was truthful?

8   MS. REYNA: Lacks foundation.

9   THE WITNESS: I don't see that indicated in

10 this letter.

11 BY MR. BENSHOOF:

12   Q.   Are you aware of any documents in the record,

13 Mr. Carlisle, that reflect the fact that the City did

14 anything to verify truthfulness of BAE's statements?

15   A.   I don't know what statements BAE made.

16   Q.   Let's look at -- maybe help refresh your

17 recollection that BAE blamed SDG&E for the discharge.

18   Let's look at SAR 5339, copy of an e-mail dated

19 11/21/05 between your staff member, Ms. Honma and

20 Ruth Kolb.

21   MR. BENSHOOF: That will be next in order.

22   (Exhibit No. 1016 marked for identification.)

23 BY MR. BENSHOOF:

24   Q.   Have you seen this piece of the administrative

25 record before, Mr. Carlisle?

1   A.   Yes.

2   Q.   And do you know Mr. Shaun Halvax at BAE?

3   A.   Yes.

4   Q.   So he's -- Ms. Honma is your staff member is --

5   in her e-mail of 11/17/2005 is talking about a

6   conversation with him, correct?

7   A.   Yes.

8   Q.   And he informed your staff member, that is

9   Mr. Halvax, that the catch basin drained off of SDG&E?

10   MR. DART: Lacks foundation and the document

11   speaks for itself.

12   BY MR. BENSHOOF:

13   Q.   Do you see that?

14   A.   I see that in the e-mail you recited.

15   Q.   And she is now asking the City whether they did

16   anything to follow up on that?

17   MS. REYNA: Document speaks for itself.

18   MR. DART: Join.

19   BY MR. BENSHOOF:

20   Q.   You see that?

21   A.   Yes.

22   Q.   And then you see the City's response where

23   Ms. Kolb tells -- good morning, Lisa, SDG&E was issued

24   an NOV, correct?

25   A.   Yes.

1   Q.   You agree with me that there is nothing in that

2 response that reflects any independent investigation by

3 the City of the information given to the City by

4 Mr. Halvax?

5   MS. REYNA: Misstates the document. Document

6 speaks for itself.

7   MR. DART: Join and assumes facts.

8   THE WITNESS: Would you please read back the

9 question.

10   (The record was read.)

11   THE WITNESS: Well, I'm hung up on the sentence

12 that says SDG&E cleaned the catch basin or are in the

13 process of blah, blah, blah. So that implies the City

14 might have had more information than is suggested by

15 these short e-mail exchanges.

16   In addition, if you look at Table 95 of the

17 DTR, it looks like prior to this November 21 date of

18 these e-mails, they have got data from October of the

19 same year. So I inferred that they did do additional

20 investigation, took samples, or someone did, and they

21 had access to additional data besides verbal

22 representations by Mr. Halvax.

23 BY MR. BENSHOOF:

24   Q.   Really? Where do you -- so you agree that's

25 speculation on your part?

1   A.   I agree that this communication is in November

2   and I see data dated prior to that. So -- and it's City

3   of San Diego data. So it's --

4   Q.   Somebody had data?

5   A.   The City of San Diego had data.

6   Q.   Right. That wasn't my question. My question

7   agreed that there was data. My question was did the

8   City of San Diego do anything, to your knowledge, to

9   test truthfulness of BAE's assertion that the material

10 sampled came from SDG&E?

11   A.   I don't think that was your question.

12   Q.   That is the question.

13   MR. CARRIGAN: It is now.

14   THE WITNESS: The question now?

15 BY MR. BENSHOOF:

16   Q.   Did the City of San Diego --

17   A.   Yes.

18   Q.   -- do anything, to your knowledge, to test

19 truthfulness of BAE's assertion that the material

20 sampled came from SDG&E?

21   A.   Yes.

22   Q.   What?

23   A.   It is my understanding, and it is based on what

24 I'm seeing in Table 95 in my recollection of my

25 communications with the City back in 2005, which might

1 not be a perfect recollection is that somebody, perhaps

2 the City, most likely the City, I don't know if BAE or

3 SDG&E were also involved at that point, but somebody

4 went to the catch basin.

5   The catch basin had the sample taken from the

6 catch basin and apparently there is at least two pipes

7 coming into the catch basin indicated by 6-inch lateral

8 and 12-inch lateral and somebody took samples from

9 those. And so that data could be used to -- used to

10 draw some interpretations about potential sources of the

11 chemicals found in the catch basin.

12   Q.   Now, was it your understanding that the data

13 set forth in Table 9-5 was the basis for the NOV?

14   A.   I would have to look at the date of the NOV

15 versus the date of the data because I'm not sure if one

16 came before or after the other.

17   Q.   So as you sit here now, you're not sure?

18   A.   Correct.

19   Q.   You see the -- Ruth Kolb states that there is

20 an investigation in process of trying to determine the

21 origination of the 6-inch and 12-inch storm drains that

22 enter the City as catch basin.

23   Do you see that in the e-mail?

24   MR. CARRIGAN: Which exhibit? Oh, in the

25 e-mail.

1   BY MR. BENSHOOF:

2   Q.   1015. Excuse me, no, 1016.

3   A.   Yes.

4   Q.   What was the result of that inquiry, do you

5   know?

6   A.   I don't recall.

7   Q.   I mean, you stayed -- looking at Section 9.9,

8   in fact, you state, do you not, that both drains drained

9   from the SDG&E facility? You state, the first sample

10   was collected from inside and at the base of the 6-inch

11   line entering the catch basin from the former Silvergate

12   Power Plant leasehold.

13   Do you see that?

14   A.   Yes, uh-huh.

15   Q.   Did the Water Board ever do any inquiry to

16   determine where on the leasehold that line entered from?

17   A.   As I recall, and again, this is from 2005 or

18   prior to it, my recollection was we relied on the City

19   of San Diego for that information.

20   Q.   And what information did the City of San Diego

21   give you as to where it originated?

22   A.   I don't recall if it was verbally or if it's

23   anything in the record. I think my -- my recollection

24   is that when you look in a catch basin and -- and again,

25   if you are looking at catch basin and you see some pipes

1 coming into it and it's the City of San Diego's MS4

2 system, they are the best person, best entity to try to

3 understand whether that pipe outlet they see comes from

4 this direction or that direction, meaning comes from the

5 north or the south or the east or the west. And my

6 guess -- not guess -- my understanding was that the City

7 then, based on the orientation of the -- of the laterals

8 coming into the catch basin, suggested it came from the

9 direction of the SDG&E property or leasehold.

10   Q.   Suggested?

11   A.   That's the word I chose to use, because I

12 didn't have any independent information. That's the

13 impression I got from the work done by the City to find

14 out who to send a violation to and how to respond to

15 this pollutants in the catch basin.

16   Q.   Did the City ever tell you that they ultimately

17 determined that the 6-inch line drained from the roof of

18 the SDG&E facility?

19   A.   I don't recall that.

20   Q.   Did your staff uncover any PCB sources on the

21 roof of SDG&E's facility other than airborne deposit

22 from the shipyards?

23   MR. CARRIGAN: Assumes facts not in evidence.

24   THE WITNESS: I'm confused by the question.

25

1 BY MR. BENSHOOF:

2   Q.   Did your -- so you don't know, as a matter of

3 fact, that that line drained from the roof; is that what

4 you are saying?

5   A.   Correct.

6   Q.   You thought it drained from some other portion

7 of the leasehold?

8   A.   I -- no, I thought it was said that I don't

9 know where it came from. We were relying on the City's

10 conclusion at one point that it came from the direction

11 of SDG&E's property.

12   Q.   Yeah, but you make a statement of fact in the

13 DTR that it came from the leasehold.

14   Is it not important to you to know,

15 Mr. Carlisle, in terms of assigning responsibility for

16 those discharges that, in fact, that line drained from a

17 roof?

18   A.   We rely on reports submitted by others for a

19 lot of what our --

20   Q.   Okay. I know that.

21   A.   May I finish?

22   Q.   No, no, but you're not answering my question.

23   I asked you not did you do an investigation,

24 you clearly didn't. I'm asking you, would it have been

25 important in the allegations which you supervised and

1   were made in Section 9.9 to know that the 6-inch line

2   came from a roof as opposed to any other part of the

3   SDG&E facility?

4   MS. REYNA: Assumes facts.

5   MR. DART: Join.

6   MR. CARRIGAN: I'm going to join that one, too.

7   THE WITNESS: Apparently you don't want me to

8   expand my answer to take in all of the thought process

9   that involved in being able to answer your question --

10 BY MR. BENSHOOF:

11   Q.   You can answer --

12   A.   -- about why --

13   Q.   You can answer the question first and then do

14 whatever you want to do.

15   But I want to know, was it important or not to

16 you to know in making the allegations, which you did,

17 against SDG&E in Section 9.9 that that 6-inch line

18 turned out to have drained from the roof?

19   MR. CARRIGAN: Assumes facts, incomplete

20 hypothetical.

21   MS. REYNA: Join.

22   MR. DART: Join.

23   MR. CARRIGAN: But you can answer.

24   THE WITNESS: I'm having trouble answering your

25 hypothetical.

1 BY MR. BENSHOOF:

2   Q.   It's actually a fact, Mr. Carlisle, and

3 obviously nobody at the City ever told you, did they,

4 that it was determined that the 6-inch line drained from

5 the roof.

6   Let's start there. It's a fact, isn't it, that

7 no one from either the City or BAE ever told you that

8 they ultimately concluded that that 6-inch line drained

9 from a roof. Yes or no?

10   MS. REYNA: Argumentative.

11   MR. DART: Join.   Assumes facts as to "they."

12   MR. CARRIGAN: Join.

13   THE WITNESS: I don't recall ever getting that

14 information.

15 BY MR. BENSHOOF:

16   Q.   Correct. And you did not know that when you

17 wrote Section 9.9, correct?

18   A.   I don't know that today. Which SAR number was

19 that information on?

20   Q.   It is a fact, Mr. Carlisle. We will find it.

21   I'm just wondering, is it standard process,

22 Mr. Carlisle, for you as a representative of public

23 agency to take information from clearly an interested

24 party. You agree here that BAE clearly had a

25 self-interest in deflecting attention from themselves,

1   don't you?

2   MR. DART: Calls for speculation, lacks

3   foundation.

4   BY MR. BENSHOOF:

5   Q.   They didn't want to be hit with a violation,

6   right?

7   MR. DART: Same.

8   BY MR. BENSHOOF:

9   Q.   I mean, don't your antenna go up a little bit

10 to ask yourself before making this allegation against

11 SDG&E, perhaps I should ask is it truthful?   Did that

12 ever occur to you?

13   A.   Additional information was brought to bear on

14 this allegation.

15   Q.   And what was that?

16   A.   The fact that significant amount of PCBs were

17 identified in surface materials on SDG&E's property

18 which would likely have been eroded during rain events

19 and entered the MS4 system.

20   Q.   We are talking about Catch Basin No. 2 --

21 No. 1, I'm on that right now, Mr. Carlisle.   We'll go to

22 the other later.

23   This is Catch Basin 1.   You're making an

24 allegation against SDG&E that it was responsible for the

25 releases to that catch basin.   Mr. Tobler testified that

1 all you did was take the City's communications at face

2 value. So we know you didn't do anything to investigate

3 it.

4   My question, Mr. Carlisle, in making the

5 allegation in 9.9, can you say or not that it would have

6 been important for you to know that the 6-inch line

7 drained from not the ground surrounding the facility,

8 from not the floor of the facility, from not grounds

9 adjacent to the facility, but rather from the roof?

10   MR. CARRIGAN: Incomplete hypothetical.

11 BY MR. BENSHOOF:

12   Q.   Do you have the question?

13   MR. CARRIGAN: Incomplete hypothetical.

14   MS. REYNA: Assumes facts.

15   MR. DART: Go ahead, assumes facts and

16 misstates the testimony.

17   THE WITNESS: That would have been useful

18 information to have.

19 BY MR. BENSHOOF:

20   Q.   Right. Because in all likelihood, if there

21 were any PCBs on that roof, they probably came from the

22 sandblasting in, you know, operations that you have

23 described, correct?

24   MR. CARRIGAN: Incomplete hypothetical, calls

25 for expert opinion, assumes facts not in the record.

1   MS. REYNA: Join.

2   MR. DART: Join.

3   THE WITNESS: No.

4 BY MR. BENSHOOF:

5   Q.   Would it also have been useful for you to

6 know -- what PCB sources, then, are on a roof? Did you

7 investigate whether there was a PCB source on the roof

8 of the facility? You never did, did you?

9   MS. REYNA: Objection, still assumes facts.

10   MR. CARRIGAN: Just wait. Okay.

11   THE WITNESS: No.

12 BY MR. BENSHOOF:

13   Q.   Now let's move to the other factual assertion

14 that you make in Section 9.9. And that's this sentence,

15 "The second sample was collected from inside and at the

16 base of the 12-inch lateral entering the catch basin

17 from another area draining storm water from the

18 facility." And I underscore "from another area draining

19 storm water from the facility."

20   Do you see that?

21   A.   Yes.

22   Q.   Would it have been useful for you to know

23 before making that allegation against SDG&E that an

24 investigation of the 12-inch line concluded that no one

25 knew where it was originating from and that that

1   statement that it drained the facility was untrue; would

2   that have been useful for you to know?

3   MR. CARRIGAN: Incomplete hypothetical.

4   MS. REYNA: Assumes facts not in evidence.

5   MR. DART: Join all.

6   THE WITNESS: Yes.

7   BY MR. BENSHOOF:

8   Q.   Did you do any effort to compare the sediment

9   results from that catch basin to any of the scores of

10 catch basins in the -- on the BAE property to determine

11 whether or not the constituents were similar?

12   A.   No.

13   Q.   Would you have wanted to have known that,

14 Mr. Carlisle, before alleging that it was SDG&E that was

15 responsible for the contaminants located in that catch

16 basin?

17   A.   It may or may not have had bearing on --

18   MR. CARRIGAN: Go ahead.

19   THE WITNESS: -- bearing on this section.

20 BY MR. BENSHOOF:

21   Q.   You mean to tell me if you found in BAE's own

22 storm drains and catch basins, and there are 30-some on

23 their property, the same exact constituents in the same

24 concentrations, that wouldn't have been important to

25 you?

1   A.   That's why I said it may or may not.   In your

2 hypothetical, it would; in another hypothetical, it

3 wouldn't.

4   Q.   You agree you didn't do anything to test that

5 out, correct?

6   A.   I think that's been asked and answered.

7   Q.   Now let me go back to the board policy.   Is it

8 board policies to take the unsubstantiated assertions of

9 a private party to use as an allegation of

10 responsibility to another company?

11   MR. CARRIGAN: Misstates the record.   Misstates

12 the witness' testimony.   Misstates the document.

13   MR. DART: Join.

14   MS. REYNA: Join.

15   THE WITNESS: I don't -- I don't recall any

16 policies that provide guidance on that area that you are

17 probing.

18 BY MR. BENSHOOF:

19   Q.   Would you at least want to go back and rewrite

20 Section 9.9 considering the most current information on

21 where the 6-inch and 12-inch lines originated from?

22   MR. CARRIGAN: Assumes facts not in evidence.

23   MS. REYNA: Join.

24   MR. DART: Join.

25

1 BY MR. BENSHOOF:

2   Q.   Well, if you don't have it, we'll give it to

3 you.

4   Would you like to see further data,

5 Mr. Carlisle, to reconsider the allegations of 9.9 in

6 light of where, in fact, the 6- and 12-inch lines

7 originate from?

8   A.   The region accepts any and all data to consider

9 in our actions. We welcome -- especially from a

10 scientist. The more data, the better; the more facts,

11 the better. At the time we were working with the

12 information we had.

13   Q.   And Ms. Honma said at Page 84 of her deposition

14 that not only did you direct her to contact the City,

15 she affirmed that no one at the Water Board ever

16 verified that SDG&E was the source of the contaminants

17 in the catch basin. And I take it you would agree with

18 that?

19   A.   Yeah, we rarely have the resources to

20 independently confirm information, data that is

21 submitted to us by -- by anybody.

22   Q.   Now, one of the chemicals of concern in the

23 sediments is TBT, correct?

24   A.   Yes.

25   Q.   And you don't have any doubt that the exclusive

1 source of all of that contaminant is the marine paints

2 used as antifouling agents on vessels?

3   A.   I'm not an expert on exclusive sources of TBT.

4 I know that's one of the most common sources.

5   Q.   But you don't allege in any portion of the DTR

6 that SDG&E used antifouling paints on its -- in its

7 facility, do you?

8   A.   No.

9   Q.   Now, you have had a lot of experience assessing

10 environmental conditions. And I want to ask, have you

11 ever used the technique of collocation?

12   And by that, I mean in attempting to identify

13 sources, use as a marker a chemical released -- known to

14 be released from only one of several sources, use that

15 as a potential way of attempting to define or identify

16 the source for other chemicals?

17   And I call it collocation. That's what I

18 have -- that's the term I have read in the literature.

19 But you may have used some other term.

20   A.   Could you repeat the question?

21   Q.   Yes. There's a technique that I have read

22 about in terms of identifying sources that's referred to

23 as collocation. And that technique involves using

24 what's called a marker chemical that is known to have

25 been released from only one source, amongst several

1 potential, and attempting to use that to identify

2 whether other constituents may have come from that same

3 source by collocating the concentrations.

4   Now that's what I have read about. That's the

5 nature of the question.

6   If I'm asking you something you have no

7 experience in, then, you know, you don't know. But I

8 mean, do you recognize that as a technique rather

9 commonly used in the field of environmental assessment

10 to identify sources?

11   A.   I don't recognize that as a technique commonly

12 used, but I recognize the technique. I have been

13 involved with projects that discharges have used that

14 technique and there is a lot of pitfalls with the

15 application of that technique.

16   Q.   Was it used at all in your evaluation of the

17 Exponent data to attempt to identify the likely source

18 of PCB impacts?

19   A.   Not that I recall. Not with any specificity.

20   Q.   If it turned out that PCB hits were collocated

21 with TBT hits, what conclusion, if any, would you draw

22 from such a result?

23   MR. CARRIGAN: Incomplete hypothetical.

24 BY MR. BENSHOOF:

25   Q.   I know you didn't look at it, but if that's

1   what the data showed, what conclusion, if any, would you

2   arrive at?

3   MR. CARRIGAN: Same objection.

4   THE WITNESS: My conclusion would be I would

5   need a whole lot more information about the potential

6   sources, the timing, the depth, the age, the fate and

7   transport of the chemicals involved. So I wouldn't -- I

8   would be -- would need a lot more information before I

9   get to the point of drawing a conclusion.

10   BY MR. BENSHOOF:

11   Q.   So your conclusion would be you wouldn't

12   dismiss it out of hand, I take it, but you would want to

13   know more. Is that a fair statement?

14   A.   Dismiss it? What do you mean by "it"?

15   Q.   The evidence that TBT was collocated in its

16   highest concentrations with TBT.

17   A.   That's not a conclusion. That would be a fact

18   in a hypothetical situation.

19   Q.   Yeah, would you dismiss that out of hand or

20   would you want to know more before deciding whether that

21   showed that the PCBs likely came from the same source as

22   the TBTs?

23   A.   Well, I would, as I said, I think previously I

24   would need a lot more information. No, I consider all

25   evidence submitted in all situations and then see if

1 more data is needed. So there's a lot of steps before

2 we get to the point of drawing a conclusion.

3   Q.   And you would agree that at no point in this

4 project did you ever do that, did you ever look to see

5 whether these, the TBT hits, were collocated with PCB

6 hits?

7   A.   There was a lot of collocation done more with

8 the mixture of all of the mixture of chemicals at the

9 site. I don't think there is a specific TBT/PCB

10 collocation analysis in the DTR.

11   Q.   You would agree that TBT would be useful as a

12 marker for a shipyard-caused contamination, correct?

13   MR. CARRIGAN: Incomplete hypothetical.

14   MR. DART: Join, it's vague.

15   THE WITNESS: Probably in most situations, yes.

16 BY MR. BENSHOOF:

17   Q.   And specifically in the situation of the BAE

18 shipyards that TBT -- you don't know of any other source

19 for TBT off those shipyards then, the BAE shipyard

20 operations, correct?

21   A.   No, no, incorrect.

22   Q.   Oh, what other sources of TBT contamination are

23 you aware of?

24   A.   BGBs, big gray boats, the Navy ships.

25 That's -- sorry, that's a slang term. The large Navy

1   ships that populate a large portion of the bay have a

2   lot of wetted service and, historically, I am of the

3   understanding that they had TBT. So there's presumably

4   background levels of TBT in San Diego Bay that have

5   nothing to do with NASSCO, BAE or their predecessor.

6   Q.   Let's just look at an exhibit to see if you

7   think these are due to the Navy and not the shipyard

8   operations.

9   I would like you to look at --

10   MR. BENSHOOF: We'll mark as next in order

11 Exponent Volume I, SAR 15417. 1017.

12   (Exhibit No. 1017 marked for identification.)

13 BY MR. BENSHOOF:

14   Q.   And I would like you to turn to Page --

15 Figure 4-15 on Page 15807. And you see that that

16 illustrates concentrations of TBT in the location of the

17 Southwest Marine shipyard?

18   A.   Okay.

19   Q.   And the highest concentrations are 2500 to

20 32500 PCB -- or excuse me, PPBs?

21   Do you see that?

22   MR. CARRIGAN: In the legend?

23 BY MR. BENSHOOF:

24   Q.   Correct. And on the figure.

25   A.   Well, I can't tell because the three highest

1 values have virtually the same color in the figure.

2   Q.   So just take the whole range then, 1,000 to

3 3250 parts per billion, we'll just go with that whole

4 range.

5   Do you believe the TBTs shown on this figure

6 was caused by the big ships or the shipyard operations?

7   A.   Most likely it's associated with the shipyard

8 operations.

9   Q.   Right. So this would be a good example of a

10 marker, correct, something that was caused by only one

11 source that is the shipyards? Would you agree?

12   A.   I would agree that it's highly likely that it's

13 the majority, the large majority of these concentrations

14 came from the shipyard activities and immediately

15 adjacent to these samples.

16   Q.   And you recognize the area illustrated as being

17 including the same area as the high PCB concentrations

18 detected, correct?

19   A.   I would want to do an overlay and actually, to

20 do this sort --

21   Q.   There is a table.

22   A.   And to do this sort of analysis, I would much

23 rather, as a scientist, not see these figures that just

24 summarize large ranges of concentrations without showing

25 me individual data points and Exponent did provide those

1   large-scale figures that showed the actual site station

2   concentration for each parameter.

3   Q.   Well, let's go to a report you had that has

4   individual data points then.

5   MR. BENSHOOF: We'll mark next in order SAR

6   56453 an SAIC sediment sampling report dated January 13,

7   1992 as exhibit next in order.

8   (Exhibit No. 1018 marked for identification.)

9   BY MR. BENSHOOF:

10   Q.   Now, this was in the administrative record,

11 Mr. Carlisle. It's a report done by --

12   MR. CARRIGAN: Counsel, is that a copy that --

13   MR. BENSHOOF: Oh, pardon me, I didn't mean

14 to --

15   MR. CARRIGAN: Thank you.

16 BY MR. BENSHOOF:

17   Q.   Do you recall reviewing this in your

18 contributions to the DTR, this data from the SAIC

19 sediment sampling report?

20   A.   This is -- I am trying to recall it. It's the

21 title page you handed me says "Appendix C" so this is an

22 entire SAIC report that was an appendix to a larger

23 report?

24   Q.   I believe so. It's Woodward Clyde appendix to

25 a larger Woodward Clyde, but if you go to the second

1 page, you will see the title page for this particular

2 report. I don't want to confuse you by looking at --

3   A.   So this is the title of the appendix or the

4 report that's in the appendix.

5   Q.   Prepared by Science Applications International

6 Corporation.

7   So the question is: Without spending a lot of

8 time on titles but did you look at any of this at all

9 before reaching the conclusions which you did in

10 Section 9 of the DTR?

11   A.   I do recall the Woodward Clyde report, which,

12 presumably, this is a portion of, but without seeing the

13 report -- this is an appendix, Appendix C no less.

14   Q.   We'll take some examples of -- this was -- this

15 was sampling done around Pier 1 amongst other places in

16 the BAE shipyard, correct?

17   A.   I don't know yet.

18   MR. CARRIGAN: Can you give us a specific page,

19 Counsel?

20 BY MR. BENSHOOF:

21   Q.   Yeah, you can look at -- it's the sampling

22 locations are illustrated on SAR 6625 to 6626, 6627.

23   Take your time.

24   A.   It's probably safe to assume you are correct

25 that this is Pier 1 at BAE.

1   Q.   Let's not assume anything. I mean, take a look

2 at the executive summary. I don't want any intimations

3 that I'm --

4   A.   I'm scanning it for the word "BAE."

5   Q.   Well, BAE is also referred to as

6 Southwest Marine, correct?

7   A.   Yes.

8   Q.   So if you scan it for that word, you will see

9 it in the first sentence, correct?

10   A.   Oh, I'm sorry. I overlooked that. Thank you.

11   Q.   If you scan the second paragraph for the word

12 "Pier 1," you will see that?

13   A.   Thank you, yeah, I was just a little slow to

14 orient myself.

15   Q.   No, no problem.

16   Now, in fact, this presents -- let's go to --

17 we're going to go to Page 56572 as an example. The are

18 several of these. But I want to start there. You see

19 this shows a transect of -- they're separate pages by

20 each layer studied, correct? You can see that from --

21   MR. CARRIGAN: Counsel, he is not to that page

22 yet.

23   THE WITNESS: Okay. I'm on 56572.

24   MR. CARRIGAN: All right. Now you can begin

25 your questions.

1 BY MR. BENSHOOF:

2   Q.   This shows sampling results in the first layer

3 analyzed in this report. And that you wanted individual

4 concentrations at individual points. So that's why we

5 have turned to this document. And you see, do you not,

6 is it not true that both PCBs and PAHs are collocated

7 with the TBT hit?

8   A.   I'm trying to understand their graphics in this

9 Page 56572. But it looks like, if I'm reading this

10 correctly, samples -- is that Sample No. 6.

11   Q.   Sample .6.

12   A.   And above it, I see a graph or some sort of

13 graph figure that shows TBT result of 136.9 and above

14 that a PCB result of 324, et cetera.

15   Am I following?

16   Q.   And a pH result of 1820?

17   A.   Okay.

18   Q.   So this is an example, is it not, at an

19 individual sampling point, .6 along Pier 1, all three

20 contaminants are collocated?

21   A.   All three contaminants were reported in

22 apparently that Sample 6.

23   Q.   And the same is true for the following page,

24 Layer 2, the TBT and PAHs are collocated at Sample .6.

25 And at Sample .7 TBT PCBs and PAHs are all collocated,

1 would you agree?

2   A.   For Sample 7, I see TBT and PCB in the sample;

3 Sample 6, I don't.

4   Q.   You see TBT and PAH, correct?

5   A.   Yes. In Sample 6.

6   Q.   So in Layer 2, those are collocated at Points 6

7 and 7, correct?

8   A.   Which chemicals?

9   Q.   TBT and PAHs are collocated at .6, at

10 Sample .7, TBT, PCBs and PAHs are all collocated?

11   A.   Yes.

12   Q.   And I mean stop there. Is this the kind of

13 data that you would want to take into consideration, ask

14 further questions about, to determine whether or not the

15 PCB and PAH concentrations identified were, in fact,

16 from the same source, same sole source as contributed

17 the TBT concentrations?

18   A.   This would be one element of -- one might use

19 to do as you have described.

20   Q.   Now, do you know whether a decision was made

21 not to do that kind of analysis? Or was it just not

22 thought of in connection with putting together the DTR?

23   A.   It wasn't necessary.

24   Q.   That's a different question.

25   So are you saying that it was thought of but

1   somebody dismissed it as unnecessary?

2   A.   No.

3   Q.   That's what I thought.

4   In fact, isn't it true that this analysis was

5   not thought of in connection with putting together the

6   DTR?

7   MR. CARRIGAN: Calls for speculation, lacks

8   foundation.

9   BY MR. BENSHOOF:

10   Q.   To the extent you know.

11   MR. CARRIGAN: If he thought it.

12   BY MR. BENSHOOF:

13   Q.   Well, in your cubical world, you converse with

14   and interrelate with a lot of people. So in all of

15   those interrelationships that occurred over ten years in

16   connection with putting together the DTR, am I correct

17   that this analysis was not thought of, to your

18   knowledge?

19   A.   Correct, because collocation, as I indicated,

20   has a lot of pitfalls associated with it. And you need

21   a lot of information. And it's used to draw certain

22   conclusions about often allocation and identification of

23   potential responsible parties versus others. And it

24   wasn't a line of investigation that we thought was

25   necessary to support the allegations.

1   Q.   Right. But I just want to make sure that no

2 one sat around and said should we do a collocation

3 analysis and somebody else said no, don't bother. It

4 was just never thought of?

5   A.   Correct. In this specific instance because

6 there is collocation used in the DTR.

7   Q.   I know that.

8   A.   Okay.

9   Q.   But in this instance of attempting to determine

10 whether the shipyards were the sole source of PCB and

11 PAH impacts, it was not used?

12   A.   Correct.

13   MR. BENSHOOF: I'm going to go into a new area.

14 Are you okay with me continuing?

15   MR. CARRIGAN: I think we're going okay.

16   THE WITNESS: I'm fine.

17   MR. BENSHOOF: I'm trying to do it as fast as I

18 can.

19   MR. CARRIGAN: Not too fast, Ward.

20   MR. BENSHOOF: That's the rope -- what the rope

21 is for.

22   MR. CARRIGAN: That's what I was yanking on.

23   MR. BROWN: Can I go for faster?

24   MR. BENSHOOF: Overruled.

25

1   BY MR. BENSHOOF:

2   Q.   Now, the SDG&E facility had -- I think in its

3   description you had mentioned in Section 92 cooling

4   waterlines, one was an intake line and one was a

5   discharge line, correct, one in-took water from the bay

6   and the other discharged water from the bay?

7   A.   Yes.

8   Q.   And I think you recognized that those were

9   not -- that was noncontact water with only chlorine

10 added?

11   A.   I think there was some exceptions to that.

12   Q.   Well, there was then a discussion of the

13 discharge of boiler blow-down water. And a recognition

14 that after 1978, it was tested and treated if necessary.

15 But prior to 1978, that protocol hadn't been in place?

16   MR. CARRIGAN: DTR speaks for itself.

17   You can answer.

18   MR. BENSHOOF: Fair enough.

19 BY MR. BENSHOOF:

20   Q.   My question is really this: Whether or not in

21 connection with putting together the allegations of

22 Section 9 against SDG&E, you looked at any of the annual

23 NPDES reports that SDG&E had submitted to the regional

24 board summarizing analysis of the waters from the intake

25 and discharge lines?

1   A.   As I recall, since that was before my time, the

2   regulation analysis reporting on the intake cooling

3   water, David Barker was the lead on evaluating whether

4   we should spend time looking into all of that data.

5   Apparently there was a lot of data, a lot of water.

6   Q.   I want to just ask a couple of questions.

7   But -- so you didn't look at the data or direct anybody

8   to do it yourself?

9   A.   I don't recall. I might have started to do it

10 or might have been involved a little bit in that. But

11 again, I don't recall that that was an area I spent much

12 time in at all, if any.

13   Q.   Go ahead and look through the DTR and let's

14 just see if you can recall, if you could scan through it

15 and see if that refreshes your recollection.

16   A.   Is there a particular section of finding 9 that

17 discussed the cooling water to speed this along for

18 the --

19   Q.   I'm looking for that.

20   A.   -- for the Court's sake.

21   Q.   9.7.

22   Just go ahead and review that quickly and I

23 will ask a couple questions.

24   A.   So looks like we did go through some of the

25 reports submitted by SDG&E on their process water and

1 compared it to CTI, for example.

2   Q.   Right. And we have talked about that.

3   Do you recall whether those same reports showed

4 a number of occasions where the concentration of copper,

5 for example, was higher in the intake line than it was

6 in the discharge line?

7   A.   I don't recall.

8   Q.   Let's just look at a couple of examples because

9 I am curious why you think that would happen.

10   MR. BENSHOOF: Please mark this January 28,

11 1977 SDG&E report as next in order. Again, excerpts.

12   (Exhibit No. 1019 marked for identification.)

13 BY MR. BENSHOOF:

14   Q.   This 1019, sir, is an excerpt of a variety of

15 data that SDG&E reported to the Water Board on

16 January 28, 1977. And included at the back is a chart

17 which charted intake and discharge concentrations. And

18 you see that, like could you turn to table at the

19 back -- well, I'm at the graph which graphs that summary

20 data.

21   But you will see, for example, in July 1976,

22 the intake concentration of copper was higher than the

23 discharge; in August, it flipped; in September,

24 discharge was higher than intake; October, the two were

25 the same; November, the intake concentrations of copper

1 were higher than the discharge concentrations; and

2 December, they were the same.

3   Do you see that?

4 A.   Yes.

5 Q.   Would you agree that SDG&E's cooling lines were

6 obviously drawing in contaminants from the bay?

7 A.   I would agree with your observation that on

8 occasion the intake water had higher concentration or

9 was reported to have higher copper concentration than

10 discharge water.

11 Q.   And then as an expert, would you conclude from

12 that fact that the line was -- the reason the line was

13 measuring higher in the intake line on certain occasions

14 than it was on the discharge line the fact that it was

15 taking in copper contamination from the bay?

16 A.   I'm just a little hung up on the word

17 "contamination" because it might just be the background

18 level of copper in San Diego Bay is around .002.

19 Perhaps that's a detection limit. That's why maybe some

20 of these -- a lot of these are pointed -- reported as

21 .002. And your report doesn't tell me what the

22 detection limits were. But I'm not disagreeing that

23 it's the intake water on probably more than one occasion

24 had a higher concentration than the discharge water.

25 Q.   And as I say, you -- as an expert would

1 conclude that the cause for that would be the copper

2 concentrations in the bay that the lines were taking in?

3   A.   Yeah, most likely without knowing where the

4 samples were taken. But yes.

5   Q.   All right. Now my question is: In making the

6 allegations against SDG&E that appear in 9.7, did you

7 ask anybody on your staff to look at these data that

8 were in the record to evaluate the extent to which the

9 contaminants of concern were, in fact, being taken in

10 from the bay in the first instance?

11   THE WITNESS: Would you please reread the

12 question? I want to make sure I can answer it

13 accurately.

14   (The record was read.)

15   THE WITNESS: No.

16 BY MR. BENSHOOF:

17   Q.   As a professional, do you believe that that

18 should have been done?

19   A.   It depends.

20   Q.   On what?

21   A.   On what we were trying to demonstrate in the

22 DTR, what the source of the data was, what the sampling

23 protocols were, what the laboratory protocols were, what

24 the detection limits were.

25   Q.   Let's say that the --

1   A.   What our objective was overall.

2   Q.   Let's say the objective was to portray fairly

3 the contributions that SDG&E caused through the cooling

4 waterlines. In your view, as a professional, if your

5 objective is a fair portrayal, would it have been

6 important at all to you to note that concentrations

7 observed, in fact, were being drawn in from the bay and

8 not caused by SDG&E?

9   MR. CARRIGAN: Incomplete hypothetical.

10   THE WITNESS: If I'm running a business and I'm

11 discharging water and the water I take in has an

12 elevated concentration of a chemical in it and I, in

13 turn, discharge that water, and it has even a lower

14 concentration but above what's allowed to be discharged,

15 I'm in violation.

16   So with that in mind, I'm having trouble giving

17 you the answer you're expecting. In other words, the

18 discharger is responsible for their discharge.

19 BY MR. BENSHOOF:

20   Q.   So to you it's irrelevant to whether or not

21 someone under California law is liable for causing a

22 condition of pollution or nuisance that all they were

23 doing was, in several instances, lowering the natural

24 concentration in the bay?

25   A.   I didn't say it's irrelevant, no. It would

1 definitely be taken into consideration.

2   Q.   But yet you asked nobody to do it?

3   A.   And we do it all the time at sites.

4   Q.   Okay. But in this instance, you asked no one

5 to do it, correct?

6   A.   No, what I'm -- well, if you want me to expand

7 on what I meant by doing it all the time or should we

8 just move on to your next question?

9   Q.   Well, I do want an answer to the follow-up

10 question that I asked. But in this instance you asked

11 no one to do it, correct?

12   A.   Correct.

13   Q.   And did anybody at the Water Board, including

14 Mr. Barker, ask anyone to do it?

15   A.   I have no idea.

16   Q.   Good suggestion. Next question.

17   I will just keep going, you let me know when

18 you want a break. I'm actually making good progress.

19 So --

20   MR. CARRIGAN: We don't want to interrupt that.

21   MR. BENSHOOF: Okay. Don't pull that rope.

22 BY MR. BENSHOOF:

23   Q.   Would you turn to Table 9.7 in the DTR, please.

24   A.   9-7.

25   Q.   9-7, pardon me.

1   And could you describe what Table 9-7

2   represents?

3   A.   It's soil-boring results from Pond B for PCBs

4   and metals.

5   Q.   Okay. And your table reflects the fact that

6   these are in terms of the PCB column, these were the sum

7   of Aorchlors detected for Aorchlors 1254 and 1260,

8   correct?

9   A.   Yes.

10   Q.   And your allegation was that this was evidence

11 of a discharge by SDG&E to the bay, correct, the fact

12 that these concentration existed in the soil underlying

13 a location of a former pond?

14   A.   Those were two different questions. First, it

15 was evidence of discharge to the bays and then you said

16 it was evidence of stuff in a pond.

17   Q.   Yeah, let me clean it up.

18   These were soil borings --

19   MS. TRACY: Uh-huh.

20   MR. BENSHOOF: Oh, sorry.

21 BY MR. BENSHOOF:

22   Q.   Soil borings were taken underneath a location

23 of a former pond that existed on this leasehold,

24 correct?

25   A.   Yes.

1   Q.   And those soil borings were taken in 2004,

2 correct?

3   A.   They were reported in 2004.

4   Q.   Incidentally, by that time, 2004, do you know,

5 Mr. Carlisle, how long the BAE shipyards had been using

6 that leasehold?

7   A.   What do you mean by "that leasehold"?

8   Q.   There was a portion of property located

9 adjacent to the shipyards immediately to the north that

10 the pond was located on, correct?

11   A.   That's my understanding.

12   Q.   Now, are you aware that after 1953, that

13 property was used by the shipyards for their shipyard

14 activities?

15   A.   I knew there was some point in time where some

16 of that property was used by the shipyard. I don't know

17 the timing.

18   Q.   Would it be important to you to know that,

19 Mr. Carlisle, in order to know whether or not

20 concentrations in Table 9-7 were a result of SDG&E's use

21 of a pond or were the result of the shipyard's use of

22 that same location?

23   A.   That information would play a factor.

24   Q.   Because you would agree in your report you're

25 solely attributing those concentrations to activities of

1 SDG&E, correct?

2   A.   Yes.

3   Q.   And you would want to consider in order to

4 prepare -- in order to present a fair picture, you would

5 want to consider the fact that after 1953, that land was

6 used by BAE shipyards, correct, you would want to know

7 that?

8   MR. CARRIGAN: Assumes facts not in evidence.

9   MS. REYNA: Join.

10   MR. CARRIGAN: Incomplete hypothetical.

11   MR. DART: Join.

12 BY MR. BENSHOOF:

13   Q.   There are plenty of photos we can go over, but

14 I do want to finish this.

15   You would want to know that?

16   A.   It would be taken into consideration, as I said

17 before, all the facts and reports, we like to rely on

18 everything in our disposal.

19   Q.   Am I correct that you asked no one on your

20 staff to investigate the extent to which the area in

21 which the soil samples were taken was, in fact, utilized

22 by the BAE shipyards after 1953 or 1954?

23   A.   Yes.

24   Q.   Now, your table indicates that the Aorchlors

25 detected were Aorchlors 1254 and 1260, correct?

1   A.   No, it just says that's the sum of the

2 Aorchlors. So I would have to dig deeper to make sure

3 that's 100 percent correct.

4   Q.   You mean if there was some other Aorchlors

5 there, you wouldn't have reported them?

6   A.   No, I just mean all I have to go on right now

7 is looking at Footnote No. 2 to Table 9-7 that says it's

8 the sum of Aorchlors including detected results for 1254

9 and 1260.

10   MR. BENSHOOF: Why don't we do this: Why don't

11 we take like a five-minute break. I will try to find

12 the reference that you relied on to make this table when

13 we come back so I can -- did you find something that's

14 relevant?

15   THE WITNESS: No, I'm just pointing out that it

16 looks like the reference is ENV America 2004 A.

17   MR. BENSHOOF: Okay. Well, let's see if we can

18 find the reference.

19   MR. CARRIGAN: Okay. Let's go off the record.

20   MR. BENSHOOF: Five minutes and we'll come

21 back.

22   (2:24 p.m.)

23   (A brief recess was taken.)

24   (2:34 p.m.)

25

1 BY MR. BENSHOOF:

2   Q.   Moving right along, Mr. Carlisle, we're back on

3 the record.

4   I would like you to turn to Page 9.3 of the DTR

5 where you talk about the historical activities at the

6 SDG&E Silvergate Substation.

7   A.   9-3.

8   Q.   Yes, I keep saying "point." I meant 9-3.

9   You're at that page?

10   A.   Yes.

11   Q.   And I want you to look in particular at the

12 third paragraph or second full paragraph where it reads

13 as follows: "SDG&E reported that the facility had

14 transformers on-site. The transformers were contained

15 within concrete sumps as part of the spill prevention

16 and control plan measures for secondary containment for

17 oil storage units."

18   Do you see that?

19   A.   Yes.

20   Q.   And it references to the ENV America report as

21 support for the containment structures? Is that

22 correct?

23   A.   There we go, I was waiting for the question.

24   Q.   Is that correct?

25   A.   Yes.

1   Q.   And did you ever take into account those

2 structures in connection with the allegations made

3 against SDG&E in Section 9?

4   A.   Which structures?

5   Q.   The containment structures you are referring to

6 on Page 9-3.

7   A.   Take into account in what way?

8   Q.   In terms of the allegations made in Section 9.8

9 of the DTR of unauthorized discharge of toxic pollutants

10 to land.

11   A.   Yes.

12   Q.   And why don't you describe how you took those

13 structures into account before making those allegations

14 of unauthorized discharge to land.

15   A.   Well, let me familiarize myself with the other

16 section you're referring to. First, I have been looking

17 at 9.3 which is about historical activity. So it's

18 just --

19   Q.   Saying what was there?

20   A.   Setting the stage based on -- I think

21 ENV America was your consultant.

22   Q.   Correct.

23   A.   Or SDG&E's consultant so we were just repeating

24 description of the facility.

25   Q.   Okay. Let's just go to that report and make

1 sure we don't have any issue with regard to what they

2 reported.

3   MR. BENSHOOF: We'll mark this as -- the ENV

4 report as exhibit next in order.

5   (Exhibit No. 1020 marked for identification.)

6 BY MR. MR. BENSHOOF:

7   Q.   It's SAR Document 193272 and I want to refer

8 you to SAR Page 193281 where the containment, secondary

9 containment for the oil storage units is described.

10   Are you on that page, Mr. Carlisle?

11   A.   Yes.

12   Q.   And you will see a description of the

13 containment structures that were in place at the SDG&E

14 facility where the transformers were maintained,

15 correct?

16   A.   Yes.

17   MR. BROWN: Excuse me one moment, can we look

18 at that report?

19   MR. BENSHOOF: No.

20   MR. BROWN: No?

21   Thank you. Just a second, let me look through

22 these for a second.

23   MR. BENSHOOF: And I'm at Page 193281.

24 BY MR. BENSHOOF:

25   Q.   Now, Mr. Carlisle, you don't -- first of all,

1 the containment structures were described and you have

2 no question with the accuracy of the description, do

3 you?

4   A.   No.

5   Q.   Now, did you take that containment structure

6 system into account at all in making the allegations set

7 forth in Section 9.8?

8   A.   Yes.

9   Q.   And please describe how that was done.

10   A.   When a facility tells me that they keep

11 transformers, for example, in a secondary containment

12 area, it raises a couple major categories of questions.

13 One is what's the integrity of the secondary containment

14 area? What's the maintenance of the secondary

15 containment area? What's the configuration and its

16 ability to contain any releases, concrete, porous,

17 there's expansion joints, et cetera.

18   So I have done many sites where I have sampled

19 under secondary concrete containment areas and found

20 petroleum hydrocarbons tens of feet into the ground, for

21 example, at Hewlett Packard facilities, big machine

22 shops in Palo Alto.

23   And then the other big area that comes to mind

24 is even if there was evidence or proof that these

25 secondary containment areas were 100 percent foolproof,

1 the large industrial-type facilities that I have

2 investigated often store transformers or whatever the

3 item is in question in additional areas besides, in

4 other words, not everything tends to go into the

5 secondary containment area. Maybe there's other areas

6 that things were stored.

7   Q.   Well, you agree that --

8   A.   Or they might have been off-loaded off a

9 vehicle, off a truck, put on the ground, then moved into

10 the secondary containment area. So you know, there's a

11 lot of factors is all I'm saying before one might want

12 to draw a conclusion that, oh, this thing has belt and

13 suspenders and there no worry about the pants falling

14 down.

15   Q.   And you would apply that same set of skeptical

16 questions to the transformers existing at the BAE

17 shipyard, correct?

18   A.   If I needed to.

19   Q.   What do you mean if you needed to?

20   A.   Depending upon the scope of why I would be

21 investigating the transformers at the BAE facility.

22   Q.   Well, would you be investigating them for

23 purposes of contributing PCB contamination to the

24 sediments?

25   A.   We were investigating BAE to -- investigating

1   the record on the shipyard facilities to see if there

2   was sufficient evidence to name them in a cleanup and

3   abatement order. And once we reached that threshold, we

4   don't keep investigating to the level of detail you are

5   implying might have been necessary.

6   Q.   So because of that, you didn't specifically

7   focus on the transformers in place at the BAE shipyard

8   to investigate whether they had any containment at all;

9   is that accurate?

10   A.   You're shifting gears pretty quick on me.

11 We're looking at a report on SDG&E and now we're talking

12 about BAE.

13   Q.   Right. That's just the way questioning goes

14 sometimes.

15   A.   Okay.

16   Q.   So the question is: Because you had already

17 had enough and they were clearly implicated based on

18 what you had, you didn't investigate whether or not the

19 transformers in place at the BAE shipyard were contained

20 at all in terms of any spill?

21   A.   Yeah, my starting point was with the Exponent

22 data and when you start looking at PCBs results in the

23 sediment adjacent to the whole site, everybody's noticed

24 probably that there's higher propensity or a higher

25 presence of PCBs in the sediment samples at the BAE

1 under the shipyard sediment site, which is where SDG&E

2 is, than there is at the NASSCO end of the shipyard

3 sediment site.

4   And so my -- probably wasn't even a formal

5 hypothesis, but my thought process was that, okay, so

6 either BAE and their predecessors' activities seem to

7 have had more releases of PCBs than NASSCO shipyard

8 operations or there is someone else in the neighborhood

9 that might have contributed to that.

10   Q. You know, that's an interesting point you now

11 raise.

12   Were you unaware of the fact that a good

13 portion of the NASSCO shipyard had been filled in and

14 therefore the same types of PCBs releases immediate to

15 the shipyard would have been covered up?

16   MR. CARRIGAN: Assumes facts not in evidence,

17 incomplete hypothetical.

18   MR. BENSHOOF: Just asking if he is aware of

19 that as a fact. I mean, it's not disputed.

20 BY MR. BENSHOOF:

21   Q. You're saying that there's more

22 concentrations -- that the NASSCO consultants found that

23 there were higher concentrations in the north part than

24 on their client's property, correct?

25   A. The NASSCO and BAE consultants.

1   Q.   And did you know that a good portion of the

2   NASSCO shipyard had been filled in? With --

3   A.   I knew that --

4   Q.   -- with high concentrations of PCBs,

5   potentially covered up?

6   A.   I didn't know that there were high

7   concentration of PCBs that got covered up.

8   Q.   Because no one ever looked, right?

9   A.   Right.

10   Q.   Because by the time they sampled the locations

11   where those might have been were all covered up. Did

12   you take that into account in implying that because the

13   north had higher concentrations, it must have been

14   because of somebody in the neighborhood? In other

15   words, could the difference have been, Mr. Carlisle, the

16   fact that contamination in the south was covered up by

17   the infilling?

18   By "cover up" I don't mean evilly, I mean, in

19   fact, it was covered up? Did you take that into

20   account?

21   MR. CARRIGAN: Misstates testimony.

22   MS. REYNA: Assumes facts, compound.

23   MR. CARLIN: Lacks foundation.

24   THE WITNESS: It is my understanding that this

25   is a hypothetical and if you're asking if someone has

1   some contamination near shore and then they move the

2   shoreline out, would that contamination not be there to

3   be detected in a subsequent investigation, yes, I agree

4   with that.

5   BY MR. BENSHOOF:

6   Q.   And did you take that fact into account in the

7   suspicions that you developed regarding the north that

8   you just articulated in your testimony?

9   A.   What fact?

10   Q.   Of concentrations or of areas of the NASSCO

11 shipyard being covered up with fill.

12   A.   But I haven't heard about any data that got

13 covered up. In other words, was there data on the

14 sediments that got covered up as the shoreline was

15 pushed out.

16   Q.   Did you ever ask?

17   A.   And my understanding is that -- and throughout

18 the bay is that the shoreline, you know, the water used

19 to go all the way to approximately where Harbor Drive

20 and over the years, shorelines were moved out as

21 additional land was created. I'm not personally

22 familiar with facts about how much more was done at

23 NASSCO versus BAE.

24   Q.   Did you ever ask Exponent to do further

25 investigation in the NASSCO shipyard to attempt to

1 determine the concentrations, if any, of PCBs that were

2 covered up by fill?

3   A.   No.

4   Q.   And to you that's irrelevant to determining

5 whether there is some imbalance between concentrations

6 found in the south and concentrations found in the

7 north; is that --

8   MR. CARRIGAN: Misstates.

9 BY MR. BENSHOOF:

10   Q.   Is that your testimony?

11   MR. CARRIGAN: Misstates testimony

12 argumentative.

13 BY MR. BENSHOOF:

14   Q.   I mean, you were implying, were you not,

15 Mr. Carlisle, that concentrations in the north were

16 suspiciously higher than concentrations in the south?

17   That was your whole point in your comment back

18 to me a few minutes ago, something strange is going on

19 because they're a lot higher there and it must be your

20 client, Mr. Benshoof. That's what you intended to

21 communicate, correct?

22   MR. CARRIGAN: Misstates testimony.

23   THE WITNESS: No, I think you're overstating

24 it. I'm just saying, as a scientist, I see higher

25 numbers here versus there. Theoretically, similar

1 shipyard activities over similar time frame meaning, you

2 know, a lot years, 75, 100 years. So a scientist tends

3 to go, wow, why is there higher concentrations down

4 here? I didn't immediately take that to say it must be

5 one entity versus another. I just took it as to be

6 something that is interesting.

7 BY MR. BENSHOOF:

8   Q.   It's okay. We can go back to that, but you

9 mentioned maybe it was somebody in the neighborhood.

10   Who suggested that to you? Would it have been

11 NASSCO or BAE?

12   A.   I -- no, I came to -- it wasn't hard to look at

13 the concentration map, the reports from Exponent and see

14 the numbers were higher down there including at depth, a

15 lot of the high cores.

16   Q.   Now let me ask, you mentioned a number of

17 things you would want to know about a containment

18 structure to gauge its effectiveness, fair enough?

19   I mean, you went through a number of factors

20 and I agree with you. That that analysis might be

21 relevant.

22   Was any of it done with respect to the SDG&E

23 containment structures? Did you do any evaluation of

24 its effectiveness?

25   A.   No.

1   Q.   And so I take it you agree that while in the

2   section of unauthorized discharge to land, you assert

3   that any release would have found its way into the storm

4   system, you agree that that's speculation? You don't

5   know whether it would have been contained or not?

6   MR. CARRIGAN: Misstates -- go ahead, finish

7   your question.

8   BY MR. BENSHOOF:

9   Q.   Is it fair to say, Mr. Carlisle, that to the

10 extent there was a release of PCB-containing fluids at

11 the substation, you don't know whether or not that would

12 have been contained?

13   A.   Depends upon where the release is. You said

14 the substation. That's -- it was a pretty big facility.

15   Q.   In the areas of the data relied upon by

16 Section 9.8, you had -- you relied on Section 9.8 on

17 certain data point located within the SDG&E containment

18 system, correct?

19   A.   No, not solely.

20   Q.   Well, you don't know, do you, sir?

21   A.   9.8 is about USTs, not your containment system.

22   Q.   It isn't about the USTs, it is about sampling

23 of the soil -- this may be going too far back for you to

24 remember, but do you recall what that investigation was

25 that Table 9.4 was based on?

1   A.   You said 9.8. Maybe you misspoke.

2   Q.   I'm sorry, I meant Section 9.8, which is backed

3   up with the Table 9.4, and there were certain selected

4   soil samples taken in connection with a UST storage tank

5   closure, correct?

6   A.   Correct.

7   Q.   That data was reported, and you relied on that

8   data in concluding that there had been an unauthorized

9   discharge of toxic pollutants to land, correct?

10   A.   Correct.

11   Q.   Am I correct that you didn't -- you have no

12   knowledge as to whether and to what extent the 18 soil

13   samples listed were taken within the SDG&E containment

14   structure, correct?

15   MR. CARRIGAN: Assumes facts not in evidence.

16   THE WITNESS: I don't know what you mean by the

17   "SDG&E containment structure." I thought previously we

18   were talking about the containment structure apparently

19   made of concrete that's in the ENV report that held the

20   transformers.

21   BY MR. BENSHOOF:

22   Q.   There is an area --

23   A.   I didn't know this --

24   Q.   The SDG&E or the report relied on by you in the

25   DTR describes the area of the facility which the

1 containment structure was present in.

2   Do you agree with that?

3   A.   The ENV report?

4   Q.   Yes.

5   A.   A portion.

6   Q.   Now, do you know whether or not and to what

7 extent the soil samples referred to in Table 9.4 were

8 taken within that area or not?

9   A.   I assume they weren't taken within a concrete

10 containment structure because they were soil samples.

11 So I'm confused.

12   Q.   Okay. So your assumption in making the

13 allegations in 9.8 was that those sample locations were

14 outside of any secondary containment structure, yes or

15 no?

16   A.   I don't know.

17   Q.   Wouldn't it be material to your conclusion and

18 your allegation in 9.8 that these were -- that this

19 ultimately found its way to the storm water conveyance

20 system as to whether or not they were contained at the

21 time the release occurred?

22   A.   Might be useful depending upon your definition

23 of containment and the integrity of such containment.

24   Q.   And am I correct that in making the allegations

25 which you did in 9.8 you didn't ask anybody to determine

1 whether or not the releases reflected by that table,

2 9-4, were, in fact, contained?

3   A.   I relied on the reports submitted on behalf of

4 SDG&E. ENV America and TN & Associates.

5   Q.   All right. And you didn't -- take it one more

6 time, you did not bother to look at where those sample

7 locations were specific to the containment structures

8 that you knew existed, correct?

9   A.   I didn't know this existed within containment

10 structures, and I don't think the ENV America report or

11 the TN & Associates report, especially the TN &

12 Associates report, which is where this data came from,

13 shows that these were selected within a containment area

14 or the containment area or a containment area. You have

15 me confused about is there one containment area? Are

16 there multiple containment areas? How were they built?

17   Q.   Okay.

18   A.   And again, your report, I don't think your TN

19 report that reports this data gives me a map figure

20 details about a containment area. It would have made a

21 difference if you reported that. As I said before, I

22 consider all information submitted.

23   Q.   So it would have made a difference to you if

24 someone had told you that the sample locations were in

25 the vicinity or were in -- within the containment

1 structure. Is that what you are saying?

2   A.   It depends. Told me or put it in a report or

3 gave me a lot of details or just gave me a verbal

4 comment in passing?

5   Q.   It would have made a difference because then

6 that would have tended to suggest that the conclusions

7 of 9.8 that it would have necessarily found its way to

8 the storm water system?

9   A.   It may or --

10   Q.   Would be perhaps inaccurate, correct?

11   A.   Perhaps.

12   Q.   And you would be interested today in finding

13 that out, correct?

14   A.   We welcome any additional data to help us

15 improve our draft technical report.

16   Q.   You are open to revising Section 9.8 to the

17 extent that the allegations relied upon or sampling

18 relied upon can be shown to be within a containment

19 structure, correct?

20   A.   Yes, depending upon the information provided.

21   Q.   And further, that the information shown to you

22 shows that the samples relied on as evidence of a

23 release were all within the containment structure, would

24 you recommend that the Water Board withdraw the

25 allegations in Section 9.8?

1   A.   It would depend upon the detail provided, the

2 accuracy of the information and the interpretations one

3 could reasonably draw therefrom.

4   Q.   Now, you talked about your fate and transport

5 expert, correct?

6   A.   Yes.

7   Q.   And you're aware that there are bioturbation

8 activities that move sediment contaminants or that cause

9 the transport of sediment contaminants?

10   A.   Yes.

11   Q.   How did you take into account the effect of

12 that particular effect, Mr. Carlisle, in making the

13 allegations which you did in Section 9?

14   A.   That's a good question because we were

15 concerned about bioturbation changing any

16 interpretations relative to sample depth versus time at

17 the site. And we relied on the SPI data provided by

18 Exponent that showed the amount, tended to show -- gave

19 us information about the lack of bioturbation versus the

20 development of the Benthic, B-e-n-t-h-i-c, communities.

21   Q.   You didn't consider that, though, to be a

22 definitive analysis of the potential for bioturbation

23 and the BAE shipyard sites and particularly the near

24 shore areas in moving contamination around, did you?

25   A.   I'm not sure I understand the question.

```
 1     Q.   Bioturbation can transport contaminated

 2  sediments from the location where they are originally

 3  deposited to another location?

 4     A.   More vertically than laterally.

 5     Q.   But it can do so laterally as well?

 6     A.   Maybe not as much compared to the other

 7  transport mechanisms like tides and prop wash.

 8     Q.   Tides and prop wash would have influenced, in

 9  your expert opinion, the transport of sediment

10  contaminants within the BAE shipyards?

11     A.   In places.

12     Q.   And what places?

13     A.   Where there's prop wash and --

14     Q.   Tidal influence?

15     A.   And tidal influence.

16          And you know, tide influence is highly variable

17  whether you're in a near shore eddy versus a more open

18  area, whether there is pier pilings, ships in the way,

19  sunken previously floating dry docks.  There is a lot of

20  factors, configuration of the shoreline, the range of

21  the tides, the moon, sun.

22          It's complicated.  I'm just trying to indicate

23  it's complicated.

24     Q.   I appreciate it is.

25          Do you know whether or not, Mr. Carlisle, that
```

1 the areas around the discharge point of the SDG&E

2 cooling line would have been subject to bioturbation or

3 not, prop wash, tidal influence, moving the davits

4 around?

5 　　　　MR. CARRIGAN:　Compound.

6 　　　　THE WITNESS:　It's likely one or more of those

7 factors would be happening.

8 BY MR. BENSHOOF:

9 　　Q.　Now, the dredging is also another activity that

10 affects the fate and transport of contaminants, I think

11 you would agree?

12 　　A.　Yes.

13 　　Q.　And there have been -- there has been -- there

14 have been various dredging activities in the vicinity of

15 the BAE shipyard site that could have influenced the

16 transport of contaminants, would you agree?

17 　　A.　It's my understanding there haven't been a lot

18 of dredging activities.　But I would agree that any

19 dredging activities would affect the fate and transport

20 of the materials.

21 　　Q.　Now, regarding the Section 9.8 that we were

22 discussing, am I correct that that data that you used to

23 support the allegation of unauthorized discharge to land

24 was received by the board after it elected to name SDG&E

25 as a potentially responsible party?

1   A.   I think that's correct.

2   Q.   And so nothing in the Section 9.8 was available

3 to the regional board at the time it originally added

4 SDG&E as a responsible party, correct?

5   A.   I think so.

6   MR. BENSHOOF: That's all I have got,

7 Mr. Carlisle. Thank you very much.

8   THE WITNESS: You're welcome.

9

10   - - -

11   (Deposition was concluded at 3:07 p.m.)

12   - - -

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1   Declaration Under Penalty of Perjury

2

3

4   I, CRAIG CARLISLE, the witness herein, declare

5   under penalty of perjury that I have read the foregoing

6   in its entirety; and that the testimony contained

7   therein, as corrected by me, is a true and accurate

8   transcription of my testimony elicited at said time and

9   place.

10

11   Executed this _____ day of _____ 20__, at

12   _____, _____.

13   (city)   (state)

14

15

16

17

18   _____

19   CRAIG CARLISLE

20

21

22

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24

25

1 STATE OF CALIFORNIA

2 COUNTY OF SAN DIEGO

3

4   I, Lynette Marie Nelson, Certified
   Shorthand Reporter, in and for the State of California,
5 Certificate No. 11585,do hereby certify:

6   That the witness in the foregoing
   deposition was by me first duly sworn to testify to the
7 truth, the whole truth, and nothing but the truth in the
   foregoing cause; that the deposition was then reported
8 by me in shorthand and transcribed, through
   computer-aided transcription, under my direction; and
9 that the above and foregoing transcript, is a true
   record of the testimony elicited and proceedings had at
10 said deposition.

11   I do further certify that I am a
   disinterested person and am in no way interested in the
12 outcome of this action or connection with or related to
   any of the parties in this action or to their respective
13 counsel.

14

                     In witness whereof, I have hereunto
15 set my hand this _____ day of _____ 20__.

16

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18   _____

19   Lynette Marie Nelson, CSR No. 11585

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN DIEGO REGION

IN THE MATTER OF:)
)
)
TENTATIVE CLEANUP AND ABATEMENT   )
)   Order No.
)   R9-2010-0002
_____   )

VIDEOTAPED DEPOSITION OF LISA HONMA

OCTOBER 5, 2010

SAN DIEGO, CALIFORNIA

REPORTED BY: JULIE A. MCKAY, CSR NO. 9059

1   CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

2   SAN DIEGO REGION

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5   IN THE MATTER OF:)
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6   TENTATIVE CLEANUP AND ABATEMENT   )
)   Order No.
7   _____   )   R9-2010-0002
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12   The deposition of LISA HONMA, taken pursuant to

13   the applicable sections of the Code of Civil Procedure,

14   on Tuesday, October 5, 2010, before me, Julie A. McKay,

15   CSR No. 9059, beginning at the hour of 10:02 a.m., at

16   12636 High Bluff Drive, Suite 400, in the City of

17   San Diego, County of San Diego, State of California.

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3   WITNESS: LISA HONMA

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