

PERMIT ATTACHMENT 02

FINANCIAL ASSURANCE FOR CLOSURE Modified from the Permit Application, Volume I, Sections 8.7.1 and 8.8.1

8.7.1 Closure Costs

Table 02-1 summarizes the closure cost estimates for the drum handling unit, roll-off storage area, liquid waste receiving and storage unit, truck wash unit, stabilization unit, evaporation pond, and landfill closure. These estimates are based on 2000 dollars and will be updated annually as required in 40 CFR Part 264.142(b).

These estimates are based on costs for closure when each unit is at maximum capacity, which is the point in the Facility's active life when the extent and manner of its operation would make closure the most expensive. As required in 40 CFR Part 264.142(a)(2), cost estimates are based on the costs of hiring a third party to close the Facility. Costs for onsite disposal are used in this cost estimate because Facility closure will be scheduled when sufficient landfill capacity remains to handle closure wastes. The maximum volume of waste that the Facility is projected to generate through closure activities is shown in Permit Attachment O, *Closure Plan*, Table 8-1, *Closure Generated Waste Quantities*.

Water - The GMI closure cost estimate has been revised (increased) to match the total amount recommended by the Hearing Officer. This estimate includes detailed unit rates for all closure activities. In addition, it included costs for water usage during construction and revegetation and for maintenance of the cover during the post-closure care period (\$30,000 per year for 30 years² total of \$900,000). The water requirements for closure were based on estimates from local revegetation specialists that estimated approximately \$2000/acre for water. We utilized almost twice that number in the estimate. Water costs are included in the earthworks for backfilling, which is expected to be the major demand for water.

Cost Estimating Handbook - A check using Cost-estimating handbooks (CRG and Caterpillar production program) were used for the major earthworks items in the closure costs. This includes the backfilling for the landfill during closure and clean soil backfilling for other facilities. Also includes major components of the cover placement. The handbook estimated backfill direct costs at \$1.12 to 1.28/cy. This compares to the GMI estimate of \$1.46/cy. These numbers do not include the 25% for indirect costs and 10% for NMED supervision.

Conclusion: - The unit rates used in the cost estimate are conservative for the major earthworks components.

Erosion Control and Revegetation - The type and density of vegetation was assumed in the erosion calculations (60% cover). The drainage structures are also specified in the design drawings and specifications. The top surface slopes are sufficient flat (6%) that contour ditches are not required. The access road ditches are sufficient to handle any runoff. The calculation of erosion of topsoil was based on the vegetation density of (60% cover). The topsoil removed from the footprint of the facilities will be used for the final cover. Water needs and costs are discussed above. Maintenance of the cover is included in the post-closure cost estimate. This includes approximately \$30,000 per year for maintenance (re-seeding and erosion repair). Over the 30-year period this totals approximately \$900,000.

Seed Mix - Upon closure Gandy will work with the locale soil conservation service to develop a seed mixture which will consist of both locale types of vegetation along with good cover types of vegetation.

Vegetation Density - According to the sediment demonstration for the final cover, a 60% herbaceous cover (which includes litter) is required to keep erosion down to 2 tons/acre/year.

Final Drainage Channels - Channels 1, 2, 3, 4, and 5 will remain as permanent channels. The locations and designs for the channels are shown on Drawing 25 and 26.

Topsoil - Upon closure Gandy will use the topsoil that was striped and stockpiled prior to construction of the site. At that time, the topsoil will be tested and according to the test result appropriate soil amendments will be determined and added.

8.8.1 Financial Assurance for Closure

40 CFR 264.143 defines the standards for financial assurance for closure. The financial instrument selected to provide coverage for this requirement must be implemented and submitted to the NMED at least 60 days prior to the initial receipt of waste.

Upon receipt of the final permit for the Facility, GMI will evaluate and select one of the financial instruments defined in 40 CFR 264.143 to provide financial assurance for the closure of the Facility. Selection of one of the following six financial instruments will consider the effectiveness and economics of the particular options. The instruments defined in the regulations are:

1. Financial test and corporate guarantee for closure
2. Closure trust fund
3. Surety bond guaranteeing payment into a closure trust fund
4. Surety bond guaranteeing performance of closure
5. Closure letter of credit
6. Closure insurance

The appropriate instrument will be selected, implemented, and submitted a minimum of 60 days prior to the initial receipt of waste as required by 40 CFR 264, Subpart H.

TABLE O2-1
SITE CLOSURE COST ESTIMATES

DRUM HANDLING UNIT	COST (\$)
Stabilization and Disposal of Remaining Drum Waste Inventory	36,071
Decontamination of Equipment and Buildings	7,200
Stabilization and Disposal of Decontamination Water	14,630
Chemical Testing of Decontamination Water	2,040
Dismantling and Moving Structure and Equipment	23,775
Dismantling and Disposal of Concrete Floor and Secondary Containment	122,570
Soil Sampling and Chemical Analysis	138,720
Excavation of Contaminated Soils	7,307
Disposal of Contaminated Soils	15,930
Earth Backfill for Excavated Contaminated Soils	1,827
Revegetation	1,840
Certification of Closure Inspection	3,000
Certification of Closure Report	20,000
Subtotal	\$394,910

EVAPORATION POND	COST (\$)
Stabilization and Disposal of Remaining Liquid Waste Inventory	342,954
Decontamination of Equipment	240
Stabilization and Disposal of Decontamination Water	7,315
Chemical Testing of Decontamination Water	2,040
Removal and Disposal of Liner and Leachate Collection System	99,880
Soil Sampling and Chemical Analysis	128,520
Excavation of Contaminated Soils	18,019
Disposal of Contaminated Soil	37,790
Earth Backfill for Excavated Contaminated Soils	6,832
Revegetation	1,873
Certification of Closure Inspection	3,000
Certification of Closure Report	20,000
Subtotal	\$668,463

TABLE O2-1 (cont'd.)
SITE CLOSURE COST ESTIMATES

LIQUID WASTE RECEIVING AND STORAGE UNIT	COST (\$)
Stabilization and Disposal of Remaining Waste Inventory	105,336
Decontamination of Equipment and Buildings	2,400
Chemical Testing of Decontamination Water	2,040
Stabilization and Disposal of Decontamination Water	14,630
Removal and Disposal of Tanks and Concrete Pad	14,605
Soil Sampling and Chemical Analysis	61,200
Excavation of Contaminated Soils	436
Disposal of Contaminated Soil	967
Earth Backfill for Excavated Contaminated Soils	218
Revegetation	731
Certification of Closure Inspection	3,000
Certification of Closure Report	15,000
Subtotal	\$220,563

STABILIZATION UNIT	Cost (\$)
Stabilization and Disposal of Remaining Waste Inventory	21,024
Decontamination of Equipment and Buildings	4,560
Chemical Testing of Decontamination Water	2,040
Stabilization and Disposal of Decontamination Water	14,630
Dismantling and Salvaging Tanks, Ancillary Equipment, and Building	24,905
Removal and Disposal of Tanks and Concrete Pad	57,980
Soil Sampling and Chemical Analysis	40,800
Excavation of Contaminated Soils	2,150
Disposal of Contaminated Soil	4,766
Earth Backfill for Excavated Contaminated Soils	1,076
Revegetation	1,464
Certification of Closure Inspection	3,000
Certification of Closure Report	15,000
Subtotal	\$193,395

TABLE 02-1
SITE CLOSURE COST ESTIMATES (cont'd.)

ROLL-OFF STORAGE AREA UNIT	Cost (\$)
Stabilization and Disposal of Remaining Waste Inventory	832,550
Decontamination of Equipment	0
Chemical Testing of Decontamination Water	0
Stabilization and Disposal of Decontamination Water	0
Demolition and Disposal of Liner System	105,248
Soil Sampling and Chemical Analysis	144,840
Excavation of Contaminated Soils	21,353
Disposal of Contaminated Soil	44,781
Earth Backfill for Excavated Contaminated Soils	10,120
Revegetation	2,733
Certification of Closure Inspection	3,000
Certification of Closure Report	15,000
Subtotal	\$1,179,625

TRUCK WASH UNIT	Cost (\$)
Stabilization and Disposal of Remaining Waste Inventory	5,270
Chemical Testing of Decontamination Water	2,040
Decontamination of Equipment	0
Stabilization and Disposal of Decontamination Water	0
Demolition and Disposal of Tanks, Structures, Concrete and Liner System	16,769
Soil Sampling and Chemical Analysis	20,400
Excavation of Contaminated Soils	285
Disposal of Contaminated Soil	598
Earth Backfill for Excavated Contaminated Soils	178
Revegetation	99
Certification of Closure Inspection	3,000
Certification of Closure Report	5,000
Subtotal	\$53,639

TABLE 02-1
SITE CLOSURE COST ESTIMATES (cont'd.)

LANDFILL	Cost (\$)
Landfill Excavation Backfill	4,120,000
Cover Engineering Design	30,000
Landfill Cover	3,374,432
Demolition of Tanks, Concrete and Liner System	2,426
Leachate Treatment Facility Construction	0
Leachate Treatment Facility Operations	0
Leachate Pumping and Disposal (volume = 133,000 Gallons [551 tons])	98,021
Sump Vadose Zone Sampling and Analysis	8,000
Well Vadose Zone Monitoring System Sampling and Analysis	48,000
Soil Sampling and Analysis	\$104,040
Final Plat Survey	2,400
Certification of Closure Inspection	3,000
Certification of Closure Report	15,000
Subtotal	\$7,805,319
Total from unit closures	\$2,710,595
Water Rights and Application	\$114,000
Total Closure Cost	\$10,599,914