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MCRD PARRIS ISLAND
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LETTER REGARDING U S EPA REGION IV COMMENTS ON DEMONSTRATION PLAN
ADDENDUM INTEGRAL PUMP TEST WORK PLAN FOR SITE EMULSIFIED ZERO-VALENT
IRON TREATABILITY STUDY AT SITE 45 MCRD PARRIS ISLAND SC
9/25/2006
U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303-8960

September 25th, 2006

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

4WD-FFB

Commander, Southern Division
Naval Facilities Engineering Command Southeast
OPCEVR (IPT-Central)
Attn: Mr. Arthur F. Sanford
Remedial Project Manager, MCRD Parris Island
2155 Eagle Drive
North Charleston, S.C. 29406

And

Commanding General
Marine Corps Recruit Depot
Attn: Timothy J. Harrington, NREAO
P.O. Box 5028
Parris Island, SC 29905-9001

SUBJ: EPA Review of Demonstration Plan Addendum: Integral Pump Test Work Plan for EZVI
Treatability Study, Site/SWMU 45 Marine Corps Recruit Depot, Parris Island, South Carolina, 23
August 2006 (Submitted 23 August 2006 via e-mail from Suzanne O'Hara of GeoSyntec
Consultants as an Addendum to the Technology Demonstration Plan for: Emulsified Zero-Valent
Nano-Scale Iron Treatment of Chlorinated Solvent DNAPL Source Areas, ER-0431)

Dear Sirs:

The U.S. Environmental Protection Agency (EPA) has completed its review of the above referenced document. EPA offers the following comments for your consideration prior to implementation. These comments do not require modification and resubmission of the Addendum. However, EPA approves the work plan addendum with conditions for approval. The conditions for approval follow the comments.

Comments:

- Being able to estimate the contaminant flux will aid in the design of any EZVI

groundwater remedy. However, it appears that the integral pump test assumes that contaminant transport is via advective groundwater flow. If diffusion plays a major role in contaminant transport, contaminant flux estimates could be overestimated. In your report, be sure to include a discussion of advection versus diffusion. Explain how you determined which is being experienced at site 45 and to what degree. Then explain how this impacted your measurements, results and conclusions.

- Either reinjection of GAC-treated groundwater during EZVI injections in accordance with an approved UIC permit from the South Carolina Department of Health and Environmental Control (DEHC) or disposal in accordance with other applicable regulations is acceptable to EPA.

Conditions for Approval:

1. There is no specific mention of reporting of information/results. EPA assumes results will be reported as part of the Draft Final Technical Report and the Draft Final Cost and Performance Report and submitted by the Environmental Security Technology Certification Program (ESTCP) to the EPA and the South Carolina Department of Health and Environmental Control (DHEC) for review and approval as placed as a condition to the original work plan approval.
2. EPA appreciates the notification via e-mail of a change in schedules, however, please submit a revised and updated Excel spreadsheet schedule, as submitted previously, prior to implementation of the Work Plan. All field events should be identified in the schedule.
3. The Navy/Marines should obtain all necessary permits prior to implementation.

If there are any questions regarding these conditions, I can be reached at 404-562-9969.

Sincerely,

Lila Llamas, Senior RPM
Federal Facilities Branch
Waste Management Division

cc: Jerry Stamps, SCDHEC
Don Hargrove, SCDHEC