



North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
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August 2, 2010

NAVFAC Mid-Atlantic
Attn: Dave Cleland Code: OPQE
USMC NC IPT, EV Business Line
6506 Hampton Blvd
Norfolk, VA 23508

RE: Comments on Draft Study Implementation Plan
Operable Unit (OU) # 15, Site 88 at MCB Camp Lejeune, NC
Groundwater
Camp Lejeune, NC6170022580
Jacksonville, Onslow County, North Carolina

Dear Mr. Cleland:

The NC Superfund Section has received and reviewed the Draft Pilot Study Implementation Plan for Operable Unit (OU) #15, Site 88 at the Camp Lejeune, MCB Superfund Site located in Jacksonville, NC. The following comments are offered for the Partnering Teams consideration. If you have any questions or comments please contact me at (919) 508 8467.

General Comments:

This appears to be a potentially effective Implementation Plan, if the aquifer characteristics and deep contaminant issues do not limit substrate and augmentation distribution. However, we will likely need to reapply one or more of the remedies in this plan during the remedial design/remedial action to include the zone 2 and zone 3 Pilot Study areas. It is generally observed that more than one application of an injection remedy will be required to reduce the contaminants to the standard or close enough to the standard to justify a less aggressive final remedy.

Specific Comments:

1. Why did we assume a 50% lactate to 50% emulsified oil ratio for the injectant/substrate during groundwater modeling? The actual ERD substrate being proposed for injection at Site 88 is 3DMe with bioaugmentation. This is a microemulsion. If it doesn't include emulsified oil we should not assume a 50/50 ratio as noted above. This could give us a radius of influence greater than the actual field implementation.
2. Next to the last paragraph on page 2-6 discusses "zone and 3". Please make appropriate correction.

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3. Is IW05 hydraulically down-gradient of MW39MP? If not please make appropriate corrections in the second paragraph of the section on Well Installation on page 4-1 or discuss, in this section, why it is expected that the monitoring wells in 4 different directions are all down-gradient of MW39MP.
4. The first paragraph on page 4-3 references C Street and Figure 4-1 for the fire hydrant and flush water supply. This should reference the fire hydrant on Virginia Dare Drive. C Street is not north of the ERD injection area of zone 2.
5. All IDW drums should be stored at a 90 day facility rather than on parachute road as discussed on page 5-2. Drums should not be moved from the site until they are characterized. It would be better to leave the drums on-site than to move them to a remote area like parachute road.

If you have any questions or comments, please contact me, at (919) 508 8467 or email randy.mcelveen@ncdenr.gov

Sincerely,

Randy McElveen
Environmental Engineer
NC Superfund Section

Cc: Dave Lown, NC Superfund Section
Bob Lowder, EMD/IR
Gena Townsend, USEPA