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MCB CAMP LEJUENE  
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LETTER AND COMMENTS FROM U S EPA REGION IV REGARDING DRAFT ACTION  
MEMORANDUM FOR SITE 6 STORAGE LOTS 201 AND 203 MCB CAMP LEJEUNE NC  
03/24/2011  
U S EPA REGION IV



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION 4  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, S.W.  
ATLANTA, GEORGIA 30303**

March 24, 2011

NAVFAC Atlantic  
Attn: David Cleland  
NAVFAC Midlant Environmental RPM, Camp Lejeune  
Marine Corps North Carolina IPT  
6506 Hampton Blvd  
Norfolk, VA 23508-1273

SUBJ: MCB Camp Lejeune  
Draft Action Memorandum  
Site 6 Storage Lots 201 and 203  
Time-Critical Removal Action

Dear Mr. Cleland:

The Environmental Protection Agency has completed its review of the above subject document, dated March 2011. Comments are enclosed.

If there are any questions, I can be reached at (404) 562-8538.

Sincerely,  
Gena D.  
Townsend  
Gena D. Townsend  
Senior Project Manager

Digitally signed by Gena D. Townsend  
DN: cn=Gena D. Townsend, ou=US EPA,  
Superfund Division, ou=Federal Facilities Branch,  
email=townsend.gena@epa.gov, c=US  
Date: 2011.03.24 14:09:41 -0400

Enclosures

cc: Randy McElven, NCDENR  
Charity Rychak, MCB Camp Lejeune

## General Comments

Document should specify the cleanup level in the soil for residual concentrations of chlorobenzene. Also, given the site's location within a former range, please indicate if munitions constituents (e.g., lead, arsenic) were detected in the soil at what are the concentrations. EPA expects that any soils contaminated with D021 that have to be treated to meet RCRA LDRs will also need to address any underlying hazardous constituents (UHCs) that are present in the soil and that require treatment due to exceeding 10X the universal treatment standard. The ARARs table includes the RCRA regulations that apply to UHCs.

## Specific Comments

1. **Page 2, Section 2.2** – Remove “of” from the end of the second to last sentence.
2. **Page 4, Section 2.6** - Add language to Section 2.6 that better describes that this site is part of OU [insert] that underwent a remedial action pursuant to the ROD issued in 1993. Summarize the remedy selected as provided in Section 5.1.2.

### *2.6 Other Actions to Date*

*No other actions have been conducted on Site 6 other than the previous investigations and actions presented above in Table 1.*

3. **Page 5, Section 5.1.1** - Revise the following text to indicate that: "Due to high concentrations of Chlorobenzene the soils would be considered RCRA hazardous waste for toxicity characteristic and carry the Code (D021)." Also, add the following sentence: "Drums contaminated with D021 residuals will be managed as RCRA hazardous debris."

*The proposed removal action is the excavation of the buried drums and chlorobenzene contaminated soil from Test Pit 10. The excavated drums and soil will be disposed of offsite at a RCRA, Subtitle C landfill. This removal action was selected to provide an immediate action to prevent further migration of contamination to soil, groundwater, and potentially Wallace Creek resulting in risks to human health and the environment.*

4. **Page 6, Section 5.1.1** - See comment above and revise text below consistent with statement about types of RCRA hazardous waste.

*Based on the concentration (70,000,000 µg/kg) of chlorobenzene detected in a soil sample collected from the test pit, the excavated soil and drums will be disposed of as hazardous waste in accordance with the provisions of RCRA, Subtitle C. The drums and soil will be excavated and directly loaded into dump trucks. Personal protective equipment (PPE) and decontamination water generated during excavation activities will also be disposed of as hazardous waste. Following the removal action, clean borrow material will be used as backfill and the area will be restored to grade.*

**5. Page 6, Section 5.1.3** - Revise the first sentence to include reference to NCP citation and language which better reflects the regulation. For example: "In accordance with 40 Code of Federal Regulations (C.F.R.) § 300.415(j) of the National Oil and Hazardous Substances Pollution Contingency Plan on-site removal actions conducted under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, are required to attain 'applicable' or 'relevant and appropriate' requirements (ARARs) to the extent practicable, considering the exigencies of the situation. In determining whether compliance with ARARs is practicable, the lead agency may consider appropriate factors, including: 1) the urgency of the situation; and 2) the scope of the removal action. The Navy has determined that compliance with all of the identified ARARs is practicable"

*Consider adding the following text to this Section:*

Under CERCLA Section 121(e)(1), federal, state, or local permits are not required for the portion of any removal or remedial action conducted entirely on-site as defined in 40 C.F.R. § 300.5. See also 40 C.F.R. §§ 300.400(e)(1) & (2). Also, CERCLA actions must only comply with the "substantive requirements," not the administrative requirements of a regulation. Administrative requirements include permit applications, reporting, record keeping, and consultation with administrative bodies. Although consultation with state and federal agencies responsible for issuing permits is not required, it is recommended for determining compliance with certain requirements such as those typically identified as Location-Specific ARARs."

#### **5.1.3 Applicable or Relevant and Appropriate Requirements**

*The NCP requires that removal actions attain applicable or relevant and appropriate requirements (ARARs), with limited exception, to the extent practicable. ARARs are divided into three categories: Chemical-, Location- and Action-Specific. Chemical-specific ARARs apply to individual contaminants. Location-specific ARARs depend upon the location of the contamination and potential restrictions on activities conducted in these areas (i.e., wetlands, flood plains, etc.). Action-specific ARARs govern the removal action and are usually technology- or activity-based directions or limitations that control actions taken at CERCLA sites. In addition to ARARs, the lead and support agencies may, as appropriate, identify other advisories, criteria, or guidance "to-be-considered" (TBC) that may be useful in developing CERCLA remedies. **Table 2** presents the ARARs for the TCRA. There are no Chemical-Specific ARARs that are applicable or relevant and appropriate to the action. A Location-Specific ARAR identified is the Migratory Bird Treaty Act. The primary Action-Specific ARARs include Federal and State requirements related to the management of solid waste and fugitive dust emissions. The TCRA will comply with these ARARs.*

**6. Page 7, Section 6** – Sentence is worded incorrectly.

7. Table 2, Action Specific ARARs – Please correct the “Action Specific” ARAR table with the tables below:

Action	Requirements	Prerequisite	Citation
<b>General Construction Standards — All Land-disturbing Activities (i.e., excavation, clearing, grading, etc.)</b>			
Managing storm water runoff from land-disturbing activities	Shall install erosion and sedimentation control devices and practices sufficient to retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction.	Land-disturbing activity (as defined in N.C.G.S. Ch. 113A-53) of more than 1 acre of land — <b>applicable</b>	N.C.G.S. Ch.113A-157(3)
	Shall plant or otherwise provide permanent ground cover sufficient to restrain erosion after completion of construction.		N.C.G.S. Ch.113A-157(3)
	Shall take all reasonable measures to protect all public and private property from damage caused by such activities.	Land-disturbing activity (as defined in N.C.G.S. Ch. 113A-52) of more than 1 acre of land — <b>applicable</b>	15A NCAC 4B.0105
	Erosion and sedimentation control plan must address the following basic control objectives: (1) Identify areas subject to severe erosion, and off-site areas especially vulnerable to damage from erosion and sedimentation. (2) Limit the size of the area exposed at any one time. (3) Limit exposure to the shortest feasible time. (4) Control surface water run-off originating upgrade of exposed areas (5) Plan and conduct land-disturbing activity		15A NCAC 4B.0106

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	<p>so as to prevent off-site sedimentation damage.</p> <p>(6) Include measures to control velocity of storm water runoff to the point of discharge.</p>		
	Erosion and sedimentation control measures, structures, and devices shall be planned, designed, and constructed to provide protection from the run-off of 10 year storm.	Land-disturbing activity (as defined in N.C.G.S. Ch. 113A-52) of more than 1 acre of land — <b>applicable</b>	15A NCAC 4B.0108
	Shall conduct activity so that the post-construction velocity of the ten year storm run-off in the receiving watercourse to the discharge point does not exceed the parameters provided in this Rule.		15A NCAC 4B.0109
Managing fugitive dust emissions	Shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints, or visible emissions in excess of that allowed under paragraph (e) of this Rule.	Activities within facility boundary that will generate fugitive dust emissions — <b>relevant and appropriate</b>	15A NCAC 02D .0540(c)
	Implement methods (e.g. wetting dry soils) to control dust emissions that could travel beyond the facility boundary.		15A NCAC 02D .0540(g)
Managing toxic air pollutant emissions	A facility shall not emit toxic air pollutants in such quantities that can cause or contribute beyond the premises (adjacent property boundary) to any significant ambient air concentration that may adversely affect human health.	Activities within facility boundary that will generate toxic air pollutant (Chlorobenzene CAS#108-00-7) emissions — <b>relevant and appropriate</b>	15A NCAC 02D.1104

Action	Requirements	Prerequisite	Citation
<b>Waste Characterization and Storage — Primary Wastes (i.e., excavated contaminated soils and drums)</b>			
Characterization of solid waste (e.g., contaminated soil and drums)	Must determine if solid waste is hazardous waste or if waste is excluded under 40 CFR 261.4(b); and	Generation of solid waste as defined in 40 CFR 261.2 and which is not excluded under 40 CFR 261.4(a) — <b>applicable</b>	40 CFR 262.11(a)  15A NCAC 13A .0107
	Must determine if waste is listed under 40 CFR Part 261; or		40 CFR 262.11(b)  15A NCAC 13A .0107
	Must determine whether the waste is (characteristic waste) identified in subpart C of 40 CFR part 261 by either:  (1) Testing the waste according to the methods set forth in subpart C of 40 CFR part 261, or according to an equivalent method approved by the Administrator under 40 CFR 260.21; or  (2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.	Generation of solid waste which is not excluded under 40 CFR 261.4(a) — <b>applicable</b>	40 CFR 262.11(c)  15A NCAC 13A .0107
	Must refer to Parts 261, 262, 264, 265, 266, 268, and 273 of Chapter 40 for possible exclusions or restrictions pertaining to management of the specific waste.	Generation of solid waste which is determined to be hazardous — <b>applicable</b>	40 CFR 262.11(d)  15A NCAC 13A .0107
Storage of solid waste (e.g., contaminated soil)	All solid waste shall be stored in such a manner as to prevent the creation of a nuisance, insanitary conditions, or a potential public health	Generation of solid waste which is determined not to be hazardous — <b>relevant and appropriate</b>	15A NCAC 13B .0104(f)

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Action	Requirements	Prerequisite	Citation
	hazard.		
	Containers for the storage of solid waste shall be maintained in such a manner as to prevent the creation of a nuisance or insanitary conditions. Containers that are broken or that otherwise fail to meet this Rule shall be replaced with acceptable containers.		15A NCAC 13B .0104(e)
Characterization of hazardous waste	Must obtain a detailed chemical and physical analysis on a representative sample of the waste(s), which at a minimum contains all the information that must be known to treat, store, or dispose of the waste in accordance with pertinent sections of 40 CFR 264 and 268.	Generation of RCRA-hazardous waste for storage, treatment or disposal — <b>applicable</b>	40 CFR 264.13(a)(1)  15A NCAC 13A .0109
Determinations for management of hazardous waste	Must determine each EPA Hazardous Waste Number (waste code) applicable to the waste in order to determine the applicable treatment standards under 40 CFR 268 <i>et seq.</i>  <i>Note:</i> This determination may be made concurrently with the hazardous waste determination required in Sec. 262.11 of this chapter.	Generation of hazardous waste for storage, treatment or disposal- <b>applicable</b>	40 CFR 268.9(a)  15A NCAC 13A .0112
	Must determine the underlying hazardous constituents [as defined in 40 CFR 268.2(i)] in the characteristic waste.	Generation of RCRA characteristic hazardous waste (and is not D001 non-wastewaters treated by CMBST, RORGS, or POLYM of Section 268.42 Table 1) for storage, treatment or	40 CFR 268.9(a)  15A NCAC 13A .0112

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Action	Requirements	Prerequisite	Citation
		disposal - <b>applicable</b>	
	<p>Must determine if the hazardous waste meets the treatment standards in 40 <i>CFR</i> 268.40, 268.45, or 268.49 by testing in accordance with prescribed methods or use of generator knowledge of waste.</p> <p><i>Note:</i> This determination can be made concurrently with the hazardous waste determination required in 40 <i>CFR</i> 262.11.</p>	Generation of hazardous waste for storage, treatment or disposal- <b>applicable</b>	<p>40 <i>CFR</i> 268.7(a)</p> <p>15A NCAC 13A .0112</p>
Temporary storage of hazardous waste in containers	<p>A generator may accumulate hazardous waste at the facility provided that:</p> <ul style="list-style-type: none"> <li>waste is placed in containers that comply with 40 <i>CFR</i> 265.171-173; and</li> </ul>	Accumulation of RCRA hazardous waste on site as defined in 40 <i>CFR</i> 260.10 — <b>applicable</b>	<p>40 <i>CFR</i> 262.34(a)</p> <p>40 <i>CFR</i> 262.34(a)(1)(i)</p> <p>15A NCAC 13A .0107</p>
	<ul style="list-style-type: none"> <li>the date upon which accumulation begins is clearly marked and visible for inspection on each container</li> </ul>		<p>40 <i>CFR</i> 262.34(a)(2)</p> <p>15A NCAC 13A .0107</p>
	<ul style="list-style-type: none"> <li>container is marked with the words “hazardous waste”; or</li> </ul>		<p>40 <i>CFR</i> 262.34(a)(3)</p> <p>15A NCAC 13A .0107</p>
	<ul style="list-style-type: none"> <li>container may be marked with other words that identify the contents.</li> </ul>	Accumulation of 55 gal. or less of RCRA hazardous waste <u>or</u> one quart of acutely hazardous waste listed in 261.33(e) at or near any point of generation — <b>applicable</b>	<p>40 <i>CFR</i> 262.34(c)(1)</p> <p>15A NCAC 13A .0107</p>

Action	Requirements	Prerequisite	Citation
Storage of hazardous waste in container area	Area must have a containment system designed and operated in accordance with 40 CFR 264.175(b)	Storage of RCRA hazardous waste in containers <i>with free liquids</i> - <b>applicable</b>	40 CFR 264.175(a)  15A NCAC 13A .0109
	Area must be sloped or otherwise designed and operated to drain liquid resulting from precipitation, or  Containers must be elevated or otherwise protected from contact with accumulated liquid.	Storage of RCRA-hazardous waste in containers that <i>do not contain free liquids</i> (other than F020, F021, F022, F023, F026 and F027) - <b>applicable</b>	40 CFR 264.175(c)(1) and (2)  15A NCAC 13A .0109
Closure performance standard for RCRA container storage unit	Must close the facility (e.g., container storage unit) in a manner that: <ul style="list-style-type: none"> <li>Minimizes the need for further maintenance;</li> <li>Controls minimizes or eliminates to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or the atmosphere; and</li> <li>Complies with the closure requirements of subpart, but not limited to, the requirements of 40 CFR 264.178 for containers.</li> </ul>	Storage of RCRA hazardous waste in containers- <b>applicable</b>	40 CFR 264.111  15A NCAC 13A .0109
<b>Waste treatment and disposal—Primary Wastes (excavated contaminated soils and drums)</b>			
Disposal of solid waste (e.g., contaminated soil not considered RCRA hazardous waste)	Shall ensure that waste is disposed of at a site or facility which is permitted to receive the waste.	Generation of solid waste intended for off-site disposal — <b>relevant and appropriate</b>	15A NCAC 13B .0106(b)

Action	Requirements	Prerequisite	Citation
Disposal of RCRA hazardous waste in a land-based unit (i.e., landfill)	May be land disposed if it meets the requirements in the table "Treatment Standards for Hazardous Waste" at 40 CFR 268.40 before land disposal.	Land disposal, as defined in 40 CFR 268.2, of restricted RCRA waste - <b>applicable</b>	40 CFR 268.40(a)  15A NCAC 13A .0112
	All underlying hazardous constituents [as defined in 40 CFR 268.2(i)] must meet the Universal Treatment Standards, found in 40 CFR 268.48 Table UTS prior to land disposal	Land disposal of restricted RCRA characteristic wastes (D001-D043) that are not managed in a wastewater treatment system that is regulated under the CWA, that is CWA equivalent, or that is injected into a Class I nonhazardous injection well - <b>applicable</b>	40 CFR 268.40(e)  15A NCAC 13A .0112
Disposal of RCRA-hazardous waste soil in a land-based unit (i.e., landfill)	Must be treated according to the alternative treatment standards of 40 CFR 268.49(c) <u>or</u> Must be treated according to the UTSs [specified in 40 CFR 268.48 Table UTS] applicable to the listed and/or characteristic waste contaminating the soil prior to land disposal.	Land disposal, as defined in 40 CFR 268.2, of restricted RCRA hazardous soils — <b>applicable</b>	40 CFR 268.49(b)  15A NCAC 13A .0112
Disposal of RCRA-hazardous waste debris in a land-based unit (i.e., landfill)	Must be treated prior to land disposal as provided in 40 CFR 268.45(a)(1)-(5) unless EPA determines under 40 CFR 261.3(f)(2) that the debris no longer contaminated with hazardous waste <u>or</u> the debris is treated to the waste-specific treatment standard provided in 40 CFR 268.40 for the waste contaminating the debris.	Land disposal, as defined in 40 CFR 268.2, of restricted RCRA-hazardous debris- <b>applicable</b>	40 CFR 268.45(a)  15A NCAC 13A .0112
Disposal of <i>treated hazardous debris</i>	Debris treated by one of the specified extraction or destruction technologies on Table 1 of 40 CFR 268.45 and which no longer exhibits a	Treated debris contaminated with RCRA-listed or characteristic waste - <b>applicable</b>	40 CFR 268.45(c)

Action	Requirements	Prerequisite	Citation
	characteristic is not a hazardous waste and need not be managed in RCRA Subtitle C facility. Hazardous debris contaminated with listed waste that is treated by immobilization technology must be managed in a RCRA Subtitle C facility.		15A NCAC 13A .0112
Disposal of <i>hazardous debris treatment residues</i>	Except as provided in 268.45(d)(2) and (d)(4), must be separated from debris by simple physical or mechanical means, and such residues are subject to the waste-specific treatment standards for the waste contaminating the debris	Residue from treatment of hazardous debris - <b>applicable</b>	40 CFR 268.45(d)(1)  15A NCAC 13A .0112
<b>Transportation of Wastes</b>			
Transportation of hazardous waste <i>on-site</i>	The generator manifesting requirements of 40 CFR 262.20–262.32(b) do not apply. Generator or transporter must comply with the requirements set forth in 40 CFR 263.30 and 263.31 in the event of a discharge of hazardous waste on a private or public right-of-way	Transportation of hazardous wastes on a public or private right-of-way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right-of-way- <b>applicable</b>	40 CFR 262.20(f)  15A NCAC 13A .0107
Transportation of hazardous waste <i>off-site</i>	Must comply with the generator standards of Part 262 including 40 CFR 262.20–23 for manifesting, Sect. 262.30 for packaging, Sect. 262.31 for labeling, Sect. 262.32 for marking, Sect. 262.33 for placarding,	Preparation and initiation of shipment of hazardous waste off-site- <b>applicable</b>	40 CFR 262.10(h);  15A NCAC 13A .0107
Transportation of <i>hazardous materials</i>	Shall be subject to and must comply with all applicable provisions of the HMTA and HMR at 49 CFR 171–180 related to marking, labeling, placarding, packaging, emergency response, etc.	Any person who, under contract with a department or agency of the federal government, transports “in commerce,” or causes to be transported or shipped, a	49 CFR 171.1(c)

Action	Requirements	Prerequisite	Citation
		hazardous material - <b>applicable</b>	
Transportation of samples (i.e. contaminated soils)	<p>Are not subject to any requirements of 40 CFR Parts 261 through 268 or 270 when:</p> <ul style="list-style-type: none"> <li>• the sample is being transported to a laboratory for the purpose of testing; or</li> <li>• the sample is being transported back to the sample collector after testing.</li> <li>• the sample is being stored by sample collector before transport to a lab for testing</li> </ul>	Samples of solid waste <u>or</u> a sample of water, soil for purpose of conducting testing to determine its characteristics or composition - <b>applicable</b>	<p>40 CFR 261.4(d)(1)(i)-(iii)</p> <p>15A NCAC 13A .0106</p>
	<p>In order to qualify for the exemption in paragraphs (d)(1)(i) and (ii), a sample collector shipping samples to a laboratory must:</p> <ul style="list-style-type: none"> <li>• Comply with U.S. DOT, U.S. Postal Service, or any other applicable shipping requirements</li> <li>• Assure that the information provided in (1) thru (5) of this section accompanies the sample.</li> <li>• Package the sample so that it does not leak, spill, or vaporize from its packaging.</li> </ul>		<p>40 CFR 261.4(d)(2)(i)(A) and (B)</p> <p>15A NCAC 13A .0106</p>

ARAR = applicable or relevant and appropriate requirement  
 CFR = Code of Federal Regulations  
 CWA = Clean Water Act of 1972  
 DEACT = deactivation

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DOT = U.S. Department of Transportation  
EPA = U.S. Environmental Protection Agency  
HMR = Hazardous Materials Regulations  
HMTA = Hazardous Materials Transportation Act  
LDR = Land Disposal Restrictions  
NPDES = National Pollutant Discharge Elimination System  
POTW = Publicly Owned Treatment Works  
RCRA = Resource Conservation and Recovery Act of 1976  
TCLP = Toxicity Characteristic Leaching Procedure  
UTS = Universal Treatment Standard