

APPENDIX E

FINANCIAL ASSURANCE

2024 CLOSURE COST ESTIMATE UPDATE FOR SURFACE FACILITIES CLOSURE





Mid-Way Environmental Services, Inc.

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May 21, 2024

Ms. Hillary Young, P.E.
Chief Engineer
Land Protection Division
Oklahoma Department of Environmental Quality
P. O. Box 1677
Oklahoma City, Oklahoma 73101-1677

**RE: 2024 Closure Cost Estimate Update
Mid-Way Environmental Services, Inc. NHIW Processing Facility
Lincoln County, Oklahoma
Solid Waste Permit No. 3541017**

Dear Ms. Young:

Mid-Way Environmental Services, Inc. (MES) is herewith submitting this updated Closure Cost Estimate for the MES Non-Hazardous Industrial Waste (NHIW) Processing Facility (Facility) in Lincoln County, Oklahoma.

The Facility consists of 23 storage tanks; 3 settling tanks; 1 wastewater impoundment; and ancillary process equipment, pumps and buildings. The following assumptions were made in developing the closure cost estimate:

- 1) At the time of closure, all tanks will be full.
- 2) All of the contents in the tanks will be removed, transported and disposed at a permitted facility; and
- 3) All tanks, process equipment and buildings will be washed or rinsed and the rinsate will be transported and disposed at a permitted facility.

The assumptions utilized reflect the worst-case scenario for the closure of this Facility. The permitted total storage capacity for this Facility is 702,200 gallons. The rinsate volume is estimated to be 97,800 gallons. The total volume of non-hazardous liquid transportation and disposal considered is 800,000 gallons.

The closure cost estimate has been updated by utilizing the 2024 Worksheet for Calculating Closure and Post-Closure Cost Estimates as published by the Oklahoma Department of Environmental Quality (DEQ) which includes a 3.64% inflationary adjustment for 2024.

Class I Commercial / Industrial Injection well
900536 S. 3490 Road, Chandler, OK 74834

Class II Exploration / Production Injection Well
355956 W. 910 Road, Stroud, OK 74079

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The estimated total cost for the closure of this Facility has increased from \$457,152.50 in 2023 to **\$473,749.71 in 2024**. MES currently maintains a letter of credit (#SDP14000388) in the amount of **\$500,000.00** which is in excess of the current estimated closure cost. Upon renewal of this letter of credit, MES will not adjust this financial assurance mechanism below the DEQ approved closure cost. The closure cost estimate worksheet is attached to this letter. A copy of the letter of credit will be sent to DEQ within thirty (30) days of the approval of this closure cost estimation.

Should you have any questions or require additional information, please do not hesitate to call me at 918-665-6575.

Respectfully,

Mid-Way Environmental Services, Inc.



Tolga Ertugrul, P.E.

President, MES

Attachment 1: 2024 Worksheets for Calculating Closure Cost Estimates

Cc. Ms. Kaylee Daneshmand, DEQ
Mr. John Gowan, DEQ
Mr. Orphius Mohammad, PhD, P.E., A & M

Attachment 1

2024 Worksheets for Calculating Closure Cost Estimate

2024 Worksheet for Calculating Closure and Post-Closure Cost Estimates

Table H.1 - Site Data

Facility Name: Mid-Way Environmental Services, Inc. NHIW Processing Facility

Permit Number: ODEQ Permit Number 3541017

Description	Quantity	Units
Total Permitted Area	20.00	acres
Active Portion	8.00	acres
Composite Lined	0.00	acres
Soil Lined	0.00	acres
Area of Largest Cell/Phase Requiring Final Cap		
Composite Lined	0.00	acres
Soil Lined	0.00	acres
Perimeter Fencing	2,608.00	Linear Feet
Groundwater Monitoring Wells	578.00	VLF
Methane Gas Probes	0.00	VLF
Terraces	0.00	Linear Feet
Letdown channels	0.00	Linear Feet
Perimeter drainage ditches	500.00	Linear Feet
Average Daily Flow	0.00	tons/day
Landfill Disposal Cost	0.00	\$/ton

VLF = Vertical linear feet. The sum of the depths of all monitoring wells.

Table H.2 - Closure Cost Estimates

Facility Name: Mid-Way Environmental Services, Inc. NHIW Processing Facility

Permit Number: ODEQ Permit Number 3519017

	Task/Service	Quantity	Units	Multiplier	Unit Cost	Subtotal
1	PRELIMINARY SITE WORK					
1.1	Conduct Site Evaluation	1	Lump Sum	1 ^a	\$4,376.08 ^b	\$4,376.08
1.2	Dispose Final Wastes					
	Average Daily Flow	0.00	tons/day			
	Disposal Cost	0.00	tons/day	5 ^a	\$0.00	\$0.00
1.3	Removal Temporary Building(s)	1	Lump Sum	1 ^a	4,012.98 ^b	\$4,012.98
1.4	Remove Equipment	1	Lump Sum	1 ^a	3,275.69 ^b	\$3,275.69
1.5	Repair/Replace Perimeter Fencing	2,608.00	Linear Feet	0.25 ^a	\$4.29 ^b	\$2,797.08
1.6	Clean Leachate Lines(s)	0	Lump Sum	1 ^a	\$1,982.05 ^b	\$0.00
2	MONITORING EQUIPMENT					
2.1	Rework/Replace Monitoring Well(s)	0.00	VLF	0.25 ^a	\$92.01 ^b	\$0.00
2.2	Plug Abandoned Monitoring Well(s)	578.00	VLF	0.25 ^a	\$36.83 ^b	\$5,321.94
2.3	Rework/Replace Methane Probe(s)	0.00	VLF	0.25 ^a	\$79.47 ^b	\$0.00
2.4	Plug Abandoned Methane Probe(s)	0.00	VLF	0.25 ^a	\$29.04 ^b	\$0.00
2.5	Rework/Replace Remediation and/or Gas Control Equipment	0	Lump Sum	0.05 ^a	\$0.00	\$0.00
3	CONSTRUCTION					
3.1	Complete Site Grading to include on- and off- site borrow areas	0.00	Acres	1 ^a	\$1,735.01 ^b	\$0.00
3.2	Construct Final Cap					
	Compacted on-site Clay Cap or	0.00	Cubic Yards	1 ^a	\$6.23 ^b	\$0.00
	Compacted off-site Clay Cap	0.00	Cubic Yards	1 ^a	\$10.13 ^b	\$0.00
	Install Geosynthetic Clay Liner Cap	0.00	Square Feet	1 ^a	\$0.65 ^b	\$0.00
3.3	Construct Landfill Gas Venting Layer					
	Place Sand or	0.00	Acres	1 ^a	\$46,392.25 ^b	\$0.00
	Install Net and Geotextile	0.00	Square Feet	1 ^a	\$0.46 ^b	\$0.00
3.4	Install Passive Landfill Gas Vents	0.00	Acres	1 ^a	\$1,111.39 ^b	\$0.00
3.5	Install Flexible Membrane Liner	0.00	Square Feet	1 ^a	\$0.51 ^b	\$0.00
3.6	Drainage Layer					
	Place Sand or	0.00	Acres	1 ^a	\$46,392.25 ^b	\$0.00
	Install Net and Geotextile	0.00	Square Feet	1 ^a	\$0.46 ^b	\$0.00
3.7	Place On-Site Topsoil	0.00	Cubic Yards	1 ^a	\$2.68 ^b	\$0.00
	Place Off-Site Topsoil	0.00	Cubic Yards	1 ^a	\$21.44 ^b	\$0.00
3.8	Establish vegetative cover, including on- and off-site borrow areas	0.00	Acres	1 ^a	\$1,236.49 ^b	\$0.00
4	DRAINAGE /EROSION CONTROL					
4.1	Construct Terraces	0.00	Linear Feet	1 ^a	\$11.23 ^b	\$0.00
4.2	Construct Letdown Channels	0.00	Linear Feet	1 ^a	\$122.82 ^b	\$0.00
4.3	Clean Perimeter Ditches	500.00	Linear Feet	0.5 ^a	\$8.56 ^b	\$2,140.00
5	TASKS NOT IDENTIFIED					
5.1	WATER SAMPLING AND ANALYSIS					
5.1.1	Groundwater Monitoring Wells	5	# of Wells	1	\$858.38 ^c	\$4,291.90
5.1.2	Surface Water Monitoring Points	2	Sample Pts	1	\$103.44 ^c	\$206.88

5.1.3	Tank Rinsate	27	# of Tanks	1	\$858.38 ^c	\$23,176.26
5.2	REMOVAL/DISPOSAL OF LIQUID WASTE AND RINSATE					
5.2.1	Removal, Transportation and Disposal	800,000	Gallons	1	\$0.2488 ^d	\$199,040.00
5.3	SOIL SAMPLING AND ANALYSIS					
5.3.1	Facility Soil Testing	8	# of Samples	1	\$858.38 ^c	\$6,867.04
5.4	SITE RESTORATION					
5.4.1	Clean and Remove Tanks, Impoundments, and Related Accessories	1	Lump Sum	1	\$72,920.49 ^d	\$72,920.49
5.4.2	Remove Buildings and Concrete Structures	1	Lump Sum	1	\$16,552.55 ^d	\$16,552.55
5.4.3	Site Grading and Vegetation	1	Lump Sum	1	\$13,922.41 ^d	\$13,922.41
6	SUBTOTAL					\$358,901.30
7	ADMINISTRATIVE SERVICES	1	Lump sum	0.10 ^a	\$358,901.30	\$35,890.13
8	TECHNICAL AND PROFESSIONAL SERVICES	1	Lump sum	0.12 ^a	\$358,901.30	\$43,068.16
9	CLOSURE CONTINGENCY	1	Lump sum	0.10 ^a	\$358,901.30	\$35,890.13
10	TOTAL FINAL CLOSURE					\$473,749.71

^a Multipliers are determined from the Solid Waste Financial Assurance Program Report, December 22, 2000.

^b Unit costs include a 3.64% inflationary adjustment for 2024.

^c Sampling and Analysis Costs based on DEQ Post-Closure Cost Estimate Worksheet (Table I.1).

^d Unit Cost from Average Cost of 3 Third Party Bids from 2016, including a 1.32% inflationary adjustment for 2017, a 1.02% inflationary adjustment for 2018, a 2.26% inflationary adjustment for 2019, a 1.75% inflationary adjustment for 2020, a 1.21% inflationary adjustment for 2021, a 4.14% inflationary adjustment for 2022, a 6.98% inflationary adjustment for 2023 and a 3.64% inflationary adjustment for 2024.

COST ASSUMPTIONS:

- 1) At the time of closure, all tanks will be completely full.
- 2) All the contents in the tanks will be hauled and disposed at a permitted off-site facility.
- 3) All tanks, process equipment, and buildings will be washed, rinsed and the generated risate will be hauled and disposed off-site or recycled.