



RAVENNA ARSENAL, INC.
8451 STATE ROUTE 5, RAVENNA, OHIO 44266-9297
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March 29, 1990

4/2/90
✓ R-COM
✓ COM AM 920
PROG
OP
PCG
ISE
NAAP
RETURN FOR FILE

THRU: Contracting Officer's Representative
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, Ohio 44266-9297

TO: Commander
U.S. Army Armament, Munitions and Chemical Command
ATTN: AMSMC-ISE (Mr. Cyril Onewokae)
Rock Island, IL 61299-6000

Subject: Underground Storage Tanks Progress Report

Dear Sir:

Of the 17 registered underground storage tanks at Ravenna Army Ammunition Plant, nine were delcared abandoned and were designated for removal. The remaining tanks were tested for tightness in accordance with regulatory requirements in January, 1990. Test results indicated three of the eight were leaking. The three leaking tanks were immediately emptied and designated for removal; the non-leaking tanks remain in service.

FY89 Environmental Restoration Project 5892910-007 (CLIN 46AD, MOD 88) provided \$186,100 for the removal of 12 underground storage tanks (including the nine abandoned registered tanks) at Ravenna AAP. FY90 Environmental Restoration Project 5902910-04 (CLIN 46AE, MOD92) provided \$94,000 to remove four underground storage tanks (including the three registered tanks) which were found to be leaking by tank tightness tests.

All tanks on both projects have been removed, cleaned, and disposed. All contaminated soil with the exception of Tank No. 10 at the Charlestown Gate has been excavated and the confirmatory soil analysis from the walls of the excavations appear to be acceptable based on comments from the State Fire Marshal's Office. The State Fire Marshal's Office has not formally accepted the tank removals yet so there is a remote chance that additional work may be required.

Tank No. 10 soil analysis indicated the hole is still contaminated with the contamination extending under a large floor slab and foundation of the old gate house. In order to determine the limits of the contamination and to remove the contaminated soil, it is necessary to remove the concrete. A request for additional funding to complete this project was submitted to AMSMC-PCG-B on March 26, 1990.

OLIN DEFENSE SYSTEMS GROUP
OLIN CORPORATION

1 NAAP
1 ISE
1 PCG
1 OP

DATA faxed
2 April 90
mailed
2 APRIL 90
JA

Point of contact concerning this subject at this installation is Susan McCauslin, AV346-3220.

Sincerely,

RAVENNA ARSENAL, INC.



H.R. Cooper
Plant Engineer

HRC/SM/ade/90009

cc: N. Wulff
W. Carkido
T. Chanda
S. McCauslin
File

SCOPE OF WORK AND COST ESTIMATE
TO COMPLETE CLEANUP AND DISPOSAL OF
CONTAMINATED SOIL AT THE FORMER LOCATION OF
TANK NO. 10 (CHARLESTOWN GATE)

SCOPE OF WORK

Remove the 20' X 14' X 2 foot thick concrete floor slab and foundation walls to allow access to the contaminated soil. (The gate house had been demolished several years ago.)

Excavate all visually contaminated soil

Excavate any soil which indicates presence of hydrocarbons using a photoionization detector.

Sample and Analyze the sides of the remaining hole

Sample and analyze the excavated soil

Transportation and disposal of the contaminated soil

COST ESTIMATE

Demolish and Remove concrete slab and foundation walls	
20' X 14' x 2' = 560 cf ÷ 27 cf/cy = 20.75	
1.3' X 68' X 3.5' = 309 cf ÷ 27 = 11.5	
33 cy x \$100/cy =	\$3,300
(Means Bldg. Const. 1988 p. 20 item 5545200)	
Excavate contaminated earth including transportation, disposal, borrow to replace and grading and seeding	
20' X 40' X 15' = 12,000 cf ÷ 27 = 444 cy	
444 cy X \$46/cy (current contract) =	\$20,424
Soil sampling and analysis	
5 samples @ 475 (current contract) =	<u>2,375</u>
Total Subcontract Cost	26,099
Performance Bond (1.5%)	391
Engineering cost to administer subcontract	
8 hours @ \$57.50 =	<u>460</u>
Sub-Total	26,950
Allocated Fee (5%)	1,350
Total Estimated Cost	\$28,300

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