

Response to Comments
Draft Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance
Project Plan) Preliminary Assessment/Site Inspection, Sites UXO-02, UXO-07,
UXO-10, UXO-11, and UXO-14
MCB Camp Lejeune, North Carolina

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The purpose of this document is to address comments to the Draft Sampling and Analysis Plan for Sites UXO-02, UXO-07, UXO-10, UXO-11, and UXO-14 Marine Corps Base (MCB) Camp Lejeune, North Carolina. The United States Environmental Protection Agency (USEPA) and the North Carolina Department of Environment and Natural Resources (NCDENR) provided the comments listed below. Responses to comments are provided in bold type.

USEPA
(dated November 12, 2009)
Specific Comments

1. Worksheet #3, page 19 - EPA email address is incorrect, "Townsend" is misspelled.

The email address has been revised.

2. Worksheet #3, page 19 - review schedule dates and correct if appropriate.

The schedule has been revised.

3. Worksheet #29, page 219 - reference Attachment 3 "Data Management Guidelines" for this work sheet. This reference should satisfy the requirements that are listed on the EPA UFP QAPP checklist. If Attachment 3 will not satisfy this requirement or some items are not included please add as appropriate.

The reference to Attachment 3 has been added to satisfy EPA requirements.

NCDENR
(dated November 13, 2009)
Specific Comments

1. Please use the new e-mail address for representatives of NCDENR. For this document, the e-mail address should be: martha.morgan@ncdenr.gov

The email address has been revised.

2. In several tables in the document (eg, SAP Worksheets #4 and #9), my telephone number should be corrected to: (919) 508-8447

The telephone number has been revised.

3. In SAP Worksheet #11 the standards that will be used for comparison with the results from the PA/SI are presented. Several comments are provided below:
 - In the section which discusses criteria for groundwater samples, item 3 states that "Groundwater analytical results also will be compared to the adjusted U.S. Environmental Protection Agency (USEPA) regional screening levels (RSLs) for tap water (USEPA, 2008) and drinking water maximum contaminant levels (MCLs) as required by the USEPA. The RSLs based on noncarcinogenic effects will be adjusted by dividing by 10 to account for exposure to multiple constituents; the RSLs based on carcinogenic effects will be used as presented in the USEPA RSL table." Typically, the adjustment of noncarcinogenic constituents using a hazard quotient less than 1 (for additive effects) applies to soil criteria. Is this actually intended to be applied to the tapwater values for noncarcinogens as well?

Following EPA Region 4 risk assessment guidance (USEPA. 2000. Supplemental Guidance to RAGS: Region 4 Bulletins, Human Health Risk Assessment Bulletins. EPA Region 4, originally published November 1995, Website version last updated May 2000) and standard EPA risk assessment practices, RSLs for all noncarcinogens in all media are adjusted by dividing by 10. As discussed in the EPA Region 4 risk assessment guidance, "the RSL provides screening values for environmental media at carcinogenic risk levels of 10⁻⁶ and non-carcinogenic hazard quotients (HQs) of 1. The RSLs for non-carcinogenic screening values need to be adjusted to a level equivalent to a HQ of 0.1 before being used to select COPCs."

- In the section which discusses the surface and subsurface soil data, it states that "Surface and subsurface soil analytical results also will be compared to the North Carolina Hazardous Waste Site Soil Screening Levels (NC HWS SSLs)." As has been presented in several e-mails from Randy McElveen, the NC Hazardous Waste Section Soil Screening concentrations have been out dated as a result of the new EPA RSL Tables that were established in June

2008. The Superfund Section has used the chemical specific data from the new EPA RSL Tables together with the NCAC 2L Groundwater Quality Standards to calculate the current soil to groundwater screening levels. Those are provided on the Federal Remediation Branch Target Screening Values Table which he e-mailed as an attachment to the Camp Lejeune Partnering team. Please reference this table in this section of the document.

The Federal Remediation Branch Target Screening Values Table has been referenced as requested.

4. Some of the EPA RSL tapwater numbers may have been revised since the development of SAP Worksheet #15-1. These should be checked against the current EPA RSL table.

The EPA RSL numbers have been revised as necessary.

5. SAP Worksheet #15-2 provides additional Project Action Limits for groundwater data evaluation. Please note that new North Carolina Groundwater Protection Standards (2Ls) are set to be effective January 1, 2010. Upon submittal of the report summarizing this work, the values listed in this and similar tables will be re-evaluated for the new 2L standards.

Comment noted.

6. SAP Worksheets #15-3, -26, and -31 provide Project Action Limits (PAL) for soils. The values are based on the Industrial RSLs. Please base the PALs on the residential RSLs.

The applicable tables have been revised for residential RSLs.