RESTORATION ADVISORY BOARD MEETING

WEDNESDAY, JULY 31, 2002

NATIONAL CITY, CALIFORNIA

REPORTED BY: Nancy A. Lee, CSR No. 3870

A T T E N D A N C E

NAVY REGION SOUTHWEST:	Ms. Theresa Morley Capt. Derek Kemp
SOUTHWEST DIVISION NAVAL FACILITIES ENGINEERING COMMAND:	Mr. Darren Belton
BECHTEL NATIONAL:	Mr. Jerry Bailey Ms. Karen G. Collins Mr. Jack Vellis
PUBLIC ATTENDANCE:	Mr. Matthew Boyd Ms. Nancy Lee Ms. Kim Krauze
RAB MEMBERS:	Mr. Eugene Mullaly Mr. Jerry McNutt Ms. Rita McIntyre Mr. Elias Margolin Mr. Craig Woempner

NATIONAL CITY, CA., WED., JULY 31, 2002, 5:45 P.M.

18:44:49 MS. MORLEY: Let's go ahead and get started.
17:40:25 I think Gene is the only member that's missing.
17:40:29 And just real quickly, I think Rita and
17:40:31 Craig, I'm not sure if you've been before when we
17:40:33 had the court reporter or not, but we take down
17:40:38 everything you say and we send it to everyone you
17:40:42 know. Just kidding.
17:40:42 If you need to say something off the
17:40:45 record, just tell Nancy "Off the record" and she'll
17:40:45 stop typing and you can talk. But it just helps
17:40:49 that we put everything down and that goes into the
17:40:53 Information Repository, but we still get the meeting
17:40:57 minutes.
17:41:00 Welcome everybody. It's great to see
17:41:01 you guys back. As Craig said, "I didn't know this
17:41:02 was a life-long job." We're not going to let you
17:41:08 off easy, but we have food, so that's good.
17:41:11 And I think you all met Captain Kemp.
17:41:12 Captain is our new commanding officer for Naval
17:41:16 Station, and we're glad to have him aboard. I heard
17:41:19 that you are much more laid back than Captain
17:41:21 Hering, so that will be interesting. And welcome.
17:41:27 Thank you for coming.

17:41:28 1 I think everybody knows everybody else.
17:41:30 2 And I'm sorry, I know you're filling in for Anita,
17:41:31 3 and your name is --
17:41:34 4 MS. KRAUSE: Kim Krauze.
17:41:36 5 MS. MORLEY: And Jerry has an announcement
17:41:37 6 that he would like to make.
17:41:41 7 MR. BAILEY: Is being forced to make. This
17:41:43 8 will be my last RAB meeting. For the past five
17:41:46 9 years, we've met down here and shared information
17:41:49 10 and hopefully took your input and moved forward on
17:41:52 11 the project, but I've decided to retire so I can
17:41:54 12 improve my golf game.
17:42:01 13 MR. McNUTT: You can still be a member of the
17:42:01 14 RAB.
17:42:01 15 MR. BAILEY: But I'm in Palm Desert. I'm
17:42:01 16 moving out to Palm Desert. But it has been a
17:42:04 17 pleasure working with you guys.
17:42:06 18 And like I said, hopefully, we've taken
17:42:07 19 your input and moved forward on the projects. We'll
17:42:11 20 get Naval Station cleaned up and the site closed out
17:42:13 21 soon.
17:42:13 22 MR. McNUTT: In how many years?
17:42:19 23 MS. MORLEY: By then you'll be off the hook.
17:42:22 24 Two years under Captain Kemp's rule we'll be
17:42:22 25 completely done; right, Darren?

MR. BELTON: No comment on that.

MS. MORLEY: Does anyone have comments on the meeting minutes from April?

Well, next we have on the agenda the tour of IR Site 4, but I see these lovely ladies were nice enough to bring our food out early, so I'll ask if you guys want to go on the tour and then come back and eat or do you want to eat before and then see the tour?

MR. WOEMPNER: I think we'd better do the tour because of the light.

MS. MORLEY: Okay. We'll do the tour first.

I think we have a Navy van and I can take three people in my car. I'm not sure if some of you guys are going to stay here.

DR. TAIT: Yeah, I'm going to stay here.

MS. MORLEY: This is going to be a demonstration -- it's actually not a site tour of IR Site 4. What we talked about last time was being able to physically see like how they sample and stuff because that helps when you review the report to see what it looks like to install a monitoring well or what a boring looks like and what the geologist is looking at when they pull out the soil core, so it's really more a demonstration of

17:43:28 1 sampling technique. I think that will be kind of
17:43:38 2 interesting.
17:43:41 3 Off the record.
17:43:44 4 (Recess taken from 5:43 to 6:40.)
18:45:22 5 MR. BELTON: I'm here to use this forum to
18:45:26 6 public notice a change at the 28th Street gas
18:45:29 7 station.
18:45:29 8 Does everyone know where the 28th Street
18:45:33 9 gas station is at -- the Navy's 28th Street gas
18:45:33 10 station? Well, we have a corrective action plan in
18:45:41 11 place. This one is by Navy lodge -- right across
18:45:47 12 the street from Navy lodge.
18:45:47 13 We have a remediation system in place.
18:45:47 14 That means that basically we're actively remediating
18:45:53 15 petroleum -- in this particular case gasoline -- and
18:46:00 16 we public noticed a CAP, Corrective Action Plan
18:46:02 17 saying, "Hey, we're going to do this."
18:46:02 18 Now we're going to use this forum to
18:46:06 19 amend that CAP. What we want to do is be a little
18:46:09 20 bit more aggressive. We're doing the right thing,
18:46:11 21 but we want to be a little bit more aggressive. So
18:46:15 22 what we're doing is we're changing our annual
18:46:17 23 groundwater monitoring to quarterly, and we're
18:46:19 24 introducing another component, ORC, oxygen release
18:46:24 25 compound. And what that component does is help us

in areas where we don't have a system that -- it incurs natural attenuation by introducing oxygen.

That was a quick public notice. Isn't that great? I got it over with.

You got it, Theresa.

MS. MORLEY: Bob, are you ready?

DR. TAIT: I'm ready.

MS. MORLEY: I think you've met Bob Tait before. He does risk assessment for Bechtel.

DR. TAIT: I do many things. Our risk assessor, Dr. Andrea Temeshy, would normally give this presentation, but she had a little scheduling problem. She gave birth to a baby girl yesterday just before lunchtime, so it wasn't appropriate for her to be here.

I'm Bob Tait, and I'm actually an engineer and geologist, but I have had risk assessment training and I am Andrea's boss, and I'm filling in for her while she's on maternity leave.

So I'm the technical manager for the program supporting the Navy in these efforts.

I thought I'd take kind of a high-level view here and pose some questions. I'm always asking questions. I'm never satisfied. So it occurred to me that there may be people that don't

18:47:47 1 even know exactly why we do risk assessments at
18:47:49 2 hazardous material release sites.
18:47:52 3 And the reason we do them -- we don't
18:47:54 4 always have to do them. The NCP, which is the
18:47:59 5 National Oil and Hazardous Substances Contingency
18:48:01 6 Plan, says that you must satisfy ARARs first --
18:48:12 7 ARARs we used to call statutory requirements or the
18:48:12 8 laws and the regulations -- you have to satisfy
18:48:16 9 those. But if that's not protective enough of human
18:48:19 10 health and the environment, then you probably need
18:48:21 11 to do risk assessment. So that's the basis.
18:48:27 12 We do that because we don't have enough
18:48:32 13 laws or it may be impossible to have enough laws to
18:48:35 14 protect us from chemicals. I just added into the
18:48:42 15 package National Oil and Hazardous Substances
18:48:43 16 Contingency Plan which is in 40 Code of Federal
18:48:48 17 Regulations Section 300 if anybody wants to read it.
18:48:52 18 It's real exciting reading.
18:48:54 19 I'd like to give a little analogy
18:48:58 20 because people are like "Oh, gosh, there's
18:48:59 21 regulations. That means we do a risk assessment."
18:49:01 22 So since we're right by the freeway here and you can
18:49:01 23 look out the door and see the cars rumbling along,
18:49:07 24 I'd like to do a little analogy of ARARs and risk
18:49:10 25 assessment.

18:49:11 1 The speed limit on the highway,
18:49:12 2 essentially the ARARs, is 65 or 70 miles an hour,
18:49:16 3 depending on where you on on the Interstate. But
18:49:18 4 even at 65 or 70 miles an hour, you may be driving
18:49:22 5 in an unsafe manner. Your car may be unsafe. There
18:49:24 6 may be a loose wheel. So a policeman can do a risk
18:49:29 7 assessment and say "Get off the road. That's not
18:49:32 8 safe." So that's basically a simple analogy that I
18:49:36 9 think about when I'm trying to explain risk
18:49:40 10 assessment and the regulations to someone like my
18:49:43 11 wife who's an accountant and who thinks some of this
18:49:47 12 stuff is a little bit peculiar.
18:49:49 13 I also ask myself why aren't the
18:49:52 14 regulations and the laws good enough. Why can't we
18:49:56 15 just do it by laws. I used to do commercial
18:49:56 16 environmental work, and my customers were always
18:50:00 17 saying "I don't want to do a risk assessment. I
18:50:03 18 just want you to tell me what the cleanup level is.
18:50:07 19 That's all I want to know. Why isn't there a law
18:50:09 20 that tells me this is what I'm allowed to have in
18:50:13 21 the ground."
18:50:15 22 Well, the reason -- there's many reasons
18:50:18 23 why ARARs are not protective enough, and I've listed
18:50:21 24 some here. The first thing is, particularly for
18:50:23 25 chemicals in the soil, there aren't very many laws

or regulations about it. We have some in groundwater, particularly for drinking water. We have maximum contaminant levels which are legal standards, but even there we don't have them for all the chemicals.

The biggest problem is that even if you had a law for every chemical, once you start adding the chemicals together, if you have more than one chemical that you're exposed to, you have additive effects, and how would you take that into account with a law on each individual chemical? So the multiple chemical thing is probably the really big reason why we're having trouble with ARARs being protective.

Now, on top of that we have different ways that you can be exposed. Simply because there's a chemical that's been released either to the ground or to the water doesn't mean that it's always going to be the same exposure. It may be released under a parking lot pavement or something or it may be in water that you're actually drinking -- wildly different cases.

Although I haven't made the point yet, we're not just talking about human health risk assessment. We're talking about ecological risk

assessments as well. And humans and non-humans don't react the same to chemicals. Things that are very bad for humans don't affect some animals, some plants and vice verse. So it's just -- you know, if we tried to have enough laws to cover everything, it would be very difficult, so we do risk assessments.

Okay. How do we do risk assessments? The Navy has established some policies on how they satisfy their requirements for risk assessment, and they use for both human health and ecological risk assessment a 3-tier approach.

This 3-tier approach is in line with United States Environmental Protection Agency guidance, but basically the 3 tiers are that when you first suspect a release of hazardous materials and you have some sample data, you would do a screening risk assessment for both human and ecological risk. Now, I'll go into more details later. They're different, but the concept is the same.

If the screening risk assessment shows you that you might have a problem, then you would probably go onto a baseline risk assessment and ultimately the third tier might be an evaluation of remedial alternatives to remedy the situation.

18:53:11 1 I'm going to go through these for both
18:53:13 2 human health and ecological risk to give you a
18:53:17 3 little better idea of what I'm talking about.
18:53:20 4 First of all, I'm just going to quick
18:53:24 5 put something up on -- you won't be able to see it
18:53:27 6 very well. It's in your package, and you'll be able
18:53:28 7 to read it if you want to, but this is right out of
18:53:31 8 the Navy's policy statement on human health risk
18:53:35 9 assessment.
18:53:35 10 It basically talks about the Tier 1 and
18:53:38 11 what are the criteria that you use to get yourself
18:53:43 12 out of Tier 1, whether you pass or fail. Then Tier
18:53:46 13 II, the Baseline Risk Assessment and its exit
18:53:50 14 criteria. And then, if necessary, the Tier 3
18:53:55 15 evaluation of remedial alternatives.
18:53:58 16 In a different policy document the same
18:54:02 17 type of figure is also available for ecological risk
18:54:06 18 assessment, but it's slightly different. Ecological
18:54:10 19 risk assessment is much more complicated than human
18:54:12 20 health risk assessment. And it has an additional
18:54:17 21 step in here in the middle of your baseline risk
18:54:20 22 assessment, but at the beginning you do a
18:54:22 23 re-evaluation, and I'll talk about that. But it's
18:54:26 24 the same three tiers. It just has an additional
18:54:29 25 step in it.

18:54:32 1 MS. MORLEY: Bob, why is that?
18:54:34 2 DR. TAIT: I'll get to that in more detail,
18:54:36 3 but it has to do with the complications of
18:54:39 4 ecological risk. The fact that humans is just one
18:54:44 5 species. Ecological risk could be on anything. It
18:54:47 6 could be on plants, animals, birds, fish, and
18:54:51 7 there's a lot of variation.
18:54:54 8 Now, I put this in the package, and I'll
18:54:55 9 just point it out to you. If you want to look at
18:54:59 10 the Navy policies and the Navy guidance yourself,
18:55:01 11 it's available on the Internet, and this is the Web
18:55:05 12 site where the Navy puts this stuff out where you
18:55:11 13 can look at it.
18:55:13 14 As I stated before, for human health
18:55:15 15 risk assessment, EPA's risk assessment guidance for
18:55:18 16 Superfund, sometimes called RAGs, is what the Navy
18:55:23 17 bases its policy on; and for ecological risk
18:55:28 18 assessment US EPA has an 8-step process that is
18:55:33 19 incorporated into the Navy's 3-tier approach.
18:55:36 20 Let's start looking at the steps. Let's
18:55:44 21 look at the screening risk assessment first, and
18:55:47 22 let's look at human health screening risk assessment
18:55:50 23 first.
18:55:52 24 In a human health screening risk
18:55:52 25 assessment we look at the maximum values that we

might have gotten of the hazardous chemicals from sampling the site, and we compare these maximum values to the United States Environmental Protection Agency and the California Environmental Protection Agency, PRGs, preliminary remediation goals. These are -- I'll show you a little more about them. These are numbers that both EPA agencies have established based on some very standard scenarios and what would be an acceptable limit of risk for individual chemicals using these standard scenarios.

So for the first cut at risk assessment we just compare the maximum numbers to these established PRGs. When we do that comparison, we calculate ratios. We take the ratio of the chemical at the site versus the PRG. All those that cause cancer we add those all together to give a total cancer risk screen, and for non-cancer causing materials that have toxic effects, we added up and get what we call a hazard index. Again, we're doing ratios of maximums. Now, this is for human health, and I'll just give you a little bit of information about the PRGs.

This is right out of EPA's PRGs guidance from Region 9, and this is on the Internet as well. But basically for PRGs they consider both

18:57:39 1 residential land use, industrial land use, and
18:57:42 2 there's one not shown here that is called ambient
18:57:46 3 air for air breathing. And these are common
18:57:49 4 pathways of exposure, but the only ones that are
18:57:53 5 used in the PRGs are in bold and Italics. So for
18:57:58 6 residential land use groundwater, we're only looking
18:57:58 7 at the top two and we're not looking at dermal
18:58:03 8 absorption from bathing, for example.
18:58:08 9 So there's a number of pathways that are
18:58:10 10 not considered in PRGs. They're the less common
18:58:12 11 ones, but they may not really be appropriate for a
18:58:17 12 specific site. So you just do an initial screening
18:58:19 13 using these, but you have to recognize the
18:58:22 14 limitations.
18:58:30 15 MR. WOEMPNER: I have a question.
18:58:30 16 DR. TAIT: Yes.
18:58:30 17 MR. WOEMPNER: How often do they change or
18:58:32 18 upgrade or revisit the toxic levels? Do they
18:58:38 19 change?
18:58:40 20 DR. TAIT: They do change and they update
18:58:41 21 them. Originally EPA was trying to update them
18:58:43 22 every year, but they found that they really couldn't
18:58:46 23 keep up with it. For example, they haven't updated
18:58:49 24 them since 2000 lately, and we're told by the
18:58:54 25 gentleman in San Francisco, a Dr. Stan Smucker who

18:58:55 1 does this, that they're going to be coming out with
18:58:57 2 some new ones soon.
18:58:57 3 And the way they've changed over the
18:58:58 4 past few years, when they first started doing this,
18:59:03 5 in the late -- I think they started doing this in
18:59:05 6 the late '80s, early '90s issuing PRGs -- they were
18:59:10 7 very conservative. And so the changes mainly have
18:59:13 8 been to make the levels less conservative and more
18:59:14 9 realistic because if they don't have good knowledge
18:59:20 10 and say, you know, "Let's be protective and make it
18:59:21 11 a little stricter."
18:59:23 12 MS. KRAUSE: Thank you.
18:59:24 13 DR. TAIT: Now, when you do your screening
18:59:26 14 risk assessment, what's the possible outcomes? And
18:59:30 15 it's fairly straightforward. If you're using -- if
18:59:34 16 you look at your maximum chemical concentrations and
18:59:37 17 you find that the risk is acceptable using this
18:59:41 18 comparison to PRGs, then you're finished. Say,
18:59:45 19 "Okay. We don't have a problem here because using a
18:59:48 20 maximum value is pretty conservative."
18:59:53 21 Or you may say "It looks like we have a
18:59:56 22 potential problem. We're only considering maximum
18:59:59 23 valves, but based on that, the risk looks
19:00:02 24 unacceptable and we think we need to go into a more
19:00:06 25 detailed analysis of this situation."

19:00:09 1 Or the third possibility, and one we
19:00:13 2 don't encounter that often but occasionally, even
19:00:16 3 with your maximum values you say, "Wow, we've got a
19:00:19 4 bad problem here. We need to do something right
19:00:21 5 away." And so you may do an emergency removal
19:00:24 6 action just to make sure that no one's health is in
19:00:27 7 danger any longer than is absolutely necessary.
19:00:31 8 So those are the three possible outcomes
19:00:33 9 at the screening level for human health.
19:00:35 10 Now, let's -- I'm going to just use an
19:00:40 11 enlarged -- for ecological risk assessment I'm going
19:00:44 12 to use an enlarged piece from the chart I showed you
19:00:47 13 earlier.
19:00:49 14 What's done in an ecological screening
19:00:51 15 risk assessment is that first you identify any
19:00:56 16 possible pathways of exposure from the chemicals
19:00:59 17 that you found. And you don't even know yet if
19:01:03 18 they're real, but you say, "Okay. What could they
19:01:06 19 be." An example here at Naval Station is you
19:01:08 20 discover that you've got some chemicals in the
19:01:09 21 groundwater, so you immediately say, well, we know
19:01:12 22 that the groundwater in general is heading towards
19:01:14 23 the bay, so the possibility is that we could expose
19:01:18 24 some fish or some bottom-dwelling creatures in the
19:01:20 25 bay. So we'll initially assume that that is a good

pathway for screening.

Then you say okay. We'll also assume that like human health that the maximum concentration we saw is going to get to those creatures. Then to determine whether or not it's a problem, we say okay. What do we know about the chemical affects on the types of creatures we're thinking about, the fish or the bottom dwellers, and we look in the literature and say could these levels affect those creatures. If the answer is -- if you have a number of answers like there's no pathway whatsoever or the maximum chemical values couldn't affect anything, then you say okay. We're past the screening risk assessment. No problem. We're out.

If we have a reasonable path and we have chemicals that might be at unacceptable levels, we fail the test and we move on to the next stage of risk assessment or, again, if it's really awful, we may do an immediate cleanup.

That's the screening -- the way screening is done for both humans and ecological. It's kind of similar, but not exactly.

In the baseline risk assessment for both human health and ecological, there's a couple of general things that we do.

19:02:50 1 First of all, we say okay. In the
19:02:51 2 screening we used the most conservative possible
19:02:58 3 approaches. Now we're getting further -- let's
19:03:02 4 become more realistic. Let's look at the real
19:03:05 5 exposure routes. If the site is completely paved
19:03:09 6 and it's going to stay that way, are we likely to be
19:03:13 7 directly exposed to the soil. If the site is
19:03:17 8 completely paved, is there likely to be exposure to
19:03:21 9 endangered species like the least-terns that are
19:03:21 10 around here.
19:03:24 11 So you start making things more
19:03:26 12 realistic, and also you don't say necessarily the
19:03:33 13 chemical concentration that I measured in the soil
19:03:36 14 is the concentration that a person or a creature is
19:03:41 15 going to be exposed to. You start looking at that
19:03:44 16 realistically also. Is there going to be some
19:03:44 17 attenuation? Is there only going to be a partial
19:03:51 18 exposure and what are the limitations, so we start
19:03:54 19 to get much more realistic.
19:03:56 20 For human health it's fairly
19:04:04 21 straightforward how we proceed from here. The first
19:04:07 22 thing we do is we establish very carefully what are
19:04:11 23 the chemicals of potential concern -- COPCs, as we
19:04:14 24 call them. And in a nutshell these are any
19:04:20 25 chemicals that you find at the site that might have

been released with certain exceptions. If they're below the background, you eliminate them. If they're essential nutrients, you eliminate them. If your chemistry analysis has some data that's bad, you get rid of the bad data. But you first establish what are the chemicals that you're worried about.

The next thing you do, as I said, you refine your exposure pathways. How are people exposed? Are they drinking contaminated water? Are they breathing the fumes from contaminated water? Are they inhaling dust particles? Just what is the mechanism of exposure. Do we have little kids playing in dirt, you know, getting it on their skin and kids lick their fingers and eat some dirt, stuff like that, so start to get realistic.

Then we look at the chemicals themselves for their toxicity, and this is mostly done for us by US EPA. But we have to occasionally review these things rather carefully because they are human at US EPA. They do make mistakes, and we generally check on the toxicity of any of the chemicals that we've established as chemicals of potential concern before we proceed with the risk assessment.

Once we have the chemicals, the root of

19:05:46 1 exposure, and the effects of the root of exposure on
19:05:51 2 the concentrations and the toxicity levels then we
19:05:54 3 can do what we call the risk characterization. We
19:05:58 4 look at all the cancer-causing chemicals and we add
19:06:01 5 all their effects together. We look at the
19:06:05 6 non-cancer chemicals and we initially add all their
19:06:08 7 effects together.
19:06:10 8 Now, there's a difference in cancer and
19:06:13 9 non-cancer chemicals in that cancer-causing
19:06:16 10 chemicals are considered to be additive. If you
19:06:18 11 have one chemical that causes cancer and another
19:06:23 12 chemical, for toxicological purposes you're saying
19:06:28 13 they add together. When you get to the non-cancer
19:06:31 14 chemicals, that may not be true. You may have one
19:06:35 15 chemical that causes a skin problem and another
19:06:39 16 chemical that causes a liver problem, and adding
19:06:42 17 those concentrations together -- adding the effects
19:06:43 18 together means nothing. It's completely ridiculous.
19:06:50 19 So if when you've -- but first we do add
19:06:53 20 them. If when you add the non-cancer effects, they
19:06:56 21 exceed a threshold that you find unacceptable, then
19:07:02 22 you start looking at it specifically. We call that
19:07:06 23 a target organ analysis. We look at what organs in
19:07:10 24 the human body that these chemicals might affect,
19:07:13 25 and if they affect different organs and they're not

19:07:16 1 additive, it may reduce the list somewhat, but it's
19:07:21 2 something that you need to look at.
19:07:23 3 Now, for human health risk assessment
19:07:27 4 the outcomes are pretty much the same as the
19:07:29 5 screening risk assessment. If there's no problem,
19:07:32 6 that's the end of it. If there is unacceptable
19:07:37 7 risk, then to quote the policy you may need to do
19:07:42 8 "additional evaluation in the form of remedy
19:07:45 9 development and evaluation."
19:07:49 10 So basically you either, again, walk
19:07:52 11 away and say, "Hey, I don't need to do anything at
19:07:53 12 the site" or say, "Hey, we've got to go further."
19:07:58 13 MR. WOEMPNER: Bob, is there any kind of gray
19:07:59 14 area that you come to --
19:08:01 15 DR. TAIT: Absolutely.
19:08:02 16 MR. WOEMPNER: -- where you say, "Well, you
19:08:02 17 know, we think it's going to change." Is that a
19:08:02 18 possibility?
19:08:06 19 DR. TAIT: In the national -- in the NCP, EPA
19:08:13 20 in developing that set several levels. They set a
19:08:17 21 cancer risk of 10 to the minus 6 -- that is, one
19:08:23 22 additional cancer case in a million people. Below
19:08:27 23 that they said, "That's not a problem. We're not
19:08:31 24 going to -- we consider that unconditionally
19:08:33 25 acceptable."

Then there was a range where they call it a generally acceptable range, and that's from one in a million cancer cases to one in 10,000. They say "Within that range you wouldn't normally do a cleanup but there might be special circumstances. You might have special populations or exposures." It might be a child's day care center or something like that, something that you really want to be extra careful. So within that range is your gray area.

Once you get above a cancer risk of 10 to the minus 4 for the 1 in 10,000, it's generally accepted that you're going to do something, that that's not a good idea. To me that's a little bit conservative, but that's the way the regulations are set up. You think about cancer risk, you think about a normal person's cancer expectancy from normal living is more than 10 percent, so it's not 1 in 10,000. It's like 1 in 10. And if you're a smoker, it might be as high as 1 in 3.

And I look at my own family. I've had cancer, minor skin cancer, but every now and then I go in and they burn it off. My mother's had cancer. My uncle's had cancer. So it's not like we don't know what that's all about.

19:10:01 1 MR. WOEMPNER: Well, I was thinking about
19:10:02 2 Fallon Air Force Base, something like that, they're
19:10:05 3 supposed to monitor. An area like that we have
19:10:08 4 greater risk.
19:10:10 5 DR. TAIT: Yes. In some of the cases where
19:10:13 6 they suspect in the past that there's been a
19:10:15 7 release, they often do health investigations into
19:10:19 8 the people that have been exposed, and they try to
19:10:20 9 compile data and try to make sure that anybody that
19:10:24 10 might have had a bad health effect gets treated, and
19:10:28 11 this is often difficult. I mean, people move
19:10:29 12 around. We have trouble locating people in the
19:10:32 13 future.
19:10:38 14 MS. MORLEY: Excuse me, Bob.
19:10:38 15 I just want to tell you, Craig, it's not
19:10:38 16 just Fallon. It's actually a Naval air facility,
19:10:38 17 but it's the whole area of Fallon. They have high
19:10:40 18 naturally occurring arsenic, so it's naturally
19:10:45 19 occurring which is a problem.
19:10:47 20 DR. TAIT: That's a good point, and I haven't
19:10:50 21 put anything up here about that, but we get into the
19:10:52 22 background considerations.
19:10:54 23 I mentioned that when you're identifying
19:10:55 24 chemicals, you don't want to say, "Hey, something
19:10:59 25 that's naturally occurring has to be cleaned up."

But if you look at those criteria and the gray areas, the 10 to the minus 6 cancer risk and 10 to the minus 4, and then you look at some of the natural things what we have in California, for example, arsenic naturally is above those levels.

I think back to what my mother used to say when I was a kid. She said, "Don't eat the dirt. It's not good for you." She was right. She didn't know why, but she was right.

So we have to be careful about that. You don't want to try to clean up something that's there naturally because you're just never going to get it done. You're going to spend a lot of money and get nowhere.

Let's get into the Baseline Ecological Risk Assessment. When we do normal investigations of a hazardous material site, we're really looking initially at describing what the release is, the nature and extent of the hazardous material release, and we're at the same time looking more towards the human health risk assessment.

If we need to go beyond an ecological screening risk assessment, it gets really complicated. It gets really expensive because there's so many variables in ecological risk

19:12:19 1 assessment. You have all the different creatures of
19:12:22 2 the world that you could be affecting, and then you
19:12:25 3 have different protectiveness for different species.
19:12:30 4 You have the Endangered Species laws, and around
19:12:34 5 here we have several endangered species. We have
19:12:36 6 the lest-turns that is always near Navy facilities
19:12:39 7 because they're always on the coastline, and these
19:12:44 8 creatures have special regulations protecting them,
19:12:47 9 so if you have them around, you're immediately into
19:12:50 10 difficulty with an ecological risk assessment
19:12:55 11 because since they're endangered, they haven't been
19:12:57 12 studied well. There aren't enough of them that
19:13:00 13 anybody wants to capture them and study them or
19:13:02 14 wants to dissect them to see what chemicals they're
19:13:06 15 absorbing, so now you start using surrogate
19:13:08 16 creatures that maybe have the same habits, that sort
19:13:14 17 of thing.
19:13:15 18 But what happens is that you have to
19:13:18 19 plan a whole different investigation. Now, to avoid
19:13:25 20 this if possible, there's a first extra step that I
19:13:32 21 mention in the Baseline Ecological Risk Assessment,
19:13:32 22 and this first thing you do -- and I'll go to that
19:13:34 23 and then I'll come back to this slide -- the first
19:13:36 24 thing you do is you really look at the
19:13:39 25 reasonableness of your initial screening. Are those

19:13:43 1 exposure routes that were possible? Are they
19:13:45 2 realistic? Because if the exposure route is not
19:13:48 3 realistic, we don't want to go to the amount of
19:13:50 4 trouble we're going to have to go to. It's a lot of
19:13:53 5 money, and it doesn't make sense to do it for no
19:13:56 6 good reason.
19:13:57 7 The common ones are things like, say we
19:14:02 8 have lest-turns somewhere near Naval Station. I
19:14:03 9 don't think we have them here. They're over at
19:14:03 10 North Island. But say we might think we have them,
19:14:11 11 and we have some chemicals in the groundwater. So
19:14:15 12 our initial screening said, "Well, we think the
19:14:16 13 chemicals in the groundwater are going to get to the
19:14:18 14 bay there. Fish are going to take them up and then
19:14:22 15 the lest-turns -- it's a kind of fish the lest-turns
19:14:25 16 eat, and we've got an endangered species effect
19:14:29 17 that's possible.
19:14:31 18 So we look at -- that was the screening.
19:14:33 19 We failed the screening because of that. Now we go
19:14:36 20 into let's look at is this real. So we look very
19:14:40 21 carefully. Are these chemicals really going to get
19:14:42 22 to the bay? Maybe they are, maybe they're not. Are
19:14:47 23 they going to get to things that the lest-turns eat?
19:14:48 24 Again, if the answer in either of these cases is no,
19:14:48 25 then that's not realistic. Let's not do that.

Let's not go down that path.

So we look at that, and if the assumptions that we've made are so unreasonable that they're really unlikely, we stop the ecological risk assessment. We don't need to do that. We made some very general assumptions and they're not good assumptions, and because they're invalid, there's really no risk to the ecology, so we don't need to go any further.

So if they are -- if we say okay. That stuff really is going to get to the bay. It really is going to get to those little fish, and the lest-turns might get it, so we need to go on. So, again, the two possibilities are we stop or we go on.

If we're back into it, we now have to say "How are we going to do this? What are the assessment end points, as they're called. In other words, what are we worried about. Is it lest-turns? Are we worried about harbor seals? Are we worried about the clams that live on the bottom? Are we worried about the eel grass? Eel grass is a very sensitive issue because the eel grass itself -- we're not worried about the eel grass itself. We're worried about the communities of creatures that it

supports. And we've destroyed a lot of eel grass in the past inadvertently just by developing our coastline, and so now we try to avoid that.

So all these kinds of things are looked at. What are we assessing? What are we worried about? Is it lest-turns? Is it the eel grass, so on.

Then once we've decided what it is we're worried about, how do we get the right information? At North Island there's a site that we know is releasing some amount of chemicals to the bay, and one of the worries is that fish are taking these chemicals up, and that people may be catching these fish and eating these fish or other marine creatures may be eating these fish.

So first in the ecological risk assessment we did some modeling, and the models for that type of work are kind of iffy. So we said, okay, let's try something else. So they caught some fish, and I don't remember the species --

MR. McNUTT: Top smelt.

DR. TAIT: Top smelt. Thank you, Jerry.

And they said, "Okay, we're going to do several types of analysis. First of all, we're going to catch a bunch of these smelt and we're

19:17:40 1 going to analyze them for chemicals some of them
19:17:42 2 right away. Then we're going to take the rest and
19:17:47 3 we're going to divide them into two groups. In the
19:17:47 4 one group we're going to put in a little kind of
19:17:47 5 cage right on the area where these chemicals are
19:17:56 6 coming into the bay, and the other ones we're going
19:17:58 7 to put over in another area that's similar but has
19:18:01 8 no chemicals, and then we're going to study these
19:18:04 9 two and see whether they take the chemicals up or
19:18:09 10 not.
19:18:09 11 And I just read the report. That's why
19:18:09 12 I'm bringing this up. I just read the report, and
19:18:12 13 the results showed that there was no difference
19:18:15 14 between the original analysis of the fish they
19:18:17 15 caught, the ones grown where the chemicals were
19:18:19 16 being released and the ones grown at the clean site.
19:18:25 17 MR. WOEMPNER: When you said there's no
19:18:25 18 difference, did they both have the same amount of
19:18:27 19 chemicals?
19:18:29 20 DR. TAIT: They all had chemicals that you
19:18:28 21 wouldn't want to eat, and that's why there's
19:18:33 22 warnings --
19:18:34 23 MR. WOEMPNER: Were they at elevated
19:18:33 24 levels --
19:18:36 25 DR. TAIT: Yes.

19:18:36 1 MR. WOEMPNER: -- for both test sites?
19:18:39 2 DR. TAIT: They were elevated for the ones
19:18:41 3 before we put them anywhere near the site. The
19:18:41 4 chemical content of the fish looked the same. We
19:18:48 5 just compared the three, and it looked the same all
19:18:51 6 across.
19:18:53 7 And, of course, we already know there
19:18:54 8 are warnings to fishermen "Hey, it's not a good idea
19:18:55 9 to eat the fish that you catch in San Diego Bay."
19:18:55 10 It's not the cleanest place in the world. Harbors
19:19:00 11 never are. San Diego Bay's a lot cleaner than it
19:19:09 12 was when I went to school here 30, 40 years ago when
19:19:09 13 the sewage plant used to discharge right off the
19:19:09 14 Naval Station here.
19:19:13 15 Anyhow, you need to -- if you're going
19:19:19 16 to do an ecological risk assessment, you need to
19:19:19 17 have -- it's a whole new study. So you don't do it
19:19:23 18 lightly, but once you do it, you figure out what
19:19:26 19 you're going to assess, how you're going to do it,
19:19:26 20 how you're going to do the sampling, and this can
19:19:31 21 take a lot of time. It can be very controversial.
19:19:32 22 We did one in Long Beach Naval Shipyard. It's gone
19:19:37 23 on for years because we keep having disagreements
19:19:41 24 between the Navy and the groups of regulators that
19:19:44 25 keep changing their mind about what's real and

what's not real.

So, again, you have the same possible outcomes. If you do the risk assessment and the risk is acceptable, okay. You're out of it. If you've got an unacceptable risk, then you have to go on. You start looking at remedies and what you can do with it.

I'm not going to go into the remedy part because that's a whole other couple of hours of talk. But this is kind of what I would call the 50,000 foot view.

Any questions occur to you right away?

MR. WOEMPNER: What percentage of all the people involved -- does everybody have an equal say about what they think is the risk in the report? EPA says this and your company says this.

DR. TAIT: Okay. I understand what you're asking me now.

First, we have the regulatory standards. We have the NCP that says, "Hey, if it's at this level or below, it's okay. If it's at this other level at 10 to the minus 4th or above, you've got a problem." And it's in that gray area that we have some disagreement.

And the law provides for that in that

19:21:06 1 one agency will be designated the lead agency. For
19:21:09 2 the Navy facilities that Navy is the lead agency.
19:21:12 3 The Navy usually tries to get the regulatory
19:21:15 4 agencies to agree with their conclusions, and
19:21:18 5 sometimes some negotiation goes on. But the basic
19:21:21 6 fact is that when you're the lead agency, you can
19:21:25 7 make the decision. You have the obligation to make
19:21:27 8 the decision and you have the right to make the
19:21:27 9 decision.
19:21:27 10 The Navy has been given the obligation
19:21:34 11 to protect human health and the environment on their
19:21:37 12 facilities, so they are the lead agency. If another
19:21:42 13 agency disagrees and they want a different
19:21:47 14 conclusion, ultimately they would need to go to
19:21:50 15 court, and the court would have to settle it. That
19:21:54 16 rarely happens, but it happens occasionally. It
19:22:00 17 happens a lot more in commercial environmental
19:22:00 18 because there's a lot more profit motive involved.
19:22:06 19 Anything else? Thank you for listening
19:22:07 20 to me.
19:22:12 21 MR. BELTON: That was great, Bob.
19:22:27 22 MS. MORLEY: Karen is going to do our last
19:22:29 23 presentation tonight, which is on the proposed plan
19:22:31 24 for Sites 7, 11, and 12, and 5.
19:22:41 25 What is special about this proposed plan

19:22:43 1 if you guys haven't seen one of these yet, is
19:22:46 2 because this is the public notice document that
19:22:50 3 initiates a Record of Decision or a RoD, and what a
19:22:53 4 RoD does is officially close that site out and take
19:22:55 5 it off the CERCLA list.
19:22:58 6 So these are our first sites now that
19:23:00 7 we're going to be able to officially close out and
19:23:04 8 take off the CERCLA list, these four sites, so we're
19:23:07 9 pretty excited. This is our first RoD, Record of
19:23:07 10 Decision that's going to go through.
19:23:09 11 There's a little disagreement between
19:23:09 12 the Department of Toxic Substances Control and the
19:23:09 13 Navy on Site 7. We feel that we've done a lot of
19:23:23 14 work that the whole team has been involved with
19:23:26 15 since 1996, I believe. From the work plan stage to
19:23:29 16 the field work to the report stage, the risk
19:23:32 17 assessments, we feel that we've followed and gone
19:23:33 18 above and beyond all the regulations that are
19:23:38 19 required, and that we feel comfortable in stating
19:23:41 20 that this site qualifies for unrestricted
19:23:44 21 residential use which --
19:23:49 22 MR. BAILEY: Unrestricted industrial.
19:23:54 23 MS. MORLEY: Site 7.
19:23:54 24 MR. BAILEY: Yes. Industrial.
19:23:56 25 MS. MORLEY: No. That's their soil. It's

unrestricted residential.

MR. McNUTT: Is the conflict over?

MS. MORLEY: I'm sorry. It's in the risk management range for a residential.

MR. McNUTT: We have a conflict.

MR. BAILEY: No, we don't. I'm a contractor. She's right.

MS. MORLEY: That is not true. We're a team. But you're right. I'm sorry.

Remember what Bob was just talking about, the 1 times 10 to the minus 4 -- the 1 in 10,000; the 1 in 1 million -- we're at 5 in 1 million. So we're in that risk management range. But normally -- like Bob would say, that we normally are not required to do a cleanup for that. That's considered generally acceptable is the terminology. And plus we've done -- that's for residential. And, as you know, Naval Station is not a residential base, even though we always try to go to the conservative stuff and look at that.

Go ahead, Craig.

MR. WOEMPNER: I have one last question.

Have we found any MTBE's on this?

MS. MORLEY: Yes, we did, at the gas station. And those are mostly 32nd Street and 28th Street.

None of the other sites -- I mean all the other tanks were diesel. So it was really the two gasoline areas, but the plumes are contained. And if you want, we can do a presentation on both gas stations next time.

MR. WOEMPNER: That would be great.

MS. MORLEY: Okay. We have pretty neat stuff going on there.

MR. WOEMPNER: Were they very serious problems?

MS. MORLEY: Well, actually MTBE is more an odor and a taste threshold. It hasn't been listed as a carcinogen or even as a possible, but it does stink and it tastes bad, and that's really what the big problem is.

And what's kind of unfortunate in my opinion is that it's overshadowed benzene, which is a known carcinogen, and it's like the regulators have kind of backed off benzene and gone after MTBE, and I kind of think that's the wrong way to go, but that's the chemical of the day.

So Karen will do a little bit of background on the proposed plan, but just so that you know, there is this potential disagreement between the Department of Toxic Substances and the

Navy on Site 7. A lot of it has to do with the aluminum in the groundwater. As you know, that was a sewage treatment plant site and that was probably where it came from, but our model -- our risk model that we did showed it would be like 700 years before it reached the bay, and we just don't really see that as much of a problem.

But you guys will be involved as we go to our first Record of Decision. We'll have a big RoD party with food at the RAB.

MS. COLLINS: I'm having technical problems. This worked fine before everybody was here.

MS. MORLEY: And you guys will be getting the proposed plan in the mail. It looks like the fact sheet. It's kind of like colorful. It's not very thick. It's not like the big documents that you're used to seeing. It's smaller, and I think we'll be sending that out around the beginning to the middle of August because that has a public comment period of 30 days which starts August 30th -- 29th.

MR. BELTON: Is the public meeting August 30th?

MS. MORLEY: No. The public comment period?

MS. COLLINS: I believe it's going to go out September 18th with the public notice, so the

19:27:29 1 document will be issued about 30 days before that.
19:27:34 2 So the third week, roughly, of August.
19:27:38 3 MR. BELTON: You'll get all this in the mail,
19:27:40 4 too.
19:27:41 5 MS. MORLEY: But there will be a special
19:27:42 6 public meeting besides the RAB meeting where we will
19:27:46 7 discuss that and take any comments from the public
19:27:48 8 because basically the proposed plan is "This is what
19:27:50 9 the Navy proposes to do. Do you have a problem with
19:27:53 10 that." That's when we'll be looking for comments.
19:27:57 11 MR. WOEMPNER: Is this besides the cleanup?
19:27:59 12 Is this like what they're going to be building?
19:28:01 13 MS. MORLEY: We're asking for closure.
19:28:04 14 MR. WOEMPNER: For closure just for the
19:28:04 15 cleanup.
19:28:05 16 MS. MORLEY: For those four sites. And Site
19:28:10 17 5 is the Admiral Baker landfill out at the golf
19:28:11 18 course which you remember was mostly rubble. They
19:28:13 19 had construction debris, things like that so that
19:28:18 20 there was never a cleanup done there. It's just
19:28:21 21 been covered over. And so that's considered, and
19:28:25 22 that has a closure letter from the regulatory
19:28:27 23 agencies.
19:28:28 24 Site 7 was a sewage treatment plant, so
19:28:29 25 we did the investigation but the levels are such

19:28:33 1 that no cleanup is required.
19:28:36 2 Site 11 was the French drain site, the
19:28:38 3 little site that they said was the partially buried
19:28:40 4 drum but it turned out to be a French drain. We did
19:28:44 5 soil sampling. It was clean, but that was
19:28:44 6 unrestricted residential.
19:28:47 7 And Site 12 you'll probably remember was
19:28:48 8 the Brinser Street parking area which is now the
19:28:51 9 Marine staging area, and that was the one that we
19:28:55 10 dug out the creosote pond. That one actually did
19:28:55 11 have a cleanup. Now that the cleanup is done, it
19:28:55 12 qualifies and we're trying to get closure on that.
19:29:03 13 MR. WOEMPNER: Admiral Baker, isn't there an
19:29:03 14 ecological report on there?
19:29:07 15 MS. MORLEY: No, because we've done
19:29:10 16 groundwater monitoring for years and nothing is
19:29:13 17 leaching out of the landfill, and it's been covered
19:29:16 18 over. In fact, the reason we can't do a cleanup
19:29:17 19 there is because now it's been grown over with
19:29:23 20 vegetation. That is a critical habitat for the
19:29:23 21 California gnatcatcher, so we would violate
19:29:23 22 endangered species laws to try to clean up that
19:29:29 23 site. It's about all the environmental regulations.
19:29:35 24 MS. COLLINS: I guess Endangered Species
19:29:35 25 trumps CERCLA?

19:29:39 1 MS. MORLEY: I don't want to go into a
19:29:39 2 Section 7 consultation if I can help it.
19:29:43 3 MS. COLLINS: Okay.
19:29:44 4 Well, Theresa gave a great segue, so I
19:29:48 5 think this presentation will be short and sweet.
19:29:52 6 As was just mentioned, we're planning to
19:29:55 7 issue the proposed plan. It will be the draft
19:29:58 8 proposed plan because it's going out for public
19:30:02 9 comment, and that's the whole intention of the
19:30:03 10 proposed plan.
19:30:07 11 This evening I'd like to go just briefly
19:30:08 12 over the purpose of the proposed plan and talk
19:30:12 13 briefly about the Superfund remedial response
19:30:15 14 process, and then talk about Sites 7, 11 and 12 very
19:30:20 15 briefly, and then identify the roles of the lead in
19:30:23 16 state agencies, go over the history of the support
19:30:23 17 agency's involvement at Site 7 specifically, and
19:30:30 18 then finish up with the roles of the lead agency and
19:30:33 19 the lead agency position on Site 7.
19:30:35 20 The purpose of the proposed plan is to
19:30:40 21 facilitate public involvement in the selection of
19:30:43 22 the final site remedy. In addition, it provides a
19:30:49 23 summary of the environmental investigation results,
19:30:52 24 and summarizes the risk results to human health and
19:30:57 25 the environment, as Bob just went over. It presents

19:30:57 1 the lead agency's recommendation of the preferred
19:31:01 2 alternative for cleanup, and in that document also
19:31:06 3 the lead agency solicits the public and support
19:31:09 4 agency comments on the preferred alternative.
19:31:14 5 The proposed plan will be the basis then
19:31:17 6 for writing the final site document, and that would
19:31:19 7 be the Decision Document. If this were an NPL site,
19:31:23 8 it would be called a Record of Decision. They're
19:31:25 9 really equivalent.
19:31:28 10 MS. MORLEY: Excuse me, Karen. I just wanted
19:31:28 11 to point out that the Navy is the lead agency, as
19:31:31 12 Bob had said. So when she says lead agency, that's
19:31:32 13 the Navy's decision.
19:31:37 14 MS. COLLINS: Just in a nutshell, the
19:31:39 15 Superfund Remedial Response Process goes as follows:
19:31:47 16 When a site is identified -- for example, at Naval
19:31:48 17 Station Sites 1 through 6 were identified in the
19:31:53 18 IAS, the Initial Assessment Study, and that was
19:31:58 19 done, gosh, 15 years ago or more. That was the
19:32:04 20 basis for listing Site 4 that we visited. And,
19:32:07 21 again, that site was listed because of the
19:32:09 22 application of waste oil to the site that may have
19:32:11 23 contained PCBs.
19:32:13 24 So many of these sites are listed, and
19:32:17 25 it's a long road once a site is listed, and we're

finding out that a lot of the sites were listed for reasons that may or may not have been substantiated. Rumors of "Oh, yeah. We used to throw paint waste out there." Well, a lot of the sites really haven't turned out to be much. They've been a little anti-climatic.

And then, conversely, there have been a number of sites that were identified after the IAS which was supposed to have been a comprehensive base-wide survey.

So this is a real early screening tool, the site identification and preliminary assessment, and that's not intended to be a final decision-making document. It rarely is.

Often there will be interim assessments done. For example, a remedial site evaluation may be done or additional investigations, but the next step in the Superfund process is the remedial investigation. That's what we're doing at Site 4, and that's intended to be a comprehensive dataset that will support good decisions.

If the Remedial Investigation identifies site risk that's unacceptable outside the ranges of what's identified in the NCP, then typically there will be a progression to a

Feasibility Study. In the Feasibility Study cleanup alternatives are identified, and they're also identified with cost measures and with schedule impacts so that that can all be factored into the decision.

There's a lot more to that, also. Community acceptance, state acceptance is also part of the Feasibility Study.

Following the Feasibility Study, the remedy selection and identification of the preferred alternative takes place. That's where we are now on these sites, and that's why we're talking about the proposed plan for Sites 11, 12, and 7. These sites have progressed through these stages. The Navy, as lead agency now, is prepared to document the lead agency selection of the preferred alternative and issue that in the draft proposed plan.

Following the proposed plan, the final remedy selection will be made, and that decision will be documented in the Decision Document.

A brief overview of these sites. Sites 11 and 12 were closed in the early investigation phases on Navy recommendation -- that is, the Navy recommended no further action at these sites, and DTSC and the Regional Water Quality Control Board

19:35:09 1 both concurred with that recommendation.
19:35:14 2 Site 11 is the French drain. It's over
19:35:17 3 close to the waterfront. It's a site that's about
19:35:21 4 as big as half this table. It's one of those sites
19:35:23 5 that probably should have never been listed. It
19:35:23 6 turned out to be a condensation pipe that went into
19:35:31 7 a gravel pit. It's about three feet square. There
19:35:36 8 were a number of samples taken there. I think we
19:35:38 9 found some total petroleum hydrocarbons in
19:35:39 10 background ranges. It's a parking lot, and the TPH
19:35:45 11 could have been asphalt. It could have been any
19:35:45 12 number of things, so that was basically a non-site.
19:35:51 13 Site 12, the Brinser Street parking
19:35:52 14 area, is also on the west side right on the quay
19:35:56 15 wall, actually. That site progressed through a lot
19:36:04 16 more intensive investigation. It was the historic
19:36:07 17 operations area for creosote dipping, and there were
19:36:12 18 PAH's there. Benzo(a)pyrene was the primary risk
19:36:15 19 driver, and the cancer risk from benzo(a)pyrene was
19:36:20 20 posing an elevated risk outside the NCP acceptable
19:36:25 21 risk range.
19:36:27 22 MR. WOEMPNER: Was that one of the sites that
19:36:27 23 you initially thought there wasn't much there but it
19:36:32 24 turned out to be quite a bit was there?
19:36:36 25 And the second question is how much

material did you remove from that site?

MS. COLLINS: That was a site that had kind of a checkered understanding, I think -- and feel free to jump in -- but there was some early data that was collected, I think, in 1987 for construction purposes and it was taken by a construction contractor. They actually got lucky and they found the highest concentrations of the benzo(a)pyrene.

The environmental investigations that followed as a result of that, we didn't have very good historical maps or information to really target the assessment area, so we did a grid, I think, and didn't find very much but enough to suggest that maybe there had been operations there, and enough to kick up the risk and initiate the removal site evaluation.

MS. MORLEY: Right. And actually there was a contractor putting in light standards and they trenched through part of the creosote, and that helped us identify it.

After we had done removal, we ended up finding aerial photos that had been at Site 13 that showed where those dip ponds were, but we didn't have that information at first.

MR. WOEMPNER: Asphalt was probably no surprise.

MS. MORLEY: No, it was actually buried. As they dug through the soil, they cut across -- when they were done with the dip ponds, they just put soil over it and then built a parking lot over that. So they cut through that part.

MR. WOEMPNER: How much material did you take out?

MS. MORLEY: I think it was less than 20,000 cubic yards, if I remember.

And the thing is that on the whole site, if you look at -- Site 12 basically goes from, I can't remember the name of that street now, but the street near Pier 7 all the way to the firefighting school fence line. It's quite large. But the dip ponds were only probably like one-fifth or one-sixth of the site.

MR. WOEMPNER: Talking about Delta Street?

MS. MORLEY: It's one of those streets, but for as large as the area was, the actual removal was very small for that.

MR. MARGOLIN: Is that a typographical error "these four sites"?

MS. COLLINS: Very sharp eye.

19:39:04 1 MR. BELTON: Well, actually it's right.
19:39:04 2 There are four sites: 5, 7, 11, and 12.
19:39:08 3 What happened is that Site 5 we do not
19:39:10 4 have to do a proposed plan or put it in the ROD, but
19:39:13 5 the Navy wants to do that because historically our
19:39:15 6 regulators sometimes change and they want to open a
19:39:20 7 site back up that's been closed. So if a site has
19:39:23 8 been closed in the PA/SI phase, we don't have to
19:39:26 9 actually go with a proposed plan and a ROD. In this
19:39:29 10 case we're going to do that. We're going to add 5
19:39:32 11 back. It's going to be 5, 7, 11, and 12.
19:39:35 12 Thank you for the question.
19:39:39 13 MR. WOEMPNER: How did the adsorption method
19:39:43 14 work, heating the dirt?
19:39:47 15 MS. MORLEY: Oh, at Site 2?
19:39:48 16 MR. WOEMPNER: The resident parking lot.
19:39:51 17 MS. MORLEY: No. That was at the
19:39:53 18 Wharfbuilder's on the Mole pier, and that actually
19:39:59 19 went very well. As you know now, that was subsite
19:39:59 20 2G because that site is so large -- 23 acres -- it's
19:40:01 21 been divided into subsites, and they're currently
19:40:04 22 finishing the removal action on subsite 2A, which a
19:40:08 23 lot of material was excavated.
19:40:11 24 MR. WOEMPNER: Oh, that's the one I was
19:40:11 25 talking about.

19:40:14 1 MS. MORLEY: Okay. I don't have my new
19:40:16 2 edition out, but you know how here's the Mole pier
19:40:18 3 and here's Paleta Creek? The Naval firefighting
19:40:19 4 school is here. Site 12 is over here on the other
19:40:20 5 side.
19:40:23 6 MR. WOEMPNER: Right. Okay. I thought that
19:40:25 7 was the Brinser parking lot.
19:40:29 8 MS. MORLEY: That's the Brinser Street
19:40:29 9 parking lot.
19:40:31 10 MR. WOEMPNER: Okay.
19:40:31 11 MR. McNUTT: Isn't 12 the one that had all
19:40:32 12 that screening cover on it? Isn't that the one?
19:40:37 13 MS. MORLEY: That was Site 3, but then they
19:40:39 14 came on base and did Site 12 because they were doing
19:40:42 15 a removal at the time.
19:40:47 16 MR. WOEMPNER: So that did work really well
19:40:50 17 there.
19:40:50 18 MS. MORLEY: Well, this was just during the
19:40:51 19 removal, and they took it to, I believe, a soil
19:40:54 20 recycling facility because, if I'm not mistaken,
19:40:57 21 because it was -- the creosote was petroleum based
19:41:04 22 or it had hazardous metals in it. I have the fact
19:41:10 23 sheet here if you want to look at that.
19:41:12 24 Does anyone else want a copy of this?
19:41:18 25 MS. COLLINS: Site 7 actually progressed

19:41:25 1 through the early characterization stages, site
19:41:30 2 investigations. It also had a removal site
19:41:33 3 evaluation done in 1998, and a remedial
19:41:35 4 investigation done last year.
19:41:40 5 Site 7 was the most intensively
19:41:43 6 investigated of these four sites, including Site 5.
19:41:47 7 And these four sites, the phantom Site 5 included,
19:41:49 8 are planned for no further action based on the
19:41:53 9 results of these previous investigations.
19:41:55 10 Sorry for the mix up, but 5 was in; 5
19:41:58 11 was out. It was out but wasn't scrubbed entirely.
19:42:03 12 Onto the roles of the lead and state
19:42:04 13 agencies. The Navy, as the lead agency, has primary
19:42:10 14 responsibility for coordinating a response action at
19:42:14 15 these sites.
19:42:15 16 The Navy RPM -- in the case of all these
19:42:19 17 sites that's Darren -- is responsible for overseeing
19:42:23 18 all the technical enforcement and financial aspects
19:42:27 19 of the remedial response.
19:42:31 20 DTSC is the lead state agency for Site
19:42:33 21 7, and they play a review and concurrence role in
19:42:37 22 the remedial process in the support agency role.
19:42:42 23 MR. BELTON: Just one comment on that Navy
19:42:40 24 RPM. It's just not one person. It's the entire
19:42:46 25 Navy. It's the region, the contractor, the public.

19:42:51 1 We come up with these decisions together. It's not
19:42:53 2 just one person making the decision.
19:43:00 3 MS. COLLINS: And a little history on the
19:43:02 4 support agency's involvement at Site 7.
19:43:05 5 We've been working -- actually, we've
19:43:05 6 been very fortunate on this team and we've benefited
19:43:10 7 from having a very cohesive team and consistent team
19:43:14 8 for the last probably six years.
19:43:18 9 The support agency involvement -- that
19:43:20 10 would be DTSC and the Regional Board -- on Site 7
19:43:24 11 goes back to the 1996 Removal Site Evaluation Work
19:43:29 12 Plan, and it's been largely the same team from the
19:43:31 13 Regional Board and from DTSC that have remained
19:43:33 14 involved in this site in all the decisions
19:43:36 15 incrementally from 1996 to where we are now. So
19:43:41 16 we've had a lot of continuity, and that I think
19:43:42 17 benefits all of us.
19:43:47 18 The Navy recommended no further action
19:43:48 19 at Site 7 in 1998 in the Removal Site Evaluation
19:43:51 20 document. That recommendation met with a mixed
19:43:58 21 response. The Regional Board actually concurred
19:43:58 22 with that, pending I think three criteria that were
19:44:01 23 met in the subsequent final RSE -- a couple minor
19:44:07 24 wordsmithing things, and then inclusion of the
19:44:07 25 sediment study. DTSC did not concur, and their one

19:44:14 1 reason for not concurring with no further action was
19:44:17 2 the 2 times 10 to the minus 5 human health cancer
19:44:22 3 risk. That was deemed unacceptable for the
19:44:25 4 unrestricted site closure that was proposed. That
19:44:29 5 is in the discretionary range, 10 to the minus 4 to
19:44:30 6 10 to the minus 6, but DTSC's position in 1998 was
19:44:36 7 that 2 times 10 to the minus 5 was unacceptable.
19:44:41 8 So there were about two years of back
19:44:44 9 and forth discussions and negotiations and planning
19:44:46 10 that occurred, and following those discussions the
19:44:49 11 Navy issued the Draft RI Work Plan to recalculate
19:44:54 12 human health risk using updated EPA cancer slope
19:44:57 13 factors for PCBs.
19:45:01 14 Bob's talk earlier was very timely
19:45:02 15 because we talked about how the PRGs change, and it
19:45:07 16 wasn't so much the PRGs but it was the exposure
19:45:10 17 assumptions for PCBs that changed quite radically
19:45:13 18 between the time that the Removal Site Evaluation
19:45:15 19 was issued in '98 and when our discussions were
19:45:21 20 occurring about risk management at the site.
19:45:24 21 They changed so much that we had done a
19:45:27 22 back-of-the-envelope calculation at one of the
19:45:27 23 meetings, and we knew that the risk was in the 10 to
19:45:30 24 the minus 6 range. So everybody agreed that we
19:45:32 25 would go back, look at human health risk with the

current risk protocol, recalculate the human health risk, and then make a joint risk management decision for Site 7.

The agencies concurred with the RI work plan and agreed that soil and groundwater contamination was adequately characterized and that no additional soil or groundwater data would be required.

The Draft RI for Site 7 was issued by the Navy in November 2001, and it presented a recalculated human health risk of 6.9 times 10 to the minus 6 cancer risk and a Hazard Index of .88, less than the one which was the acceptable limit for non-cancer risk.

The Navy with that information recommended unrestricted closure of the site with no further action in consideration of the following:

The site, as it already had been agreed at the work plan, was adequately characterized for nature and extent of contamination.

The results of the Human Health Risk Assessment were within the range classified by the National Contingency Plan as being generally acceptable and were actually at the lower end of the risk management range for cancer, and the Hazard

Index was less than one. Acceptable.

The majority of the cancer risk at Site 7 is from PAHs in the soil, and the Site 7 PAH concentrations are actually typical of what you would find in urban and rural locations. They fall within anthropogenic background range.

There's no change in land use planned at Site 7. It's projected to remain a parking lot. It's currently a parking lot. And there were no ARARs triggered by the no further action recommendation.

So the Draft RI went out. The agencies read it. They came back with a whole new list of concerns, and the Navy has now completed the following additional work since November 2001 when the Draft RI came out.

They recalculated human health risk using alternate criteria from California rather than the federal exposure standards, so a whole new risk assessment was done. The ecological risk assessment was updated. The groundwater fate and transport model on four metals present in Site 7 groundwater was conducted. Extensive research on the San Diego formation was conducted. That's a beneficial use aquifer that's about 700 feet down, and the nearest

19:48:11 1 well that taps that aquifer is about a mile and a
19:48:13 2 half from here. And we added an Ecological Risk
19:48:19 3 Assessment chapter to the final RI report.
19:48:21 4 The Navy, as lead agency, has taken the
19:48:26 5 following position on Site 7. The Navy's
19:48:26 6 recommending no further action at Site 7 in
19:48:31 7 consideration of the following: Human health risk
19:48:32 8 assessment results are in the acceptable range
19:48:35 9 specified by the NCP. Ecological risk assessment
19:48:39 10 results also show an acceptable outcome. The site
19:48:44 11 has been adequately characterized. Groundwater
19:48:46 12 quality is representative of the region. It's not
19:48:50 13 anomalous. ARARs are in compliance and EPA guidance
19:48:55 14 was followed throughout this whole exercise.
19:48:59 15 Proposed plan recommending no further
19:49:01 16 action at Sites 5, 7, 11, and 12 will be issued for
19:49:06 17 public review and support agency review and comment.
19:49:10 18 Actually, the public comment is a real important
19:49:12 19 part of the CERCLA process.
19:49:15 20 The Navy's comfortable now with the
19:49:17 21 science, the risk and compliance at the site, and is
19:49:20 22 eager to focus the Navy's resources on other sites
19:49:22 23 that really warrant some concern.
19:49:28 24 MR. WOEMPNER: How are you going to advertise
19:49:26 25 for public comment?

19:49:31 1 MS. COLLINS: Typically that's done in a
19:49:32 2 local newspaper.
19:49:34 3 MR. WOEMPNER: Any other method? Are you
19:49:36 4 going to the libraries or anything or post office or
19:49:39 5 anything?
19:49:41 6 MR. BELTON: We're going to actually do it
19:49:41 7 two-fold. We're going to put it in three papers.
19:49:41 8 We're offering it for public notice.
19:49:48 9 We'd be happy to take recommendations on
19:49:48 10 it.
19:49:49 11 MR. WOEMPNER: Well, public places. Do you
19:49:49 12 put something in a public places like the post
19:50:03 13 office or libraries or do you put a bulletin up on
19:50:08 14 the post office?
19:50:10 15 MR. BELTON: We do have one location, the
19:50:12 16 library in National City where we have all of our
19:50:17 17 public notices and our documents are available.
19:50:24 18 MR. BAILEY: The Information Repository.
19:50:27 19 MR. BELTON: The Information Repository.
19:50:28 20 MR. WOEMPNER: And just one newspaper?
19:50:30 21 MR. BELTON: Actually, about three
19:50:31 22 newspapers. Bilingual, also.
19:50:38 23 MS. COLLINS: And in the "L.A. Times" in the
19:50:41 24 California "B" section there's a number of proposed
19:50:44 25 plan and decision document announcements for El

Toro -- you know, some of the bases that are moving forward up there, so that's typically where you see the notice.

MR. BELTON: How many people are on our mailing list?

MS. MORLEY: Over 300.

MR. BAILEY: About 300 people.

MR. McNUTT: At 37 cents a pop.

MS. COLLINS: Any other questions?

MS. MORLEY: Okay.

Does anyone have suggestions for agenda items for the next meeting? I know we'll do the two gas stations. We can talk about their history and they're both under remedial action right now.

We've got the Draft Remedial Investigation Work Plan for IR Site 1, which are the ship repair basins. Is anyone interested in reviewing that document because it's such fascinating reading? All right, Gene.

MR. BAILEY: Anyone else? Comments would be appreciated.

MS. MORLEY: It's normally a 30 calendar day. You can let us know if you need more time.

Also, I forgot to mention after Jerry said that he is retiring and abandoning us that Tim

Heironimus is going to take his place.

I think you met Tim before. He was real tall, remember, and maybe about two years ago he was the project manager like Karen. But, unfortunately, as soon as he took over Jerry's job, he was having heart problems and is actually in the hospital tonight -- he was going to be here -- to have surgery.

So Jack Vellis is going to step in, and he's also with Bechtel, and he's a lot of fun at football games and at RAB meetings.

Any other agenda items or suggestions?

MR. BELTON: Before we close, Jerry's been with us a long time. He's been a friend, co-worker, and teammate. We're going to miss him.

And I'd like everyone to give him one last applause for helping us out. (Applause.)

MR. BAILEY: Thank you.

MS. MORLEY: With that, we will close the meeting.

The next meeting is the last Wednesday in October, which will be October 30th. Did that help you guys when I called you to remind you?

MR. WOEMPNER: Yes.

MS. MORLEY: 30th of October, same time and

19:53:55 place.

19:54:04

19:54:04 (Whereupon, at 7:55 p.m. the meeting was

19:54:04 adjourned.)

STATE OF CALIFORNIA)

: ss

COUNTY OF SAN DIEGO)

I, Nancy A. Lee, CSR No. 3870, do hereby certify that I reported in shorthand the above proceedings on Wednesday, July 31, 2002, at "Anchors & Spurs," 2245 Division Street, in the City of San Diego, County of San Diego, State of California; and I do further certify that the above and foregoing pages numbered 1 to 58, inclusive, contain a true and correct transcript of all of said proceedings.

Dated: _____, 2002.

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NANCY A. LEE