

06.01-05/12/94-01103

(804) 322-4793

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**MAY 12 1994**

CERTIFIED MAIL RETURN RECEIPT REQUESTED

United States Environmental Protection Agency,  
Region IV  
Waste Management Division  
Attn: Ms. Gena Townsend  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

Re: Draft Record of Decision (ROD) Operable Unit No. 5  
(Site 5) MCB, Camp Lejeune, North Carolina

Dear Ms. Townsend:

Attached please find responses to USEPA comments received on the ROD dated February 9, 1994. Any questions concerning these responses should be directed to Ms. Linda Berry who may be reached at (804) 322-4793.

Sincerely,

L. A. BOUCHER, P.E.  
Head  
Installation Restoration Section  
(South)  
Environmental Programs Branch  
Environmental Quality Division  
By direction of the Commander

Attachment

Copy to: (w/attachment)  
NC DEHNR (Mr. Patrick Watters)  
MCB Camp Lejeune (Mr. Neal Paul) (w/o attachment)  
Baker Environmental (Mr. Ray Wattras, Mr. Rich Bonelli)

**RESPONSES TO USEPA REGION IV'S COMMENTS ON THE  
DRAFT RECORD OF DECISION  
OPERABLE UNIT NO. 5 (SITE 2)  
MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA**

1. A limited number of organic and inorganic contaminants were detected in groundwater in concentrations exceeding Federal (MCLs) and North Carolina (NCWQS) standards. In order to implement the preferred alternative, Groundwater RAA No. 2, a waiver from these standards will be required.

CERCLA regulations provide for a number of circumstances in which a waiver can be invoked. These include the inconsistent application of state requirements. The North Carolina Administrative Code (T15A:02L.0100[k]) includes criteria for requesting that the state approve a corrective action plan without requiring groundwater remediation to state standards (NCWQS). Based on the results of the RI/FS for this operable unit, MCB Camp Lejeune/DoN feel that these criteria are met or will be met under the preferred alternative. MCB Camp Lejeune/DoN will therefore submit a request for a waiver from groundwater standards to NCDEHNR under separate cover.

This was discussed during the 5/2-5/3/94 meeting in Atlanta, GA.

2. A table that lists the contaminants of concern, remedial goal options, basis of goal, corresponding risk, and range of detected concentrations has been included in the ROD.
3. The text has been revised in response to this comment. Site-specific ARARs will be listed individually.



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CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Ms. Linda Berry  
Department of the Navy - Atlantic Division  
Naval Facilities Engineering Command  
Code 1823  
Norfolk, Virginia 23511-6287

RE: Marine Corps Base Camp Lejeune NPL Site  
Draft Record of Decision  
Operable Unit No. 5 - Site 2  
Jacksonville, North Carolina

Dear Ms. Berry:

EPA has completed its review of the "Draft Record of Decision for Operable Unit #5, Site 2, dated December 28, 1993. EPA does not agree with the selected remedy. A more detailed discussion is included in the enclosed comments.

If you have any questions or comments, please call me at (404) 347-3016.

Sincerely,

*Gena D. Townsend*  
Gena D. Townsend  
Senior Project Manager

Enclosure

cc: Patrick Waters, NCDEHNR  
Neal Paul, MCB Camp Lejeune

Post-It™ brand fax transmittal memo 7671		# of pages > 23
To DON SHIELDS	From LINDA BERRY	
Co. BAKER	Co. LANTDIV	
Dept. CLEAN	Phone # (804) 322-4793	
Fax # (412) 269-2002	Fax # (804) 322-4805	

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

# of pages > 7

To LINDA BERRY	From GENA TOWNSEND
Agency NAVAL FAC ENGR	Phone # (404) 347-3016
Fax # (804) 322-4805	Fax # (404) 347-5205
NSN 7540-01-317 7363	FORM 101

### Comments

1. The selected remedy, RAA No. 2 - Limited Action, is not acceptable to the Agency. Land use restriction along with long term monitoring does not meet the goals and objectives of this program. This selection is neither a permanent solution nor is it protective of the environment.

The ROD states that an ARAR wavier is required because Federal and State groundwater standards will not be achieved upon implementing this remedy. The Comprehensive Environmental Response Compensation and Liability Act (CERCLA) identifies the circumstances in which a waiver can be invoked. They are:

a. Interim Measures - the remedial action selected is only part of a total remedial action that will attain such level or standard of control when completed,

b. Greater Risk to Health and the Environment - Compliance with such requirements at the facility will result in greater risk to human health and the environment than alternative options,

c. Technical Impracticability - Compliance with such requirement is technically impracticable from an engineering perspective,

d. Equivalent Standard of Performance - The remedial action selected will attain a standard of performance that is equivalent to that required under the otherwise applicable standard, requirement, criteria, or limitation, through use of another method or approach, and

e. Inconsistent Application of State Requirements - With respect to a State standard, requirement, criteria, or limitation, the State has not consistently applied (or demonstrated the intention to consistently apply) the standard, requirement, criteria, or limitation in similar circumstances at other remedial actions.

In reviewing the above criteria and comparing it to the selected remedy, the request for a waiver is inappropriate for this site and another alternative should be selected.

2. A table should be included to identify the contaminants of concern and the detected concentrations. (An example from the "ABC One-Hour Cleaners" ROD has been attached.)

3. The site specific ARARS should be listed individually and not identified in a general paragraph. (see example from ABC Cleaners, attached)

VOCs Detected in the Surficial Aquifer Wells (WESTON, April 1992)

Analyte	Federal MCLs (ug/L)	NC GW Standards (ug/L)	Well Identification					
			S1 (ug/L)	S2 (ug/L)	S2 (Dup) (ug/L)	S3 (ug/L)	S5 (ug/L)	S6 (ug/L)
Benzene	5	1					2 J	2 J
Chlorobenzene	100	300					5 J	
Chloroform	100	0.19		1 J				
1,1-Dichloroethane	7	7		5 J	5 J	6 J		
1,2-Dichloroethene(total)	70/100*	70/100*		1,200	1,200	1,200		
Ethylbenzene	700	29						28
Tetrachloroethene (PCE)	5	0.7	10	80	910	5,400	3 J	4 J
Toluene	1,000	1,000			1 J		4 J	3 J
1,1,2-Trichloroethane	5	--				2 J		
Trichloroethene (TCE)	5	2.8		690	720	640		
Vinyl Chloride	2	0.015		100	100	110		
Xylenes (total)	10,000	400			1 J			

TABLE 2

Key: - cis-1,2-DCE/trans-1,2-DCE  
 J Estimated value

Notes: (1) All surficial aquifer wells (S1 through S10) were sampled and analyzed for the analytes listed in the table. Only detected values are presented in the table.  
 (2) Shaded areas indicate concentrations above Federal MCLs and North Carolina Groundwater Quality Standards.

ROD  
 ABC Site  
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TABLE 3

VOCs Detected in the Castle Hayne Aquifer Wells (April 1992)

Analyte	Federal MCLs (ug/L)	NC GW Standards (ug/L)	Well Identification				
			C1 (ug/L)	C2 (ug/L)	C3 (ug/L)	C4 (ug/L)	C5 (ug/L)
Acetone	--	--					1,400
Benzene	5	1					15 J
Chloroform	100	0.19		2 J			
1,2-Dichloroethene (total)	70/10 J*	70/100*		9 J	14		
Tetrachloroethene (PCE)	5	0.7		1 J	7 J		
Toluene	1,000	1,000					25 J
Trichloroethene (TCE)	5	2.8		3 J	23		17 J

Notes : \* cis-1,2-DCE/trans-1,2-DCE  
J Estimated value

Shaded areas indicate concentrations above Federal MCLs and NCWQS

been attained;

- b) alternating pumping at wells to eliminate stagnation points; and
- c) pulse pumping to allow aquifer equilibration and encourage adsorbed contaminants to partition into groundwater.

To ensure that cleanup levels continue to be maintained, the aquifer will be monitored at those wells where pumping has ceased on an occurrence of at least every 5 years following discontinuation of groundwater extraction.

All extracted groundwater shall be treated to levels which allow for discharge to surface water: Northeast Creek. All groundwater discharge actions shall comply with Federal and State discharge requirements.

As stated previously all air emissions from the air stripper shall be in compliance with Federal and State Clean Air Act (CAA) standards. Off-gas emissions, if determined necessary during RD, will be controlled by Granular Activated Carbon (GAC), thermal treatment, or photolytic oxidation.

## **(2) Institutional Controls Placed on Well Construction and Water Use in the General Area of the Site**

As necessary, institutional controls will be placed on well construction in the general area of the Site. No well will be located, constructed, or operated which results in the diminution of the extraction wells at the ABC One-Hour Cleaners Site or in the degradation of the Surficial or Castle Hayne aquifers. Institutional controls would also restrict the use of groundwater containing, or potentially containing, levels or contamination in excess of MCLs and NCGWQS. Institutional controls may include deed restrictions, record notice, or some other appropriate measures. The controls shall remain in effect until EPA determines through monitoring that the cleanup levels have been attained.

### **9.2 Site Specific ARARs**

#### **Chemical-Specific ARARs:**

Clean Water Act (CWA) Water Quality Criteria (CWA Part 303; 40 CFR Part 131) establishes water quality criteria based on the protection of human health and aquatic life.

Safe Drinking Water Act (SDWA) National Primary Drinking Water Standards (40 CFR Part 141) establishes health-based enforceable standards (maximum contaminant levels (MCLs)) for public water system.

SDWA National Secondary Drinking Water Standards (40 CFR Part 143) establishes aesthetic-based, non-enforceable guidelines (secondary maximum contaminant

levels (SMCLs)) for public water systems.

SDWA Maximum Contaminant Levels Goal (MCLG) (40 CFR Part 141) establishes non-enforceable drinking water quality goals (MCLGs) set at levels of no known or anticipated adverse health effects. The MCLGs are based on an adequate margin of safety without consideration of available treatment technology or cost.

NC Drinking Water and Groundwater Standards; Groundwater Classifications and Standards (NCAC Title 15 Chapter 2, Subchapters 2L.0200 and 0.0201) establishes groundwater and drinking water standards based on usage.

NC Surface Water Quality Standards (NCSWQS) Classification and Water Quality Standards (NCAC Title 15A Chapter 2, Subchapters 2L.0100 and 2L.0200) establishes a series of classifications and water quality standards for surface waters.

NCSWQS Technology-Based Effluent Limitations (NCAC Title 15A Chapter 2, Subchapter 2B.0400) establishes guidelines for effluent limitations based on the Best Available Technology (BAT) economically achievable.

NC Air Pollution Control Regulations (NCAPCR) (NCAC Title 15A Chapter 2, Subchapter 2D.0518) permit requirements for VOC emissions from air strippers.

**Location-Specific ARARs:**

There are no location-specific ARARs.

**Action-Specific ARARs:**

CWA National Pollutant Discharge Elimination System (NPDES) Requirements (CWA Part 402; 40 CFR Part 125) requires a permit for effluent discharge for any point source into surface waters of the United States.

CWA National Pretreatment Standard for Indirect Discharge to a POTW (CWA Part 307(b); 40 CFR Part 403) establishes standards to control pollutants which pass through or interfere with treatment processes in public treatment works which may contaminate sewage sludge.

CWA Technology-Based Effluent Limitations (CWA Part 301(b)) establishes guidelines to determine effluent standards based on the BAT economically achievable.

NC Water and Air Resources Act (General Statutes Chapter 143, Article 21B) achieves and maintains a total environment with superior quality (state equivalent of Federal CWA and CAA).



NC Drinking Water Act (NCDWA): Regulations on Drinking Water (General statutes Chapter 130A, Article 10) establishes criteria for protection of state public water supplies.

NC Water Pollution Control Regulations (NCWPCR) (NCAC Title 15 Chapter 2, Subchapter 2H) requires permit for discharge of effluent from point sources into surface waters. State-level version of Federal NPDES program.

NCWPCR Wastewater Treatment Requirements (NCAC Title 15 Chapter 2, Subchapter 2H.0100) establishes basic wastewater treatment requirements for effluent discharge.

NC Wells Construction Standards (NCAC Title 15A Chapter 2, Subchapter 2C) establishes classes of wells and set forth requirements and procedures for permitting, construction, operation, etc.

NC Air Pollution Control Regulations (NCAPCR) (NCAC Title 15A Chapter 143, Subchapter 2D.0518) permit requirements for VOC emissions from air strippers.

## 10.0 STATUTORY DETERMINATIONS

Under CERCLA Section 121, EPA must select remedies that are protective to human health and the environment, comply with applicable or relevant and appropriate requirements (unless a statutory waiver is justified), are cost-effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In addition, CERCLA includes a preference for remedies that employ treatment that permanently and significantly reduce the volume, toxicity, or mobility of hazardous waste as their principal element. The following sections discuss how this remedy meets these statutory requirements.

### 10.1 Protection of Human Health and the Environment

The selected remedy protects human health and the environment through groundwater extraction and treatment via air stripping and institutional controls placed on well construction and water use in the general area of the Site. Air stripping will irreversibly remove organic compounds from groundwater. Air emissions will be controlled, if needed, through properly selected, designed, and operated emission controls.

No short-term threats are associated with the selected remedy that cannot be readily controlled. In addition, no adverse cross-media impacts are expected from the remedy.