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MCRD PARRIS ISLAND  
5090.3a

EMAIL REGARDING U S EPA REGION IV RESPONSE TO U S NAVY REQUEST FOR  
LOCATION APPROVAL FOR PLACEMENT OF PERMANENT WELLS AT SITE 45 DRY  
CLEANING FACILITY SPILL AREA MCRD PARRIS ISLAND SC

5/6/2008

U S EPA REGION IV

**From:** [Koroma-Llamas.Lila@epamail.epa.gov](mailto:Koroma-Llamas.Lila@epamail.epa.gov)  
**To:** [AmickMS@dhec.sc.gov](mailto:AmickMS@dhec.sc.gov); [art.sanford@navy.mil](mailto:art.sanford@navy.mil); [barkerjs@dhec.sc.gov](mailto:barkerjs@dhec.sc.gov); [charles.cook2@navy.mil](mailto:charles.cook2@navy.mil); [darrel.pittman@usmc.mil](mailto:darrel.pittman@usmc.mil); [Kelly.Taylor2@ch2m.com](mailto:Kelly.Taylor2@ch2m.com); [Sladic, Mark](mailto:Sladic, Mark); [mmcrae@TechLawInc.com](mailto:mmcrae@TechLawInc.com); [timothy.j.harrington@usmc.mil](mailto:timothy.j.harrington@usmc.mil); [Koroma-Llamas.Lila@epamail.epa.gov](mailto:Koroma-Llamas.Lila@epamail.epa.gov)  
**Cc:** [Don A Vroblesky](mailto:Don A Vroblesky)  
**Subject:** Re: Fw: Site 45 Well Approval  
**Date:** Tuesday, May 06, 2008 4:17:06 PM

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Hi Folks,

We have reviewed the request for location approval for placement of permanent wells. It appears the locations are appropriate. However, due to the size of the icons on the map it is a little difficult to determine exactly where the locations are. Therefore, please ensure that the deep well locations are far enough removed to ensure it they are not encountering DNAPL or other such levels of contaminants. Also, for the deep well located southwest of the source area please ensure it is far enough out to account for horizontal migration of contaminants which may have occurred during the potential vertical migration. Obviously, the hope is that there has not been vertical migration, but just in case, I would not want to place the well so close that we miss it due to this scenario. At the same time I guess if we push it too far out, we may risk that contamination has reached the lower aquifer, but we miss it because it has not migrated that far yet. Have some general calculations been done which could estimate how far it may have migrated horizontally at various levels? Might be useful to do those before you make final exact well location determinations.

Thanks,  
Lila

Don A Vroblesky  
<[vroblesk@usgs.gov](mailto:vroblesk@usgs.gov)>  
ov> To  
Lila  
04/28/2008 09:42 AM Koroma-Llamas/R4/USEPA/US@EPA  
cc  
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timothy.j.harrington@usmc.mil  
Subject  
Re: Fw: Site 45 Well Approval

This includes all of the relevant data collected to date. TetraTech data from temporary wells are included, but not data older than 2 years. Multiple samples were collected from monitoring wells, but only data from September 2007 are shown, for the sake of simplicity. Because there has been no data collected from new points in the deep aquifer, there has been no change in the hypothesis that ground water in that part of the aquifer flows generally southwest.

Don A. Vroblesky, Ph.D.  
Research Hydrologist  
U.S. Geological Survey  
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Columbia, SC 29210-7651  
telephone (803) 750-6115

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To

04/23/2008 04:13 PM charles.cook2@navy.mil, art.sanford@navy.mil,  
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AmickMS@dhec.sc.gov, darrel.pittman@usmc.mil,  
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vroblesk@usgs.gov

cc

Subject

Fw: Site 45 Well Approval

Hi Charles,

Please include the entire team list when sending e-mails for team decisions.

We will have to look at this. Will let you know. But first, a couple of questions:

Is this reflective of all the samples drawn to date? I understood there have been some samples taken for which we do not yet have results. Please advise. I would like to see data for all samples taken to date before making this decision.

Also, has there been any change in opinion about Deep aquifer flow direction? Regardless, please add an arrow from the secondary source area showing the current thought as to deep aquifer flow direction.

Thanks,

Lila

----- Forwarded by Lila Koroma-Llamas/R4/USEPA/US on 04/23/2008 04:02 PM

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"Cook, Charles  
CIV NAVFAC SE"  
<charles.cook2@navy.mil>  
04/23/2008 02:57 PM

To  
Lila  
Koroma-Llamas/R4/USEPA/US@EPA,  
<AmickMS@dhec.sc.gov>,  
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cc  
"Sladic, Mark"  
<Mark.Sladic@tetrattech.com>,  
"Sanford, Art F CIV NAVFAC SE"  
<art.sanford@navy.mil>  
Subject  
FW: FW: Site 45 Well Approval

Lila and Sommer

Unless you have objections these are the final well locations selected by USGS based on the benefit of having recent temporary well data. Again , the "D Horizon" mean deep well and SL horizon means surficial. It is important to note the deep well is outside the source zone.

v/r  
Charles Cook

-----Original Message-----

From: Don A Vrobesky [<mailto:vrobesk@usgs.gov>]  
Sent: Wednesday, April 16, 2008 11:10  
To: Cook, Charles CIV NAVFAC SE  
Cc: vrobesk@usgs.gov  
Subject: Re: FW: Site 45 Well Approval  
Importance: High

Please see the attached letter requesting approval of the monitoring well locations from the MCRD Partnering Team.

Thank you

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(See attached file: Request for MW location approval.doc) (See attached  
file: Request for MW location approval.doc)