03.01-02/07/92-01158

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

FEB 7 1992

4WD-RCRA/FF

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Laurie A. Boucher, P.E.
Remedial Project Manager
Department of the Navy - Atlantic Division
Naval Facilities Engineering Command
Code 1822
Norfolk, Virginia 23511-6287

RE: MCB Camp Lejeune NPL Site
Camp Lejeune, North Carolina

Dear Ms. Boucher:

The enclosed comments were provided to me by our ecological risk assessment reviewer. I did not receive them until the majority of the comments had already been mailed to you. Please attach these comments to the comments dated February 6, 1992 for inclusion in the revised project plans. I am telefaxing you a copy to minimize any potential delay.

Thank you for your consideration in this matter. If you have any questions, please call me at (404) 347-3016.

Sincerely,

Michelle M. Glenn

Michelle M. Glenn
Senior Project Manager

Enclosure

cc: Jack Butler, NCDEHNR
George Radford, MCB Camp Lejeune

DRAFT RI/FS PROJECT PLANS
SITES 6, 48 AND 69
MARINE CORPS BASE
CAMP LEJEUNE, NC
December 1991

Draft Project Plans
EPA Ecological Risk Assessment Comments
February 1992

COMMENTS - DRAFT RI/FS WORK PLAN

1. 3.1.1 Types and Volumes of Waste Present, Page 3-1 - Are there any known pesticide sources upstream from this site (other hazardous waste sites) ?

2. 3.1.2 Potential Exposure Pathways, Page 3-1 and 3.2.2 Potential Exposure Pathways, Page 3-14 - Aquatic and terrestrial organisms may be exposed to more contaminants than VOCs.

3. 3.1.2 Potential Exposure Pathways, Page 3-1 - Contact and ingestion of contaminated soils would be an exposure pathway for terrestrial animals, particularly burrowing animals.

4. 3.1.3 Preliminary Public Health and Environmental Health Impacts, Page 3-2 and 3.2.3 Preliminary Public Health and Environmental Health Impacts, Page 3-15 - Other possible non-human receptors include avian species, reptiles, etc., and burrowing animals if the site is abandoned.

5. 3.1.4.1 Chemical-Specific ARARs, Page 3-2; 3.2.4.1 Chemical-Specific ARARs, Page 3-15; 3.3.4.1 Chemical-Specific ARARs, Page 3-20; and 3.4.4.1 Chemical-Specific ARARs, Page 3-25 - Region IV's Water Quality and Sediment Screening Values should be used as "to be considered values" in evaluating the ecological impact of contaminant levels in surface water and sediments.

6. 3.2.1 Types and Volumes of Waste Present, Page 3-9 - Although areas containing potentially live military ordnance may be exempted from the RI, this area should be included in the ecological risk assessment.

7. 3.3.2 Potential Exposure Pathways, Page 3-19 - Aquatic life other than consumers of fish may be exposed to metals in the sediments. Terrestrial life other than consumers of game may be exposed to metals in the soil.

8. 3.3.3 Preliminary Public Health and Environmental Health Impacts, Page 3-20 and 3.4.3 Preliminary Public Health and Environmental Health Impacts - Other plant and animal populations may be exposed to contaminants (reptile, amphibians, vegetation, etc.).

9. 3.3.6.4 Aquatic Life, Page 3-23 - Biota sampling may still be appropriate due to methyl mercury's high bioconcentration/ bioaccumulation values. Mercury levels of concern exist in biota when there are very low levels in the surface water or sediment.

10. Table 4-1 Site 6 - Storage Lot 201 RI/FS Objectives, Operable Unit 1. Soils, Page 4-2; Table 4-2 Site 6 and Table 4-3 Site 48 - MCAS Mercury Dump RI/FS Objectives, Operable Unit 1. Soils - Storage Lot 203 RI/FS Objectives, Operable Unit 3. Soils - An objective should be modified or added to address the ecological risks of exposure to contaminated surface soils.

11. Table 4-4 Site 69 - Rifle Range Chemical Dump RI/FS Objectives - Add an Operable Unit to address the ecological risk posed by contaminated soils. Add or modify an objective to address the ecological risk associated with exposure to surface water.

12. 5.3.1.1 Phase I Surface Soil Investigation, Page 5-2; Phase I Soil Investigation, Page 5-10 - The surface soil investigation should also address ecological risks associated with exposure to surface soils.

13. 5.3.1.1 Phase I Surface Soil Investigation, Page 5-3, Background Soil Investigation, Page 5-13 and 5.3.3.2 Phase I Soil Investigation, Page 5-19 - The background samples should be evaluated to determine any impact from this site, or another other hazardous waste site.

14. 5.3.1.4 Phase I Surface Water/Sediment Investigation, Page 5-6; 5.3.3.5 Phase I Sediment Investigation and 5.3.4.4 Sediment Investigation, Page 5-28 - The ecological risks associated with exposure to contaminated sediments should be addressed.

15. 5.3.1.6 Aquatic Studies, Page 5-8 - The target fish species should be identified, or target trophic level. A bottom feeder species and an upper carnivore species should be collected. The sample type should also be identified. Whole body analysis are required for the ecological risk assessment.

The potential effects of any upstream hazardous waste site should be considered when evaluating the results of the "background" sample.

16. Unnamed Ravine, Page 5-17 - Sampling between the "battery pool" and Wallace Creek should target areas of sediment deposition.

17. 5.3.2.11 Surface Water Investigation, Page 5-17 and 5.3.4.5 Surface Water Investigation, Page 5-30 - The surface water investigation should also address the potential ecological impacts associated with the exposure to contaminated surface water.

18. General Comment - All sediment samples should be analyzed for Total Organic Carbon content.

19. 5.6 Task 6 - Risk Assessment, Page 5-33 - I reiterate ETAG's initial comment of using an Interim Ecological Baseline Risk Assessment document as a organizing methodology to address the ecological risk associated with the Camp Lejeune Reservation. The document would be divided into sections to address the different watersheds and the estuary. This would allow the potential environmental impacts to be addressed by a sound ecological strategy which would allow the determination of individual hazardous waste sites effects, as well as the cumulative impact of the reservation as a whole. The watershed approach would enable the determination of background levels to be determined by watershed units.

At a minimum, the environmental evaluation shall include a statement of goals and scope of the environmental assessment; identification of the contaminants of ecological concern; identification of all potential and existing exposure pathways; identification of potential receptors (species lists, including scientific and common names, of flora and fauna which may be affected by the site contaminants, whether they are located on or off the site), including the identification of any endangered or threatened species, or critical habitats which may be effected by the site contaminants whether they are located on or off-site; estimation of the receptors' exposure to the site contaminants; estimation of the ecological effects of the contaminants using literature reviews, field studies, site-specific toxicity tests when appropriate, etc.; and an estimation, qualitative or quantitative, of the nature and extent of ecological risk or threat and environmental impact resulting from the site.

Evidence should be provided which indicates the United States Fish and Wildlife Service, and other appropriate Federal trustees, and the appropriate state agency has been contacted for information concerning threatened and endangered species, and critical or sensitive habitats. The Environmental Assessment should address both existing and potential ecological impacts, under the "no action" alternative, of the site.

Draft Sampling and Analysis Plan for Sites 6, 48, and 69

1. SOP F807, Fish Tissue Preparation - Whole body analysis should be conducted on fish collected for ecological risk assessment.

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