



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
215 NORTH 17TH STREET
OMAHA, NEBRASKA 68102-4978

JUN 5 1996

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0000278



Hazardous, Toxic and Radioactive
Waste Branch

Ms. Terese Von Donsel (SR-6)
Remedial Project Manager
U.S. EPA, Region V
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Dear Ms. Von Donsel:

Enclosed is a cost estimate you requested after the May 14, 1996 ENTACT meeting, for two remedial alternatives proposed for the United Scrap Lead Superfund site. Alternative A1, removes battery casings and lead contaminated soil for disposal at a RCRA Subtitle C facility in Ft Wayne, Indiana. Alternative A2, stabilizes contaminated soil onsite for disposal in a RCRA Subtitle D facility in Dayton, Ohio; remove and dispose of battery casings at a RCRA Subtitle C facility in Ft Wayne, Indiana. The cost for alternative A1 is \$16.1M and alternative A2 is \$17.1M. These costs are for the contract only with no project or contract oversight. The cost of government oversight and the list of assumptions are included in the estimate package.

If you have any questions regarding this request, please contact Mr. Greg Herring, Project Manager at (402) 221-7712.

Sincerely,

Kathryn M. Schenk, P.E.
Chief, HTRW Branch
Programs & Project Management
Division

Enclosure

Copy Furnished:
Mr. John O'Grady (SR-6)
Remedial Project Manager
U.S. EPA, Region V
77 West Jackson Boulevard
Chicago, Illinois 60604-3590



JUN-04-96 TUE 07:30

CEMRO-ED-C OMAHA.

FAX NO. 4022214017

P.01

Tue 04 Jun 1996
Eff. Date 06/03/96

U.S. Army Corps of Engineers
PROJECT C17786: UNITED SCRAP LEAD (USL) - Superfund Site
Off-Site Disposal Estimate

TIME 07:27:42

TITLE PAGE 1

UNITED SCRAP LEAD (USL)
Superfund Site
Troy, Ohio

Off Site Treatment & Disposal

Designed By: COE - Omaha District
Estimated By: CEMRO-ED-C

Prepared By: Gary Norenberg

Preparation Date: 06/03/96
Effective Date of Pricing: 06/03/96
Est Construction Time: 180 Days

Sales Tax: 5.00%

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LABOR ID: IT7786

EQUIP ID: MRO025

Currency in DOLLARS

CREW ID: MROMAT UPB ID: MROM95

PROJECT NOTES:

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1. Escallation rate - 2.25%
2. Contingency rate - 15.00%
3. Supervision & Admin rate - 6.00%
4. Transportation, disposal, treatment, and fees for disposal at RCRA-C facility at Ft Wayne, Indiana.

Battery Casings - \$115.00/cy
Contaminated Soil - \$110.00/cy
6. Stabilize soil on-site - \$75.00 to \$175.00/cy depending on analytical tests but should be on the low end of the scale. For estimating purposes assume - \$85.00/cy
7. Transportation, disposal, and fees for disposal at RCRA-D facility at Dayton, Ohio - \$46.40/cy
8. Random fill from on-site, sediment detention pond area.
9. Topsoil delivered at \$10.00/cy.
10. Four monitoring wells included and some analytical testing.
11. Long term operation and maintenance included for collection system for ten years including annual analytical testing of system and monitoring wells.
12. Does not include levee construction.
13. Delete chipping of battery casings. Chips stabilized at the disposal facility.

A1 Alternative A1 - Remove battery casings and contaminated soil and dispose of at RCRA-C facility at Ft Wayne, Indiana.

A2 Alternative A2 - Stabilize contaminated soil on-site and dispose of at a RCRA-D facility at Dayton, Ohio. Remove battery casings and dispose of at a RCRA-C facility at Ft Wayne, Indiana.

Mon 03 Jun 1996
Eff. Date 07/26/95

U.S. Army Corps of Engineers
PROJECT C17786: UNITED SCRAP LEAD (USL) - Superfund Site
Off-Site Disposal Estimate
** PROJECT OWNER SUMMARY - LEVEL 1 **

TIME 13:08:01

SUMMARY PAGE 1

		QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	SIOH	TOTAL COST	UNIT COST
A1	Entact, Casings & Soil Disposal	1.00	EA	16,071,667	360,772	2,464,158	1,133,513	20,030,110	20030110
A2	Entact, Casings Disp-Soil Stab.	1.00	EA	17,136,710	384,687	2,627,502	1,208,651	21,357,550	21357550

Mon 03 Jun 1996
Eff. Date 07/26/95

U.S. Army Corps of Engineers
PROJECT C17786: UNITED SCRAP LEAD (USL) - Superfund Site
Off-Site Disposal Estimate
** PROJECT OWNER SUMMARY - LEVEL 3 **

TIME 13:08:01
SUMMARY PAGE 2

		QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	SIOH	TOTAL COST	UNIT COST

A1 Entact, Casings & Soil Disposal									
A1 1 Site Preparation									
A1 1 1	Mobilization/ Site Preparation	1.00	EA	106,493	2,391	16,333	7,513	132,730	132729.59
A1 1 2	Verification Sampling & Analysis	1.00	EA	44,071	937	6,397	2,943	54,348	54347.96
A1 1 3	Health & Safety	1.00	EA	70,631	1,586	10,833	4,983	88,032	88032.16
A1 1 4	Field Overhead	1.00	EA	146,967	3,300	22,540	10,368	183,176	183175.96
TOTAL Site Preparation		1.00	EA	368,162	8,214	56,103	25,807	458,286	458285.67

A1 2 Decontamination Area									
A1 2 1	Decon Pad	1.00	EA	6,996	157	1,073	494	8,720	8719.98
A1 2 2	Drainage & Collection System	1.00	EA	2,799	63	429	197	3,488	3487.99
A1 2 3	Decon Water Disposal	10000.00	GAL	6,611	148	1,014	466	8,240	0.82
A1 2 4	Decon Facility Decon & Disposal	1.00	EA	4,198	94	644	296	5,232	5231.99
TOTAL Decontamination Area		1.00	EA	20,604	463	3,160	1,454	25,680	25680.35

A1 4 OU 1, Battery Casing Disposal									
A1 4 1	Excavate Casings	1.00	EA	231,361	5,195	35,483	16,322	288,362	288362.16
A1 4 4	Casing Disposal	1.00	EA	9,592,991	215,404	1,471,259	676,779	11,956,433	11956433
TOTAL OU 1, Battery Casing Disposal		1.00	EA	9,824,352	220,599	1,506,743	693,102	12,244,795	12244795

A1 5 OU 1, Contaminated Soil									
A1 5 1	Clear & Grub Disposal Area	5.70	ACR	23,786	534	3,648	1,678	29,647	5201.14
A1 5 2	Excavate Soil to Gound Water	29000.00	CY	127,185	2,856	19,506	8,973	158,520	5.47
A1 5 6	Soil Disposal	29000.00	CY	4,771,752	107,146	731,835	336,644	5,947,377	205.08
TOTAL OU 1, Contaminated Soil		1.00	EA	4,922,723	110,536	754,989	347,295	6,135,544	6135544

A1 6 OU 2, Soil Cap									
A1 6 2	Clear & Grub Detention Pond	10.00	ACR	39,665	891	6,083	2,798	49,437	4943.75
A1 6 3	Dispose of Grubbed Trees	1.00	EA	50,669	1,138	7,771	3,575	63,153	63152.91
A1 6 4	Grade Detention Pond	10.00	ACR	45,929	1,031	7,044	3,240	57,245	5724.52
A1 6 5	Exc & Haul Random Fill	108300.00	CY	356,027	7,994	54,603	25,118	443,743	4.10
A1 6 6	Place Random Fill	108300.00	CY	127,330	2,859	19,528	8,983	158,700	1.47
A1 6 11	Topsoil, 6"	9200.00	CY	141,195	3,170	21,655	9,961	175,982	19.13
A1 6 12	Seeding	5.70	ACR	9,583	215	1,470	676	11,944	2095.51
TOTAL OU 2, Soil Cap		1.00	EA	770,400	17,299	118,155	54,351	960,204	960204.36

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U.S. Army Corps of Engineers
PROJECT C17786: UNITED SCRAP LEAD (USL) - Superfund Site

TIME 13:08:01

Off-Site Disposal Estimate

SUMMARY PAGE 3

** PROJECT OWNER SUMMARY - LEVEL 3 **

		QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	SIOH	TOTAL COST	UNIT COST

A1 7 Restoration/Site Close-Out									
A1 7 1	Monitoring Wells	1.00	EA	15,631	351	2,397	1,103	19,482	19482.31
A1 7 2	Long Term Monitoring	1.00	EA	35,299	740	5,052	2,324	43,414	43414.36
A1 7 3	Storm Water Management	1.00	EA	13,993	314	2,146	987	17,440	17439.97
A1 7 4	Demo and Decon of Structures	1.00	EA	20,989	471	3,219	1,481	26,160	26159.95
A1 7 5	Teardown & Demobilization	1.00	EA	64,954	1,458	9,962	4,582	80,956	80956.48
A1 7 6	Post Construction Activities	1.00	EA	14,561	327	2,233	1,027	18,148	18147.98

TOTAL Restoration/Site Close-Out		1.00	EA	165,426	3,662	25,009	11,504	205,601	205601.04

TOTAL Entact, Casings & Soil Disposal		1.00	EA	16,071,667	360,772	2,464,158	1,133,513	20,030,110	20030110

A2 Entact, Casings Disp-Soil Stab.									
A2 1 Site Preparation									
A2 1 1	Mobilization/ Site Preparation	1.00	EA	106,493	2,391	16,333	7,513	132,730	132729.59
A2 1 2	Verification Sampling & Analysis	1.00	EA	44,071	937	6,397	2,943	54,348	54347.96
A2 1 3	Health & Safety	1.00	EA	70,631	1,586	10,833	4,983	88,032	88032.16
A2 1 4	Field Overhead	1.00	EA	146,967	3,300	22,540	10,368	183,176	183175.96

TOTAL Site Preparation		1.00	EA	368,162	8,214	56,103	25,807	458,286	458285.67

A2 2 Decontamination Area									
A2 2 1	Decon Pad	1.00	EA	6,996	157	1,073	494	8,720	8719.98
A2 2 2	Drainage & Collection System	1.00	EA	2,799	63	429	197	3,488	3487.99
A2 2 3	Decon Water Disposal	10000.00	GAL	6,611	148	1,014	466	8,240	0.82
A2 2 4	Decon Facility Decon & Disposal	1.00	EA	4,198	94	644	296	5,232	5231.99

TOTAL Decontamination Area		1.00	EA	20,604	463	3,160	1,454	25,680	25680.35

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A2 4 1	Excavate Casings	1.00	EA	231,361	5,195	35,483	16,322	288,362	288362.16
A2 4 4	Casing Disposal	1.00	EA	9,592,991	215,404	1,471,259	676,779	11,956,433	11956433

TOTAL OU 1, Battery Casing Disposal		1.00	EA	9,824,352	220,599	1,506,743	693,102	12,244,795	12244795

A2 5 OU 1, Contaminated Soil									
A2 5 1	Clear & Grub Disposal Area	5.70	ACR	23,786	534	3,648	1,678	29,647	5201.14
A2 5 2	Excavate & Stockpile Soil	29000.00	CY	127,185	2,856	19,506	8,973	158,520	5.47
A2 5 5	Stabilize Soil - On Site	29000.00	CY	3,774,876	84,762	578,946	266,315	4,704,899	162.24
A2 5 6	T&D Treated Soil to Dayton	29000.00	CY	2,061,919	46,299	316,233	145,467	2,569,918	88.62

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Off-Site Disposal Estimate

SUMMARY PAGE 4

** PROJECT OWNER SUMMARY - LEVEL 3 **

	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	SIOH	TOTAL COST	UNIT COST

TOTAL OU 1, Contaminated Soil	1.00	EA	5,987,767	134,451	918,333	422,433	7,462,983	7462983
A2 6 OU 2, Soil Cap								
A2 6 2 Clear & Grub Detention Pond	10.00	ACR	39,665	891	6,083	2,798	49,437	4943.75
A2 6 3 Dispose of Grubbed Trees	1.00	EA	50,669	1,138	7,771	3,575	63,153	63152.91
A2 6 4 Grade Detention Pond	10.00	ACR	45,929	1,031	7,044	3,240	57,245	5724.52
A2 6 5 Exc & Haul Random Fill	108300.00	CY	356,027	7,994	54,603	25,118	443,743	4.10
A2 6 6 Place Random Fill	108300.00	CY	127,330	2,859	19,528	8,983	158,700	1.47
A2 6 11 Topsoil, 6"	9200.00	CY	141,195	3,170	21,655	9,961	175,982	19.13
A2 6 12 Seeding	5.70	ACR	9,583	215	1,470	676	11,944	2095.51

TOTAL OU 2, Soil Cap	1.00	EA	770,400	17,299	118,155	54,351	960,204	960204.36
A2 7 Restoration/Site Close-Out								
A2 7 1 Monitoring Wells	1.00	EA	15,631	351	2,397	1,103	19,482	19482.31
A2 7 2 Long Term Monitoring	1.00	EA	35,299	740	5,052	2,324	43,414	43414.36
A2 7 3 Storm Water Management	1.00	EA	13,993	314	2,146	987	17,440	17439.97
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