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MCB CAMP LEJEUNE
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LETTER AND U S EPA COMMENTS TO THE REDLINE VERSION OF THE DRAFT
PROPOSED REMEDIAL ACTION PLAN FOR OPERABLE UNIT 14 SITE 69 MCB CAMP
LEJEUNE NC
7/11/2012
U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, S.W.
ATLANTA, GEORGIA 30303

July 11, 2012

NAVFAC Mid-Atlantic
Attn: David Cleland Code: OPQE3
USMC North Carolina IPT, Business Line
6506 Hampton Blvd
Norfolk, VA 23508-1273

SUBJ: MCB Camp Lejeune
Draft Proposed Remedial Action Plan
Redline Version, Operable Unit 14, Site 69

Dear Mr. Cleland:

The Environmental Protection Agency has completed its review of the above subject document, dated July 2012. Comments are enclosed.

If there are any questions, I can be reached at (404) 562-8538.

Sincerely,

Gena Townsend
Gena D. Townsend
Senior Project Manager

Digitally signed by Gena Townsend
DN: cn=Gena Townsend, o=Superfund Division,
Federal Facilities Branch, ou=Environmental Protection
Agency, email=townsend.gena@epa.gov, c=US
Date: 2012.07.11 16:39:22 -0400

Enclosure

cc: Randy McElveen, NCDENR
Charity Rychak, MCB Camp Lejeune

Comments

- 1. The buried wastes and contaminated soils that are source of groundwater contamination are also PTW and must be identified as such in that Section of the PRAP. PTW at this site is more than just the CA which is only highly toxic. The VOCs and suspected NAPL that is feeding the plume are both toxic and highly mobile as evidenced by the plume (with relatively high dissolved phase concentrations) emanating from the landfill. Please have the Navy add text to the PRAP to address this point. IMO, the rationale for not removing the source materials due to presence of CA is not very convincing.*

Response: Add the buried waste and potentially contaminated subsurface soils that are a source of gw contamination to the text as PTW.

Expand on the rationale for not removing the source materials due to the presence of CA. Highlight that the CWM that is reportedly disposed of in this area has not been located because of the limitations on intrusive investigation into the waste and it has not been detected in the environmental samples (i.e. soil, gw, sw, etc.). Highlight the unknown safety concerns of adding substrate and/or creating chemical reactions in-situ. Also, highlight the “Programmatic Environmental Impact Statement (PEIS): Destruction of Non-Stockpile Chemical Warfare Materiel Containing Chemical Agent” (FR. Oct. 18, 1996 (Volume 61, Number 203) leaving the buried CWM in the ground may be preferable to excavation and destruction.

- 2. The discussion of whether NA is occurring is not very convincing. EPA guidance on Use of MNA, which should be referenced in the PRAP, requires "lines of evidence" that NA is occurring and the plume must be stable not migrating. It is not enough to just say that chemistry may be favorable. Also, it appears that plume is continuing to migrate and there is little discussion on how degradation is occurring and whether it is at a rate that will attain GW cleanup levels within a reasonable timeframe. All aspects of on an MNA remedy must be described in the PRAP that demonstrate it is indeed a viable remedy for GW contamination. I'm not convinced so the public will likely not be convinced that MNA is the best option for contaminated GW.*

[Source: Feasibility Study Site 69, Operable Unit No. 14 Marine Corps Base, Camp Lejeune Jacksonville, North Carolina December 2011]

Response: Historical data trends from samples collected from monitoring well IR69-GW02 show an overall decrease in TCE and DCE and an increase in VC, which is strongly supportive of reductive dechlorination. VC may be on a decreasing trend in this well currently. The limited presence of ethene is evidence that full reductive dechlorination can occur. Due to the somewhat aerobic nature of this aquifer, the lack of additional ethene or ethane detections is likely the result of oxidation of VC to carbon dioxide and other innocuous products.

The model predicts that each plume (defined as groundwater concentrations exceeding NCGWQS) will remain relatively stable over the 100- year predicted period. VC concentrations were predicted to exceed NCGWQS (0.03 µg/L) throughout the aquifer in all future models (2020 to 2110). However, VC concentrations are predicted to remain below the NCSWQS (2.4 µg/L) at the discharge point to the New River. Concentrations of TCE and cis-1,2-DCE are not predicted to exceed NCSWQS (30 µg/L for TCE; no criterion was available for cis-1,2-DCE).

Explain that the 100 year time frame is a factor of a continuing source. However, the dissolve phase (degradation contaminants) is at a lower concentration and will not exceed the sw standards at discharge.

- 3. The RI summary indicates SW contaminated with metals exceeding NC water quality criteria. What is the remedy for addressing this contamination and restoring SW quality. There is no discussion of how the preferred alternative will address this issue. If it is out of scope then what response action in the future will address. At a minimum, Navy needs to continue monitoring SW quality to see if improvement over time. However, if the GW plume (which is migrating) is the source then unless take more aggressive action for GW that release pathway will continue. That is a problem that needs to be addressed or discussed in the PRAP and ROD.*

[Source: Feasibility Study Site 69, Operable Unit No. 14 Marine Corps Base, Camp Lejeune Jacksonville, North Carolina, December 2011]

Response: Surface water and sediment at Site 69 were investigated during the Confirmation Study, RI, and SI. The surface water and sediment investigated as part of Site 69 consist of the drainage areas northeast, east, and southeast of the site. Current (2010) analytical data for surface water indicates that lead, selenium, silver, thallium, and zinc are present in surface water at concentrations that exceed applicable screening values. The contaminant concentrations were generally within one order of magnitude of the most conservative screening value or background concentration.

[Source: Expanded Site Investigation Report -Military Munitions Response Program Site UXO-02 – Former Unnamed Explosive Contaminated Range, ASR# 2.201 Marine Corps Base Camp Lejeune Jacksonville, North Carolina, March 2012]

The preliminary human health risk-based screening indicates the potential for risks associated with exposure to aluminum, antimony, arsenic, chromium, iron, manganese, and vanadium in groundwater. Based on the evaluation of available data, the results of the HHRS and additional considerations indicate that there are no unacceptable risks to human health associated with metals in groundwater, or contact with surface soil, surface water, and sediment. Per the Site 69 Supplemental Investigation (CH2M HILL, 2011a), unacceptable risks remain associated with potable use of groundwater, primarily due to the concentrations of VOCs in the surficial and Castle Hayne aquifers associated with the Site 69 waste disposal area.

Draft PRAP
RTC - Site 69, OU14
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4. Page 12, Section 8.1, Soils, last paragraph – Remove the phrase “to the EPA.” This phrase is not needed in this discussion. Section 9, Preferred Alternative addresses EPA’s agreement to the proposed remedy.