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MCRD PARRIS ISLAND  
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EMAIL REGARDING U S EPA REGION IV COMMENTS ON REMEDIAL INVESTIGATION  
ADDENDUM DRAFT 1 REVISION 2 FOR SITE 45 DRY CLEANING FACILITY SPILL AREA  
MCRD PARRIS ISLAND SC  
6/4/2010  
U S EPA REGION IV

**From:** [Llmas.Lila@epamail.epa.gov](mailto:Llmas.Lila@epamail.epa.gov)  
**To:** [Sladic, Mark](mailto:Sladic, Mark)  
**Cc:** [charles.cook2@navy.mil](mailto:charles.cook2@navy.mil); [Stacey French](mailto:Stacey_French); [Reed, Sarah M CIV NAVFAC SE, JAX](mailto:Reed, Sarah M CIV NAVFAC SE, JAX); [charles.cook2@navy.mil](mailto:charles.cook2@navy.mil); [Llmas.lila@epa.gov](mailto:Llmas.lila@epa.gov); [Sladic, Mark](mailto:Sladic, Mark); [timothy.j.harrington@usmc.mil](mailto:timothy.j.harrington@usmc.mil); [mmcrae@TechLawInc.com](mailto:mmcrae@TechLawInc.com); [AmickMS@dhec.sc.gov](mailto:AmickMS@dhec.sc.gov); [darrel.pittman@usmc.mil](mailto:darrel.pittman@usmc.mil); [Kelly.Taylor2@ch2m.com](mailto:Kelly.Taylor2@ch2m.com); [GerryAM@dhec.sc.gov](mailto:GerryAM@dhec.sc.gov); [KRIEGKM@dhec.sc.gov](mailto:KRIEGKM@dhec.sc.gov); [Claggett, Libby](mailto:Claggett, Libby)  
**Subject:** RE: EPA comments on Site 45 RI Addendum D1 Rev 2  
**Date:** Friday, June 04, 2010 11:40:13 AM

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Hi Mark (and others),

I have had a chance to review the document again. I am still a little concerned that the RI does not provide sufficient information about where you think DNAPL may exist (horizontally and vertically), or the potential volume, etc. However, if you feel you have sufficient information to address the potential for DNAPL in the FS, and are committed to addressing it in the alternatives, then I think we can proceed with just a sentence or two added to the RI, referencing Scott's Power Point presentation as an attachment. That way, if I get hit by a bus tomorrow, my replacement will have the info in the RI.

EPA suggests the following language be added to RI Section 7.0 Conclusions and Recommendations, page 7-2, second bullet, end of paragraph: "... Additionally, during preparation for a treatability study, EPA gathered additional soil core data along several transects across the southern plume area and close to the break in the sanitary sewer line, which is believed to be the point of origin for the secondary source (near MW25.) Preliminary analysis revealed contaminant levels in soil cores closest to MW25 indicated the potential presence of DNAPL in the area at 12 feet below ground surface. (See Attachment \_\_\_\_)."

If this is included in your response to comments it will be acceptable to EPA. However, remember SCDHEC also had a comment pertaining to DNAPL and their comment needs to be addressed as well. If there is any conflict between this resolution and theirs, please let me know.

Thanks,  
Lila

**From:** "Sladic, Mark" <Mark.Sladic@tetrattech.com>  
**To:** Lila Llmas/R4/USEPA/US@EPA  
**Cc:** "charles.cook2@navy.mil" <charles.cook2@navy.mil>, "Reed, Sarah M CIV NAVFAC SE, JAX" <sarah.reed@navy.mil>, Stacey French <FRENCHSL@dhec.sc.gov>  
**Date:** 05/28/2010 07:44 AM  
**Subject:** RE: EPA comments on Site 45 RI Addendum D1 Rev 2

Hi Lila. Please note that I have adjusted the distribution list on this reply.

The EPA (19 April) comment references Section 3.2.3 and 3.2.4. Those sections describe a DNAPL field screening procedure. The Addendum reports that 'DNAPL screening results were observed to be negative'. I do not think that most readers would interpret that as 'There is no DNAPL at Site 45'. Again, the Addendum conclusions state that we believe that DNAPL exists (based on other indicators than this particular field screening test, obviously).

As you know, Charles is out until 7 June. You may not know that Mike Singletary is now an IPT lead. Therefore, it is possible that neither will be able to provide much information immediately. I believe that Tier II has recently challenged our Team to become more focused and to process these sites more efficiently (and quickly). As the Addendum already concludes that DNAPL is believed present at Site 45, my opinion would be that further pursuit of derivative information would not be efficient or productive. Also, it does not seem that the information EPA has generated has previously been made available to the Team. The upcoming RI/FS may not be the best vehicle to do that.

In order to be responsive to the challenge from Tier II, since the document (distributed 12 January) already concludes that DNAPL likely exists, we should proceed with the data and information in-hand. I cannot imagine a scenario where whatever the EPA data says, it would change our current conclusion that DNAPL likely exists. Since this site is now the number one priority of both SCDHEC and EPA, we think the Team's energies are better focused on completing the RI/FS ASAP (with the extensive data in-hand), in order to expedite remedy selection to address ongoing migration. I think that to do otherwise may necessitate justification to Tier II – and maybe beyond. Thanks. MS

From: Llamas.Lila@epamail.epa.gov [<mailto:Llamas.Lila@epamail.epa.gov>]

Sent: Thursday, May 27, 2010 5:09 PM

To: Sladic, Mark

Cc: charles.cook2@navy.mil; Boerio, Megan; mmcrae@TechLawInc.com; Reed, Sarah M CIV NAVFAC SE, JAX; timothy.j.harrington@usmc.mil;

AmickMS@dhec.sc.gov; darrel.pittman@usmc.mil; Kelly.Taylor2@ch2m.com;

GerryAM@dhec.sc.gov; KRIEGKM@dhec.sc.gov; Claggett, Libby; Stacey

French; joe bowers; huling.scott@epamail.epa.gov;

Pivetz.Bruce@epamail.epa.gov; Llamas.Lila@epamail.epa.gov

Subject: RE: EPA comments on Site 45 RI Addendum D1 Rev 2

Thanks Mark.

Let's see what data is readily available. I am working from home so I do not have the RI Addendum with me. I believe the statement about no DNAPL was in the body of the text. Did my comment reference a section and/or paragraph and/or page? If so, that would be where some kind of statement was made about there not being DNAPL, or DNAPL not being a concern, or something like that. Or maybe I dreamed it. Although, I think DHEC also had a question about the presence of DNAPL, which means you need to address their comment as well. But I may not be remembering it correctly. I will be back in the office Monday, where I can look at this in detail with the Addendum and my comments in front of me. If the conclusions states as you reflect, then it may just be that the body of the text is misleading. I do not expect any major revision. I will

look at the conclusions again and see if that is enough. Although, it would also make sense to attach the PPT, and maybe a note about it in an appendix and reference from the text in order to identify the location of the "likely DNAPL pool source." It is also more about what you may need to address in the FS than anything else.

Let me know when you hear from Mike/Charles.

-----"Sladic, Mark" <Mark.Sladic@tetrattech.com> wrote: -----

To: Lila Llamas/R4/USEPA/US@EPA

From: "Sladic, Mark" <Mark.Sladic@tetrattech.com>

Date: 05/27/2010 01:02PM

Cc: "charles.cook2@navy.mil" <charles.cook2@navy.mil>, "Boerio, Megan"

<Megan.Boerio@tetrattech.com>, "mmcrae@TechLawInc.com"

<mmcrae@TechLawInc.com>, "Reed, Sarah M CIV NAVFAC SE, JAX"

<sarah.reed@navy.mil>, "timothy.j.harrington@usmc.mil"

<timothy.j.harrington@usmc.mil>, "AmickMS@dhec.sc.gov"

<AmickMS@dhec.sc.gov>, "darrel.pittman@usmc.mil"

<darrel.pittman@usmc.mil>, "Kelly.Taylor2@ch2m.com"

<Kelly.Taylor2@ch2m.com>, "GerryAM@dhec.sc.gov" <GerryAM@dhec.sc.gov>,"

"KRIEGKM@dhec.sc.gov" <KRIEGKM@dhec.sc.gov>, "Claggett, Libby"

<Libby.Claggett@tetrattech.com>, Stacey French <FRENCHSL@dhec.sc.gov>,"

joe bowers <bowersjb@dhec.sc.gov>, Scott Huling/ADA/USEPA/US@EPA, Bruce Pivetz/ADA/USEPA/US@EPA

Subject: RE: EPA comments on Site 45 RI Addendum D1 Rev 2

Thanks Lila. The original EPA comment was this:

'EPA region 4 understands that the EPA Ada, Oklahoma lab performed some additional investigation through analysis of saturated soil cores near the southern plume source area which would speak to the potential for the presence of DNAPL. Determine whether or not these results confirmed any potential presence of DNAPL and address it in the Addendum.'

In the interest of making some progress here, I propose that our response is the following: 'Based on measured concentrations of dissolved cVOC, it already seems possible (or even probable) that DNAPL exists at Site 45. Since the EPA data is not readily available, we propose making no revisions to the RI Addendum to address this comment.'

BTW – what is the source of the statement in your previous reply that 'There is no DNAPL at Site 45'? I don't think there is anything like that in our RI Addendum. In fact, the Addendum specifically states there is a likelihood of a DNAPL pool serving as a continuing source of groundwater contamination'. See Conclusions – page 7-3. Thanks. MS

From: Llamas.Lila@epamail.epa.gov [<mailto:Llamas.Lila@epamail.epa.gov>]

Sent: Thursday, May 27, 2010 12:31 PM

To: Sladic, Mark

Cc: charles.cook2@navy.mil; Boerio, Megan; mmcrae@TechLawInc.com; Reed,

Sarah M CIV NAVFAC SE, JAX; timothy.j.harrington@usmc.mil;

AmickMS@dhec.sc.gov; darrel.pittman@usmc.mil; Kelly.Taylor2@ch2m.com;

GerryAM@dhec.sc.gov; KRIEGKM@dhec.sc.gov; Claggett, Libby; Stacey

French; joe bowers; huling.scott@epamail.epa.gov;

Pivetz.Bruce@epamail.epa.gov; Llamas.Lila@epamail.epa.gov

Subject: RE: EPA comments on Site 45 RI Addendum D1 Rev 2

Hi folks,

Here's what I recall. The ISCO project was a Navy funded project through ESTCP, as a joint effort from ERM (Navy contractor), Washington University (?), and Scotts group from EPA Kerr Labs in Ada, OK. I

believe there was a draft final report issued for the lab portion of the study (see attached), but I am not sure if it ever went final. The Navy (Leanna Woodspoon - since she requested it) received the draft final quite some time ago. Mike Singletary/Charles of the Navy should be able to tell you and would be your first source for the final report and associated data, I would think. However, I know Scott can update me when he gets back.

Even if this phytate stabilization report for the lab portion is final, I am not sure it will address the issue of DNAPL, because I believe Scott's examination of that particulate core was in response to my questioning him as to whether or not they had encountered DNAPL, as opposed to anything pertinent to the study. It may be that we can get the pertinent raw data from Scott, and maybe he could write a 1 page white paper describing what he told us on the phone and I addressed in the email below. However, recognize the data may or may not have gone through the same QA process as normally expected due to the informal nature of the inquiry. That level QA may not be necessary for this type of conclusion (simply speaking to the potential presence), as opposed to data validating clean-up for example.

As for the action items, I know most of them were Scott's. I do not recall specific emails with Ph data, etc. But I might have just forgotten that. As far as the estimate on costs, Scott and I worked with Charles and Mike Singletary on a variety of possible coordinated efforts and contributions, but the end result was to wait for completion of the limited field injection study and for the Navy to catch up on the CERCLA process, and to address the large scale injection study when the funds might be available and their contractor had time to address it (FS). However, since the FS is supposedly already on the Navy's desk, it seems it may not happen. It could be that it could be done in support of a later phase activity. We shall see.

I am not sure if Charles provided Cliff Casey's data or not. I would check emails around that same time (after July 27, 2009).

Reports are that ERM has the workplan for the limited scale injection study in final form, but are awaiting ESTCP permission to distribute it to the team. They were to distribute through Charles.

As for the use of the data and interpretations, I think it is incumbent upon the Navy to review the available information and make a determination as to what it means to our investigation. Once you see the data (whatever Charles/Mike gets for you and what Scott may have in addition) it is up to you to determine how it should be applied. However, from what I have heard, I still believe a blanket statement such as "There is no DNAPL at Site 45" may be a bit too far to one side. We can discuss your response to the comment once you have had a chance to review what is made available and have shared that with the team.

I will let you know when I hear from Scott. You let me know when you have heard from Charles/Mike.

Lila