



DEPARTMENT OF THE NAVY

CRANE DIVISION  
NAVAL SURFACE WARFARE CENTER  
300 HIGHWAY 361  
CRANE INDIANA 47522-5001

N00164.AR.000925  
NSWC CRANE  
5090.3a

IN REPLY REFER TO  
5090/S4.7.5  
Ser RP3/5076

2-8-2005

U.S. Environmental Protection Agency, Region V  
Waste, Pesticides, & Toxics Division  
Waste Management Branch  
Corrective Action Section  
77 West Jackson Blvd.  
Chicago, IL 60604

Dear Mr. Ramanauskas:

Crane Division, Naval Surface Warfare Center submits responses to comments from the U. S. EPA sent via email on November 23, 2004 on the Dye Burial Grounds (DBG), Solid Waste Management Unit 2, Corrective Measures Study(CMS). The responses are provided as enclosure (1). The permit required Certification Statement is provided as enclosure (2).

If you require any further information, my point of contact is Mr. Thomas J. Brent, Code RP3-TB, at 812-854-6160, email thomas.brent@navy.mil.

Sincerely,

*James M. Hunsicker*  
JAMES M. HUNSICKER

Manager, Environmental Protection  
By direction of the Commanding Officer

Enclosures: 1. Responses to Comments on the DBG CMS  
2. Certification Statement

Copy to:  
ADMINISTRATIVE RECORD  
SOUTHNAVFACENGCOM (Code ES31) (w/o encl)  
IDEM (Doug Griffin)  
TTNUS (Ralph Basinski) (w/o encl)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

James Hershey  
SIGNATURE

Manager, Environmental Protection  
TITLE

2/28/05  
DATE

**RESPONSES TO NAVY COMMENTS  
RECEIVED VIA E-MAIL FROM PETER RAMANAUSKAS ON NOVEMBER 23, 2004  
DRAFT CORRECTIVE MEASURES STUDY (CMS) FOR SWMU 2  
NSWC CRANE  
CRANE, INDIANA**

Mr. Ramanauskas' comments are shown in bold font.

**Comment 1: Response to comment 5 on the DBG CMS LTTD technology evaluation states that since the soil volume needing potential treatment is only around 19,000 cu.yds, it is most cost effective to ship it off site to a TSDF rather than have an on-site mobile unit.**

**Could you provide me with a cost comparison for on-site mobile LTTD treatment with on-site backfilling of treated soils vs. off-site treatment and disposal? As you can see, I'm still curious about this.**

Response to Comment 1: An estimated cost estimate for on-site mobile Low Temperature Thermal Desorption (LTTD) treatment with on-site backfilling of the treated soils for approximately 19,000 cubic yards (yd<sup>3</sup>) of contaminated soils is \$2,823,500. Supporting documentation of these costs is presented as Attachment 1 to these responses.

Based upon interaction with various treatment vendors, off-site treatment and disposal is not a cost-effective treatment and disposal method for this quantity of soil as compared to on-site treatment and disposal. Therefore, no off-site treatment and disposal costs are being presented.

**Comment 2: Has there ever been a determination made that the dyes and dye impacted soils are non-hazardous?**

Response to Comment 2: The dyes and dye-impacted soils are not classified as listed wastes (F, K, P, or U). The dyes have not been tested for hazardous waste characteristics. However, based upon process knowledge, none of the dyes would be expected to be classified as hazardous if tested for any of the four hazardous waste characteristics.

**ATTACHMENT 1**

**ALTERNATIVE 4: EXCAVATION, ON-SITE TREATMENT,  
AND RESTORATION**

NAVAL SURFACE WARFARE CENTER CRANE  
 CRANE, INDIANA  
 SWMU 2  
 ALTERNATIVE 4: EXCAVATION, ON-SITE TREATMENT AND RESTORATION

Item	Quantity	Unit	Subcontract	Unit Cost			Subcontract	Extended Cost			Subtotal
				Material	Labor	Equipment		Material	Labor	Equipment	
<b>1 PROJECT PLANNING</b>											
1.1 Prepare Remedial Action Plan	100	hr			\$35.00		\$0	\$0	\$3,500	\$0	\$3,500
<b>2 MOBILIZATION/DEMOBILIZATION AND FIELD SUPPORT</b>											
2.1 Office Trailer	5	mo	\$204.50				\$1,023	\$0	\$0	\$0	\$1,023
2.2 Storage Trailer (1)	5	mo	\$105.00				\$525	\$0	\$0	\$0	\$525
2.3 Construction Survey	2	ac	\$1,097.00				\$1,755	\$0	\$0	\$0	\$1,755
2.4 Equipment Mobilization/Demobilization	6	ea			\$50.00	\$176.00	\$0	\$0	\$300	\$1,056	\$1,356
2.5 Thermal Treatment Mobilization & Demobilization	1	ea	\$45,000.00				\$45,000	\$0	\$0	\$0	\$45,000
2.6 Site Utilities	5	mo	\$500.00				\$2,500	\$0	\$0	\$0	\$2,500
<b>3 SITE PREPARATION</b>											
3.1 Dozer to Construct Perimeter Ditch/Swale	1	wk			\$1,248.00	\$2,322.00	\$0	\$0	\$1,248	\$2,322	\$3,570
3.2 Geomembrane to Line Ditch/Swale	14,000	sf		\$0.26	\$0.40		\$0	\$3,640	\$5,600	\$0	\$9,240
3.3 Stone Check Dams	7.5	cy		\$18.00	\$5.00	\$0.50	\$0	\$135	\$38	\$4	\$176
3.4 10,000 Gallon Sediment/Runoff Collection Tank	2	ea		\$5,825.00	\$1,350.00	\$236.04	\$0	\$11,650	\$2,700	\$472	\$14,822
3.5 20,000 Gallon Sediment/Runoff Collection Tank	1	ea		\$11,572.00	\$2,249.00	\$393.40	\$0	\$11,572	\$2,249	\$393	\$14,214
3.6 Trap Contents Disposal	1	ls	\$10,000.00				\$10,000	\$0	\$0	\$0	\$10,000
<b>4 DECONTAMINATION</b>											
4.1 Decontamination Services	5	mo	\$3,800.00				\$19,000	\$0	\$0	\$0	\$19,000
4.2 Equipment Decon Pad	1	ls		\$5,800.00	\$6,650.00	\$700.00	\$0	\$5,800	\$6,650	\$700	\$13,150
4.3 Decon Water	5,000	gal		\$0.20			\$0	\$1,000	\$0	\$0	\$1,000
4.4 Decon Water Storage Tank, 6,000 gallon	5	mo				\$600.00	\$0	\$0	\$0	\$3,000	\$3,000
4.5 Clean Water Storage Tank, 4,000 gallon	5	mo				\$540.00	\$0	\$0	\$0	\$2,700	\$2,700
4.6 PPE (3 p * 5 days * 22 weeks)	330	day		\$31.67			\$0	\$10,451	\$0	\$0	\$10,451
4.7 Disposal of Decon Waste (liquid & solid)	5	mo	\$900.00				\$4,500	\$0	\$0	\$0	\$4,500
<b>5 EXCAVATE LANDFILL</b>											
5.1 Excavator, 2 CY	5	mo			\$10,218.80	\$16,271.48	\$0	\$0	\$51,094	\$81,357	\$132,451
5.2 Front End Loader, 170 HP	5	mo			\$7,433.74	\$8,234.92	\$0	\$0	\$37,169	\$41,175	\$78,343
5.3 Laborer	5	mo				\$3,464.00	\$0	\$0	\$17,320	\$0	\$17,320
5.4 Tarp to Protect Excavation Face	100	sy		\$1.00	\$1.00		\$0	\$100	\$100	\$0	\$200
5.5 Post-excavation Soil Analysis: Military Dyes	50	ea	\$1,000.00				\$50,000	\$0	\$0	\$0	\$50,000
5.6 Straw Bales	1	ls		\$200.00			\$0	\$200	\$0	\$0	\$200
<b>6 TREATMENT</b>											
6.1 Low- to Medium Temperature Thermal Desorption	28,500	ton	\$40.00				\$1,140,000	\$0	\$0	\$0	\$1,140,000
<b>7 SITE RESTORATION</b>											
7.2 Dozer, 140 HP, 1/2 Time Operation	5	mo			\$2,701.92	\$6,314.68	\$0	\$0	\$13,510	\$31,573	\$45,083
7.3 Dump Truck, 16 Ton, 1/2 Time Operation	5	mc			\$2,165.00	\$6,155.52	\$0	\$0	\$10,825	\$30,778	\$41,603
7.4 Fine Grading and seeding, incl. lime, fert, and seed	3,781	sy		\$0.26	\$1.19	\$0.18	\$0	\$983	\$4,500	\$681	\$6,164
<b>8 MISCELLANEOUS</b>											
8.1 Construction Oversight (3p*5days*22 weeks)	330	days			\$320.00		\$0	\$0	\$105,600	\$0	\$105,600
8.2 Post Construction Documents	200	hr			\$40.00		\$0	\$0	\$8,000	\$0	\$8,000
<b>Subtotal</b>							1,274,303	\$45,531	\$270,402	\$196,211	1,786,446
<b>Local Area Adjustments</b>							100.0%	78.2%	96.1%	96.1%	

NAVAL SURFACE WARFARE CENTER CRANE  
 CRANE, INDIANA  
 SWMU 2  
 ALTERNATIVE 4: EXCAVATION, ON-SITE TREATMENT AND RESTORATION

Item	Quantity	Unit	Subcontract	Unit Cost			Subcontract	Extended Cost			Subtotal
				Material	Labor	Equipment		Material	Labor	Equipment	
							\$1,274,303	\$35,605	\$259,856	\$188,559	\$1,758,323
Overhead on Labor Cost @ 30%									\$77,957		\$77,957
G & A on Labor Cost @ 10%									\$25,986		\$25,986
G & A on Material Cost @ 10%								\$3,561			\$3,561
G & A on Subcontract Cost @ 10%							\$127,430				\$127,430
<b>Total Direct Cost</b>							\$1,401,733	\$39,166	\$363,798	\$188,559	\$1,993,256
Indirects on Total Direct Cost @ 35%						(not including treatment)					\$298,640
Profit: on Total Direct Cost @ 10%											\$199,326
<b>Subtotal</b>											\$2,491,221
Health & Safety Monitoring @ 1%											\$24,912
<b>Total Field Cost</b>											\$2,516,133
Contingency on Total Field and Subcontractor Costs @ 10%											\$251,613
Engineering on Total Field Cost @ 5%						(Total Field Cost minus Subcontractor's Total Direct Cost)					\$55,720
<b>TOTAL COST</b>											\$2,823,467