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State of North Carolina
Department of Environment, Health, and Natural Resources

512 North Salisbury Street • Raleigh, North Carolina 27604
Division of Solid Waste Management

Telephone (919) 733-4996

James B. Hunt, Jr., Governor

Jonathan B. Howes, Secretary

May 17, 1993

Commander, Atlantic Division
Naval Facilities Engineering Command
Code 1822
Attention: MCB Camp Lejeune, RPM
Ms. Linda Berry, P.E.
Norfolk, Virginia 23511-6287

Commanding General
Attention: AC/S, Environmental Management
Building 1, Marine Corps Base
Camp Lejeune, NC 28542-5001

RE: 90% Design Submittal, 90% Design Drawing/Technical Specifications
Interim Remedial Action at the Shallow Aquifer
Hadnot Point Industrial Area
MCB Camp Lejeune

Dear Ms. Berry:

The NC Superfund Section has reviewed the referenced document. Our comments are attached. These comments address minor technical concerns in the submittals.

Please be aware that the Final Plans and Specifications will require a "Non Discharge Permit" from the NC Department of Environmental Protection, Surface Water Section. Contact Mr. Randy Jones at (919) 733-5083 for more information (some of the comments attached were raised as part of the "Non Discharge Permit" review process). The Final Plans and Specifications must be signed and sealed by a North Carolina Registered Professional Engineer.



Ms. Berry
5-17-93
Page 2

The NC Air Quality Section should also receive notice that the system is to be installed, but I understand that no permit is required. If you have any questions please call me at (919) 733-2801.

Sincerely,

A handwritten signature in cursive script that reads "E. Peter Burger". The signature is written in black ink and is positioned above the typed name.

E. Peter Burger, P.E.
Environmental Engineer
NC Superfund Section

cc: Mr. Neil Paul, MCB Camp Lejeune
Michelle Glenn, US EPA Region IV

REVIEW COMMENTS
90% DESIGN DRAWINGS
INTERIM REMEDIAL ACTION AT HADNOT POINT INDUSTRIAL AREA
MCB CAMP LEJEUNE, JACKSONVILLE, NC

General

1. What is the logic behind installing the oil/water separator between the polymer flocculation tank and the surge/settling tank.
2. Full plans and specs will be required to be submitted the North Carolina DEM Surface Water Section with a North Carolina Professional Engineers signature and seal.
3. Please provide "Details" for both the Multi Layer Sand Filter and Carbon Canister Units.
4. We note the use of cartridge filters prior to the carbon units. We do not see the necessity for this, although we have no objection to this added protection. Is this a manufacturers (carbon unit) requirement?
5. Provide sampling tap at end of system if access is limited to effluent.

Specific Comments

Note: These comments also address those aspects of the plans that would be under review for the "Non Discharge Permit" required by the NC DEM Surface Water Section.

1. Drawing C-3

The location of the northerly most recovery well does not intercept the contaminant plume. This recovery well should be moved northeasterly. It would be helpful if the edge of the plumes were shown on drawings C-1 and C-3 to illustrate the effectiveness of well locations.

2. Drawing C-6

- a. Please note that all drains discharge to the drainage sump. Drain for Multi Layer Filters was not shown.
- b. Please show elevations of floor drains to assure positive drainage.
- c. Please show Backwash Lines.

3. Please detail backwash drains at drain covers. Drainage lines should penetrate covers to avoid unnecessary splashing on floor.

4. Drawing C-5: Flow diagram does not show system flow and valves adequately at the multi-layer sand filters. Please correct.

REVIEW COMMENTS
90% DESIGN SUBMITTAL
INTERIM REMEDIAL ACTION AT HADNOT POINT INDUSTRIAL AREA
MCB CAMP LEJEUNE, JACKSONVILLE, NC

General

1. Please indicate in Design Submittal and Plans final disposition of sludge and collected waste oil.
2. Is there any exposed piping subject to winter freeze ups?

Specific Comments

1. We concur with page 4-1 and Section 4.0 2nd paragraph.
2. Include sections in Basis of Design Report that details start up testing and operation of carbon units.
 - A. Testing Frequency
 - a. Month #1 (start up)
Contaminants of Concern-twice weekly for 4 weeks.
Acute Toxicity Test - one test during this period.
 - b. Month #2-12
Contaminants of concern-1 test each month.
 - c. 2nd year and out years.
Contaminants of Concern quarterly.

This represents the optimum testing schedule. The NC DEM and Superfund Sections may request different frequencies and tests based on system performance.

B. Operation of Carbon Units

- a. System to be activated if contaminants of concern exceed Groundwater Standards or above detection limits (if no standard exists).

- b. System to be deactivated when both; contaminant levels drop to acceptable levels and successful completion of an Acute Toxicity Test based on Inline Waste Concentration (IWC) levels.
 - c. Sampling and analysis should be performed at both influent and effluent in order to determine long term system efficiency and mass of contaminants removed.
- 4. Page 2-5 1st Paragraph: Please include vinyl chloride in the list of contaminants of concern.
- 5. Appendix E: The Model # of the Multi Layer Sand Filter was not indicated. This was also not included in the Construction/Technical Specifications.