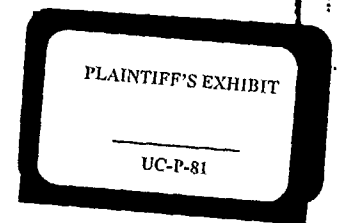


**Budget Estimate
Union Carbide
Brownsville, Texas**



1. Asbestos Landfill

Volume to Dispose - assumes:

500' x 700' x 4' = 52,000 C.Y x 1.3 ("Fluff" factor = 67,600 C.Y.

Offsite Disposal

Assume 20 C.Y. Loads/Truck = 3380 loads

Load ⁵\$3.00 x (32,000 x 1.3) =
Truck Liner \$20.00 x 3380 loads =
Haul \$60.00 x 3380 loads =
Landfill Fee ~~\$36.25~~ x (52,000 x 1.2) =

\$750.00

Total

\$ 202,800 *208,800*
67,600
2,028,000
~~2,298,400~~ *3,120,000*

~~\$4,500,400~~ *5,427,800*
209,600 contingency

[\$2,276,000]

Cap Existing Disposal Area

500' x 700' = 39,000 S.Y. (assumes 1 foot thick cap)

Cap (Purchased Clay) 39,000 x \$20.00 S.Y. =
(includes recompaction, contouring)

[\$ 780,000]

Monitoring Wells - Landfill

Assume 1 downgradient well in place is usable

4 additional downgradient}

1 additional upgradient}

Total of 5 new wells

- \$2500/well install, decon, mob/demob x 5 wells =
- 2 wells/day x 3 days ENSR Labor x 1200.00/day

12,500

3,600

[16,100]

- 4 samplings/year x 2 days (purge/sample) per quarter
4 x 2 = 8 days x 1200
- supplies and materials 500 x 4 samplings
- analytical 1000/well/quarter
1000 x 6 wells x 4 quarter
- 1000 transport of generated wastes
1200 analytical for disposal of generated wastes
1500 technician/management of disposal
(cost does not include replacement of wells with
time due to damage, silting, plugging, etc.)

9,600/yr

2,000/yr

24,000/yr

4,000/yr

4,800/yr

6,000/yr

[50,400]

Budget Estimate
Union Carbide
Brownsville, Texas
(cont'd)

Page 2 of 6

2. Catalyst Pile in North

Volume to Dispose - assumes:

 $100' \times 100' \times 4' = 1480 \text{ C.Y.} \times 1.3 = 1925 \text{ C.Y.}$ Offsite Disposal

Assume 20 C.Y. Loads/Truck = 95 loads

Load \$3.00 x 1.3 (fluff factor x 1480 C.Y.)	=	5,772
Truck Liner \$ 20.00 x 95 loads	=	1,900
Haul \$600 x 95 loads	=	57,000
Landfill Fee \$36.25 x (1480 x 1.3)	=	69,745
Total		134,417

3. Catalyst Piles (6 scattered)

Volume to Dispose - assumes:

 $25' \times 25' \times 4' \times 6 \text{ piles} = 555 \text{ C.Y.} \times 1.3 = 720 \text{ C.Y.}$

Assume 1 C.Y. weighs 12,150 lbs @ 450#/CF (Iron catalyst)
Truck Can Haul 40,000 lb load = 3.3 C.Y.'s/Load

Offsite Disposal

Assume 3.3 C.Y. Loads/Truck = 220 loads

Load \$3.00 (555 x 1.3)	=	2,185
Haul \$600 x 220 loads	=	132,000
Landfill Fee \$36.25 x (555 x 1.3)	=	26,100
Total		160,285

**Budget Estimate
Union Carbide
Brownsville, Texas
(cont'd)**

Page 3 of 6

4. Purple Colored/Oily Dirt Piles

Volume to Dispose - assumes:
250 C.Y. (Loose)
TPH 600-1500 PPM

Offsite Disposal (Assume 20 C.Y./truck = 13 loads)

Load \$ 3.00 x 250 C.Y.	=	750
Truck Liner \$20.00 x 13 loads	=	260
Haul \$600.00 x 13 loads	=	7,800
Landfill Fee \$36.25 x 250 C.Y.	=	9,085
Total		17,875

5. SWMU Z (Oily Black Dirt)

Volume to Dispose - assumes:
75' x 75' x 12' = 2,500 x 1.3 = 3,250
TPH 1500-5000 PPM

Offsite Disposal

Assume 20 C.Y. Loads/Truck = 165 loads

Load \$3.00 x (2,500 x 1.3)	=	9,750
Truck Liner \$20.00 x 165 loads	=	3,300
Haul \$600.00 x 165 loads	=	99,000
Landfill Fee \$41.25 x (2500 x 1.3)	=	134,062

Total **\$246,112**

Total Off-site

= \$5,120,000

Total On-Site

\$780,000 + 20% = \$1,000,000
If no MTR requirements/just cover

DE 000951

**Budget Estimate
Union Carbide
Brownsville, Texas
(cont'd)**

Page 4 of 6

6. Q114 Sump

Volume to dispose - 18,000 gal sludge (TPH 600-1600 ppm)

Method: Stabilize and dispose in offsite landfill

18,000 gal x 0.1337 = 2406 C.F. ÷ 27 = 90 C.Y.

Stabilize

90 C.Y. x \$150/C.Y.	=	\$13,500
90 x 1.3 = 120 C.Y. to Dispose		

Offsite Disposal

Assume 20 C.Y./Truck Load = 6 loads

Load \$3.00 x 120 C.Y.	=	300
Truck Liner \$20 x 6 loads	=	120
Haul \$600 x 6 loads	=	3,600
Landfill Fee \$36.25 x 120 C.Y.	=	<u>4,350</u>

	Total	\$21,930
--	-------	----------

7. Carbon Seam in North Pond

Volume - Assume 1000 C.Y. TPH Soil (600-1500 PPM)

Scrape 1' for 22,000 Sq. Ft.

Offsite Disposal

Assume 20 C.Y. Loads/Truck = 50 loads

Load \$3.00 x 1000 C.Y.	=	3,000
Truck Liner \$20 x 50 loads	=	1,000
Haul \$600 x 50 loads	=	30,000
Landfill Fee \$36.25 x 1000 C.Y.	=	<u>36,250</u>

	Total	\$70,250
--	-------	----------

**Budget Estimate
Union Carbide
Brownsville, Texas
(cont'd)**

Page 5 of 6

8. Tank 4307 Sells

Volume - 100'Dia Tank 2'

Volume = $\pi R^2 H = 3.1412 \times 50^2 \times 2' = 15,708 \text{ ft}^2 \div 27 = 582 \text{ C.Y.}$ **Offsite Disposal**582 $\div$ 20 C.Y. Truck = 30 trucks

Load \$3.00 x (582 x 1.3)	=	2,270
Truck Liner \$20 x 30 loads	=	600
Haul \$600 x 30 loads	=	18,000
Landfill Fee \$37.25 (582 C.Y. x 1.3)	=	<u>28,184</u>
Total		\$49,054

9. Other Misc. Areas

Volume - Assume 500 C.Y.

Offsite Disposal500 $\div$ 20 C.Y./Truck = 25 trucks

Load \$3.00 x 500	=	1,500
Truck Liner \$20 x 25	=	500
Haul \$600 x 25	=	15,000
Landfill Fee \$37.25 x 500	=	<u>18,625</u>
Total		\$35,625

Budget Estimate
Union Carbide
Brownsville, Texas
(cont'd)

Page 6 of 6

Summary

Item 6	21,930
Item 7	70,250
Item 8	98,160
Item 9	<u>35,825</u>

Subtotal	\$225,965
----------	-----------

MGMT @ 15% =	<u>34,000</u>
--------------	---------------

\$259,965

Contingency @12%	<u>30,000</u>
---------------------	---------------

Total	\$289,965
-------	-----------

DE 000954