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NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF WASTE MANAGEMENT



July 30, 1998

Commander, Atlantic Division  
Naval Facilities Engineering Command  
Code 1823

Attention: MCB Camp Lejeune, RPM  
Ms. Maritza L. Montegross  
Norfolk, Virginia 23511-6287

Commanding General  
Attention: AC/S, EMD/IRD  
Marine Corps Base  
PSC Box 20004  
Camp Lejeune, NC 28542-0004

RE: NC Superfund Section Comments  
Draft Remedial Action Work Plan  
The Camp Johnson Battery Dump  
MCB Camp Lejeune, North Carolina

Dear Ms. Montegross:

The referenced document has been received and reviewed by the North Carolina Superfund Section and our comments are attached. Please call me at (919) 733-2801, extension 278 if you have any questions.

Sincerely,

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

cc: Gena Townsend, US EPA Region IV  
Neal Paul, MCB Camp Lejeune  
Diane Rossi, DENR - Wilmington Regional Office

North Carolina Superfund Section Comments  
Remedial Action Work Plan for  
Remediation of Site 85  
The Camp Johnson Battery Dump  
MCB Camp Lejeune, North Carolina

1. Page 2-1, Remedial Action Objectives for Soil. Table 1 contains the screening levels that may be used to remediate the site. Without institutional controls, this cleanup must use residential levels. Residential screening levels were developed using the Region III Risk Based Concentrations by our Industrial Hygienist. Table 1 also contains S-3:G-1 (soil to groundwater) screening levels. For S-3:G-1 levels not found in the Draft North Carolina Risk Analysis Framework, the levels were calculated using Region III Tap Water standards. We multiplied the non-carcinogenic compounds by a tenth, to bring these numbers in line with North Carolina 2L Standards. The residential soil concentrations are from Region III RBCs or the best professional judgment of our Industrial Hygienist. The non-carcinogenic residential soil screening levels are found by multiplying the Region III RBCs by 0.2. This is a conservative approach to account for multiple contaminants.
2. Appendix A, Page 3-1. Section 3.1.2 Waste Characterization Sampling. A minimum of one characterization sample should be collected for every 500 cubic yards of soil.
3. Appendix C, Sampling and Analysis Plan, Page 3-1. Confirmatory soil samples should be collected from the floor and sidewalls of the excavated areas. One confirmatory sample will be collected for every 50 feet, or fraction thereof, along each excavation sidewall, and one sample for every 500 square feet, or fraction thereof, of the base of the excavation. The analytical results will be compared to the remediation action objectives to confirm that the contaminated soil has been removed.
4. The Health and Safety Plan is being reviewed by David Lilley, Industrial Hygienist, and will be submitted when the review is complete.

**Table 1. Soil Screening Levels - Remedial Action - Site 85  
MCB Camp Lejeune, North Carolina**

				Potential Screening Levels			
Contaminant of Potential Concern		Region III Residential Soil Risk-Based Concentration		Residential Screening Level	S-3:G-1 Screening Level	Base Background Subsurface Soils	Screening Level
	a	(mg/kg)	b	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Aluminum	X	78,000	N	15600	14.8	7413	15600
Antimony		31	N	6.2			6.2
Arsenic		23	N	4.6			4.6
Barium		5500	N	1100			1100
Beryllium	X	0.15	C	0.15	0.0135		0.0135
Boron		7000	N	1400			1400
Cadmium	X	39	N	7.8	2.7	0.72	2.7
Chromium (III)		78000	N	15600			
Chromium (VI)		390	N	78	27.2		
Chromium (total)	X	390		78	27.2	12.54	27.2
Cobalt		4700	N	940			940
Cyanide	X	1600	N	320	31.1	2.9	31.1
Iron	X	23000	N	4600	151	7135	7135
Lead	X	400		400	270	8.26	270
Manganese	X	1800	N	360	65	7.99	65
Mercury	X	23	N	4.6	0.0154	0.13	0.13
Nickle	X	1600	N	320	56.4	3.73	56.4
Vanadium	X	550	N	110	520	13.3	110
Zinc	X	23,000	N	4600	1100	6.67	1100

a X indicates a groundwater exceedance.

b N - noncarcinogen, C - carcinogen.