State of North Carolina Department of Environment, Health and Natural Resources Division of Waste Management

James B. Hunt, Jr., Governor Jonathan B. Howes, Secretary William L. Meyer, Director



May 14, 1997

Commander, Atlantic Division Naval Facilities Engineering Command Code 1823 Attention: MCB Camp Lejeune, RPM Ms. Katherine Landman

**Commanding General** 

- Attention: AC/S, EMD/IRD Marine Corps Base PSC Box 20004 Camp Lejeune, NC 28542-0004
- RE: Draft Solid Waste Management Unit (SWMU) Confirmatory Sampling Project Plans and Health and Safety Plan

Norfolk, Virginia 23511-6287

Dear Ms. Landman:

The SWMU Confirmatory Sampling Plan was reviewed by the North Carolina Division of Waste Management and our comments are attached. The Health and Safety Plan was reviewed by our Industrial Hygienist and we have no comments.

Your request to extend the period of time for completion of the Confirmatory Sampling Report from 60 to 180 days is granted. Please call me at (919) 733-2801, extension 349 if I can answer any questions.

Sincerely,

David J. Lown, LG, PE Geological Engineer Superfund Section

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Attachment

cc: Gena Townsend, US EPA Region IV Neal Paul, MCB Camp Lejeune Diane Rossi, DEHNR - Wilmington Regiona P.O. Box 27687, Raleigh, North Carolina 27611-7687 Voice 919-733-4996

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## Comments on the Confirmatory Sampling Plan Marine Corps Base - Camp Lejeune December 1996

## **GENERAL COMMENTS**

- 1. The basic philosophy outlined in this confirmatory sampling plan is to take a few soil samples and sometimes sediment/surface water samples around the area of concern and then use one of the soil borings as a temporary monitoring well location. The State prefers a phased approach for conducting confirmatory sampling whereby the soil concerns are investigated and reviewed first before any groundwater investigation is conducted.
- 2. The figures in Section 5 showing sample locations are not to scale therefore it was difficult to fully assess this sampling plan. For most of the SWMUs, there are concerns that either there are not enough samples or the sample locations are not close enough to the SWMU in question. Rather than go into a laborious discussion of the shortcomings associated with each SWMU sampling plan, I have listed specific goals or concepts that need to be incorporated for each SWMU sampling plan. Each proposed SWMU sampling plan should be revised using the goals listed below:

- As noted in comment 1, the Confirmatory Sampling Plan should be executed in a phased manner whereas the soil concerns are investigated first followed by the groundwater investigation.

- The intent of any Confirmatory Sampling Plan is to yield data to demonstrate whether or not the soil directly underneath the unit has been contaminated by releases or spills associated with that particular unit. This may require the use of angled soil borings to obtain representative soil samples.

- The State has general guidance available for preparing Confirmatory Sampling Workplans that outlines the specific requirements for maps and drawings.

- In general, SWMUs should be sampled on all sides or quadrants. Areas that show sensory evidence of contamination (i.e. from spills or releases, etc.) should also be specifically targeted for sampling.

- In the case of adjacent SWMUs or if the SWMU is made up of more than one discreet area (i.e. such as the O/W separators / grit chambers in SWMUs 258, 279, 294, 306, 313, 314), one sample between the two areas would probably not be adequately representative.

- Underground lines leading to and from the SWMUs must be considered and assessed as part of the Confirmatory Sampling Plan for each SWMU.

Confirmatory Sampling Plan NCDWM Comments Page 2

- 3. There is some general discussion in Section 2 regarding the hydrology at Camp Lejeune however there are no indication of groundwater flow directions on any of the figures in Section 5. Section 5.2.1.2 does indicate that wells will be placed in the direction "suspected" to be downgradient. Since the Confirmatory Sampling plan needs to be revised to accommodate the phased approach preferred by the State, detailed discussion of groundwater flow patterns may be delayed until the groundwater investigation is carried out.
- 4. In general, the analyses to be performed were not broad enough to cover the potential types of contaminants that may be seen at these units. Unless it can be clearly documented that certain contaminants will not be found in a particular SWMU then it must be analyzed for. For example, any SWMU that is either a wash rack, oil/water separator, AST, UST, release area, container, waste or soil pile, drainage ditch that may have oil, grease, POL, solvents, etc as potential contaminants should have the soils analyzed for VOCs, SVOCs, metals, PCBs and possibly pesticides and herbicides. Also, it is reasonable to assume that most anything could have been put in a dumpster therefore all dumpster SWMUs should have their confirmatory soil samples analyzed for VOCs, SVOCs, metals, PCBs, pesticides, and herbicides.
- 5. Of the 62 SWMUs needing confirmatory sampling, 17 were identified as No Further Action (NFA) Sites. The State reviewed these recommendations and concluded that these SWMUs cannot be exempted from confirmatory sampling. We recognize the logistical problems associated with many of the sites but that would not adequately justify an NFA. As far as the missing dumpsters are concerned, it is more important to identify the area where they were located and take the soil samples there. Also, we still need confirmatory soil data on all of the suspected SWMUs whether or not they now show no evidence of release, have been mixed with clean soil or if the suspected unit has not been removed or covered with asphalt or wood chips. Regarding the paint vats (SWMUs 336 and 337), the RCRA Facility Assessment report is very specific about where the contamination may be located and where to take the samples.
- 6. There is no Health and Safety Plan which is listed in the State guidance as being part of the Confirmatory Sampling Workplans.
- 7. The RCRA Facility Assessment Report included SWMU 288 (STC868-RACK-DRMO) as needing confirmatory sampling. The Confirmatory Sampling Plan does not discuss this particular unit.

Confirmatory Sampling Plan NCDWM Comments Page 3

## SPECIFIC COMMENTS

- Page 5-13 Section 5.2.19
  SWMU 277 is described as a oil/water separator in the Confirmatory Sampling Plan. It is described on page 300 of the RCRA Facility Assessment as a dumpster identified as: FC 120; 2ND FSSG, COMBAT ENGINEER BN.
- 9. <u>Page 5-30, Section 5.2.48</u> The figures provided in Section 5 do not include one for SWMU 319.
- <u>SWMU 89, Figure 5-55</u>
  It is not clear if the dotted line between building 45 and the vehicle wash rack is a drainage ditch or a walkway. If it is a drainage ditch, it may need to be sampled.
- SWMU 311, Figure 5-90 There appears to be a drainage ditch in addition to the "diversion ditch" on the left hand side of the figure that may need to be sampled.
- Field Sampling and Analysis Plan All IDW must be containerized, sampled and analyzed to determine if it is hazardous before disposal. Visual observations and HNu readings are not adequate means to determine if the IDW is hazardous.
- Quality Assurance Project Plan Regarding the detection limits shown in Section 8, the analytical methods to be used must have PQLs that are consistent with the list in Appendix IX of 15A NCAC 13A.0009 of the North Carolina Hazardous Waste Management Rules.