THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

convenes the

TWENTY-NINTH MEETING

CAMP LEJEUNE COMMUNITY ASSISTANCE

PANEL (CAP) MEETING

September 11, 2014

The verbatim transcript of the Meeting of the Camp Lejeune Community Assistance Panel held at the ATSDR, Chamblee Building 106, Conference Room 1B, Atlanta, Georgia, on September 11, 2014.

STEVEN RAY GREEN AND ASSOCIATES
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C O N T E N T S

September 11, 2014

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P A R T I C I P A N T S

(alphabetically)

BOVE, FRANK, ATSDR
BRIDGES, SANDRA, CAP, CLNC (via telephone)
BRUBAKER, MATT, FMG LEADING
CLAPP, RICHARD, SCD, MPH, PROFESSOR
CLAY, ROBERT, VA
ENSMINGER, JERRY, COMMUNITY MEMBER
FLETCHER, CHRIS, ATSDR
FORREST, MELISSA, NAVY/MARINE CORPS PUBLIC HEALTH CENTER
FRESHWATER, LORI, CAP MEMBER
GILLIG, RICHARD, ATSDR
IKEDA, ROBIN, ATSDR, ACTING DIRECTOR
ORRIS, CHRISTOPHER, CAP MEMBER
PARTAIN, MIKE, COMMUNITY MEMBER
ROBINSON, ROB, ATSDR
RUCKART, PERRI, ATSDR
SAMPSEL, JAMES, VA
SCHEEL, CHRISTIAN, ATSDR
SHANLEY, EDDIE, ATSDR
SMITH, GAVIN, CAP MEMBER
STEPHENS, JIMMY, ATSDR ACTING DEPUTY DIRECTOR
STEVENS, SHEILA, ATSDR, CAP LIAISON
TEMPLETON, TIM, CAP MEMBER
WALTERS, TERRY, VHA (via telephone)
WILKINS, KEVIN, CAP MEMBER

P R O C E E D I N G S

(8:52 a.m.)

PRE-MEETING - TECHNICAL DISCUSSION ON SOIL VAPOR INTRUSION AND DRINKING WATER EXPOSURE EVALUATIONS

MR. BRUBAKER: Well, good morning folks and welcome. As you may remember my name is Matt Brubaker and I'm here filling in for Chris, and about to call to order this informal meeting designed as an opportunity to discuss, to hear some content from Rick and team and also to discuss soil vapor intrusion and drinking water evaluation material.

Before we do that, I'd like to just sort of remind you, in case you haven't become aware already, I know it sort of dawned on me as I got out of bed this morning, that we're celebrating, or I should say remembering, the 13th anniversary of the 9/11 attacks on our country, and we're nearing 9:03 a.m., which is the time in which the second jet hit the second tower of the World Trade Center. So I'd like to invite us to begin this morning with a brief moment of solemn observance and remembrance of the attack that that had on our country and the people who we know and care about.

(Moment of silence)

MR. BRUBAKER: Thank you. This morning I'll turn the agenda over to Rick to walk us through what we can expect in the next hour and a half to two hours.

MR. GILLIG: Do I need to speak into the mic?

THE COURT REPORTER: Please. If everyone will, yes, please.

MR. GILLIG: Before we get started, just a couple of housekeeping issues. The restrooms are out the back, off to the left, halfway down the hall on your left-hand side. There's also water fountains out there. We have a number of refreshments in the back. Please help yourself.

This morning we wanted to update you on our two projects, the soil vapor intrusion project and the evaluation of the drinking water exposures. This is a working meeting so we want to keep it very informal. This is an opportunity to ask questions, ask questions during the presentations, that's fine. We'll have discussion throughout the presentations. So please let us know what your questions are or if you have comments. Not sure I have anything else to say, I think we're probably -- are we going to do introductions, Matt?

MR. BRUBAKER: You know, I think it would be

helpful to do introductions. I know we have some new folks here. We'll probably do it again when the others join us.

MR. GILLIG: Okay. And I guess I'll start. My name is Rick Gillig. I'm a branch chief within ATSDR, and the soil vapor intrusion project and the re-evaluation of drinking water falls within my branch.

MR. ENSMINGER: Are you a real honest-to-God branch chief or are you acting?

MR. GILLIG: I am an honest-to-God branch chief.

MR. ENSMINGER: No kidding. Somebody is actually --

MR. GILLIG: Honest to God?

MR. ENSMINGER: I'm about to fall out of my chair. I'm Jerry Ensminger. I represent the community on the CAP.

MR. PARTAIN: Mike Partain with the CAP.

MR. WILKINS: Kevin Wilkins with the CAP.

MR. BRUBAKER: Matt Brubaker.

MR. TEMPLETON: Tim Templeton, CAP.

DR. CLAPP: Dick Clapp, CAP.

MR. ORRIS: Chris Orris, CAP.

MS. FRESHWATER: Lori Freshwater with the CAP.

MS. FORREST: Melissa Forrest here for the Navy and Marine Corps Public Health Center.

MR. SMITH: Gavin Smith, also with the CAP.

MR. ENSMINGER: Who's that guy talking in the funny thing over there?

MR. GILLIG: Again I want to welcome everyone, and Chris if you are ready, we will kick this off.

MR. FLETCHER: Good morning. Chris Fletcher, I'm responsible for the soil vapor intrusion portion of our assessment. At the last CAP meeting, we had a pre-CAP working meeting, so a bunch of you know me from there. And the new folks, this is just an update to talk a little bit of what we talked about last time, and just kind of a summary of where we have gone since then.

So as a reminder some of what we've looked at so far and what we're looking for in our documents, doing a document search of data from indoor air sampling, ambient air, subsurface air, soil vapor and gas, and shallow groundwater data. Looking for those in hopes that we find sufficient quality and quantity so we can do inhalation dose calculations. And again, if we find sufficient quality and quantity, we can do some modeling, Johnson and Ettinger modeling, or if we've got even more -- a

more robust data set is what we end up with, perhaps we can utilize Morris and the dose reconstruction lab to do even slightly more advanced modeling. It really just depends on what we find.

So you remember this slide last time I showed you. It had a lot of colors kind of indicating which source each set of data you see displayed here came from. This time I've done some shading to kind of show you what we're done with and what we have left to do. So the dark shaded sources, ODI, DART, EMD, NIRIS, that we've completed our search on. And then the four lighter gray sources of data are those that we've got left to search or are in progress searching. So just kind of a quick snapshot of some progress that we've made.

So the goals of our final search are obviously to gather environmental sampling data relevant to soil vapor intrusion. We want to produce eventually an accurate, complete list of all of the documents that we have in our possession, that we can share so everyone will know exactly what documents we're looking at, and then to eventually create a database from all the data we find within those documents, and make the database searchable by date, date range, building number, operable unit number,

section of the base, site number, and of course some of that just depends what we can find in the data as to how detailed we can make it, but certainly searchable by date, date range, building number, and kind of what you'd expect to see.

So now the updates. As you can see we've -- with ODI, NIRIS and DART we've completed our search and have started reconciling the documents against our requested list. We want to make sure that we have indeed been sent all the documents we requested. We have received several thousand documents, so it's -- there's a lot of detail to look through but we're making progress.

As we're going through, we're also identifying and removing duplicate files. As you remember on this slide, a couple of slides ago, where all the circles indicated the different data sources, there was quite a bit of overlap so we know there's a lot of duplicates, and we're working through that list.

The UST portal, we've received all the documents from the UST portal. And everything that we've received from them, we've packaged up and sent back to the Navy. We're going to start reviewing those for public release. So we're making progress towards getting some documents out to you guys.

We've also completed a review of the environmental management library, the EMD portal. The base safety database, we're going to start reviewing that next week. That's one that I've actually got to get into. We'll get that up next week.

The update on the Camp Lejeune fire department, so we made a request for files from the fire department in the 911 call center. They sent us five files that were post-2008, none of which contain any sampling -- environmental sampling data. As you remember, the last time I explained the, the system apparently was updated in 2008 when they started a new system. Prior to 2008 they had an older system. When I requested that -- access to that specific system, the response was that the fire and emergency systems, I think what they called it firehouse reporting system was the exact title of that, no longer exists and they don't have records that they can provide. And they said their firemen have looked high and low in their facilities, and no paper documents remain of any type.

Okay, so for the MCI East, geospatial program, we've got all of their GIS layers here. So they're ready for us to start using and utilizing next week,

process the data to locate that to buildings that were, and then are no longer buildings that are there currently so we've got historical layers as well as current layers.

We've received all our documents from the contractor data sources that I mentioned last time. There was a bullet for, I think, TerraBase was the name of the ^ database. Anything we've requested from the contractors has also been received.

The Navy industrial hygiene database, we hope to have a view of that completed later this week. Some preliminary findings are that prior to 2000, you kind of see what you would expect to see, and that is most of the sampling that was done was based on job safety analysis. So in other words if someone works with VOC chemicals, gasoline and whatever, on a daily basis, they were monitoring those individuals to make sure they are aware of the levels they are exposed to, and they've got a PP in place or management in place to protect those workers. What we start seeing about late '99 to current is ^ sampling of buildings that are over known plumes or when there's a -- somebody called in and said, hey, you know, we've been smelling gas odors, they would send somebody in to do an indoor

air sample in that event.

MR. ENSMINGER: Yeah, they'd send the fire department. And now they're saying that they don't any of those samples?

MR. FLETCHER: Yes, sir. The, the fire department is -- we've got what they've sent us. And what they've sent us is apparently what they have.

So the numbers that I've mentioned last time, I think it was a few hundred samples dealing with building 1101, none of that's changed so we have to have more samples in the industrial hygiene database that we discussed last time. This is just a little bit more about those samples and what we're finding there. Like I said --

MR. PARTAIN: Chris. There's documentary evidence that the hospital hygiene unit was involved in testing in the 80s, like with the daycare and stuff. Do you have -- have you been able to identify that documentation on this website?

MR. FLETCHER: No. No, the industrial hygiene database isn't a website; it's just an Access database.

MR. PARTAIN: Okay. Sorry.

MR. FLETCHER: The industrial hygiene database,

it was just a database. We haven't found a tremendous amount from the 80s. Jerry?

MR. ENSMINGER: He misspoke. He's talking about the preventive medicine unit, the PMU, at the naval hospital.

MR. FLETCHER: We have not found records that you're aware of. Maybe offline you can share with me a little bit more about that, and I can kind of make a practical request for that.

MR. PARTAIN: Sure. Yeah.

MR. FLETCHER: Okay. So Camp Lejeune public works and installation development division, both of these are sources of as-built and design drawings, purposes of the building, intended uses and eventual uses of the building. So we'll make request of those. We haven't started yet. Those will be kind of ongoing. Once we get to the part with extracting the data, we'll look at each, building by building and if we need to know a little bit more detail about a construction, a crawlspace or a slab or whatever of the building in particular, that's when we'll make the request for them to get that information.

So US EPA documents. We've completed our review. We went through their entire CERCLA record,

all archived documents. There's about 40-some-odd boxes, file boxes, that we went through as well as all the documents kind of loose in their office. We compared the titles of the documents that we saw with the list of titles that we have seen from the Marine Corps and the Department of the Navy sources. We scanned and brought back a copy. We got a copy of all of the unique documents, in other words documents we hadn't seen yet.

So we're working on compiling our index from the, what we saw at EPA, both the documents that we didn't copy and documents we did copy, and we'll have that soon to share with you. And then that will aid your request. I'm sure you're going to make a formal request to EPA, so we'll try to make it as easy as we can for you there, including box and folder numbers where that's available for us to report.

With the data mining technical workgroup documents, those are a group of documents we'll include in the ultimate group of PDFs, we can start keyword searching, so nothing really for us to do with those for now, but we -- it's basically Morris's history of all the documents they've looked at and put in with everything else we did to that

point.

In North Carolina, the Department of Environment and Natural Resources database, we are currently reviewing those documents to see what they contain.

The petitioner documents, in other words the documents we've received from you guys in the CAP, the last thing you gave us over 15,000 documents. At first glance on those, we kind of ran a duplicate check on those. We got 6,500, approximately, documents that you gave us we've already got. What we'll do with the other documents is we will include those in with everything else that we search when we begin -- get to the keyword search portion. We'll have your -- all the unique documents you gave us including both the data mining, the workgroup, the EPA and all those documents we'll do a keyword search just like everything else.

So again the goals. We're looking for any environmental data that we can find. We're going to develop this list of all the document titles; there will be a comprehensive list of everything including source. You'll know whether it's an EPA document or a ^ document or one from the Marine Corps. If it's from the Marine Corps, hopefully we'll also have one

there that indicates whether it's NIRIS or ODI or what source from within the Marine Corps it came from.

And all this is done in the, in the pathway to get to the construction of a database that will contain all the data so we can do smart searches by building a date range and that sort of thing and ^ into hopefully doing some exposure scenarios.

So the next steps what we've got left to do. We're going to complete the review of the North Carolina DENR record, which as I said is ongoing. We've got to finish our reconciliation of duplicate removal of all the documents from the Department of the Navy. Once we're done with that we'll have our group of documents that still needs to be compressed, so we'll run this through a compressor. What that enables us to do is keyword search much faster. We're talking instead of weeks, days, at most a couple days, to search the entire set for one keyword. So it's just a step in the process.

Once we're done with our compression we can do our keyword searches. We got our keyword list that we've been floating around, everyone in our group including environmental scientists and our vapor intrusion subject matter experts have kind of

approved our list of basically a list that we'll keyword search of building numbers, buildings that we know to be of interest, buildings that, in our review -- we've found some other buildings not previously identified that we maintain that we need to look further into that. Those building numbers will be included as well as VOCs, contaminant names in some of the sections of the base, basically anything of interest, we can do a keyword search on that.

The keyword search that we're using will produce a large document. Each keyword hit will be displayed. We'll have one of our environmental health scientists go through and look at these keywords to discern whether or not it's an actual keyword result or part of a string of regular characters; in other words, if we search 1101, as in building 1101, it could return results saying found building 1101 or it could just happen to be 1101 in a larger stream of characters. So we'll have our environmental scientists go through and differentiate there. And what the keyword search will also allow them to do is go click on a link that provides to that document where it cited that word. Go to that document, look right at it and

know whether or not it's a real hit or not, and then while they're in that document, they can look for data. Then they can record that document, and we'll know whether or not it has in fact environmental sampling data that we'll need to extract.

Once we get done with all our keyword searching and all our keyword search reviews, we'll have our list of documents and then go back through and extract all the data. So that's kind of the process we're moving through. Keyword searching, identifying the documents that we do have data, using those keyword -- because -- is it on? The green light's on.

MR. ENSMINGER: The red light's not on around the microphone.

MR. FLETCHER: Sorry. So once the -- where was I? Keywords, we'll -- using the keyword searches, we'll identify the documents that have data. Once we've got that list, we'll go through and extract all the data from those documents and then build the database. Once we got the database, we're ready to go. We can do those calculations and whatever else we want to use it ^.

So a few steps left but a lot of documents to go through, thousands of documents to go through.

But we're making good progress. We've got some contractors onboard that are going to help us go through all this. So we're, we're making good progress. At the time where we're starting to make progress. I think by the next CAP meeting we'll know what we can do, update to give to the CAP. So any questions?

MR. TEMPLETON: This is Tim Templeton, I do have a couple of questions. One, is it going to be stored in, let's say, a Microsoft Access file or is it going to be in a, like an Oracle DDMS?

MR. FLETCHER: Okay.

MR. TEMPLETON: That's, that's the first question.

MR. FLETCHER: So the plan is we're going to do a keyword search two ways, to make sure we're not missing anything. One is we're going to use -- inside Adobe Acrobat, there's the advanced search features, which we'll use. Also we've got access to some really intelligent folks here who know how to use SQL Server.

MR. TEMPLETON: Okay.

MR. FLETCHER: So we're going to build a SQL Server database that also will look for keywords. We'll have it both ways.

MR. TEMPLETON: Okay. That's fine. That was the first question.

MR. FLETCHER: What we're going to do with the data, we're going to extract it out and put into an Excel file, because most folks here are, you know, more versed with Excel. We'll take that and load that into either SQL Server or Access. At this point we're just not really sure how we're going to do that yet. We'll make that determination based on how much data we get and how well SQL Server performs once we load all the documents in it. Most likely it's going to be a SQL Server database. It's going to be such a large data set I think it's going to be a lot better to use that way.

MR. TEMPLETON: Right, I'd be surprised if it’s not. Second question, I sent over a list, I'm not sure if you've received it, but I sent a list to the rest of the CAP of about 506 document titles of particular interest. They were ones that, as I parsed through them, it appeared that a large number of them happened to be work product from the site logs and so forth that were not -- that are of interest later on but not of interest at this point, at least in a higher level. So I sent over a list of 506 documents that we'd like to see right away,

and I was curious whether there's any prioritization.

MR. FLETCHER: The list hasn't made it to me yet but I'd be glad to talk with you offline here in the next break or whatever, and see what you're talking about.

MR. TEMPLETON: Great. Thank you.

MR. GILLIG: Tim?

MR. TEMPLETON: Yes, sir?

MR. GILLIG: The list of documents you sent was from the US underground storage tank program.

MR. TEMPLETON: I believe so, yeah.

MR. GILLIG: And we have given that a priority as far as completing our consolidation of those files and also providing an index and copies of the documents to the Department of the Navy.

MR. TEMPLETON: Okay. Thank you.

MR. ENSMINGER: I don't have a question; I have a statement to make about the access to these documents. You know, Camp Lejeune was declared a Superfund site in October of 1989. It remains on the Superfund list. The documents that we're talking about have nothing to do with national security. These documents relate to contamination aboard the base. In all intent and purposes, those

documents should be part of the Administrative Record now, so I don't understand why these documents are being withheld from the public. There's no reason for it.

I mean, FOUO is not a legitimate reason to withhold documents from the public; the public has a right to see. I mean, you got to understand there's another tentacle to this whole mess, and that's the judicial side to this thing, court cases. They're withholding these documents on purpose. I mean, this is akin to a criminal telling the prosecuting attorney and the judge and the court what evidence can be used against them and what can't.

Now, we need these documents. I'm tired of waiting. Somebody needs to release these. FOUO is not legitimate. It's not a legitimate reason to withhold these documents from us.

MR. GILLIG: Mike, can you hold on for a second?

MR. PARTAIN: Sure.

MR. GILLIG: If I can address your comments. You're right, these documents, a number of these documents, should be in the Administrative Record. ATSDR nor NCEH nor our attorneys are in charge of the Administrative Record. The responsibility for

populating and maintaining the Administrative Record is the Department of Navy, because -- in part because this is a federal facility site, and EPA has delegated that authority to the Department of the Navy. As far as the FOUO documents, For Official Use Only, that's a designation that the Department of Navy places on the documents. That is not ATSDR's decision. So again, it is the Department of Navy's decision. We don't have a say in that. That's strictly their decision. I guess I'll leave it at that.

MR. PARTAIN: To add onto what Jerry was saying, which is made a comment on, first of all, Chris, this library that you guys are creating with the database and everything, are they going to be placed on a disc and made available to the public so we can go through and use that search as part of your product? Like for example with the Tarawa Terrace water modeling system, there was a disc; with the Hadnot Point system, there was a disc. I think the Tarawa Terrace system had a limited search capability with it. But I would imagine if, you know, the vapor intrusion report that you all would do, you know, a disc should be put out with those that can be searchable to back up what you guys did.

MR. FLETCHER: Honestly, that's something we haven't even thought of or discussed; we're just not that far down the road. But it's something we'll talk about. I guess it just depends what the lawyers decide as to --

MR. PARTAIN: Well, I mean --.

MR. FLETCHER: -- as to what they'll release. Once the reports are released publicly, I don't see what difference it would make, whether they are -- you know, the data's on the document versus a database but that's way above my pay grade.

MR. PARTAIN: Yeah, I mean, you guys are spending all this money to create the searchable database so you can do what you're doing, and we appreciate that, but as with any type of scientific work, you've got to be able to reproduce your findings, and the only way you're going to be able to reproduce your findings is to present the data that was out there and make it accessible. So as a member of the public, I am requesting that this database that you guys are creating be available to us as the public.

Now, going back to what Rick was saying with this FOUO crap and everything, it seems like for the past two years, every single freaking meeting that

we go through, we run into this wall with these documents. And we keep saying -- it's like a broken record, we can almost quote it from memory now, about how this is a Superfund site and that the documents are part of the Administrative Record, and we keep asking and asking, and nothing gets done. The DOD is -- if EPA's delegated the authority of these documents over to the Navy and the Navy is not playing ball with ATSDR, then maybe it's time for the director of the -- or the acting director of ATSDR to do something about it, and if she cannot, then her boss. I mean, how long are we going to wait? How long is this ball going to keep going back and forth?

You know, the documents are the historical record. The public has a right to see them. The public has a right to make our own determinations and our own conclusions, which, in the past, we have done, and found errors and found things that were omitted and made significant contributions to ATSDR's effort. And to sit here and have to jump through all these hoops and, you know, hear about folders and boxes at the EPA that, you know, maybe a FOIA request should be sent forth, I mean, we don't even know what we're looking for but you guys have

it. And I'm not blaming ATSDR, but in the -- you know, in the same sense, ATSDR needs to stand up and do something as the protector of the public health, get this information out to the public, to where we can go through it ourselves.

I mean, I've been doing this for seven years, Jerry's doing it for 17 years, I mean, this is turning into a second career for me; Jerry's almost in retirement with his second career doing this. I mean, how long is it going to go? So in summation, as a CAP member, I would like to make a request to Robin Ikeda, acting director of ATSDR, to do something as far as write a letter, get Dr. Frieden involved with the CDC to get this roadblock removed so we can get access to the documents. I'm tired of asking for it. I'm tired of waiting for it. We need the information.

MR. GILLIG: Mike, we'll talk to Robin but again, I think it bears repeating that the release of the documents is not ATSDR's decision; it is the decision of the Department of Navy, because they do have responsibility for the Administrative Record. ATSDR does not have any authority or responsibility for the Administrative Record, and that pertains to the documents that you're interested in.

MR. ENSMINGER: You do. ATSDR does have the obligation of providing the documents for the work that they're doing. You're going to have to provide these documents when you release your public health assessment and your assessment on vapor intrusion, you're going to have to release the documents with that to support your report.

MR. GILLIG: That's correct.

MR. ENSMINGER: And that's what we're talking about. So how you going to do that? Because right now this thing's ping-ponging back and forth, and nobody wants to make a decision. It's time somebody starts making a decision about public release of these documents before you get to the point where it's holding up the release of your report.

MR. GILLIG: And again, all the documents that we base our analysis and decisions on are part of ATSDR's record, and yes, that is made available to the public.

MR. TEMPLETON: I'd like to be on record here making an informal request for FOUO to be removed from the status of those documents, and I'll be happy to make that formal if required.

MR. GILLIG: Again, FOUO is not --

MR. TEMPLETON: I'm asking him.

MR. GILLIG: Okay, you're asking...

MR. ENSMINGER: Now, in relationship to actual testing that was done, that's, you know, measurable tests that were conducted at Camp Lejeune, I know that the Department of the Navy and Marine Corps have come back and told you guys that, well, they didn't really do anything that was actually measurable until sometime in the early 2000s, right?

MR. FLETCHER: I'm not sure that they've made a statement like that to me, no.

MR. ENSMINGER: Didn't you guys tell us that you didn't find any documentation of actual measurable levels of air quality sampling in buildings until after the 1999 evacuation of building 1101?

MR. GILLIG: We may have been talking about the actual investigation of soil vapor intrusion as a pathway based on the guidance that EPA provided, I believe, in 2001. We actually do have environmental monitoring data, environmental sampling results, prior to the late 90s. I mean, we've -- a number of the documents we've recovered in our data discovery process go back as far as I think we had some documents from the 70s.

MR. FLETCHER: Late 70s.

MR. ENSMINGER: Air quality sampling?

MR. MARK EVANS: Can I say something? What we said at the last meeting was that the earlier data that we have are for the most part qualitative; they are not quantitative. Basically they're --

MR. ENSMINGER: Positive or negative.

MR. MARK EVANS: They're a bunch of non-detects that really don't tell us much.

MR. ENSMINGER: All right. I have a request for the Navy/Marine Corps Public Health Center. I'd like to know when it was that the Navy Environmental Health Center purchased their first GCMS, which is cited in a document, that was used by the preventive medicine unit at Camp Lejeune to test the ambient air quality in the former daycare center. The model number and serial number of that GCMS, which came from the Navy Environmental Health Center to do those tests is in this document. I'd like to know when the Navy first purchased their first GCMS. That documents -- those tests were done in 1982.

MS. FORREST: Just to make sure I got this. You want to know when the Navy/Marine Corps Public Health Center purchased the first GCMS that was used by the preventive medicine unit at Camp Lejeune in 1982?

MR. ENSMINGER: Yes. Well, it was used in 1982.

MS. FORREST: To test the air quality at the former daycare center. And you're saying that you got this information from a document?

MR. ENSMINGER: Yeah, we got a document. I'll show it to you. As a matter of fact it was a Hewlett-Packard.

MR. FLETCHER: If there are no further questions or comments for me?

MR. ORRIS: I have a question. Have you been made aware of the memorandum sent from Enrique Manzanilla, who is the director of the Superfund division of Region 9 of EPA, where she (sic) says, and I quote, We recommend that the EPA Region 9 Superfund program establish health protective response action recommendations to address inhalation exposures to trichloroethylene, otherwise known as TCE, in indoor air from the subsurface vapor intrusion pathway. The purpose of these interim action levels and response action recommendations is to be protective of sensitive and vulnerable populations, especially women in the first trimester of pregnancy because of the potential for cardiac malformations to the

developing fetus. The approach is consistent with recommendations provided by Region 10 and with the previous actions taken in Region 9 Superfund sites.

MR. FLETCHER: I have not been made aware of that.

MR. GILLIG: Chris, we do have a copy of that memo.

MR. ORRIS: Okay. And are you incorporating this into your adverse pregnancy outcome study?

MR. GILLIG: We are incorporating the -- this is a memo related to TCE and some of the action levels that EPA Region 9 is proposing to use. We are using the studies upon which those levels are based in our analysis of the data and our evaluation of health impact of exposures.

MR. ORRIS: But are you planning on letting any potential women, who might have been exposed to TCE vapor intrusion after 1984, be made aware that they might be part of the protective and sensitive population?

MR. GILLIG: In our evaluation of exposures, we always identify populations of -- sensitive populations or subpopulations. So yes, the -- our evaluation of the drinking water exposures and the vapor intrusion will include consideration of

sensitive populations.

MR. ORRIS: And this going to go in effect for Camp Lejeune for any potential TCE vapor intrusions ongoing?

MR. GILLIG: We would consider those health effects in sensitive populations when looking at current exposures.

MR. ORRIS: So you're planning on notifying females of -- in the range of being able to carry a baby of potential exposure to TCE now?

MR. GILLIG: As far as identifying -- or as far as notifying females or any residents of the base?

MR. ORRIS: Yes. Who might be exposed now, currently.

MR. GILLIG: That would be a follow-up action that the Navy would take, the Marine Corps would take.

MR. ORRIS: Is the Navy and the Marine Corps going to recommend notifying any females of childbearing age of potential exposure and adverse outcomes?

MS. FORREST: I'm going to have to take this back as a question so I want to make sure I get this down right. Is the Navy and Marine Corps -- you're asking if we're planning to do any notification now

to people who are at Camp Lejeune, when they're at Camp Lejeune --

MR. ORRIS: Yes, who might be exposed to TCE now.

MS. FORREST: Okay. I'll have to take that back.

MS. FRESHWATER: Give her a copy of that document.

MR. ORRIS: I will give you a copy of the document. It's dated July 9th.

MR. GILLIG: Any other questions for Chris?

MS. FRESHWATER: I just wanted to know do you have a copy of the PowerPoint?

MR. FLETCHER: I don't think it's been cleared to give out but I might have some paper copies.

MS. FRESHWATER: Yeah, paper, that's all I want.

MR. FLETCHER: Rick, did you --

MR. GILLIG: I didn't bring extra copies with me.

MR. FLETCHER: I'll make some.

MS. FRESHWATER: Thank you.

DR. FORRESTER: PowerPoint, we will give them out.

MS. FRESHWATER: Thank you.

MR. GILLIG: I'll go upstairs and print one off and make copies.

MS. FRESHWATER: I'm here all day.

MR. GILLIG: And Sheila, is this something we can post to the web?

MS. STEVENS: I'll have to ask. I have no idea.

MR. GILLIG: Okay.

MS. FRESHWATER: That would be even better. A digital copy's always great for, you know, sharing and things.

MR. GILLIG: And we can always get -- we have email addresses on record so we can always send it out.

MS. FRESHWATER: Okay, thank you.

MR. SMITH: Okay, I just wanted to add one more follow-up to Chris's question. Can you also add in the particular methods -- if they do choose to contact females on the base, can you make a list or provide us a list with exactly the types of methods that you'll follow in order to find, locate and communicate with those individuals? I'd like to see that and know that. Thank you.

MR. ORRIS: And just as a carry-on, I'd like to make sure that you plan on notifying everybody from

1955 through the present day that might have been exposed. 'Cause I would bet that the exposure's ongoing now.

MS. FORREST: All right. So first you want to make sure that we're notifying or planning to notify women currently.

MR. ORRIS: Currently as well as --

MS. FORREST: And what that process will be to find, locate and communicate with the women. And then you also would like to know if we're going to include notifying -- identifying women back to 1955; is that what you said?

MR. ORRIS: From the time period of exposure. First identify them. It's basically everybody from childbearing age that served at Camp Lejeune, from either civilian, dependent or DOD function (inaudible).

MS. FORREST: So are you also planning to notify women back to 1955 who could have potentially been exposed to vapor intrusion?

MR. ORRIS: TCE vapor intrusion.

MS. FORREST: All right, I just want to make sure I've got this correctly. So you would like to know if we're planning to notify women currently at Camp Lejeune of potential ongoing exposure to TCE

and vapor intrusion.

MR. ORRIS: In relation to the risk --

MR. ENSMINGER: Turn your mic on.

MS. FORREST: I think it's on; I think I'm just not speaking into it.

MR. ORRIS: In relation to the risk of the potential for cardiac malformations of the fetus. I want to make sure that you're including that language from the EPA with the notification to the females onboard at Camp Lejeune presently and those who were stationed there in civilian, dependent or DOD function from 1955.

MS. FRESHWATER: I'm sorry, we still can't hear you guys.

MR. ORRIS: Okay.

MS. FRESHWATER: You have to really talk into these --

MR. ORRIS: Sorry. I want to make sure that DOD is notifying all females of childbearing age to the risk of potential of cardiac malformations to the developing fetus per the EPA memorandum from the beginning of the date of first exposure to the present. And if you do not notify them, I want to know the reasons why.

MS. FORREST: Based on EPA memorandum. All

right, I may work on making -- on getting this in my notes correctly and get you to look at it, so we're not sitting here going back and forth word-smithing it.

MR. ORRIS: That'll be fine. But I'd like you to ask for that, if that's possible.

MS. FORREST: I will take that back as soon as I get back.

MR. ORRIS: Thank you.

MR. GILLIG: Any other questions for Chris? If not, we'll move on to the next phase of the working session. As you know, we have two projects. We've covered the soil vapor intrusion. We also are doing the reevaluation of drinking water exposures, and Rob Robinson will lead the presentation and the discussion on that project. Rob?

MR. ROBINSON: Thank you, Rick. As Rick stated, I'm Rob Robinson. I'm the scientist who's been tasked with drafting the drinking water public health assessment. I say that but it's been a collaborative effort among many of the scientists here, and one of those you may be familiar with is Jason Sautner. He's with Morris's group and he's been assisting with the portion of the PHA that I'll be discussing today, which is the modeling effort

associated with the three exposure scenarios that you all brought to our attention a few meetings ago -- a couple of meetings; I think it was April.

So these three exposure scenarios are the individuals exposed to contaminated water in swimming pools; laundry workers who were exposed through the steaming process, steaming and ironing process, as well as the washing machines; the food preparation and dishwashing operations. Those individuals were exposed through the prewash or rinsing as well as the dishwashers themselves, and we also looked at steam tables, which is a process that allows -- or that heats the food and keeps it continuously hot.

And we've completed modeling runs through these three different scenarios. And so today's goal is to share the inputs that we have used and also receive any information that you may have to -- and that way we can determine if further refinement of these models is necessary. Following this working meeting, we hope to finalize the models and determine the best way to incorporate those results into our existing public health evaluation.

So our approach is a conservative health protective approach to estimate these exposures.

And it's generally the case when site-specific information isn't complete or historical information isn't all there. You want to err on the side of being protective.

We used one-compartment models, a box model might be a familiar term for you. These are very conservative. They generally overestimate exposures, they don't account for the ventilation of the rooms or the air transfer.

We also used maximum contaminant concentrations. And then being consistent with the previous exposure parameters that we've shared for our other public health evaluation, we're using historical reconstruction numbers that Morris's group has developed, its concentrations. And we're using the same exposure durations that we shared for the civilian worker or the active-duty Marine, which is 15 years or three years, respectively. Contaminants we're looking at are, again, the same, that's PCE, TCE, 1,2 trans-dDCE, vinyl chloride and benzene.

So for the swimming model, we looked at both active duty Marines and recreational users. For the active duty Marines we used a competitive inhalation rate, and for the different exposure times were

basic, intermediate, advanced and specialty levels of training. And the next slide has a table of these numbers, and we would appreciate your input on those. These values were provided by Camp Lejeune environmental management division after discussions with the pool operations personnel. But again, drill sergeant input would be greatly appreciated.

And then for recreational users, we used a normal inhalation rate. And for the exposure, we used the Exposure Factors Handbook, EPA's Exposure Factors Handbook for normal times that you would expect somebody to be in the water, in swimming.

So this is a table that describes the total hours per year, which is the farthest right column for the different levels of training, both basic, intermediate, advanced and specialty. So for instance the basic training, they communicated that there was one event per year, and that event, an individual would spend three hours in the pool of contaminated water. And so one times three makes a total of three hours per year that that individual was in the pool. And that goes up with the increased level of training.

Should I leave that up so you guys can digest that for a little bit longer, to see if it's

effective and reasonable? If there's no further questions on the swimming evaluation, we also looked at the laundry workers.

MS. FRESHWATER: Sorry. I didn't mean to interrupt; I couldn't get this on. When you -- going back to the recreational use, what exactly is the rate?

MR. ROBINSON: The exact numbers we can share with you, the ones provided in the EPA's Exposure Factors Handbook for various age groups that say the average amount of hours that someone would be swimming per year.

MS. FRESHWATER: I would definitely like to see that because, again, I keep mentioning, I know I've said it to you before and other people have said it as well, a lot of the kids, especially, in that pool all summer, all day. And I would imagine that's probably quite higher than what you're using. So I mean, a lot of the families, that's what they did, you know, they just were at the pool every day.

MR. ROBINSON: Okay. So that's very good information. The EPA numbers do look to be in the 95^{th} percentile, so they have a range of times for each age group. So it's in Chapter 6, it's a table in Chapter 6 that we'd be happy to share with you.

MS. FRESHWATER: That would be great, thank you.

MR. ENSMINGER: Now, there are some other factors to take into consideration when you're talking about these pools. The pools you're talking about were over at Paradise Point.

MS. FRESHWATER: And I went with my friends who were enlisted, I can't remember where the pool was but I know I went into other pools.

MR. ENSMINGER: Which -- I mean, now, we're talking about the indoor pools that are used for training over on Mainside.

MS. FRESHWATER: Oh, no, I didn't go to that one.

MR. ENSMINGER: Yeah, see and that's -- your worst contamination was at Hadnot Point, not Holcomb Boulevard.

MS. FRESHWATER: Right.

MR. ENSMINGER: So what we need to key on here -- now, they had recreational swimming in these pools at lunch time and in the evenings and on days that there was no training scheduled.

MR. ROBINSON: Were they used in the weekends as well?

MR. ENSMINGER: Yes.

MR. ROBINSON: Recreational.

MR. ENSMINGER: Yes.

MS. FRESHWATER: Yeah, I think I did that when they were -- not to the amount of the Paradise Point one.

MR. ENSMINGER: I mean, and these are indoor pools.

MS. FRESHWATER: Right.

MR. ENSMINGER: They're not outdoors, where this stuff is going to outgas and be blown away or diluted by the wind.

MS. FRESHWATER: Right.

MR. ENSMINGER: This stuff was inside.

MR. ROBINSON: So for the laundry workers, civilian workers were the only ones that took care of the laundry operations. We used inhalation rates from the EPA Exposure Factor Handbook for similar types of activities. For the washing machines, we assumed a 90 percent volatilization rate, which is basically just 90 percent of the contaminant that is in the water enters the air, and that's what someone would breathe.

The steam presses, we assumed total volatilization or 100 percent of the contaminant in the water would go to the air. And there are

different flow rates for the steam presses and the washing machines.

So on to the dishwasher operations -- oh, and also for the laundry operations, we assumed an eight-hour work day, 240 days of the year, which is standard for the occupation.

MR. ENSMINGER: I know for a fact, from discussions with former civilian employees at Camp Lejeune, that the people that used to commute to work with my source, they would drive to his house, the people that worked in the laundry, and they would share rides from his house, 'cause he lived outside of Jacksonville, and they would commute back and forth, taking turns on who drove each week. Every one of those people that worked at the base laundry, the industrial laundry, are now dead. Every one of them died of cancer.

MR. ROBINSON: So for the dishwasher operations, and this is an image for those of you who have had the joy of working in a commercial dining facility, this is what a large-scale dishwasher looks like. So we looked -- and they would -- currently on Camp Lejeune, they would have either a large exhaust pipe, silver, like you would see in this photo, or a large exhaust hood stationed

over the dishwasher to help moisture be evacuated from the building. However, we've been told by Camp Lejeune that during the time of contamination, those large exhaust hoods were not present. Yeah, so we accounted for that in our model.

And so basically before the operations, a prewash would occur where somebody would have a wand and rinse dishes prior to going into this dishwasher. They would go through the dishwasher and the clean dishes would come out the other end, so pretty straight. So for the inputs that we used --

MR. TEMPLETON: Excuse me, just a quick question. On dishwasher workers are you also considering enlisted personnel that worked in the mess halls?

MR. ROBINSON: Correct.

MR. TEMPLETON: Okay, perfect.

MR. ROBINSON: Yeah, for the dishwashers, both civilian and active duty Marine workers were considered.

MR. ENSMINGER: Now, take into consideration that during the period of contamination, there weren't any civilian workers.

MR. ROBINSON: Okay.

MR. ENSMINGER: None.

MR. ROBINSON: All right.

MR. ENSMINGER: The, the mess halls were not contracted out 'til after 1985.

MR. ROBINSON: Okay. Base told us differently but...

MR. ENSMINGER: They're full of crap.

MR. TEMPLETON: Yeah, I can attest -- I served 129 days in a mess hall.

MR. ROBINSON: Excellent. That's good information, thank you, appreciate it.

MR. ENSMINGER: You must have been bad.

MR. TEMPLETON: That was before I picked up (inaudible).

MR. ROBINSON: All right, we'll make that adjustment. So our inhalation rates were again from the EPA Exposure Factor's Handbook doing similar types of activities. And an Andelman's study measured that 90 percent of the contaminant in the water enters the air during dishwasher operations.

MR. ENSMINGER: Same as in washing.

MR. ROBINSON: Yes, exactly. The flow rates of the dishwashers in pre-rinsing were taken from the manufacturers. And again, for them we assumed an eight-hour work day, 240 days a year.

MR. ENSMINGER: You're saying that the steam tables are 90 percent also?

MR. ROBINSON: Let's see, what were the defaults?

MR. ENSMINGER: Now, you had steam kettles also.

MR. ROBINSON: Steam kettles.

MR. ENSMINGER: Yeah, they used steam kettles in the galley. They had these huge kettles that got steam jackets on them that cooked large quantities of, you know, huge, huge quantities of food.

MR. ROBINSON: These models are really, they're generally conservative enough to account for different types of exposures like that. So if we don't get every specific one, our inputs are generally conservative to account for things like that.

MR. ENSMINGER: And then hopefully people that are food service people that are food handlers are washing their hands quite often.

MR. ROBINSON: Correct. We have --

MR. ENSMINGER: Yeah, yeah, really? I hope so.

MR. ROBINSON: If they're preparing my food I hope so, for sure.

So our next steps based on input we receive

today, we would like to finalize our models and incorporate these results into our existing public health evaluation. And once we do that, we can resume the internal review of the public health assessments with this new information incorporated. So that's it.

MR. ENSMINGER: The people that you want to really strictly pay attention to as far as the mess halls went, are people who had the 3300 MOS.

MR. ROBINSON: 3300 MOS.

MR. ENSMINGER: That's cooks and bakers.

MR. TEMPLETON: If you don't mind, to add to that, for enlisted personnel that are non-rates during the time of the contamination, they typically would end up serving 30 days per year at the mess hall too, some of them in the pound shack, some of them on the serving line, exposed to steam and so forth. But that was the general practice. That's how I got the 129 days.

MR. ROBINSON: Thirty days per year?

MR. TEMPLETON: Thirty days per year.

MR. ROBINSON: Okay. Thanks. Okay, so that's the next steps. I believe we are still on track for the timeline that we presented last time. The internal review we expect to finish this fall. The

peer review, is the first time that you will be able to see the document, will be in winter. And the public comment period will follow that after we receive their comments and make adjustments to the document.

MR. ENSMINGER: Now, winter of 2014 is -- that's in December.

MR. ROBINSON: It should be, yes. It's winter. And based on the input we receive, how much tweaking models require.

MR. ENSMINGER: So would you be safe saying winter 2014, slash, 15?

MR. ROBINSON: Yeah, that's winter. You know, again, we're working as fast as we can to get this document out. But these types of technical documents take a lot of review and are scrutinized by a lot of different people. It takes a long time.

MR. PARTAIN: Now, we're going to be sent, I'm assuming, a formal peer review copy for us as the CAP?

MR. ROBINSON: Correct.

MR. PARTAIN: Okay.

MR. ROBINSON: If there's not any further questions, I guess I'll turn it back over to the moderator, or Rick. Do you have closing remarks?

MR. GILLIG: Yeah, if anyone else has any questions for Rob, now is the time. If not, we are at a breaking point in the agenda. We have lots of drinks and snacks in the back. Please help yourself. We don't want to carry it back upstairs or haul it home. Thank you, everyone.

MR. BRUBAKER: And we'll reconvene at 10:45.

(Meeting in recess at 9:55 a.m.)

WELCOME, ANNOUNCEMENTS, AND INTRODUCTIONS (10:45 a.m.)

DR. IKEDA: So good morning and welcome. My name is Robin Ikeda. I serve as the acting center director for National Center for Environmental Health and the Agency for Toxic Substances and Diseases Registry, which I think is the longest center title at CDC. And today is September 11, so I did want to just take a moment to remember folks who either lost their lives or were injured on this day back in 2001. But also it's a day where we recognize service and sacrifice of veterans and first responders, and we have many veterans here in the room. So just thank you very much for your service; we are forever in your debt.

This morning I am pleased to welcome two new CAP members. We have Tim Templeton and Gavin Smith,

and I know they'll probably say a little bit more about themselves as we go around and do introductions. But just a little bit, Tim was stationed at Camp Lejeune between February 1984 and December 1986. He lived in the French Creek bachelor enlisted quarters and worked as an electronics repair technician in the Hadnot Point industrial area. He's a telecommunications engineer and works as a regional technical manager for a cable company. He also serves as co-administrator of a Facebook group, Contaminated Marines of Camp Lejeune. And then on a personal note, Tim is married and has three children and an incredibly cute grandson whose picture I saw at dinner last night who's two years old. He loves music, which he writes and records, and he also plays the guitar. So welcome, Tim.

And then Gavin is a native of Emerald Isle, North Carolina. His father was a civilian DOD supervisor at Camp Lejeune for 25 years between 1973 and 1998. His father passed away in 2008 from acute myeloid leukemia. And Gavin is a media expert and consultant and he's designed many websites including civilianexposures.org which works to raise national awareness of civilian exposures to toxic water and

contamination at Camp Lejeune. And Gavin recently graduated with distinction, beta gamma sigma, from the Thunderbird School of Global Management, and he's also a recent MBA graduate from the College of William and Mary Mason School of Business. Welcome Gavin. Welcome to both of you. We look forward to your perspectives and thank you very much for your service on the CAP.

I wanted to provide a few updates about what's been happening at CDC. It's certainly been a very busy time for us since our last meeting in June. As many of you know, we had two laboratory safety incidents at the CDC, one involving anthrax and the other involving H5N1 influenza. And these incidents have been taken very seriously by the agency and by the director, and have resulted in a number of immediate actions including a moratorium on transfer of specimens from our BSL-3, the highest security labs, and BSL-4; a detailed review of both incidents by both an internal panel and an external panel; the formation of two working groups focused on laboratory safety, again, one is internal and one is external; and then the identification of a single point of accountability for lab safety here at CDC. And although the NCEH laboratory was not involved in

either incident, improving lab safety is an agency-wide priority at the moment and always has been and will continue to be. And Dr. Jim Pirkle, who is the director of our Division of Lab Sciences here at NCEH/ATSDR, is on the internal CDC work group for lab safety.

The outbreak of Ebola has also kept the agency very busy. Just the numbers from this week, earlier this week, the total number of cases more than 4,000 with the number of deaths more than 2,100. Dr. Frieden, our CDC director, visited West Africa a couple weeks ago, and when he came back he did not mince words about what he saw. He said that it's bad. It's really bad. And he talked about the exponential increase in cases. You've probably read all this in the newspapers but it's, you know, the largest outbreak in history. It's the first that involves multiple countries and also the first that involves urban areas, so it's, it's terrible, and we have been very busy and very engaged.

Right now CDC has 100 staff deployed to West Africa and there are many hundreds more who are working in our emergency operation center here in Atlanta. And even though this is an infectious disease outbreak, the entire agency is involved.

NCEH/ATSDR has 20 individuals who are currently working on the response. They're all based here in Atlanta. And Christopher Stallard, who many of you know from his work in the past as our CAP facilitator, is scheduled to travel to the region next week.

I wanted to provide a quick update on the search for the permanent NCEH/ATSDR director. I'm pleased to report that we had a number of highly qualified candidates apply for the position, both internal and external. We've completed the initial telephone interviews and have recently finished the in-person interviews for a select number of candidates, and there's a number of reference checks and other things ongoing right now but we hope to make an announcement in the next coming months. And we are of course very eager to move forward with the process, and certainly keep all of you in the CAP informed as decisions are made. Thank you --

MR. ENSMINGER: Are they given psych evals?

DR. IKEDA: Psych evals? No. Thank you to those of you who are able to attend this morning's technical discussion on the characterization of soil vapor intrusion pathways at Camp Lejeune. We'll hear from Rick a little bit later about those

discussions.

And then I think, as many of you already know, we convened a two-day expert panel at the end of July to begin planning the cancer incidence study. Both Dr. Clapp and Dr. Cantor participated as panel members and CAP representatives, and Jerry and Kevin were also in attendance at the meeting. We had a productive two days of discussion about the most efficient and methodologically sound way to conduct a national cancer incidence study, and Jimmy and Frank will provide an update and discuss next steps later this morning. So I will turn it over to Matt now for introductions and discussion on the ground rules for the CAP meeting today. Thank you.

MR. BRUBAKER: Well, thank you, and again, my name is Matt Brubaker, serving in an interim capacity while Christopher is otherwise deployed, as Robin mentioned. Because there are some new members today, I think it would benefit all of us to go around the room and provide introduction not only of your name but a sentence or two about where you're from and your role on the CAP as a way of introducing ourselves and also to the folks who will join us on the phone. You want to start, Frank?

DR. BOVE: I'm Frank Bove. I'm with the ATSDR

and I've been working on this issue for many years.

MS. RUCKART: Perri Ruckart, ATSDR, also working on Camp Lejeune issues for about 12 years.

MR. TEMPLETON: Tim Templeton, I was, as you heard, stationed at Camp Lejeune between 1984 and 1986. I have several health issues that result from it.

DR. CLAPP: I'm Dick Clapp, retired professor from Boston University School of Public Health but have been on the CAP for eight years.

MR. ORRIS: I'm Chris Orris. I was born at Camp Lejeune. Many health issues.

MS. FRESHWATER: Lori Freshwater. I lived at Camp Lejeune from '79 to '83 and lost two siblings to neural tube defects and my mother to two types of acute leukemia.

MS. FORREST: I'm Melissa Forrest from the Navy and Marine Corps Public Health Center, and I'm here to listen to the CAP discussions and make sure I capture all the action items and questions to take back to the Marine Corps.

MR. SMITH: And I'm Gavin Smith. I think you heard a little bit earlier but I'm interested mainly in the civilian side of this as well due to my father's involvement for years and also in media

outreach and getting the word out and making sure everyone knows about this.

MR. WILKINS: Kevin Wilkins, I'm a CAP member, Marine Corps veteran.

MS. STEVENS: Hi, I'm Sheila Stevens; I'm the Camp Lejeune CAP coordinator and with the ATSDR.

MR. ENSMINGER: Jerry Ensminger, I've been working on this issue since 1997. I'm probably -- well, I am the only original CAP member left. Anyhow, going back to this significant date, which was horrific, I sat in my livingroom and watched that happen live. And am in no way downplaying what happened on 9/11 but Camp Lejeune is another 9/11, only this 9/11 is happening in slow motion and not being played out in every livingroom on people's TVs. This is being played out in private hospital rooms, private homes, hospice centers. When you have nearly a million people or more that were exposed to the levels of contaminants that we were exposed to at Camp Lejeune, when the death toll is finally counted, it will be more than what we lost in New York and in Pennsylvania on that tragic day.

MR. PARTAIN: My name is Mike Partain. I'm a dependent child from Camp Lejeune diagnosed with male breast cancer roughly seven years ago. And I'd

like to take a moment to remember a fellow male breast cancer survivor who passed away several weeks ago. Pete Devereau was one of the 85 men whose single commonality was time on the base and exposure to the contaminated drinking water, had male breast cancer. Pete was diagnosed shortly after I was with the identical size tumor as me in the same breast. Unfortunately Pete's cancer had metastasized. He was originally given a death sentence for 2010 but he was able to survive, and did a lot of great work helping people out and getting the word out about male breast cancer, and also advocating on behalf of the Marine veterans. He's one of the few Marine veterans who has received VA benefits for his -- and service connection for his service and exposures, and sadly, as I mentioned, he passed away at home due to his disease.

MR. ENSMINGER: Pete's goal was to live long enough to see his little girl graduate from high school, and he fell short. She's only 16. Pete's a good man. It's a shame.

DR. STEPHENS: Hi, I'm Jimmy Stephens, I'm the acting deputy director of NCEH/ATSDR.

MR. GILLIG: Good morning. My name is Rick Gillig, and I am a branch chief under which the

vapor intrusion project and the re-evaluation of the drinking water exposures is taking place.

MR. SAMPSEL: My name is Jim Sampsel. I work for the VA in Washington DC. I work for Department of Veteran Affairs for compensation service, which is part of the Veterans Benefits Administration, and I think Dr. Terry Walters will join by voice later on. She works for the Veterans Health Administration. So we'll have a presentation later today.

MR. CLAY: Yes, my name is Bob Clay, I also work for the Department of Veterans Affairs, Veterans Benefits Administration, out of the Louisville regional office, where the compensation claims for Camp Lejeune-related illnesses are centralized by the Department. Thank you.

MR. BRUBAKER: And we have our phone connection established. Are there any participants on the phone to introduce themselves?

(No response)

MR. BRUBAKER: Not hearing any. As we're about to begin with today's agenda, I want to first acknowledge this group, many of them have been working together for many years. And one of the things that's made this group work well is

agreements and ground rules about how we operate. I was not involved in establishing those but I know that many of you were, and so as a way of preparing for our agenda today, I would like somebody to refresh us. How would we agree we're going to operate together in a way that makes this time together productive? Would somebody clue me in to how this is supposed to work? Perhaps, Jerry.

MR. ENSMINGER: Turn your phones off, if you haven't already done so, or put them on stun, as Chris would say, which is vibrate.

MR. BRUBAKER: Any others?

DR. CLAPP: Don't talk over one another, respect one another.

MR. BRUBAKER: Thanks. The respect piece and the not talking over is valuable because we're trying to transcribe this as well so it's helpful to -- and always remember to use your button to turn your microphone on.

MR. ENSMINGER: Talk into your mic. Chris.

MR. BRUBAKER: So with those reminders, I think we're ready to begin the agenda. We'll turn to Sheila for action items from the previous meeting.

ACTION ITEMS FROM PREVIOUS CAP MEETING

MS. STEVENS: Good morning. I'm going to go over -- we got several of -- several this morning so I'm going to try to go through them. Start with the first item: The CAP would like the identifying numbers of the 128 UST documents, UST stands for understorage tank, documents provided to the judiciary committee. And also to confirm that the entire library was provided unredacted to the committee, and this was assigned to Melissa Forrest.

MS. FORREST: Okay. In a 10 July 2012 email to the Department of the Navy, the Senate Judiciary Committee refined a previous request for Resource Conservation and Recovery Act documents to just those contained in the attached index. The index includes the requested unique identifying numbers for the 128 UST documents that were transferred unredacted to the Senate Judiciary Committee on 15 August 2012. And we did provide a copy of that index in the response provided via email.

MS. STEVENS: The next item: The CAP requested an index of the data sources for which an index is not available. And that was also assigned to Melissa Forrest.

MS. FORREST: Okay. The Marine Corps requests that ATSDR identify the data sources with no index

that are relevant to their vapor intrusion investigation at Camp Lejeune and also that ATSDR feels need to be indexed to complete their work.

MS. STEVENS: Third item: The CAP has requested that the VA verify the number of decided claims for male and female breast cancer patients. This was assigned to Brad; however, I'm going to wait 'til 1:15. We do have members of the VA here to answer that question.

The next item is also to Brad Flohr: The CAP requested that a representative from the Louisville office was -- who is responsible for deciding claims to attend the next CAP meeting. Again, we will also defer that to the 1:15 part of our agenda where the VA will be speaking.

The next item is the CAP requested an index copy of all documents on vapor intrusion that were provided to the ATSDR -- provided to ATSDR by the DOD, Department of Defense, and that was assigned to Rick Gillig.

MR. GILLIG: As we discussed in this morning's working meeting, we are in the process of putting that index together and expect to have it finished by the end of the calendar year.

MS. STEVENS: ATSDR will continue to keep the

CAP updated on health assessments activities. Updates will be provided on the monthly CAP phone calls. This was also assigned to Rick Gillig.

MR. GILLIG: And we are doing that.

MS. STEVENS: Okay. The next CAP item was the CAP requested that ATSDR provide an index of 439 documents that were added to the UST portal since the last request. This was also assigned to Rick Gillig.

MR. GILLIG: And on August 14th ATSDR did provide a list of all the UST files. We made that available to the CAP as well as providing that to the Department of Navy.

MR. PARTAIN: Sheila, can I jump in here real quick? On the documents, at the break I had a brief conversation with Dr. Ikeda concerning the availability of the documents from what we were discussing at the pre-meeting, and she did confirm, and I don't want to speak for you, but that there was -- well, actually, can you explain? I don't want to put words in your mouth, so.

DR. IKEDA: So Mike and I were speaking about the Administrative Record and what authority seats he does or doesn't have about the Administrative Record. And I mentioned to him that we have spoken

to our legal counsel here at CDC. We have no authority over the Administrative Record. We also don't have any ability to dictate what's included in the Administrative Record. And Mike asked whether we could provide a statement from our legal counsel saying just what I explained, and I said, yes, that we could do that. So we will take care of that ASAP.

MR. PARTAIN: Thank you.

MS. STEVENS: Okay, the next item is ATSDR will check on whether or not there is a data source on the base's laboratory quality control results. That was assigned to Rick Gillig.

MR. GILLIG: We have made a request of the Department of the Navy, and our contact at Camp Lejeune about this database, and they are not aware of such database as this.

MS. STEVENS: The next item: ATSDR will get clarification on whether the Camp Lejeune fire department files for more than three years ago are available, and if so, ATSDR will review and add those files. Again, Rick Gillig.

MR. GILLIG: As we discussed earlier today, we've obtained five files from that database. The database before 2008 does not exist.

MS. STEVENS: The next item is assigned to the CAP members. The CAP will develop a language for requesting the development of a relational database for the Camp Lejeune data sources.

MR. PARTAIN: Yeah, we talked about that but we did not -- it was discussed at the last CAP meeting. And we have not gotten together to do that.

MS. STEVENS: Okay. I will put it for the next -- we'll put it in either as a parking lot item for the next call or we can wait 'til the January time frame.

The next item is the CAP requested that ATSDR's assessment of vapor intrusion exposures includes -- I cannot say this word -- cumulative exposures.

MR. GILLIG: And that was an item for my follow-up.

MS. STEVENS: Yes, thank you, Rick.

MR. GILLIG: And yes, we are doing that.

MS. STEVENS: The next item is ATSDR will look for information on water complaints so that vapor intrusion can be analyzed from temporal and spatial aspects. Rick Gillig.

MR. GILLIG: We did talk about that earlier today in the working session. We will compile all of the information, put it in a large database so

that we can look at spatial and temporal trends.

MS. STEVENS: The next item: In the drinking water evaluation, ATSDR will check on the exposure parameters to account for workers in dining halls, laundry facilities, medical personnel and Marines in training as well as recreational use of the water by Marines and family members. This was assigned, again, to Rick Gillig.

MR. GILLIG: And again, earlier today we did discuss the different parameters for using the models for those exposure pathways. We've had good input from the CAP and we're moving forward with those models.

MS. STEVENS: The next item: The CAP requested that ATSDR determine if the current school at Tarawa Terrace is being exposed to vapor intrusion. Rick Gillig?

MR. GILLIG: So far we haven't looked at -- or haven't found any sample results that indicate there are any ongoing exposures in these buildings. Again, when we do our analysis of the data, we will use these building numbers as one of the keyword or a couple of the keywords that we search the data on so we can compile and look at the data, then the soil.

MS. FRESHWATER: I just had someone else come on to the -- via the Facebook group saying that she was a teacher at TT-2, and she's sick. And I still have not been able to get any concrete information on is the new school built on the site of the old school or not. Do you -- do we know that? I mean, I know we've got it marked on Google Maps and all of that but I feel like this is a kind of a precise thing we should be able to know. And I'm sorry I haven't been able to find out. It's right on the --

MR. ENSMINGER: It's right within the same footprint.

MS. FRESHWATER: So what would we need to do to get testing in there tomorrow? You know what I mean? Like to get current testing in the schools on that site?

MR. GILLIG: We would have to check with our contacts to see if testing has already been done. It may have been done already but I am not sure.

MS. FRESHWATER: I would like anything at all -- you know, I understand that this is a personal thing for me, because that's where I went to school, but I am asking that we make sure that some current samples, if they have not been done, that we get those done and make sure that those kids

are not being exposed in that school.

MR. ENSMINGER: The school was a point of -- became an issue when the Tarawa Terrace water model was released back in 2007. ATSDR, Morris and his team, basically took a look at the plume and annotated that there was a possible risk involved with vapor intrusion at the school. And the EPA was running around with their hair on fire after that allegation or that point was made. I do believe the testing was done in 2007, if I'm not mistaken, but we'll have to check that. I think 2007 there was testing done, and it was after June.

MR. GILLIG: And I can follow up on that.

MS. FRESHWATER: Jerry?

DR. BOVE: Yeah, Morris would know.

MS. FRESHWATER: Do you know anything about there was an underground tank that they dug up from that site?

MR. ENSMINGER: That was a 10,000-gallon leaking fuel oil tank, heating oil tank that was --

MS. FRESHWATER: Right there under the school, right?

MR. ENSMINGER: Yeah.

MS. FRESHWATER: Yeah.

MS. STEVENS: Okay, the next item was assigned

to Angela Ragin; she's not here but the CAP requested that Tim Templeton be added to the CAP, and right over there we have Tim Templeton.

The next item is assigned to Kathy Harben, and I think Christian Scheel will be standing in for her. So ATSDR needs to disseminate study results and key messages to the affected community and other stakeholders.

MR. SCHEEL: So ATSDR had a conversation with Ms. Freshwater, and it was discussed how we would promote study results and reach out to the affected community and other stakeholders. We committed to continuing to work with Ms. Freshwater on our communication efforts here going forward.

MS. FRESHWATER: And we're also going to have a meeting today, right? We're still on for that?

MR. SCHEEL: That's correct.

MR. ORRIS: I would just like to point out that the current Google news search still only shows two hits for the civilian mortality study, and that is absolutely unacceptable.

MS. STEVENS: The next item: ATSDR needs to synthesize information from the Camp Lejeune studies and distribute to stakeholders. This was assigned to Jimmy Stephens.

DR. STEPHENS: Yeah, so we haven't done that yet but we think it's a good idea and we've had some discussions with Angela and Frank about how to do that and what would be the best timing. And I think the thought at this point is that we've got these other studies in the pipeline that should be coming out relatively soon or be done relatively soon, and at that point that would be a good time to kind of step back and try to summarize it. Frank, I don't know if you want to add anything to that?

MS. STEVENS: Okay, I actually skipped one. Christian Scheel, you're back on for this next one. ATSDR -- I'm wrong. I'm sorry, let's go back. The CAP -- and still Christian, I'm sorry, the CAP requested that ATSDR send out Google alerts for when Camp Lejeune is mentioned, check to verify that reported information is correct, and if not, notify the author.

MR. SCHEEL: We've set up Google alerts and we've made it part of our daily media monitoring process. So taking care of that.

MS. STEVENS: Thank you. The next item is assigned to Melissa Forrest. A CAP member would like the DOD to respond to how they plan on notifying children, now adults, who were exposed

when they lived on base.

MS. FORREST: Department of Navy does not have access to records that would indicate the present-day contact information of persons who were a dependent child during the exposure time period; however, between 1999 and 2002, as part of ATSDR's birth defects study effort, ATSDR, with the help of the Marine Corps, was successful in contacting the parents of 12,598 Camp Lejeune children born between 1968 and 1985, using available birth certificates and subsequent referrals. In addition to these efforts directly note -- in addition to these efforts to directly notify the parents, the Marine Corps has engaged in an ongoing national media campaign to contact former Camp Lejeune residents and workers. Today we've collected more than 230,000 registrations which have received direct notification. Moving forward, we plan to include a routine reminder in our outreach information to encourage registrants to have their children or other family members register independently.

MS. STEVENS: The next item: A CAP member, Lori Freshwater, requested that an expert in immunotoxicology give a presentation at a future CAP meeting -- sorry, I really messed up that.

MS. FRESHWATER: I do it every time. We were laughing about it.

MS. STEVENS: So what we -- last week Angela Ragin and I had a call with Lori, and we discussed having a proposal put together that would be reviewed by our ATSDR leadership, so we'll wait for the proposal and we'll have our leadership look at that. Lori, do you have anything else you'd like to add to that?

MS. FRESHWATER: I just want to, you know, for anyone watching or reading the transcript, I want them to know that we are moving forward on it and it is -- you know, we are placing an important priority. And I had a good opportunity to talk with Dr. Clapp so I'm going to make a few revisions. And I told Angela earlier I'll be getting that to you guys probably tomorrow instead of today, if that's all right. And hopefully we'll be able to move forward with this in the next year.

MS. STEVENS: Thank you. And the final item is the CAP requested that Dr. Portier's October 2010 letter refuting the NRC report be put on the ATSDR Camp Lejeune website. And as of, I think, about, what is it, 21 days ago, we actually did post that to our website, and you can find that on our ATSDR

site. And the title of it is the June 2009 NRC Report Frequently Asked Questions. So this concludes the after actions from the June 12th meeting.

PRESENTATION OF CIVILIAN WORKER MORTALITY STUDY

DR. BOVE: I'm going to hand out copies of this to the CAP members. I don't think I made enough copies for everybody. So this was just published last month. In fact the slides don't even show when it was published but believe me, it was published last month. I have a few more.

(Handing out material.)

DR. BOVE: Okay, so this, as I said, was just published so it's -- wasn't just submitted. Okay, so it was published last month, and this slide shows all the people that we want to acknowledge. The first six names are members of Morris's water modeling group. Couldn't do the study without them. The next two names, Dana Flanders and Kyle Steenland, are Emory epidemiologists who we consulted with during the analysis. Westat was the contractor and of course the Camp Lejeune CAP and Dick Clapp were very important during all these steps.

So this is a data linkage study, which means we didn't contact anybody. We used what data that's available from the Defense Manpower Data Center, which has personnel records, and from databases that we can use for -- to determine vital status and whether the person lived or died and cause of death. So because of that, the cohort is defined pretty much by what data are available.

In the case of the Defense Manpower Data Center data, there are some issues with it. They have -- their first data is available for the last quarter of 1972, and then there's a gap. And then after that in the second quarter of '73 it starts being quarterly. And they also have -- and by '74, late '74 they had codes for when the person was hired or promoted but there's a lot of missing data and a lot of different codes that are in error, so we couldn't really use that, so we were -- we had a choice to make. We could've included anybody in the database that we had but we wouldn't know, for the people who were in the database in December of '72, how long they were employed, so we wouldn't have been able to do cumulative exposure for them. So we decided to just focus on those whose first in the database, at least the database we had, in second quarter of '73.

So the cohort at Camp Lejeune is defined, then, as if you're in the database as employed at Camp Lejeune any time from the second quarter of '73 to December of '85, and there's 4,647 civilian workers.

Okay. And then we had a comparison group, and we do this because we want to have a worker population that's very similar to Camp Lejeune except for the drinking water exposures. I'll talk later about the problems with comparing these cohorts to the general public. But we decided it was important to have a comparison group. We did the same thing for the Marine study too. And it's the same definition of that cohort as Camp Lejeune cohort except none of them could have been employed at Camp Lejeune.

So with the DMDC database what we have are -- it's not as good as the Marine part of the personnel data. We don't have full name until close to the end of the study actually, the beginning of 1981. But we do have Social Security Number, and that's the variable for matching with vital records and with the National Death Index, which I'll talk about in a second. We have where they were employed so we can tell whether they were at Pendleton or Lejeune, date of birth, sex and so on, and their occupation.

So these are important things that we can use.

Okay, so in this case, this is different from the Marine study because these people are not exposed at their residence. They live off base for the most part. There are some that might live on base but we have no information on that. But what we have is information from the Marine Corps which was that most of the work places were at Main Side, not all of them but most of them. So we just assumed that the work places at Camp Lejeune were at Mine Side, and for those who weren't we're going to be in error. But these people also probably moved around the base quite a bit and probably were at Main Side at some point, possibly during the working day, if not for lunch for other reasons. So I don't think it's a terrible assumption. And we used the water modeling results like we did with the other studies to determine what their cumulative exposure was.

Now, the exposures changed drastically. This was true for the Marine study too but even more so for this study 'cause we go back to '73 in this study. Between '73 and, let's say, '75 there's a steady increase in the TCE, but really it starts skyrocketing sometime after '75, I think, if you

look at the documents that are out on our website. So and you can see from here, from '72 to '79 TCE is high. The mean is 280 parts per billion but it's much higher, 455, by the later part of the study. So there is this increasing exposure -- increasing levels of contaminants as the time went on.

So the vital stat databases that we used, same as the mortality study, these are from the Social Security Administration. They're used by other researchers to do these kinds of studies. But we -- and also many ^ now use a personal tracing service as well. I'm talking about what we did for each one of them. And then we have the National Death Index, which everyone uses when they do these kinds of studies. They started collecting data in 1979. It's run by the National Center for Health Statistics, which is part of CDC. And they had complete data up to December of 2008 when we were doing these studies, the same as the other mortality study.

So the way it works is this. We send in the names to the Social Security Administration, look at their death master file and this other file called ORES, which is the second bullet there, the SSA service to epidemiologic researchers, and find out

if whether the person's alive or dead. But if we don't have a complete match on Social Security Number and date of birth, sex, which we probably do, but usually date of birth and Social Security Number and name, and we had it. We didn't have a complete perfect match. Or if we did the matching but if it was unknown, for some reason there was no data from the Social Security Administration on that person, then we would send that to the tracing, which was in this case LexisNexis, to see if we could get any information on that person.

So after doing this, the searches through Social Security Administration and using LexisNexis as well, then anyone who had died or anyone where the stat -- vital status is still unknown, we send to the National Death Index and find out if they died and what they died of, okay. So that's how that works.

Okay, so that's how follow-up was done. Given that the National Death Index did not start 'til 1979, we started follow-up in 1979, just like the other study. So deaths occurring before 1979 are not included in the study. But we followed up from 1979 on.

Now, the -- the diseases that we -- we did the

same thing in the mortality study of Marines. We divided the diseases -- causes of death, into two categories, primary interest based on how strong the evidence was. And for these cancers here the evidence was pretty strong. So this became our first tier, our primary interest.

And then we had done a literature review, and these diseases here, there was less information on. Or there were studies done in the occupational literature, which is where most of this information comes from, that said that it's general -- it's solvent exposure. They couldn't figure out what solvents but solvent exposure was related. So we thought we'd cast our net wide and include diseases where there was any evidence whatsoever, and that would be the second tier of diseases.

Now, I want to spend a little time on this because there have been some issues raised. We hear in the media a lot about the issues of significance and I want to talk about that in a second. The way we're interpreting our findings is we're focusing on the size of the effect, the actual relative risk or risk ratio, whatever you want to call it, that we get. We also looked to see what kind of trend we get with cumulative exposure. You know, as the risk

increases the exposure increases. Okay, and then we look and see if what we're finding is consistent with other studies including our previous mortality study on the Marines. And then we look at the confidence interval. But for the confidence interval what we were mainly interested in, or only interested in really, is how wide it is to give us some sense of how uncertain the estimate is. So here's what I want to get, to deviate a little bit from the presentation and talk a bit about this. Because we don't use significance testing to interpret our data in these studies. We haven't done that for any of the studies. And that approach, although somewhat controversial, is also the approach recommended by the main textbook and reference book in the field. It's called *Modern Epidemiology*. So our approach is actually supported by that textbook.

The debate around significance testing has gone on in this country for like 75 years, so I'm not going to get into all the issues there. Probably the debate in Europe goes even further back. But in general there is a lot of problems with significance testing, and I'm not going to go into all of them. I don't think it's a very good decision rule. There

are other approaches. And if you try to make a decision based on one study you're probably not doing justice to the evidence, if you're deciding on one study whether it's important or not and not include other evidence. Significance testing tends to get you to do that.

The other thing is that people think that it's an objective approach. And there's a lot of subjectivity, though, that the researcher isn't maybe aware of. The P-value .05 is the cutting point is an arbitrary choice, and there are a lot of assumptions built into this using that as your cut point. Other researchers sometimes look at a 95 percent confidence interval and see a null value or the null effect value or a value of 1 which is, and they use the confidence interval the same way they use the key value. In either case, it's not a good approach and it's not a good decision rule, and it's a very arbitrary choice. If you ask a researcher why they choose .05 as the cut point or why they're using a 95 percent confidence interval, if they're honest, they'll say because everyone else is doing it. And if that's a good enough reason for you, then fine. But one of the -- and there's a lot of other issues, and I don't want to get into all of

them so I'm just going to get into one, that I think is very important. And that is the P-value and the confidence interval do not take into account biases.

And I'm going to be talking quite a bit about bias in this study. For example, let's -- I'm -- my background is -- my ancestors are from Italy so I use my hands, okay. If we have no bias, right, in a study, let's say, okay? So we have a confidence interval of -- we have a -- the risk is here and the confidence interval's around it, right? No bias. Let's say we're absolutely sure. Okay, now, that's the true -- let's say that's what's truly happening. If there's bias, for example, if the Camp Lejeune cohort smoked more than the Camp Pendleton cohort, for some reason, and we're looking at lung cancer, well, that would not only shift the point estimate, it shifts the whole curve over, okay? Or if they smoked less. Instead of being here, now we're over here, okay? So the whole -- not only the point estimate but the whole curve gets shifted over. So you can't really be confident with the confidence interval. What the confidence interval can give you, and this is the good news about a confidence interval, is that it gives you some sense of how uncertain the estimate is. If you have a lot of

deaths in your study the confidence interval is narrow. If you have few deaths, like in this study, it's going to be wide. But keep in mind the deaths, that's the best thing you can get out of a confidence interval, because we know there's bias in studies so that confidence interval is probably in the wrong place. So just keep that in mind. When people then look to see if one is included in a confidence interval, they're not thinking clearly because there are biases in all these studies, and I'll talk about a couple in particular as we go on. And so if you have any questions about that, we'll talk about that later.

But let me move on now to comparing Camp Pendleton and Camp Lejeune. The first thing we look at is demographics, how different are they. And there are some differences here. They differ on most of the factors here, not a lot but there are some differences. But roughly they have -- there's a similar percentage of those with at least a high school graduation but there are more college graduates at Lejeune than at Pendleton.

And this -- these aspects, the types of occupations, the months employed and so on, there's a lot more similarity in the two groups, okay. So

they're not that different on many of these occupational and other factors, in this slide, okay.

So the first thing we did -- and by the way, that table that I just showed is on page 6 of the handout if you want to follow along. And this is also, this is on page 7, table 3. So here we're starting to compare the cohorts. And in this case we're comparing them not to each other but comparing them to the US population. So it answers the question of how different is the mortality situation at Camp Lejeune, or at Camp Pendleton, among the workers there, with the general population. And here's where bias starts to come in right away. There's one thing that you know about the general population: There are a lot of people there who are too sick to work, okay, whereas the workers are healthy enough to work; that's why they're employed. So right off the bat that confidence interval's going to go this way. And if you look, you'll see that the SMRs, which is a -- the measure of the risk difference or mortality rate difference between, in this case, Camp Pendleton or Camp Lejeune versus the US, you see that most of the SMRs are below 1. If they were the same as the US population they would be 1, okay?

So there's this bias we call the healthy worker effect, which is just what I said, that the US population is not as healthy as the working population. And you can see it from almost all the outcomes here, except for a few, they're are below one. So and the confidence interval goes along with it, okay. All right, but there actually are some that are above one, which makes you think that in reality there are probably a lot more than what you're seeing; in other words, we're probably underestimating, okay, because of the healthy worker effect. And a key one here is the Camp Lejeune kidney cancer that stands out at 1.3. And also what we call the hematopoietic cancers, in this case multiple myeloma and the leukemias, are also elevated. The leukemia is also elevated in Camp Pendleton cohort compared to the US population but not as high as Camp Lejeune. And at Camp Pendleton liver cancer, for some reason, seems to be elevated too; who knows why but that's -- that answers that question.

And of course the assumption here in this -- in any comparison between Camp Lejeune and Camp Pendleton as well, is that everybody at Lejeune is exposed, okay. And we know that may not be true

here, especially for workers. We don't know if they're drinking the drinking water or washing their hands. There may be some workers who don't use the water at all for any purposes. I don't think that's likely but there is -- it's possible, I guess, okay.

So these are the diseases of primary interest. The diseases of secondary interest, we also compared them to the US population. And for this there are a few more that are elevated. I don't have a pointer but some of the more interesting ones, rectal cancer at Camp Lejeune, laryngeal cancer, lung cancer, prostate cancer and Parkinson's disease in particular, based on five cases but still very interesting. On the Pendleton side, there are a few that are also elevated; pancreatic cancer is elevated, brain cancer and ALS. ALS is high in the military population in general. So that's that comparison.

And it's interesting but the real interest was to compare Pendleton and Lejeune so that's what we're talking about here. And for this we do a different approach in modeling. We take a better account of age at death as a factor, and we can -- we have more flexibility in using continuous variables in this equation, okay. I won't get into

that any further than that unless you have any questions.

Okay, so in these analysis -- in the SMR analysis we were testing for age, sex and race. In here we were able to also adjust for other factors such as occupation, blue collar versus white collar, and their education level, and we were able to lag exposures by ten years. What we mean by that is there's a latency period for cancer, and so the exposure you have now will affect your cancer -- development of cancer ten years from now, let's say. So what we want to do is lag and so that the exposure reflects reality in a sense. And again I can talk more about that if you're interested. So in this analysis, we compared the mortality rates between Lejeune and Pendleton, and the hazard ratio tells you if it's above one that Lejeune had a higher mortality rate for that disease.

And so what you see here is that a particular kidney cancer and again, multiple myeloma and the leukemias are above 1 and are of interest. And again, the confidence intervals are wide because we're dealing with a small number of deaths in the study.

For the disease -- diseases of secondary

interest, there were a number of them that are also elevated at Lejeune and some that aren't. Among the ones that are interesting here, rectal cancer was above 1.5 percent, oral cancers, which we associate with PCE mostly, and Parkinson's disease which was, again, pretty dramatic, I thought.

Now, we also included in our studies, we evaluated three smoking-related cancers and diseases that weren't related at all, as far as we know, to solvents. So stomach cancer and cardiovascular disease and COPD are those three cancers -- diseases. We did that in the other study too. We have that information on smoking, and so therefore we're trying to get a sense of maybe -- whether there is a smoking effect on line here, whether that could be a bias again, okay. And if you look at COPD, it looks like there might be some smoking bias in some of these figures, okay. But if you look at stomach cancer and cardiovascular disease, there isn't. And if you look at, again, if you go back up there and look, lung cancer's elevated and so that might point you in one direction. Oral cancers are related to smoking as well but there are others that are related to smoking that aren't elevated, pancreatic cancer, for example, is not elevated.

And so -- and there are several others that are not, esophageal cancer is not either. And so, okay, and then there's liver cancer. So what do you get out of this is that it's not clear that smoking is an important factor.

But if, in the worst case, if you look at COPD, it would affect the risk estimates we think around 17 percent. That's not too much. That's what you see in other studies with smoking and occupational exposure. So either there is no confounding of smoking, because we see all this conflicting evidence here, or at worst, if you just focus on the finding for COPD, there's about a 17 percent difference. Again, it would be nice to have smoking information but that -- you'd have to contact people for that, and that's impossible for these studies.

So that was the comparison between Pendleton and Lejeune. And now we decided to, like the other mortality studies, look within Camp Lejeune for cumulative exposure, okay. But because of the small numbers of deaths in this cohort, it was very difficult to do that. We could look at a few outcomes where we could break it up into medium exposure, high exposure versus, you know, very low exposure. And we could do that for leukemia, and we

saw what we call a monotonic exposure response trend. That is that the risk increases with every increase in exposure. So we see it for PCE. We see it for vinyl chloride. TCE we really don't because the medium exposure's below 1. But we do see it for the other two. And again, we may not see it because of errors in the way we determine exposure, and there's really no way around that. That's a problem in all studies but in particular it would be a problem in this study.

The -- we also do this approach that helps us get a sense of how the exposure response relationship is occurring. It's a flexible approach, it's called blind, sounds awful, but that -- it allows the curve to have a much more flexible shape to match what the data is actually saying. There are assumptions in this too but there are fewer assumptions than any regression approach to the problem. So as you can see, this is where you typically see with exposure misclassification errors or it could also be that you -- the exposures had wiped out the susceptibles at lower levels and the only people left are people who won't get the disease no matter how much they get exposed. There are all kinds of reasons to see curves like this but

it's actually pretty typical of the kind of curves you see in occupational exposures. So anyway it seems to go up to around a relative risk of 2 and then starts to tail off in that higher exposures.

So we could do that for a few kidney -- leukemia was the only one where it had a nice pattern like that. Kidney cancer we couldn't do 'cause we only had seven cases. We couldn't really divide them up. But we did see that most of the cases, in this case all the kidney cancer deaths, were in the higher grouping of exposures, above the median for several of the contaminants. So that's interesting and it supports that finding. Esophageal cancer was interesting too because most of them were in the higher cumulative exposure group. For multiple myeloma, we didn't see it for cumulative exposure but for average exposure. We did look at both average exposure and cumulative exposure. The study did focus mostly on cumulative exposure, but in this case it looked interesting for average so we reported, for what it's worth. Parkinson's disease they were all -- four out of five were above the median cumulative exposure for all the contaminants. And so that supports that finding. Prostate cancer similarly in most of the

cases were above the median and that's also true for rectal cancer. So that helps gives us some support for what we saw in the comparison between Lejeune and Pendleton.

Okay, so I already talked briefly about exposure misclassification but it's occurring in all our studies because, you know, it's hard to know what people did at their work place. In the case of the previous studies with Marines we had information on residence to some extent, even though that was kind of spotty, but they also got exposed in the field, and we don't have any way of capturing that information. So there's plenty of exposure misclassification in all of our studies but that's true of most environmental occupational studies so it's not unusual.

And what it does, in the comparison between Pendleton and Lejeune, it tends to bias your results towards no effect. But with exposure response situations, it can give you curves of all kinds of shapes.

Similarly disease misclassification. It's probably much less of a problem here but we know that some cancers were underreported or over-reported on death certificates. If you have kidney

cancer and get run over by a truck, you died of being run over by a truck not by kidney cancer. So the only way to handle that is to do a cancer incidence or disease incidence study, which we'll talk about later.

Confounding. A lot of people talk about confounding all the time although sometimes they don't present any evidence that it actually exists. But smoking is one that people always bring up, and we talked about that earlier. It doesn't seem to be clear that there is a smoking issue here. But without smoking information you can't be absolutely sure. And the bias can go in any which direction, whether Camp Lejeune people smoked more or smoked less or whatever. And there are other risk factors that we don't have information on, alcohol consumption. Some of the diseases are related to alcohol consumption. Not kidney cancer, not Parkinson's but there are some cancers that are related to alcohol consumption. When you look at the data we find that there were -- for example, there were elevations at Camp Lejeune for oral cancer, breast cancer among females. By the way, there were no male breast cancer cases in either study. And rectal cancer. So those are the cancers

that are related to alcohol consumption, and they were elevated at Lejeune. But on the other side of the ledger there's liver cancer, esophageal cancer, colon and cardiovascular disease and so on, which are also related to alcohol consumption that weren't in that comparison. So you get conflicting information here too which seems to me to say alcohol is not going to be an issue here either, either smoking or alcohol. But without, you know, actual information you never can be sure, as they say.

And the confidence intervals are wide and the reason the confidence intervals are wide, it's a small cohort. That's the first reason. Second reason is that there's the healthy worker effect. And the third reason is that most of them are young and very few had died. So that combines to give you small numbers of deaths and wide confidence intervals. Now with the confidence intervals a function of the number of deaths in the study.

So what's the key message from this study? Again, there's a lot of uncertainty in this study. As I said, the confidence intervals are wide but we did see these elevated hazard ratios or risk ratios and we think that's interesting. And the other key

message is that there's still a lot of people in this cohort that haven't died yet. So what happens after this is anybody's guess. Will we continue to see these elevations or will we see new elevations in different diseases? That remains to be seen, okay.

Now, one of the things that's interesting, and we did it in the paper, was try to compare the two studies, the two mortality studies. And so what were the similarities and what were the differences in the findings between the Marine study and the civilian worker study? Of course a lot of you can expect some differences probably just because, for one thing, Marines are living on the base and getting exposed that way, and training in the field. Civilian workers are coming on the base, may or may not be using the water. There's one difference right there. Civilian workers tend to be there longer than the Marines. There are a lot of Marines that have been there a long time and a lot of civilian workers are there for a short time. Okay, so you can expect some differences right off the bat.

But we actually saw some similarities, which is interesting, and in particular for kidney cancer,

rectal cancer, lung, prostate, leukemias and multiple myeloma, they're elevated in both studies at Camp Lejeune. And we didn't see any elevation in both studies at Camp Lejeune for cancers of the bladder, colon and brain and non-Hodgkin's lymphoma. The last one is a little surprising because TCE has been associated with non-Hodgkin's lymphoma pretty strongly but we're not seeing it yet, but that could be also because we're looking at the mortality, not cancer incidence.

So the differences, there are differences. We saw elevated risk of cancers of the liver, esophagus and soft tissue and pancreas in the earlier study but we don't see it in the civilian worker study. And the other side, we saw a risk for female breast cancer, oral cancers in the civilian worker study but not the Marine mortality study. So what do we make of this? Among the other reasons that I just said, that there are differences in the exposure scenarios. We're still looking early at these cohorts. Most of them haven't died yet, and so things may change as time goes on.

So that's all I have to say and I probably went too long. If you have any questions about the studies, both -- either study, either mortality

study, let me know.

DR. CLAPP: This isn't really a question. I just want to, you know, reiterate or second what you were saying about the statistical significance, Shibboleth, you might call it, that scientists use. I think you are handling it really well; I think you explained it really well, and that the textbook monitor Epidemiology is of the standard in the field right now. So I really endorse the way you presented that in both the presentation this morning and also in the written papers.

MR. PARTAIN: And Frank, we got two mortality studies that are completed, and, you know, a lot of scientific numbers and things that kind of glaze over after a few minutes. You know, science is not just one eureka moment where everything comes into focus; it's a body of evidence that flows. And, you know, we have agencies like the VA here today and we have Congress that are making policy decisions based on what you guys do. As a layperson sitting here looking at the results, and there's a lot of similarities and there seems to be, you know, for me, findings that there is an association between exposure or potential association between exposure and disease. For the -- I mean, can you articulate

that more in a lay sense what these studies mean as far as what -- you know, 'cause we got -- we have a water model, we have the in utero study, we have the Marine mortality study and the active duty mortality study and now the employee mortality study, what does that, in layman's terms, saying, those four things?

DR. BOVE: Well, I mean, that's why I put these slides up about the comparisons between the two mortality studies. It kind of makes sense that we're seeing some consistent findings in the two studies. And I think that we are, for -- particularly for kidney cancer, we have a lot of evidence and we're pretty confident that kidney cancer's caused by trichloroethylene, so that's, that's interesting. And as I said, we're not sure what to make of the non-Hodgkin's lymphoma findings at this point. But again, we're going to be talking about another study, and maybe that study's the answer to the question for that outcome.

So you know, I think that we can say that you can expect to see kidney cancer in populations that are highly exposed to trichloroethylene, and we are seeing it. And I think that's pretty clear.

You know, and as for the birth defect and

childhood cancer study, again, you know, there is other evidence that -- you know, other drinking water studies, in particular one that I always associate with New Jersey where we found some similarities between that and what we're seeing at Lejeune, even though the exposures are much different, much higher, at Camp Lejeune than they were in New Jersey. So I think the body of work so far is that there are cancers and other diseases that we've seen elevated and we can relate it to drinking water exposure, with the caveats that, you know, there are some issues with these studies, like other environmental and occupational studies. But even so a lot of these biases make it harder to see something, so the fact that we're seeing them, again, give some strength to the evidence, even though the evidence is still, as I have to say, on its own, if we just look at the Camp Lejeune studies on their own, without remembering that there are other studies out there, that there's other information out there, the Camp Lejeune studies won't be definitive in and of themselves. But we do have other information. That's the point of using the information from other studies and other research, including animal studies, whatever you

have, to then make a conclusion. And it's one of the reasons that even with the meta analysis and using significance testing, you don't get that kind of bringing together of evidence. You really have to bring together disparate types of evidence to make a case. But again, I think that there are outcomes here and there are effects here. But we're still in the early stage of mortality to know what's down the pike.

MR. PARTAIN: Well, that brings me, Frank, to Dr. Portier's October of 2010 letter. And in that letter he was refuting the NRC report findings, and he mentioned that -- and he said -- and I can't remember the exact words but let me make it perfectly clear that there was -- or you know, there was an exposure and --

MR. ENSMINGER: There was a risk.

MR. PARTAIN: And a risk, okay. Well, now that we have the studies, is ATSDR prepared to clarify that risk? We've got studies now and we have a letter that is four years old where this agency is saying that there is a risk. So are we going to translate that so agencies like the Veterans Administration can look at this instead of using a flawed NRC report for the basis of their dissidence?

MR. ENSMINGER: And let me make this clear. In Title 42 of the United States Code, whenever anybody within ATSDR, especially the director, declares that there is a risk involved at a contamination site, it triggers all types of actions that need to be taken. You need to look at it.

Now, on non-Hodgkin's lymphoma, my personal experience, which is very lengthy, non-Hodgkin's lymphomas and kidney cancers, people contacting me with those diseases has been rampant. The kidney cancers do survive for a period of time but eventually it comes back and gets them. I have not heard of many of the people that I am familiar with and contacted by with non-Hodgkin's lymphoma who have passed. It's very survivable and the treatment protocols have improved, and this is exactly why we need the cancer incidence study to be done. If we're going to get the true picture of the effects of this contamination and these contaminants on human beings, which everybody should be scrambling for 'cause this is science, then we need that cancer incidence study. And that cancer incidence study -- I am determined that that cancer incidence study will become the most telling study that has been done on Camp Lejeune.

MR. BRUBAKER: That's actually a good segue, Jerry. Our next item on the agenda is an update from the expert panel.

MR. PARTAIN: I know Frank may not be able to the answer to that but my question to Frank about the studies and Dr. Portier's letter remains unanswered.

DR. BOVE: Well, let me just say this, not speaking necessarily for the Agency but we do -- we do have these studies. We have -- and the VA's aware of them, and they're aware of Dr. Portier's letter. And if -- and I'm always available to discuss the issues that they may have with the studies, and that's the best I think I can answer on that one. I think, you know, this, this is the Agency's statement, these studies and Dr. Portier's letter, in terms of the NRC report and on the issues. So again, if the VA has some issues with the studies or questions, we're -- Perri and I are always available to discuss that with you.

MR. SMITH: And I think that's also where doing the summary, I think, could be helpful as well.

MR. PARTAIN: What type of summary are you referring to, Gavin?

MR. SMITH: It's the summary that was in the

action item before, in terms of summarizing where we stand with the existing studies.

MR. PARTAIN: Okay. And going back to Frank, what is the difference between your work and what the NRC did in 2009? I mean, just to -- it comes out to -- I mean, this NRC report, which we thought was gone and buried and discredited, keeps rearing its ugly head. And so we have to come back and kind of tap the dirt here to make sure it's still dead. But there's a difference between what ATSDR's done and the NRC's review of scientific literature as directed by the peer review coordinator.

DR. BOVE: Yeah, it's the difference between apples and oranges. They simply did a literature review. We did a literature review too but our literature review's a little bit different from theirs. But that's what they did. They did a literature review. And they used what the Institute of Medicine has done for the Gulf War study which is come up with categories of, I forget, the top category is definite causality or whatever, and then suggestive or whatever -- I can't remember the -- but they have -- and they look at all diseases.

MS. RUCKART: Limited or suggestive ^.

DR. BOVE: Yeah, limited or suggestive. And,

you know, we did some -- we didn't do something like that. What we did in our review was: Is there any evidence? And if there is, then we'll put them in this group. And then if there's stronger evidence we'll put them in the primary group, and that's how we evaluated the mortality study and how we'll probably do other studies. So -- just, the differences are large. I mean, we're doing epidemiologic studies here. That was not an epidemiologic study. It's also outdated. You know, since that came out, IARC and EPA and now NTP, have said kidney cancer's caused by TCE; there's no question about it in their -- in those agencies' minds, and yet the NRC report had it as limited evidence or something of that sort. So there -- you know, it's outdated, you know, as well. So you know.

MS. RUCKART: But there's another important difference that I think they also looked at animal studies, didn't they? So we're looking -- our study's obviously just done on people so they're looking at evidence in people and animals.

MR. PARTAIN: So, Frank, as a scientist, would you -- what value would you put into utilizing a review of literature versus a study done on a actual

exposed population with, you know, using the scientific method?

DR. BOVE: It's very important to summarize the evidence from other studies; there's no question about that. The issue is whether it was done well or not, whether it's credible. It's, you know, but it's a different endeavor. I mean, you can't do a literature review if you don't have studies to review in the first place, so we have to do these kinds of studies to include them in the scientific literature. You can't do a meta-analysis if you can't do a literature review, right? Okay. So -- but a good literature review is very important. That's how IARC and EPA were able to make those decisions about kidney cancer and TCE.

I'll give you another example of a problem with the NRC report was that liver cancer is not even part of the cancers under consideration for medical care, and yet liver cancer is one of the three cancers, kidney, non-Hodgkin's and liver, that have been strongly related to TCE, both in the IARC documents and EPA's documents. So again, you know, the NRC report, you know, that endeavor needs to be updated. There's no question about it because of the recent work that's done by these entities.

MR. PARTAIN: And your agency.

DR. BOVE: And yeah.

MR. PARTAIN: And that's the whole point of what I'm getting at is we have scientific studies now. And you have an outdated report that's over five years old, that doesn't include these studies that is the primary -- that appears to be the primary basis for the VA to review these cases. And we keep seeing it appearing over and over again in your literature and we keep seeing it appearing in these PowerPoints. And out of curiosity, Frank -- or Dr. Ikeda, has the VA contacted you all to have you explain your studies to them and what it means for them?

DR. IKEDA: So we did have a conversation with the VA about the PowerPoint presentation and pointed out the things that we thought were a misrepresentation of our work or are outdated, and they have responded to those.

MR. PARTAIN: Have they asked you to provide a summary or explanation of the four studies that have been completed by ATSDR today?

DR. IKEDA: No.

MR. PARTAIN: Why not, VA?

MR. SAMPSEL: Well, first of all, we work for

the Veterans' Benefits Administration. Dr. Terry Walters would have to address that. I can give you a little summary later on the difference between the various parts of the Veterans' Health Administration. There's a group run by Dr. Koopmeiners who would be the recipient -- who should be the recipient of the studies that you're speaking of, not necessarily Dr. Terry Walters. But if this is important, I can bring it up to them, for sure.

MR. ENSMINGER: Is Koopmeiners the guy up in Minnesota?

MR. SAMPSEL: Yeah, that's where he -- I believe he stays there but he works for the central office in Washington.

MR. ENSMINGER: Pedophile.

MR. SAMPSEL: And a Dr. Cross -- this group that Dr. Koopmeiners is associated with does compensation and pension examinations. They're the ones that determine whether there's at least as likely as not the current disabilities associated with the Camp Lejeune water.

The group I work with at the Veterans' Benefits Administration relies on their evaluation, their medical evaluation, to determine whether compensation is given. So if he cited the report, I

can make sure that they are aware of it.

MR. ORRIS: Why isn't that group here? Why isn't there a representative from that group here?

MR. SAMPSEL: As to why there isn't a person like that here representing the compensation and pension service examinations, I don't know. I was asked to come here to substitute for Brad Flohr, and I don't know about that. But I can look into it and get back to you.

MR. PARTAIN: Please do. I mean, there are veterans here in the audience today, one with prostate cancer as a second primary cancer, who's been denied, and another veteran, his wife is here, who had rectal cancer, which we both saw appear on these slides. And yet to go through the VA process is a nightmare.

On the eve of our trip down here, there was a story that appeared on the wire for a veteran in Alabama who was recently denied for his exposures and his subsequent cancer. And Jerry mentioned that we get emails on a daily basis and people sending in their denial letters, their nexus letters and it's just a bunch of bogus denials on the VA's part. I had a lady contact me here, her husband died of pancreatic cancer. Just two letters from her

doctor. She was denied. Actually he was denied before he died. And, you know, it just goes on and on and on. And here we are, we've got scientific studies that are completed and you guys aren't utilizing them; that's a problem.

MR. SMITH: I'd just like to add in too from the civilian perspective, you know, it's interesting, I looked at the studies and the elevated risks, and I just have to say that I saw four out of the six elevated risks in my father. So he had four of those, so when I look at this report, I see my dad in it. And so I think they're very important; I think it's very important to include these and to have updated information and to make sure people are aware of what's going on and to make sure that, you know, they're finding out the right details and getting the guidance that they need that's realtime and not outdated.

MR. TEMPLETON: I've had a chance to review all of the studies too, in fact, several times, gone through every one of them front to back, and the one thing that just screams out of all of the studies in summary is the cancer incidence study is necessary. Because these people are no, they're not dead yet, but they are suffering from these illnesses. And

thanks to the wonders of modern medicine, they're still alive. So that just jumps right out of the studies to me. So I'd like to second what Jerry asked for.

MS. FRESHWATER: Could we hear more about liver cancer and can anyone give me a better idea as to why liver cancer isn't being covered as far as the science goes? Because I have someone who has liver cancer and was just denied.

MR. ENSMINGER: The list of effects -- health effects in the law was taken directly from, as Frank annotated earlier, directly from the 2009 NRC report. When that bill was in draft, I was up on Capitol Hill on another endeavor, and I got a call to come over to the VA committee to review that document, the draft, and the first thing that jumped out at me was the fact that non-Hodgkin's lymphoma wasn't on there, and I failed to recognize that liver cancer was not on there. Had I done -- had I noticed that, I would have dug my heels in on that. But they did go ahead and include non-Hodgkin's lymphoma, which had the second highest evidence for reclassifying TCE as a known human carcinogen. It slipped through the cracks. I mean, and liver cancer should be added to that law. And that's an

amendment we're going to have to take a look at. And the law will have to be amended. And you know what that takes.

MR. ORRIS: I think it needs to have congenital heart disease added as well from what we know from the TCE (inaudible).

MR. ENSMINGER: We don't have enough cases. We don't have enough -- I mean, as, as -- we'll talk about this later.

MR. BRUBAKER: All right. A quick agenda check. We're due to break in about five minutes for the cancer incidence so we've got two choices: We could go into it now or we could add it to the list of updates on health studies that we would hear after coming back from break.

MS. FRESHWATER: I'd rather work through. I have a flight.

DR. BOVE: I think we can do it in like -- and break at 12:30 for lunch.

MR. BRUBAKER: Okay. I tell you what, I'll just go ahead and let you take the -- Frank, 'cause I don't need to take up the time.

CANCER INCIDENCE STUDY UPDATE

DR. BOVE: Okay. Well, the expert panel --

Perri and I will be doing this. The expert panel was held July 29th and 30th, and here in Atlanta, as you've heard. There were panel members from the NCI, National Cancer Institute, from the CDC Cancer Control and Prevention, from the VA we had a representative, and from academia. And the academics who were at the meeting all have experience in one way or another in getting cancer incidence studies, including one person who's done the study looking at how difficult it is to do these studies and get -- and enroll the cancer registries into a study and get personal identifying information from them. So it was very helpful to have her there. And there was also someone who was the first author on the Gulf War study, which was another study that used 24 cancer registries but did not get --

MR. ENSMINGER: Twenty-eight.

DR. BOVE: Twenty-eight, I'm sorry, yeah. The first study, the methodology study, that I just mentioned used 24. The VA used 28 -- I mean, the Gulf War used 28. And did not get personal identifying information. We'll talk about those differences and they were -- it was good to have all those people at the meeting.

So the key issues that were raised was Camp Lejeune cohorts, both the Marine/Navy cohort and the civilian worker cohort, was it a sufficient size for a cancer incidence study. Is it worthwhile to continue to use Camp Pendleton as a comparison group? What is the best approach to get information from the state cancer registries? They all have different requirements. Can we ask them for personal identifying information? If not, what are our other options? When should we start follow-up? And this becomes an issue with Camp Pendleton because if you include Camp Pendleton as a comparison group, well, those people may, may reside and get their cancer in different states than Camp Lejeune. And the state registries don't all start at the same time. There's a wide variability in when the cancer registry starts, so that's an issue. It could be a bias. So there's good things about having a comparison like Camp Pendleton but there's also negatives as well. So how to address those.

And then Ken Cantor in particular was bringing up an approach called the nested case control study as an interesting approach. We did discuss it, although I don't think we discussed it in the light that we needed to. I think we sort of petered out.

After two days it got tired but I'll bring up some issues about that in a minute.

Okay, so the first question was what about the Camp Lejeune Marine/Navy cohort that was used in the mortality study; is that large enough? And they all said yes. That's large enough. So that was easy for them to answer.

And so we moved on to the next question: What about the civilian workers? And they only said they wanted to see the results of the study. The study hadn't been out yet. And we couldn't really go into the results of the study until it was published by a journal. So they didn't know what you know now. So I don't know what they -- how they feel about it now. It is a small cohort. We could expand it by including the people I left out in the mortality study, those people who were in the database in 1972. There are pluses and minuses to do that but that may be what we might do if -- you know, but we still need to explore that issue further.

Then the issue of Pendleton as a comparison group likely used for the mortality studies. And again, the issue here is, again, the cancer registries across the country started at different times. Some, like Connecticut, started in the 30s,

I think, something like that, whereas other cancer registries maybe not -- didn't start until '95 or even later. So you have this wide range. So if, say, all the -- a lot of Camp Lejeune people reside in, say, North Carolina, but a lot of Pendleton people reside in some other state, and they differ in when they started up, you could have a bias. You get more cancers maybe from North Carolina than from the other state or vice versa, so it's complicated. So what we -- we still thought that it was good to have a comparison population that's similar to Lejeune.

You can't compare Lejeune to the general population. We have a healthy veteran and a healthy worker effect. So they are supportive of continuing to use Pendleton as a comparison group, but then trying to figure out ways to minimize any biases. One way is to make sure that we get enough states that we have almost everybody in both -- we cover the states that cover most of the populations of both those cohorts, something like 90 percent. And to do that about 36 states would have to be recruited into the study plus the VA's cancer registry. So these are the kinds of things that we're discussing, and I think, you know, we came to

some agreement that that would be a target, to try to get about 36 states in the study. I'm jumping around here 'cause I'm trying to move quickly.

One other question was could we expand these cohorts? The Marine Corps is digitizing the muster rolls, but it's not going to be a computerized database. It's going to be something we have to search each person individually. And it's based on a lot of microfiche and other poor quality documents. And so they're not sure how good this database is going to be. I shouldn't call it a database, a searchable whatever you want to call it. I guess you could call it a database.

So there are issues about trying to expand the Marine cohort. And the group felt that we really don't need to. Okay, so this is something we can explore again. I want to see how good this database is, and it'll be ready either by the end of this year or early next year. So we'll look at it and see whether it makes any sense to use it at all.

So then comes to the key element of the meeting, how to get this information from the cancer registries, and in particular trying to get up to 36 or more registries onboard. And every -- now, keep in mind every state has its own requirements for

confidentiality. They have their state laws that may prevent them from cooperating or at least providing personal identifying information along with their data. So we're going to have to deal with each state and each state's requirements, okay.

But the first option was to just send the information to all of the cancer registries and get back the cases that they have with the personal identifying information, with the Social Security Number, with the name, with the date of birth, and so on. Just give them the data and get it back after they've done the matching using those key variables I just mentioned. So that's the preferred -- that's what we really would like to do, and the panel really encouraged us to do that for as many states as possible, because that would also allow, maybe in the distant future, a follow-up, 'cause you'd have all the information you'd need to redo the study if you wanted to do it 20 years or 30 years from now or whatever. But also it gives you a lot of flexibility in your analysis. So that's the preferred method.

The least preferred method, but if your back's up against the wall and you can't get a cancer registry to cooperate unless you do it, is the

approach of the Gulf War where they sent -- you have all the information, the Social Security Number, the name, date of birth and so on, they send it to the cancer registries but what they -- and they also sent categorization of the person's exposure, in this case Gulf War, yes/no, also a categorization of the person's age and other information like that. And they asked -- and what they got back was that categorization, how many cases were male, white, cancer at age 46, 54, whatever. They had these kinds of categories so all they could do is a categorical analysis. They couldn't look at continuous variables at all. And it was complicated to even get that done, and they could only get 28 states to even agree to that. They did have a time limit; they had two years they wanted to get this information, and that was a very tight timeline.

So that's the least preferred approach. We all agreed, the panel and we agreed that that was the least -- but possibly necessary if we can't get a cancer registry to cooperate in any other way.

The third option was something in between, and this is going to be a little complicated -- and maybe I should wait 'til they stop applauding in the next room. The third way is a little complicated;

I'm going to try to explain it. We have all our personal identifying information, sex, Social Security Number and so on, this is what we're going to send to the cancer registry. And then we have this other thing called a subject I.D. that's linked to this, and linked to that subject I.D. we have all their exposure information, any other information on risk factors like age, sex -- whatever, well, age is actually there, but any exposure information that linked to that I.D. We send all that information. We send subject I.D. and their personal identifying information to the cancer registry. The cancer registry does the matching, sends back to us the subject's I.D. and the cancer. But before they send that to us, we destroy the link between subject I.D. and the personal identifying information. So we no longer have the personal identifying information linked to the cancer case but we have this thing called a subject I.D. that's linked to their exposure information. This will allow us to do the same analyses as if we got the personal identifying information. We think it might satisfy some cancer registries that may be a little scared of giving this personal identifying information, because as long as they trust us to destroy the link, that's

sort of a middle ground. That's a little complicated but that's -- it's never been done before but the panel was interested in that approach, and they thought that that would be a useful approach, again, if you can't get personal identifying information, and a much better approach than the Gulf War study. So those are the options, okay.

Let's see, there's one other issue besides the nested case control. There were a couple of other issues that were raised but I think in the interest of time, I want to move on to that 'cause that was raised by Ken Cantor. The nested case control situation would be that you get the case -- you still have to get the cases of cancer but you could evaluate a smaller number, just the cases of cancer in a sample of the people who didn't have cancer, and do an analysis of that.

The advantage of that is that if you wanted to do a lot of work up on a smaller group, this is the best way to sample, okay. And then if you wanted to contact the people, to get smoking information for example, the problem is that cancer registries would then require us to get permission from the person's physician, so this would be a much more difficult

thing to do, and a lot of the panel were not crazy about that at all. I was thinking of, just recently, that it may be something to think about if we wanted to include those Marines and maybe people that were excluded from the mortality study. If we want to include some of those using the muster rolls, that may be an interesting way of sampling that group. But again, we don't know how good the muster rolls are. Until we see how that is, it really is premature to think about. So we'll put the nested case control approach aside for now. It may be useful if we want to expand the cohort but it depends on the muster rolls. And so I think I've covered -- do you have anything?

MS. RUCKART: Yeah. Well, I just wanted to clarify why we have to consider several approaches to working with the cancer registries. It's because we're talking about a data linkage study and we wouldn't have contact with the people so we wouldn't be able to have informed consent where they give permission to get their information. That's what we had in the health survey; that's why we didn't have to have this issue about could the cancer registry supply us with personal data, personal identifying -- so that's the real issue, that we

don't plan to have contact with these people so we're trying to figure out how can we work with the registries given that we're not going to have any signed consent forms.

DR. BOVE: One other point about that is that for the mortality studies there is a national database, the National Death Index. There's no such thing, as we have pointed out a couple of times, for cancer incidence or for any other incidence of disease. So that is why we have to go the route we're talking about, and the difficulty. It would be impossible to get consent from hundreds of thousands of people. That is just totally not feasible. So we have to do a data linkage type approach, and we have to get as many cancer registries as possible. And I think one other thing the panel did recommend that we prioritize which registries we start with. Those that had to cover a large percentage of either cohort and who might have an easier way of getting through the IRB and other requirements that have to be done. Then the next steps, Perri was going to go through those.

MS. RUCKART: Right. So where are we now? We prepared a summary of the meeting. We want to share that back with the panel, just to get their review

and concurrence, make sure we captured it correctly. As Frank was talking about some of the approaches, they suggested working with the registries that have the greatest amount of population, so we have scheduled some conference calls with some of the key registries that are going to begin next week to float by them these approaches, find out which ones they are most amenable to.

Then after we get this feedback we want to develop the protocol. We want to share that back with our expert panel to get their feedback on the protocol. Finalize that, the internal draft, submit that for our review processes. There's some internal review, external peer review and other agency approvals that we need before we can embark further on that. We need to develop a statement of work, and to do that we need to work with our procurements and grants office, and figure out the mechanism of how we would get this work done, contract, grant, et cetera. And these are some of the issues that is more under ATSDR's control in terms of how that would function and how quickly we can get that done.

Then there's some additional steps after we get to the point of being able to move forward which is

gaining access to the registries' data. We've talked about the difficulties there. Let's say we do all of that. Then we would receive a final aggregated data set from all of the registries. We would then begin the process of cleaning and editing the data which leads to analyzing the data, drafting the final report, and then getting all the necessary peer review and approval for that report. And those are some of the activities that are not really as much under ATSDR's control in terms of a timeline and when these things can happen.

And Frank briefly touched on this. There is one other study, the panel -- the panel included a person who conducted this study. And she worked with 24 state cancer registries, and she did get the PII, personal identifying, information. That study was initiated in January 2003 and completed in December 2008. Keeping in mind we plan to work with about 36 registries, so that could take additional time, based on what she found. So basically we're saying this is not some quick effort. We just wanted to share this with you so everything -- everyone was on the same page and there were no unrealistic expectations.

DR. BOVE: And the panel sort of reached a

consensus that it would take at least four years to get all the data from the cancer registries; it's that difficult. And it's based on this study, 'cause it's the only one that's out there, that looked at how difficult it was. And so some thought four was even too short, and they thought maybe five. But I think most people thought it was possible to do -- to get the data in four years. So we're talking a long period of time in order to do this study, because there's no national cancer registry.

MR. ENSMINGER: With all this being said I have a few questions here. And one of them is has there been any discussions with the Department of the Navy and Marine Corps about the funding of it? And if not, why not?

DR. IKEDA: So you have annual plan of work every year with the Navy, and there was discussion about having this meeting. They were present so they're aware that we want to move forward in this direction.

MR. ENSMINGER: Well, I mean, have they said anything back about funding it?

DR. IKEDA: We have not heard back specifically.

MR. PARTAIN: Well, I imagine that you won't hear back until at least the -- if you go by past behavior, there's going to need to be a letter on behalf of the Agency to the Navy requesting funding.

DR. IKEDA: Okay, and we still need to do more work, as you heard. This is early in the process, we need to develop the protocol. You know, we need more specifics before we can put a price tag on it and go back with a request.

MR. ENSMINGER: Going back to the data analysis and the reporting of the data, I voiced my concerns about attempting to contract out this entire project, and the analysis of data and the reporting are inherent governmental functions. They are not to be part of any contract where there might be a bias involved. So with that being said, have you come up with a decision on how you're going to execute the study?

DR. IKEDA: So the contract is just one option and there are other options that we've been considering, but again, I think we need more detail about what it is we're going to do. We need to determine what expertise is needed, and then we'll figure out the most appropriate way and mechanism to move forward.

MR. ENSMINGER: Well, how long before we start seeing some contracting, you know, going out for bids and stuff on it?

DR. IKEDA: So is it you want to talk about -- you talked a little bit about what the next steps are. I don't have specific timelines for the next steps that you mentioned, but again, those are the first actions that need to happen before we --

MR. ENSMINGER: Are we having a second expert panel meeting or are you going to do this by phone or what?

MS. RUCKART: Well, that hasn't been fully determined yet. We definitely want to see feedback from the panel on our protocol, and we could possibly do that by phone and receive email comments, so we're not sure if we'll bring them in in-person or not, it just depends. But we definitely want to seek their feedback on our draft protocol and incorporate any comments that we get. We plan to begin drafting the protocol pretty quickly here after we get concurrence on the summary notes that we want to provide them with, and after we start having the conference calls with the registries, which will start next week, and we plan to do that by the end of this year on the draft;

that's our plan.

You look like you still have questions. And then after that once we have our protocol in place and we get some necessary agency approvals, which, you know, is --

MR. ENSMINGER: Takes forever.

MS. RUCKART: -- internal and external peer review, then we begin to develop the statement of work, and just developing the statement of work, in and of itself, isn't a lengthy process but we have to work with PGO in terms of funding, and if it is a contract going out for bids and that can take some time and there's a lot of reviews that come back on the contract proposals, and they get, you know, thoroughly reviewed, and I'll just say this is probably going to be expensive so it's going to have a lot of scrutiny; we're not just going to award it lightly, and so those things take some time.

MR. ENSMINGER: Let's go to lunch.

MR. BRUBAKER: Hearing no other questions we'll break for lunch. We'll return at 1:15 and the agenda will shift slightly. We'll have the VA update directly at 1:15 and everything else we'll need to move back. See you in 45 minutes.

(Lunch recess, 12:32 till 1:23 p.m.)

VA UPDATES

MR. BRUBAKER: By moving the VA update to this section, I believe we have Dr. Walters on the phone with us who will lead us off.

DR. WALTERS: Hi, this is Dr. Walters. Sorry I couldn't be there in person but I'm going to be ^ right now. So I have excellent news, that the veterans regulation and the family member regulations have been approved by OMB. The veterans regulation was published yesterday. And actually we've been providing care to veterans since the day the law was signed. This regulation provides important definitions such as constitute Camp Lejeune.

The family member regulation will be operational on October 15th. What this means is that family members will be able to apply online or they'll be able to fill out a patient form and send it to us, and we will start accepting claims. We will be providing claims reimbursement for out-of-pocket costs for these 15 conditions for medical care retroactive to March 2013.

So how this is going to work is family members will send in an application that will document that

they were family members, that they lived on Camp Lejeune for at least 30 days or more between 1957 and '87. They'll also have -- take a form to their physician who will document whether they have one of these 15 conditions. Once they've been accepted into the program, they'll be given identification cards and a full set of instructions. So when the family member has received care or treatment for one of these 15 conditions, they will submit or their doctor will submit the bills to their regular insurance, and any out-of-pocket costs will be reimbursed by VA.

I think this process will initially be not especially quick because we're going to be learning how to do this, 'cause this is new business for the VA. And we'll have, I expect, many, many years of back, back claims to deal with. But as the -- after the initial surge as we get to a steady state, I think it will be probably a pretty expeditious process.

The rule that was published by OMB is called an interim file. What this means is that the public can still comment on the rule, and after a period of six months, I believe, the rule will become final and it will be amended by the comments, the

successive comments that we get. The reason VA went to an interim final rule is it's much more expeditious than a final rule, which would have taken another year to two years or so. So with that, I think it's important to understand that this is about medical care, and that claims are totally independent of this process. What are your questions?

DR. CLAPP: Dr. Walters, this is Richard Clapp. I have a question not about this but about the training that is provided to VA healthcare providers and in particular the training PowerPoint that you presented last May, I believe it was. Have you amended that? Because it's got lots of errors in it and I wondered if you'd -- I understand you've had a conversation with ATSDR, and you may have made some corrections. I'd like to know what those were.

DR. WALTERS: Well, first of all, I disagree with your characterization of those as inaccuracies. PowerPoints are always, by their nature, not complete. I have amended those past ones, there's the new ATSDR ^ and this -- I mean, it's an internal matter actually. And I've discussed it at length, as you all know, and I'm really not prepared to comment on it anymore.

MR. ENSMINGER: Really.

DR. CLAPP: Let me just say one factual error was that you were referring to a retrospective cohort study of male breast cancer. There is no such study, and I think, as you must know, it's a case control study, so at least on that level, it needs to be corrected.

DR. WALTERS: Okay. Point taken, but it is the original study on male breast cancer going on. And again, that's not germane to applying the law, as what I've been charged to do.

MR. ENSMINGER: Well, you also listed TCE as a possible carcinogen. TCE was reclassified in September of 2011 as a known human carcinogen.

DR. WALTERS: And it is -- that is, as I said, not everything in that PowerPoint is 100 percent published everything because PowerPoints don't -- and a lot of this has been taken out of ^. I'm not going to answer any more questions on that PowerPoint. Just about the law.

MR. ENSMINGER: Well, you use this PowerPoint to train the clinicians that are going to be screening these people coming to the VA, and when you present them with incorrect information it's going to affect the screening process.

DR. WALTERS: No, it has nothing to do with the screening process. We're not screening veterans coming to the VA. If you were at Camp Lejeune 30 days between 1957 and 1987, you are eligible for care.

MR. ENSMINGER: So I take it that's why you're not here at the meeting.

DR. WALTERS: No, because I have three jobs right now.

MR. ENSMINGER: Oh, okay.

MR. SAMPSEL: Dr. Walters, hey, this is Jim Sampsel; I'm here. I will explain to the people here the difference between what you're doing and what the C&P examiners do.

DR. WALTERS: Thank you, Jim.

MR. SAMPSEL: I'm going to give a little presentation.

DR. WALTERS: And as I said to Senator Burr, there were no C&P examiners taught.

MR. ENSMINGER: Well, what about this IOM study you got going?

DR. WALTERS: Okay. So the -- the law has eight cancers, scleroderma, miscarriage, infertility, and it has a couple of conditions which are not full medical diagnoses. One of them is

neural behavioral effects and another is kidney toxicity. These are not ICD-9 diagnoses, so because the IOM characters came up with these words, I have asked them to provide further definitions of what they exactly mean.

MR. ENSMINGER: Okay. Why the IOM?

DR. WALTERS: Because they came up with the words to begin with.

MR. ENSMINGER: They became what?

DR. WALTERS: They defined the words to begin with in a 2009 report.

MR. SAMPSEL: That was actually the National Research Council but the IOM is very similar to that. They both come from the National Academy of Sciences.

DR. WALTERS: Yes. And I went with the IOM because IOM does medical issues and the National Research Council does research issues. I thought that the IOM was a better qualified to provide clinical definition of these terms.

MR. ENSMINGER: Why not use the National Institutes of Health?

DR. WALTERS: The National Institute of Health doesn't do this kind of review.

MR. ENSMINGER: Oh, really?

DR. WALTERS: Yeah.

MR. PARTAIN: Dr. Walters, is the IOM subject to public review? Can we request their documents? Is their peer review process open to the public?

MR. SAMPSEL: Absolutely.

DR. WALTERS: I'm not sure that the peer review is open to the public. You can contact them. I went with the IOM because they're completely independent of the government. And they usually do this kind of thing for, say like the Agent Orange reviews, Gulf War reviews. So VA uses the IOM on a routine basis to provide an independent scientific aeration.

MR. ENSMINGER: Well, their peer review process is clandestine. They do not release their peer review comments at all. And, you know, I don't see that as being an objective entity. I don't know how anybody can even look at them as being a valid scientific entity.

DR. WALTERS: Well, that's something you can bring up with the IOM.

MR. ENSMINGER: And they don't come under the Freedom of Information Act, so you can't request information from them on a legal basis. They just tell you no, we're not giving it to you, and there's

nothing you can do.

DR. WALTERS: Mr. Ensminger, as you well know, Senator Burr has requested everything that I sent to the IOM and was sent to Senator Burr, including the contract and any ^ was sent to the IOM, and I'm sure you'll be getting a copy.

MR. ENSMINGER: Yeah, I mean, you want to talk about objectivity in using the IOM, but then you go into the Department of Defense's pediatric neurologist for information concerning neurological effects on children --

DR. WALTERS: Yeah, this is a specialist. I don't have, you know, pediatric specialists in the VA.

MR. ENSMINGER: Well, but you're going to the perpetrator of this for advice. I mean, is that, is that --

DR. WALTERS: I am sure that the pediatric ^ is not the perpetrator. They are independent scientists.

MR. ENSMINGER: Yeah, they work for the perpetrator. Their paycheck comes from DOD.

DR. WALTERS: I think you have the conspiracy theorists on the mind.

MR. ENSMINGER: No, I don't. I mean, I've seen

what happens. What has happened and what has conspired in this situation for 17 years.

DR. WALTERS: Well, the same thing, I'm not prepared to address that. I'm assigned to apply the law as fairly and quickly as possible.

MR. PARTAIN: And Dr. Walters, one other question concerning IOM. We have an agency by this government called the ATSDR that is designed to determine toxic effects of chemicals and health -- assess health effects and everything. Why have they not been consulted?

DR. WALTERS: Because I don't believe they have the medical expertise to provide a clinical definition of neural behavioral effect or kidney toxicity. And they did not initiate the term.

MR. PARTAIN: And --

DR. WALTERS: IOM did.

MR. PARTAIN: By what authority do you have to make these decisions? You're the one -- it seems like you're the one here that's making decisions who's relevant and who's not. By whose authority do you have to make these decisions and are your decisions being reviewed by your supervisors?

DR. WALTERS: I have no authority to make these decisions. These decisions were made by the

Undersecretary of Health, Dr. Petzel, and they were seconded by the Secretary of the VA.

MR. ENSMINGER: And they're both gone now, right?

DR. WALTERS: That would be true. But again, this is not germane to applying the law.

MR. PARTAIN: Well, it affects the law because this information is being used to determine when veterans go for a benefits --

DR. WALTERS: No, it is not. There, you are wrong. This is only for healthcare, and I repeat, veterans who were at Camp Lejeune for 30 days or more are eligible for healthcare, whether or not they have these conditions.

MR. PARTAIN: Then why are we seeing in these denial letters some of the veterans coming back out of Louisville references to the NRC report and actually sometimes they can't even get that right, but continual references to the NRC report?

DR. WALTERS: I have nothing to do with what program I run. I am applying the law, and it has nothing to do with benefits.

MR. PARTAIN: So none of your training material has reached Louisville or anybody in Louisville that's making these decisions?

DR. WALTERS: I do not believe so, no. The VBA is a totally separate arm than the VHA, which is who I work for.

MR. ENSMINGER: Well, why was Brad Flohr at your training sessions?

DR. WALTERS: Because Brad Flohr is our -- is the liaison between the VBA and VHA.

MR. ENSMINGER: Yeah?

DR. WALTERS: That's his job.

MR. ENSMINGER: So there's a cross-over there.

DR. WALTERS: Yeah, but he's not a clinician. He's not making any clinical decisions.

MR. ENSMINGER: Well, I asked you before have you updated this training PowerPoint?

DR. WALTERS: Yes, I have, and Senator Burr has a copy.

MR. ENSMINGER: Okay.

MR. TEMPLETON: Dr. Walters, I'd like to point out -- I'm on the CAP now; my name is Tim Templeton. I was denied care and I've been there for 30 days; I'm not the only one.

DR. WALTERS: Okay. Now, if you've been denied care, that is my problem, and I would like you to send me your contact information and I will forward that to the health benefits center and make sure

that you are eligible for care.

MR. TEMPLETON: Will do. Thank you very much.

DR. WALTERS: Now, --

MS. FRESHWATER: Excuse me, I'm sorry. This is --

DR. WALTERS: I need to make one point before the next person because I'm going to have to go to another meeting at 1:45 and it's close.

MS. FRESHWATER: But this is a follow-up very quickly to the last question. Aside from Tim, can we also forward you other names of people --

DR. WALTERS: Absolutely.

MS. FRESHWATER: -- who are very sick.

DR. WALTERS: And I want those names.

MS. FRESHWATER: Okay, thank you.

DR. WALTERS: There is a gentleman who has contacted me; he lives here in DC, has scleroderma, which is one of these conditions on the list. He was at Camp Lejeune for six to seven months in the early 80s. Unfortunately he was on active duty for training as a reservist, and equally unfortunately, because he was on active duty for training as a reservist, he is not considered a veteran according to the current laws. And I think this is unfair, and I think it needs legislative change because I

don't think there's any way that I can make an exception or the Secretary can make an exception. And unfortunately because of the Feres Doctrine he cannot sue the government. He's not eligible, like Department of Defense workers, to go through the Department of Labor. So he's turned out in the cold. I cannot provide him -- the VA cannot provide him care. And so if any of you can advocate for this gentleman, and his cast of people, reservists who were at Camp Lejeune on active duty training, that would really help.

MR. ENSMINGER: That would require an amendment to Title 36, correct?

DR. WALTERS: I'm not sure what the title is. I could send you the -- I've got a list of the laws. But this is a real problem that I have -- we have not been able to work our way through. And this particular gentleman has got really bad scleroderma and I'm kind of frustrated that I cannot help him.

MR. ENSMINGER: We'll check into that.

DR. WALTERS: Okay. I'm sorry, I have to go to another meeting so if there's one more question.

MR. ORRIS: Dr. Walters, I have one more question. This is Chris Orris on the CAP. Will you be matching the TCE assessment for EPA for illnesses

in covering those illnesses that EPA recognizes are illnesses on their 2014 EPA assessment for trichloroethylene?

DR. WALTERS: We are bound by the 15 conditions in the law. And again, you've got to separate the healthcare law versus the VBA claims. If there is an amendment to the law that adds conditions, sure, but right now we have to follow the conditions of the law.

MR. TEMPLETON: If you don't mind, I would like to just follow up real quick with that because it seems like that that almost seems like an unfair process because now you're taking -- normally a veteran would come your way and they wouldn't necessarily be restricted by the 15 conditions. You'd be looking at a little wider. Instead you're only looking at 15, and if they don't fall within that 15, then --

DR. WALTERS: Yeah, but, and see, that's the issue, any veteran, even if they don't have any physical problems, if they were at Camp Lejeune for 30 days or more in that time period, they get the full VA benefit, healthcare benefit. So they don't have to be sick; they get healthcare.

MR. ORRIS: But civilian workers do not,

correct?

DR. WALTERS: No, because we don't provide civilian workers -- that's not our mandate. So if you have a veteran who was at Camp Lejeune for 30 days or more in 1980, and they have diabetes, and they make a million dollars so they're not eligible -- you know, they make too much for VA care, they are still eligible to enroll in the VA under this law and receive full medical care. Sure, they will pay a copayment for conditions that are not related to the 15, but they still receive full healthcare.

MR. ORRIS: Okay. Thank you very much.

DR. WALTERS: Okey-doke, bye-bye.

MR. BRUBAKER: Thank you. Moving on to the second part of the VA presentation. We'll turn it over to James and Robert.

MR. SAMPSEL: You know, there are a couple issues that Terry Walters raised that maybe I can comment on. Number 1 is the Institute of Medicine of National Academy of Sciences, I've worked with them several times on several different studies and probably would be beneficial for you to know what their procedure is, and the reason they're considered to be independent. And that's because

when they form a committee, it's not the Institute of Medicine staff that does the reviews. They bring in people from universities, outside organizations, and they develop a panel, a committee of people who are not part of the VA, not part of any particular point of view. They're the ones that come up with the decisions, not some government agency. So I just wanted to bring that up. And that's why Congress created the IOM, to be an independent scientific organization --

MR. ENSMINGER: Abe Lincoln created it.

MR. SAMPSEL: Well, whatever, somebody did. So I personally believe they're relatively independent to these things as they can be.

MR. ENSMINGER: Whoa, whoa, whoa, whoa, whoa. Let me give you a little history on the national academies, okay? The national academies took a charge from the Department of the Navy back in 2007 to execute a literature review and write a report on Camp Lejeune.

MR. SAMPSEL: I'm going to address that.

MR. ENSMINGER: Okay. They did their report. They assigned a peer review coordinator, Dr. George Rush, who was responsible for sending out the peer review to peer reviewers of that report, collect all

the peer reviewers' comments, and then he made the decision on which peer review comments got addressed in the final report.

Dr. George Rush, at that time, was an employee of Honeywell Limited, who was running a close second with the Department -- the United States Department of Defense for the most Superfund sites relating to TCE in the United States. That is objective?

Now, wait a minute, wait a minute. And now the National Academy refuses to release their peer reviewers' comments where the federal government requires peer review comments to be released. How the heck do you know whether a peer review's being done or if there are reports at all?

MR. SAMPSEL: Well, I suspect there's some kind of confidentiality involved because maybe the --

MR. ENSMINGER: Well --

MR. SAMPSEL: -- peer review --

MR. ENSMINGER: Confidentiality has no place in science, okay? Number one. Either it's legitimate and their comments are legitimate or their comments are out of line. And I know for a fact, because I know a person that was tagged to do a peer review of that report and not one of their comments were addressed in the final report.

MR. PARTAIN: And I just want to jump in real quick 'cause I've got to leave, and Dr. Clapp and I both have to leave, and this is the part -- I really wanted to be here for this.

But to address the objectivity of the panel members, yes, these are scientific people who are from universities, but they are not subject to the conflict of interest requirements of, say, IARC. Jerry and I, and this was documented in *Semper Fi*, walked into one of the National Academy review committees that you're talking about that was being done on perc, and it's laughable.

And I went through and was doing my own independent research on the different scientific members, and you know what? A lot of them had undisclosed conflict of interest, receiving funding from the industry. And one lady found me, she looked like a mad woman from Canada, was getting funding from an industrial supported group. And she was totally disrupting the meeting and preventing any type of meaningful progress. These are consensus meetings, and the whole process is flawed and it has to do with the peer review and it also has to do with the conflict of interest because these people are not being fully vetted or disclosed

in who they represent or where they're getting their money from and what possible problems they may have in their objectivity. And I'm sorry I'm not going to be here for your response but I just want to point that out before you go further.

MR. SAMPSEL: I'm sorry you won't be 'cause I wanted to talk about the VA in general.

MR. ENSMINGER: Well, the VA paid $681,000 for this short report by the IOM on Camp Lejeune? Okay, let's --

MR. SAMPSEL: Actually --

MR. ENSMINGER: Wait a minute. Let's look at --

MR. SAMPSEL: -- I didn't want to dwell on the IOM. I just wanted to bring that up --

MR. ENSMINGER: Well, I'm talking about the National Academy. You guys want to keep talking about -- you keep going to the National Academies and so do other people who have a vested interest in getting a report that says what they want it to say. And it all depends on how you write the charge to these people on how you -- and the fact that you don't get to see the peer review comments. I know for a fact that several reports that were written by committees, put together by the National Academies,

their final report in draft went against the charge that was given for that committee. And the National Academy took the peer reviewers' comments and rewrote their own committee reports.

MR. SAMPSEL: Well, what you're saying may be true; I really don't know about that.

MR. ENSMINGER: Well, I do.

MR. SAMPSEL: But I don't know where you're going to find the perfectly unbiased group that you'd like to find. I don't know where that would be.

MR. ENSMINGER: Within government.

MR. SAMPSEL: I don't know about that.

MR. ENSMINGER: Because there's transparency laws in place. Any peer review that's done on any governmental work, it has to be released, the peer review comments.

MR. SAMPSEL: All right, well at any rate, okay, I didn't want to dwell on the IOM. I just wanted to comment on that. I think they're relatively neutral. And I know some people don't think that.

MR. ENSMINGER: They're scientific hired guns.

MR. SAMPSEL: The other thing, I did want to comment on the National Research Council report.

And you know, if I've got a few minutes here.

MR. BRUBAKER: I do want to draw attention to the agenda. We have probably ten to 15 minutes to complete the remainder of your --

MR. SAMPSEL: Okay. I want to give you a little historic -- you got concerns about denial rates and you got concerns about the difference between the compensation process and the healthcare treatment process. So I wanted to just kind of lay out some of the stuff so it would be easier to understand. I think Terry Walters was in a hurry; she didn't have the chance to explain it all.

So okay, I just want to say that the VA is not a monolithic organization; there are different sections to it. We work for the Veterans' Benefits Administration, and we provide compensation payments for the disabilities that are related to some veterans' period of service. That's different from healthcare. There's a huge number of medical centers that treat people. They treat veterans for various things based on their service connection, based on their income. There's a whole criteria for treating veterans, but that's what they do.

Now, Terry Walters is part of the Public Health Office. She is charged with implementing Senator

Burr's statute, that you had a large part in producing. She is not involved with the Compensation of Pension Examinations. That's a different section of the Veteran Health Administration. That is run by Dr. Cross and this Dr. Koopmeiners; it used to be Dr. Cassano. They are the ones that are charged with evaluating our people who claim disability and the VBA, if they meet the criteria and the criteria for service connection is: There has to be a current disability; there has to be an event in service, and in this case there was an event in service and that would be exposure to the toxic chemicals in that water; and there has to be a medical nexus, what we call a medical nexus, that connects the current disability to the service period. That's what these CP examiners do, compensation and pension. They, when VBA, when a comp service or a regional office gets a claim, if they need to serve a criteria, if they have the current disability and they were at Camp Lejeune, they're going to get an examination. That's where Dr. Koopmeiners comes in.

And to give you a little quick historical background, I've been involved with this Camp Lejeune issue for many years. In fact I wrote the

training letter for the adjudicators that are now consolidated in the Louisville office, where Bob Clay works. He can comment on them in a minute. And that was back in 2011 or 2010. And at that time we had the National Research Council's statement. And we wrote it up and, you know, I was basically charged with figuring out what to do, and the original C&P examination process was, I accumulated all the -- well, not all but to a great extent, EPA, ATSDR, American Chemical Association data on health effects from these chemicals, TCE, PCE, and then benzene was added.

And I put those into a website that was sent to examiners around the country. And so if somebody was in California, they got an examine in California, and the examiner was not necessarily trained in environmental medicine. And they did the exams. And they were supposed to take a look at the websites, the effects of these chemicals, and then take a look at the claimant, the veteran claimant, and then come up with an opinion. So we were getting inconsistency around the country. So that's when Dr. Cassano and then subsequently Dr. Koopmeiners determined that they should have expert, so-called expert medical examiners who were trained

in environmental medicine. And they had several meetings in locations where they trained these people, and they used, I might say that, the fact that the National Research Council came up with these 15 disabilities, this process occurred before Senator Burr passed the statute. He took the 15 from the National Research Council and put that in his statute. That is in law right now. That's why it's not possible to add to that right now unless Senator Burr changes the law as written.

Same thing with the inactive duty for training -- active duty for training, inactive duty for training. In DOD law and VA law, they're not treated the same. They're not treated as veterans. And I don't think you would necessarily have to change those statutes but you could have Senator Burr put into that law that they are -- they fall under that law. You can have him do that. You can have him add disabilities, diseases -- particular diseases. That would be the best way to do it. So I just want to comment on that. So now what we have is all the claims -- the claims go to Louisville, and there's an electronic system where they -- first of all, they determine -- you know, you were wondering about denial rates, okay? Denial rates

are a problem, of course, for people. You have to have some -- when those examiners take a look at the evidence, they look at how long was this person in Camp Lejeune. Were they there for three years? Did they go there to get separated from the service and they were only there for a couple days? Where did they live? Did they live on base? Did they live off base? What was their MOS? What were they doing? Those are things that they're supposed to be looking at.

And then they look at other risk factors, whatever they might be, the person's weight, the person's age, I don't know exactly. But they have a formula for doing this. And they are the ones that determine medical -- and by the way they're supposed to -- their criteria is supposed to be at least as likely as not, which is a neutral standard. It's 50/50. If there's a 50/50 chance, then they'll grant it. They'll say yes, I think it's a 50/50 chance.

So we in the VBA, we take what they write and we then determine whether service connection is granted. So it's Dr. Koopmeiners' group. And if you have additional evidence for him, I will make sure he gets it. And I will make sure Dr. Cross,

who runs that section, gets this.

MR. ENSMINGER: Now, the law for healthcare requires the threshold for healthcare --

MR. SAMPSEL: Senator Burr, you're talking about, right? Senator Burr's public law?

MR. ENSMINGER: It's not Senator Burr's; it's the United States Government's.

MR. SAMPSEL: Yeah, he initiated, but yes.

MR. ENSMINGER: The threshold is 30 days or more.

MR. SAMPSEL: That's what they came up with, right.

MR. ENSMINGER: I mean, so now for VBA, for service connected disability benefits you're raising the bar?

MR. SAMPSEL: No, no, I'm not.

MR. ENSMINGER: Well, you said because -- no, they're taken into consideration; they're re-measuring how long the person was there. If they were there for 30 days or more, they qualified for healthcare. Right?

MR. SAMPSEL: Right. Yeah, and it's important to note that the healthcare law is not the benefits law; it's two different things.

MR. ENSMINGER: Well, I know that. I know.

But we already have this hurdle, this threshold for 30 days.

MR. SAMPSEL: That's for treatment.

MR. ENSMINGER: That's right, that's right. So now, what magic finger are you guys using in your, in your formula to figure out, well, yeah, this guy was there for six months, no, denied?

MR. SAMPSEL: Well, that's up to the expert -- you know, I mean, you can dispute their expertise, but they're medical doctors trained in environmental medicine. If they see that someone was there for like two weeks or whatever or 30 days or whatever, it's up to them to determine whether there are other risk factors in their mind that have contributed to this disease.

MR. ENSMINGER: Then how do you explain the disparity between female breast cancer claims and male breast cancer claims? There is a 52 percent disparity in approval.

MR. SAMPSEL: And I am aware of that. You know, I, I --

MR. ENSMINGER: How, how do you explain that?

MR. SAMPSEL: I can't explain that. I'm not a scientist or a medical doctor. Although I was a medic in the Army, but I'm just not a medical

doctor.

MR. ENSMINGER: Well, I mean, have you gone back and asked these people? Hey, I mean --

MR. SAMPSEL: Well, as a matter of fact I had a one case I dealt with, I can't go into, that I did change their opinion. But I'm well aware that there's opinions involved and I will be very happy to bring this up to Dr. Cross, if -- you know, if we have additional data that they should be considering.

MS. FRESHWATER: Just, just to let you know, we brought this up with Brad Flohr as well at the last meeting, the breast cancer disparity. So I know he's not here but again, this is stuff you would hope we would hear back something on, because it's a really big issue. And Chris, I know you've been waiting to say something.

MR. ORRIS: I would also -- I'd like to point out that your public health website, publichealth.gov/exposures/camp-lejeune/research.asp (sic), still references the 2009 National Research Council literature and does not mention any of the work that has been done and completed here at the ATSDR. And I would like to know why? You know, you're still -- you're saying that your scientists,

your doctors are going off of the information you provide them. Well, the information you're providing them is from the 2009 Research Council, 'cause that's what's on your website.

MR. SAMPSEL: No, no. Let me clarify something. That website is a public website, and honestly I think it's probably behind times. I think people are too busy to change it maybe or something like that; I don't know.

MR. ORRIS: I don't think that's an acceptable answer, and I think what people are researching, what they should at the VA, they should be able to access the most current, the most reliable information that is out there, not information that definitely does not put their issues into the light that it should be.

MR. SAMPSEL: Okay. The C&P examiners, the medical doctors that do the examinations, don't pay any attention to that website.

MR. ORRIS: Our veterans do.

MR. SAMPSEL: Well, then I'll do my best to update that and give some kind of ATSDR -- I'm not involved in the public health arena; that's TerRy Walters' area but I will make a point of seeing if they can update this and connect in with ATSDR on

additional information. I agree with you. I don't know what that says because I haven't looked at it, but that, that National Research Council report is the basis for the current public law.

MR. ORRIS: Well, we know that there are many errors in that.

MR. SAMPSEL: Well, I'll bring it up. I'll definitely bring it up, I'll do that. And I don't know -- it's not my -- I'm not in control of it but I will bring it up.

MR. TEMPLETON: And one thing, and I'm going to try to be as helpful as possible and respectful as possible about this but here's a couple of things that I would like to mention. One is that that study happens to be used -- I've seen several denials including my own, that that study was used for the basis of the denial. This was last year. This was last year.

MR. SAMPSEL: Well, you know what?

MR. TEMPLETON: Well, if you don't mind, let me go ahead and finish here. The, the problem that I see, the way I see it here, is from all of the denials that I've seen, it appears that there's really no connection; there's really -- does not seem to be -- it's either -- well, I won't go in,

but what I will say is that what they do say in there does not have any applicability or even remote sense of being able to discern blatant health issues. Because one of the things that's listed in many of these denials is that, well, the veteran didn't report the issue when they were on-duty. They didn't report it within a few years after duty. And that seemed to be the main basis for the denial so -- well, let me add to that real quick, and then if you would, I'd like to hear why, why this is happening. And it probably contributes to as high of a denial rate as we have right now. But because of that denial rate and because of not incorporating some of the additional information we have here, we're doing our veterans a disservice. They need your help, and you need to step up to help them. So I'd like to know first off, why, why there's such a gap in the understanding on latent health issues with the claims process, with the C&P claims process. Every one of them I have seen, it almost looks blatantly like it was shared between several different denials.

MR. SAMPSEL: Well --

MR. TEMPLETON: And that it shows either -- I will go there -- it's either a willful ignorance or

just a -- of latent health effects. I mean, how could you look at that and see the health effects that these guys are talking about, and then say, well, they didn't report it within five years after they left the service, and so denied. That's the basis of the denial. It's not service connected. That makes no sense.

MR. SAMPSEL: That's not the basis for the denial.

MR. TEMPLETON: That's what I'm seeing. That's what I'm --

MR. SAMPSEL: Okay, that language that you see in there is language that's in regulations. When we produce a narrative on a denial, you have to state -- you have to cover several bases as to why you're denying by law, by the court. The court has mandated that we do that. One of them is it didn't appear in service. That has to be stated. Another one is it wasn't claimed within a certain time frame. That's another thing that has to be in there. Now, these denials get that language because that's required by regulation. The real denial is not those reasons. All those things state is that we considered those things. The real reason is because the medical examiner determined that it was

not at least as likely as not that this current disability was due to that Camp Lejeune exposure. The medical examiner gave the report. The report should be in there. And it's available to the veteran to look at.

MS. FRESHWATER: But how, how is it that we are supposed to tell the veterans it did not carry any weight? We're just supposed to say, oh, they just put that in there because it's regulation but it didn't really carry any weight in your denial? It's very difficult to explain that to them.

MR. SAMPSEL: Well, you know -- one of the problems is the volume of cases that the VA has to deal with, there are so many cases that they can't get the individual attention in a narrative that you might like to see there. I would like to see it too but as you may know, there's a huge backlog. There's a lot of complaints about that. So there's standard language that's related to the, to the regulations that go in there.

MR. ORRIS: I think Congress has addressed this backlog, and I think the government and the United States as a whole has said that veterans dying or being sick due to a backlog is unacceptable --

MR. SAMPSEL: Well, it may be unacceptable --

MR. ORRIS: I don't accept it.

MR. SAMPSEL: -- but I don't know what to do. There's a huge number of claims, a huge number, and there's limited resources to deal with it. I can't do anything about that.

MR. TEMPLETON: Is a C&P exam required for a claim?

MR. SAMPSEL: Is a what?

MR. TEMPLETON: Is a C&P exam required for a claim?

MR. SAMPSEL: A C&P exam is required when we can't grant under our current policy. Other than Camp Lejeune, there are claims where we can grant if there's a medical opinion and there's an event in service, you know, somebody broke their leg in service. Twenty years later they file a claim, they have a doctor who says I think this is related, they're going to get service-connected without a C&P exam.

MR. TEMPLETON: Okay. I personally know of one particular person that did not receive a C&P exam.

MR. SAMPSEL: Denied or granted?

MR. TEMPLETON: And they got denied.

MR. SAMPSEL: Well, in order to get a C&P exam, you have to have some kind of evidence that

something happened in service, and if you don't have that -- now, in the case of Camp Lejeune, it's there. If you were there, that's your event of service. But there are a number of people who get denied and there's no evidence for anything in service when we look at the record.

MS. FRESHWATER: But we're only talking about Camp Lejeune here.

MR. SAMPSEL: Camp Lejeune.

MS. FRESHWATER: Yeah, we're only referring to Camp Lejeune here.

MR. SAMPSEL: Yes, I'm aware -- okay, I realize that. So the claims process is a standard process. Camp Lejeune is special because in a way if you were there, that's your event. You don't have to prove anything else. If it's in the record you were at Camp Lejeune, you're going to get evaluated for that. That's not the same as the other claims.

But as I said, the language may look a little standard to you in the denials but every one of them gets an examination; although, if they were not at Camp Lejeune or if they claim something like a musculoskeletal problem, which has no bearing on toxic chemicals --

MR. TEMPLETON: It does. It does. It's not in

the 15 but it does.

MR. SAMPSEL: Well, I don't know. I'm not a medical person to evaluate that. But and even if you -- even if you have a musculoskeletal problem, you still -- if you're not one of those 15, then you're going to have to have some medical doctor or private doctor providing a little bit of evidence for that before you get the C&P exam, so that's the claims process.

MR. TEMPLETON: And that's my next point. It is actually the nexus letters is that that appears to be a pretty high bar. I know that's probably pretty standard for you to have a nexus letter but the majority of doctors out there won't write a nexus letter, even if they do feel like it might be connected. They would be hesitant to write a letter and when they do write a letter, several of the claims that I've seen that had multiple nexus letters on them were denied. And there were some pretty good nexus letters from some doctors that were well respected within that area. I don't see that bar being able to be met by the majority of the veterans that were exposed, so we're failing them.

MR. SAMPSEL: Well, maybe -- I mean, apparently there is failure or we wouldn't have all this, but

you know, I don't know what the remedy is, the immediate remedy. I think there's a remedy going on now by virtue of this meeting and by virtue of the ATSDR being involved and you know, I'll do what I can. I'll talk to Dr. Cross about this. And you know, I suggest that, for your next CAP meeting you request somebody from Dr. Cross's staff to come here and explain to you their formula or their broad criteria for evaluating individual claims, because I'm not sure what it is, frankly.

MR. ENSMINGER: Well, you've made some --

MR. SAMPSEL: You know, maybe Bob would like to comment on that.

MR. TEMPLETON: I'd like to thank you for, for your responses. Thank you very much; I appreciate your time.

MR. CLAY: Just to kind of touch on that, I'm not a medical professional either but I have been involved with this. I was at Camp Lejeune. I've run a VA office at Camp Lejeune. I'm very aware with this issue; I've dealt with Senator Burr's office, and then I got to Louisville, and now the people that make these decisions are my people. And I'm very cognitive of the depth of this issue and the pain and suffering that it causes. My people

are very dedicated and they try every day very hard to do the best they can for the people filing those claims. The productivity of those people, and I know that's not going to be what you want to hear because there's still a high denial rate, but the productivity of those people is higher than some of the people that work in the rest of the office, because they're trying to get these out. We have over 3,600 of these claims pending despite the fact that we just decided already about 6,800 of them. So it's a high volume of work. We have taken resources which were not allocated to this mission and redirected them to this mission to try and take -- cut the time lines on this and get decisions to people. While a negative decision is not the favorable outcome that we'd all like to see, it does open other resources up for veterans when they have that in hand and they say, look the VA's already denied me. Then they get help from some other organizations. In terms of the medical --

MR. ENSMINGER: Well, let me ask you a question.

MR. CLAY: Okay.

MR. ENSMINGER: Have you been given a ceiling as to how many people you can approve for service

connection --

MR. CLAY: Absolutely not.

MR. ENSMINGER: Because I'll tell you what, it is, it is almost automatic that the claims approval process hovers within a few tenths of 25. I mean, straight across the board, with the exception of female breast cancer.

MR. CLAY: And I'm aware of that. We have actually not been given any guidance on what claims to approve and what claims to deny or how many of each.

MR. ENSMINGER: And where does this Koopmeiners come into the process?

MR. CLAY: Okay.

MR. ENSMINGER: What's he do?

MR. CLAY: Dr. Cross is the head of the disability exam medical office. They are responsible for VHA for the compensation of pension exam process, not just for Camp Lejeune but for the whole compensation exam process.

MR. SAMPSEL: Which is different than Terry Walters' section.

MR. CLAY: Right, 'cause that's another whole animal. Dr. Koopmeiners works for him and he is the head of what we call the subject matter expert

medical teams. He is an occupational specialist, who's licensed, okay, and certified in that field. And the people that we work -- that he has working for him, which number, I believe, is 24 active medical examiners right now that provide these opinions, are all either occupational exposure specialists or they're people who have been certified in a secondary occupational exposure special --

MR. ENSMINGER: And where are they located?

MR. CLAY: They are located in medical centers all across the nation, spread out geographically. And those people have all received centralized training by the disability exam medical office specific to Camp Lejeune claims before they can work --

MR. SAMPSEL: Let me say one thing, Terry Walters' PowerPoint has nothing to do with this training for these medical doctors.

MR. CLAY: Correct. That is not used in their training.

MR. ENSMINGER: So who got trained with this --

MR. CLAY: The 24.

MR. ENSMINGER: -- this PowerPoint?

MR. CLAY: Oh. I don't have any answer to

that.

MR. ENSMINGER: That she created.

MR. CLAY: I believe, from what I heard y'all saying earlier today, I believe it's the treating physicians at the medical centers. But that's not compensation and pension.

MR. SAMPSEL: I think it's an informative PowerPoint more than anything else.

MR. ENSMINGER: I would recommend that you gentlemen go back on the ATSDR's website and read the transcript for the September 2013 CAP meeting, because that's not the explanation we got, okay?

MR. SAMPSEL: Well, I can guarantee you that Dr. Cross's staff of medical doctors is not trained by Terry Walters' PowerPoint.

MR. SMITH: Well, let me ask, can you answer a question? Can you provide or share what they are trained with? Since they provided this PowerPoint. Can we get some documentation of what they received?

MR. CLAY: I can request that. We don't do the training. That's VHA's training material. We can see if we can get a copy.

MR. SAMPSEL: And that's why I think that you should invite Dr. Koopmeiners or some representative from Dr. Cross's office to come here and explain to

you their specific procedures or their strategy for evaluating these claims.

MR. ENSMINGER: Well, to be very point blank and blunt, I wouldn't want to be near Dr. Koopmeiners. The man is a convicted sex offender, okay? And I mean, and --

MR. SAMPSEL: I can’t believe that to be true.

MR. ENSMINGER: I do. I looked him up. I do my research before I make a statement. He is convicted pedophile. Look it up. And that is offensive to me, that you got a convicted sex offender working in the VA.

MR. SAMPSEL: I don't know that to be true and I can't really comment on that. But if you'd rather have somebody other than him, I think we can probably arrange it.

MR. ENSMINGER: Well, I think the VA ought to take a look at who the hell they're hiring.

MR. CLAY: To get back to what we were talking about, while I'm not a medical professional, these 24 that are scattered throughout the country have been specifically trained to do this.

And Mr. Ensminger, while you were talking about the time period, that does come into play to some extent. For our purposes in the VBA, we only have

to put you at Camp Lejeune, we just put you -- it doesn't matter how long, and we will go ahead and concede the exposure. But where it comes into play is when these medical examiners are looking at the medical record, because obviously the longer you're there, the more cumulative exposure you've had to the water. And the more cumulative exposure, normally the higher the risk factors for some of these diseases. So that's where it comes into play and that's what they're looking at when they're writing these opinions, among other things, where did you live, where did you work, what was your MOS. Obviously if you were a fuel handler you're going to have much higher exposure to some of these than if you're someone that worked in the hospital, you know.

They look at your post-service exposure. You know, if you were a food prep worker there, but then you get out and you work as a hazardous chemicals waste disposal expert for some waste management company, you know, obviously that length of exposure may have been more significant than the exposure that -- they have to weigh all these things in, because as y'all are all aware, at least I assume you are, this is not like Agent Orange. There

aren't any presumptive conditions. Those 15 aren't presumptive. We have to decide each of these cases on an individual case-by-case basis, taking into the fact the person's exposure, the length of time there and the other, as Mr. Sampsel said, the other comorbidity factors that could have made them more susceptible to the disease.

MR. ENSMINGER: Well, I was discussing this with some members up on Capitol Hill the other day, this very issue. And one thing that we have for Camp Lejeune is documented exposure levels, okay. So you've got a guy comes in, C&P exam. Okay, you were at Camp Lejeune, you were there for a couple years and you were exposed to benzene, TCE, PCE, vinyl chloride, DCE, okay? And then they look and they say, whoa, what else did you do after you got out of the service? Well, I worked at a gas station. Oh, well, that could be a contributing factor to your leukemia or whatever you got. Well, the guy pumped gas. He wasn't drinking it like he was at Camp Lejeune, okay? So you have verified exposures that took place. The benefit of the doubt, correct me if I'm wrong, is supposed to go to the veteran, right?

MR. CLAY: It does, all other things being

equal. We do apply that. But the medical opinion process -- again, I think you'd get better information on this from ^ 'cause I don't have occupational exposure training. I know what they're supposed to be doing and it's supposed to provide a rationale for why they weighted this exposure greater than this exposure or this other comorbidity element, like maybe 40 years of smoking as opposed to their exposure at Camp Lejeune. They are supposed to provide a rationale and once they ^ as to how they weighted this stuff and how they came to the decision. Is it at least as likely as not that it was due to the water contamination or to some other cause. And if they're not providing enough rationale, my people have been trained that that's not a sufficient exam. You need to go back and ask them to either do an addendum to provide the rationale or redo the exam in total.

MS. FRESHWATER: I would like to see a poster of the benefit of the doubt goes to the veteran up in all of the offices, because none of the veterans I've talked to feel anywhere near that being represented. They feel like they have to -- they're made to feel like they are trying to steal something that should be given to them because we owe that to

them, and they are made to feel like they are trying to scam the government. And it's hard enough for a Marine to go forward and ask for help, and then when they have this kind of attitude that they face, it's very, very difficult. And none of them feel anywhere near the benefit of the doubt is on their side. So I just want to say, it's not just, you know, one or two. I talk to a lot of them, and it's -- I'd never hear anyone say -- and I'm not saying your people don't do good work; I'm not saying they're not good people or they don't care. I believe that they -- I -- you have my benefit of the doubt, I believe that. But the point is that I've never had a veteran come to me and say, yeah, I felt like the law changed everything for me and I was able to get care for what happened to me. Because as Jerry was saying, we know they were exposed. We don't know -- the other -- everything else is a mystery as far as what they did with the rest of their lives but it's not a mystery as to what happened at Camp Lejeune. So I just wanted to say that. And I stole the mic from Chris again so I have to give it to him now.

MR. ORRIS: I'd like to know why dependents and civilians get the benefit of the doubt of the 15

onsets that the veterans do not, and why veterans are eligible for illnesses that civilians and dependents do not. It's not like there was a veterans' water or a dependents' water or a civilians' water. This whole thing is set up in such a way that it doesn't seem like it's going to be -- it doesn't make any sense, you know.

A civilian can say I got kidney cancer, and now I'm eligible for benefits. And you say, okay, you were at Camp Lejeune, therefore under the law you get it. And then the veteran says I have kidney cancer and I served at Camp Lejeune, and then you're talking about all of these co -- you know, all these other risk factors. You know, if the veteran has kidney cancer and it's on the 15, they should be eligible no matter what too.

MR. SAMPSEL: I think you mischaracterized the situation because, first of all, veterans don't get denied when civilians do get it. First of all, we're talking about treatment versus compensation. We're the Department of Veteran Affairs to assist veterans. Civilians are not part of the VA's mandate by Congress.

This is a particular unusual situation with Camp Lejeune because of the public law that provides

free treatment to dependents and family members. That does not occur in the VA in any other circumstance. I'd just like to explain that.

And every veteran that was at Camp Lejeune that develops any of the 15, also gets free treatment. And as Terry Walters explained, they get healthcare. They get treatment. The issue here is compensation, monthly paychecks, which are not authorized for civilians. But for a veteran to get that, we have to service-connect them, and that's where the Compensation and Pension Exam comes in.

MR. ORRIS: So you can be at Camp Lejeune and be exposed to the water and get treatment as a veteran but you don't get the same consideration to get disability benefits.

MR. ENSMINGER: That's correct.

MR. SAMPSEL: Absolutely true, because of Senator Burr -- I know it's public now but Senator Burr's statute, public law, signed on by all of Congress, obviously, that is a very special, very unusual law. There's no equivalent to that and there's no other law, to my knowledge, where -- well, there's dependent and benefits to spouses, deceased spouses -- you know, the veteran dies, the wife will get a benefit called the DIC benefit, but

there's nothing for family members under the VA system; it's for veterans. And this law, this statute provides for family members.

MR. ENSMINGER: Title 36 had to be amended to include family member healthcare.

MR. SAMPSEL: That would be for Congress. Congress needs to do that.

MR. ENSMINGER: They already did that. That's how they got the family members included in that bill.

MS. FRESHWATER: That leads to my next question. Can we get -- is there any kind of update on where that stands for family members?

MR. ENSMINGER: They just announced it.

MS. FRESHWATER: I think I was in the --

MR. ENSMINGER: No. Dr. Walters said October 15th.

MS. FRESHWATER: Well, I came in late, then. I didn't hear --

MR. ENSMINGER: It's been approved by OMB.

MS. FRESHWATER: That's great.

MR. SAMPSEL: But that's under the statute. We're talking about under the statute; we're not talking about, you know, compensation of benefits here.

MR. ENSMINGER: No, yeah, I understand that --

MS. FRESHWATER: But I watched my mother die in a bed that was broken in a hospital room because she didn't have insurance, and we had never had any kind of financial stability. She never had any anyway. And I watched that happen, and I had to go out into the hallway and get her a bed when she was ten days away from being moved into hospice. And that should not have happened to my mother because she drank that water. And that shouldn't have happened. And I'm just very anxious for the family members to be able to get the dignity in care.

MR. SAMPSEL: Well, I think Senator Burr addressed that, and now we're moving forward in a different direction.

MR. ENSMINGER: Yeah, but the VA took them over two years to develop the rules, and OMB's had this thing since March.

MR. SAMPSEL: I can tell you that the government works very slowly.

MR. ENSMINGER: Oh, tell me about it.

MR. SAMPSEL: Well, believe me, it frustrates me too but I don't know what I can do about it.

MR. TEMPLETON: Well, going back to the C&P claims, now, it appears at least through some of

them that I've seen, that it is limited -- you guys are limited to 15 conditions, if you don't fall within those 15 conditions, then game over.

MR. SAMPSEL: I don't think that's true.

MR. TEMPLETON: So that's what it appears. Well, and then maybe this goes back to the language that we were talking about that I quoted as boilerplate, that has to be included.

MR. SAMPSEL: By the court decision, we have to put it in there.

MR. TEMPLETON: I got it, so okay. Thank you.

MR. SAMPSEL: But I will tell you that, you know, if somebody has -- I think it's feasible that if somebody can be service-connected outside of those 15, if they have initially filed their claim, they had some kind of medical evidence associating that particular disability or disease with the water, maybe a private medical opinion, they'll get an exam. And then it would be up to that examiner to determine what to do.

MR. TEMPLETON: All right. Thank you, appreciate it.

MR. BRUBAKER: Folks, I want just do a quick reference to the agenda. We are actually at the end of our scheduled time. I'd like to let it go on

because it's been a rich and robust exchange of dialogue. There are three remaining agenda items, all of which can be covered in the next CAP call. But before we end the meeting, I'd like to make sure that there are no other CAP updates and concerns that need to be taken at this time.

CAP UPDATES AND CONCERNS

MR. ORRIS: I would like to point out that the ATSDR website still references fact sheets from 1997 for TCE, and I would like to see the ATSDR updating their information to -- with not only their own studies but as well as the EPA.

MS. FRESHWATER: I would like to formally request that we have a meeting with Dr. Frieden, either the entire CAP or some designated representatives. And I would also like to say that we are all in favor -- I think I've talked to everybody -- of this idea of having a meeting in Raleigh hopefully with some press that we will plan very vigorously. And it'll give us time to organize that.

MR. ENSMINGER: I think Greensboro would probably be better.

MS. FRESHWATER: Wherever Jerry wants to have

it is where the CAP is for having it.

MR. ENSMINGER: Well, looking for a central location. Well, not only airport, but looking for a central location where it's not weighted one side of the state or the other. I mean, North Carolina's a very long state. If you hold the thing in Wilmington, it's over 400 miles for people in the western part of the state to get to Wilmington.

MS. FRESHWATER: And Jerry promises barbecue wherever we are.

MR. ENSMINGER: I'll cook a hog.

MR. BRUBAKER: So hearing that, Sheila, you want to talk about the next meeting set for January? Oh, I'm sorry, Melissa.

MS. FORREST: I'm sorry. It's just Chris, if you remember earlier today, we were kind of going back and forth on what exactly -- formulating the question that he and Gavin both were presenting to the Navy and Marine Corps, and so Chris just asked me to, you know, read off for the official record what the request is. In light of the July 9, 2014 EPA Region 9 memorandum, is the Navy/Marine Corps planning to personally notify women at Camp Lejeune who may have been in the past or might now currently be exposed to TCE and vapor intrusion? The CAP

recommends this notification include all buildings over the TCE plume and especially the 12 buildings currently being investigated for vapor intrusion. Immediate communication should occur with current workers, residents, who are potentially being exposed now to explain the recent EPA memorandum recommendations.

The CAP also wants the Marine Corps to visit how to inform women who worked/lived in areas of potential vapor intrusion between 1985 and now. And a list of methods the Marine Corps will follow to identify, locate and communicate with the women. Note that solely putting the information on the website is not sufficient because the website focuses on exposures before 1984 and misses a large group of potentially exposed women. That capture it? All right, thanks.

WRAP UP

MS. FRESHWATER: I want to get a picture of the CAP members and if you would join us, I would like to do that just to have a current picture of the CAP, for good purposes.

MS. STEVENS: Okay, I've got a quick couple updates. So September 15th, which is Monday, would

be our next CAP call. So I want to know do we need to have the next CAP call or do we want to go with October 20th? Jerry?

MR. ENSMINGER: What?

MS. STEVENS: Do you want to have a CAP call on September 15th or do you want to go October 20th, which would be the next one? Monday, this coming Monday, would be our next scheduled CAP call.

MR. ENSMINGER: No, that's too soon.

MS. STEVENS: Everybody good with October 20th? Okay, I will send out a -- just a reminder to everybody on that.

The next item that I just need to quickly cover is when our next in-person CAP meeting would be, and that would be in January of 2015. I have three proposed dates. I'm going to look for quickly a raise of hands for the first one, and then I'll send out again another kind of quick communication to people to see if this is check, really what we want. The first date we would have possible would be January 15th. These are all Thursdays, too, that I'm proposing. January 15th, which would be the second Thursday of the month in 2015.

MR. ENSMINGER: That's fine.

MS. STEVENS: Okay. The second one I have is

January 23rd.

MR. ENSMINGER: First one, first one.

MS. STEVENS: Okay. Is everybody good with January 15th? Perri, are you good with that one? I know you had something through the 14th.

MS. RUCKART: Oh, yeah. That's fine. I was just saying I don't -- how can January 23rd be a --

MS. STEVENS: What was it?

MS. RUCKART: If the 15th is a Thursday.

MS. STEVENS: Or maybe I did it wrong. They're all Thursdays so -- sorry. Fifteenth. We will go for the 15th, and I'll send out an email with those two dates with our next call, and our next meeting we'll start looking at -- make sure that we have times available and hotels and the room space here.

And then the last thing is that we'll discuss during calls coming up is planning our meeting that will be off-site in North Carolina in the months of April or May of 2015. So with that, if there are no questions I will convene the meeting.

MR. BRUBAKER: Conclude.

MS. STEVENS: I mean, conclude.

MS. BRIDGES: This is Sandy Bridges.

MS. STEVENS: Yes, Sandy.

MS. BRIDGES: I'd like to say hi. I've kept

quiet all this time but I'd like to say something before the meeting adjourns.

MS. STEVENS: Yes. Thank you, Sandy, go ahead.

MS. BRIDGES: Well, as much as I hate to do this, and I really do, but I'm going to resign from the CAP. There's been some health issues that I have to take care of. And y'all don't need me. I'm an old woman. I've been at this, you know, working with Jerry since 2005. That was our first meeting in Atlanta with that -- the scientific advisory panel, in '04 -- well, that was '05, excuse me. And I've been on the path since '06. And ^ 67, and we need those bright minds that we've got there today. I mean, I am so impressed with all the people, you know, that we have now on the CAP. And I'm going to pack and let someone else younger and more in tune with everything that's going on, that can make a difference, which is the most important thing. I never became involved in this to get money, a lawsuit. I've never talked to an attorney. That wasn't my main objective. My main objective was the children that were born, the dependents, and seeing that not just mine that I nearly lost that are suffering but others as well. That's my, my thing. That's why I became involved in this in '05 and

that's my same thing now. And I hope that everyone else would help me in doing that.

I've enjoyed working with you all. And I hope to be at the meeting, you know, just as an observer, when you are in Greensboro or wherever you have it, the next meeting.

MS. STEVENS: Sandy, we'll keep you informed where that meeting is so that you can attend, and I appreciate all your time working with the CAP.

MS. BRIDGES: Perri, I miss seeing you. And thank you very much.

MS. RUCKART: You're welcome.

MS. BRIDGES: We have come a long way. You were a young girl, a thin young girl, and no children. You'd just gotten married.

DR. BOVE: Well, this is Frank Bove, Sandy. Sandy, this is Frank Bove. I'm glad that you've done all this work for the CAP. We appreciate it and I had a few less gray hairs, too.

MS. BRIDGES: Okay.

MS. FRESHWATER: And Sandy, this is Lori. We need you as our cheerleader, okay?

MS. BRIDGES: I'll be right there. Okay. Thank you. Goodbye.

MR. BRUBAKER: Thank you and the meeting is

officially adjourned.

(Whereupon the meeting was adjourned at 2:37 p.m.)

CERTIFICATE OF COURT REPORTER

STATE OF GEORGIA

COUNTY OF FULTON

I, Steven Ray Green, Certified Merit Court Reporter, do hereby certify that I reported the above and foregoing on the day of Sept. 11, 2014; and it is a true and accurate transcript of the proceedings captioned herein.

I further certify that I am neither relation nor counsel to any of the parties herein, nor have any interest in the cause named herein.

WITNESS my hand and official seal this the 20th day of Oct., 2014.

_____

STEVEN RAY GREEN, CCR, CVR-CM, PNSC

CERTIFIED MERIT COURT REPORTER

CERTIFICATE NUMBER: A-2102