Clean Harbors Lone Mountain, LLC.
40355 S. County Road 236
Waynoka, OK 73860
Tel: 580.697.3500
Fax: 580.697.3596
www.cleanharbors.com

RECEIVED
AUG 27 2025
LAND PROTECTION DIVISION
DEPT. OF ENVIRON. QLTY.

August 20, 2025

Ms. Hillary Young, P.E.
Chief Engineer, Land Protection Division
Oklahoma Department of Environmental Quality
707 N Robinson
Oklahoma City, OK, 73102

RE: Clean Harbors Lone Mountain, LLC

EPA ID No. OKD065438376
Class 3 Permit Modification Request – Container Management Building Expansion

Dear Ms. Young:

The Clean Harbors Lone Mountain Facility is hereby submitting Class 3, Tier III Permit Modification request in accordance with Oklahoma Administrative Code (OAC) 252:205-3-2(k) and Title 40 of the Code of Federal Regulations (CFR) § 270.42(c) to expand our current Container Management Building (CMB) to RCRA/HSWA Permit No. 3547005. Currently our Container Management Building (CMB) dock is permitted to accommodate 182,390 gallons or 3,326 drums. This permit modification would allow Clean Harbors Lone Mountain (CHLM) to expand the size of the CMB therefore, increasing the amount of waste to be stored and managed to 365,860 gallons or 6,652 drums. The modification is necessary to allow an increase in volume of waste stored and processed at the facility.

Enclosed with this submittal, please find the Container Management Building (CMB) Engineering Report detailing the engineering design of this proposed addition to the CMB. The enclosed CMB expansion Engineering Report prepared by our consulting engineer, Envirotech Consultants, on the facility's behalf.

Container Management Building expansion has been designed in accordance with applicable State and Federal regulations including the relevant hazardous waste management, and the incorporated-by reference requirements to 40 CFR including but not limited to Parts 264 and 270.

255200 CD___ #c___ c/o_____

Should you have any questions, please call me at (580) 697-3500.

Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Michael Meriwether
Facility General Manager
Clean Harbors Lone Mountain, LLC

Attachment(s)
Form A
Part III Storage in Containers
Part VII Special Conditions
Attachment 3 Contingency Plan
Attachment 5 Closure Plan
Attachment 6 Post Closure
Attachment 11 Waste Management Areas

cc: Brigette Haley, ODEQ
James Wilkins, ODEQ
Jay Adair, Clean Harbors
Michael Crisenbery, Clean Harbors
Christine Sawyer, Clean Harbors
Jared Torstenson, Clean Harbors

United States Environmental Protection Agency
RCRA SUBTITLE C SITE IDENTIFICATION FORM

1. Reason for Submittal (Select only one.)

☐	Obtaining or updating an EPA ID number for on-going regulated activities (Items 10-17 below) that will continue for a period of time.
☐	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
	☐ Site was a TSD facility, a reverse distributor, and/or generator of ≥ 1,000 kg of non-acute hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in **one or more months of the reporting year** (or State equivalent LQG regulations)
☐	Notifying that regulated activity is no longer occurring at this Site
☐	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
☑	Submitting a new or revised Part A (permit) Form

2. Site EPA ID Number

O	K	D	0	6	5	4	3	8	3	7	6

3. Site Name

Clean Harbors Lone Mountain, LLC

4. Site Location Address

Street Address **Approximately 5 miles East and 1 Mile North of US Hwy 21 and 412**		
City, Town, or Village **Waynoka**		County **Major**
State **Oklahoma**	Country **United States**	Zip Code **73860**
Latitude	Longitude	☐ Use Lat/Long as Primary Address

5. Site Mailing Address ☑ Same as Location Street Address

Street Address **40355 S. County Road 236**		
City, Town, or Village **Waynoka**		
State **Oklahoma**	Country **United States**	Zip Code **73860**

6. Site Land Type

☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary)	**532211**	C.	**562212**
B.	**562219**	D.	**484230**

8. Site Contact Information ☐ Same as Location Address

First Name **Michael**	MI	Last Name **Meriwether**
Title **Facility General Manager**		
Street Address **40355 S. County Road 236**		
City, Town, or Village **Waynoka**		
State **Oklahoma**	Country **United States**	Zip Code **73860**
Email **Meriwether,michael@cleanharbors.com**		
Phone **339-832-0602**	Ext	Fax

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner ☐ Same as Location Address

Full Name **Clean Harbors Lone Mountain, LLC**	Date Became Owner (mm/dd/yyyy) **9/6/2002**

Owner Type: ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

Street Address **40355 S. County Road 236**		
City, Town, or Village **Waynoka**		
State **Oklahoma**	Country **United States**	Zip Code **73860**
Email		
Phone	Ext	Fax
Comments		

B. Name of Site's Legal Operator ☐ Same as Location Address

Full Name **Clean Harbors Lone Mountain, LLC**	Date Became Operator (mm/dd/yyyy) **9/6/2002**

Operator Type: ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

Street Address **40355 S. County Road 236**		
City, Town, or Village **Waynoka**		
State **Oklahoma**	Country **United States**	Zip Code **73860**
Email **Meriwether.michael@cleanharbors.com**		
Phone **339-832-0602**	Ext	Fax
Comments		

10. Type of Regulated Waste Activity (at your site)

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities

☑ Y ☐ N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c		
	☑	a. LQG	-Generates, in any calendar month, 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste (includes quantities imported by importer site); or - Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or - Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material.
	☐	b. SQG	100 to 1,000 kg/mo (220-2,200 lb/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material.
	☐	c. VSQG	Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste.
☐ Y ☑ N	2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section. *Note: If "Yes", you MUST indicate that you are a Generator of Hazardous Waste in Item 10.A.1 above.*		
☑ Y ☐ N	3. Treater, Storer or Disposer of Hazardous Waste—Note: Part B of a hazardous waste permit is required for these activities.		
☑ Y ☐ N	4. Receives Hazardous Waste from Off-site		
☐ Y ☑ N	5 Recycler of Hazardous Waste		
	☐	a. Recycler who stores prior to recycling	
	☐	b. Recycler who does not store prior to recycling	
☐ Y ☑ N	6. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.		
	☐	a. Small Quantity On-site Burner Exemption	
	☐	b. Smelting, Melting, and Refining Furnace Exemption	

B. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001	D006	D011	D016	D021	D026	D031
D002	D007	D012	D017	D022	D027	D032
D003	D008	D013	D018	D023	D028	D033
D004	D009	D014	D019	D024	D029	D034
D005	D010	D015	D020	D025	D030	CONT

C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes. Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

11. Additional Regulated Waste Activities (NOTE: Refer to your State regulations to determine if a separate permit is required.)

A. Other Waste Activities

☑ Y ☐ N	1. Transporter of Hazardous Waste—If "Yes", mark all that apply.
☑	a. Transporter
☑	b. Transfer Facility (at your site)
☐ Y ☑ N	2. Underground Injection Control
☐ Y ☑ N	3. United States Importer of Hazardous Waste
☐ Y ☑ N	4. Recognized Trader—If "Yes", mark all that apply.
☐	a. Importer
☐	b. Exporter
☐ Y ☑ N	5. Importer/Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR 266 Subpart G—If "Yes", mark all that apply.
☐	a. Importer
☐	b. Exporter

B. Universal Waste Activities

☐ Y ☑ N	1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) - If "Yes" mark all that apply. Note: Refer to your State regulations to determine what is regulated.
☐	a. Batteries
☐	b. Pesticides
☐	c. Mercury containing equipment
☐	d. Lamps
☐	e. Aerosol Cans
☐	f. Other (specify) _____
☐	g. Other (specify) _____
☐ Y ☑ N	2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities

☐ Y ☑ N	1. Used Oil Transporter—If "Yes", mark all that apply.
☐	a. Transporter
☐	b. Transfer Facility (at your site)
☐ Y ☑ N	2. Used Oil Processor and/or Re-refiner—If "Yes", mark all that apply.
☐	a. Processor
☐	b. Re-refiner
☐ Y ☑ N	3. Off-Specification Used Oil Burner
☐ Y ☑ N	4. Used Oil Fuel Marketer—If "Yes", mark all that apply.
☐	a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
☐	b. Marketer Who First Claims the Used Oil Meets the Specifications

D. Pharmaceutical Activities

☐ Y ☑ N	1. Operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals—if "Yes", mark only one. Note: See the item-by-item instructions for definitions of healthcare facility and reverse distributor.
☐	a. Healthcare Facility
☐	b. Reverse Distributor
☐ Y ☑ N	2. Withdrawing from operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals. Note: You may only withdraw if you are a healthcare facility that is a VSQG for all of your hazardous waste, including hazardous waste pharmaceuticals.

12. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262, Subpart K.

☐ Y ☑ N	A. Opting into or currently operating under 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories— If "Yes", mark all that apply. Note: See the item-by-item instructions for definitions of types of eligible academic entities.
☐	1. College or University
☐	2. Teaching Hospital that is owned by or has a formal written affiliation with a college or university
☐	3. Non-profit Institute that is owned by or has a formal written affiliation with a college or university
☐ Y ☑ N	B. Withdrawing from 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories.

13. Episodic Generation

☐ Y ☑ N	Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves you to a higher generator category. If "Yes", you must fill out the Addendum for Episodic Generator.

14. LQG Consolidation of VSQG Hazardous Waste

☐ Y ☑ N	Are you an LQG notifying of consolidating VSQG Hazardous Waste Under the Control of the Same Person pursuant to 40 CFR 262.17(f)? If "Yes", you must fill out the Addendum for LQG Consolidation of VSQG hazardous waste.

15. Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (required)

☐ Y ☑ N LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility.
A. ☐ Central Accumulation Area (CAA) or ☐ Entire Facility
B. Expected closure date: _____ mm/dd/yyyy
C. Requesting new closure date: _____ mm/dd/yyyy
D. Date closed : _____ mm/dd/yyyy ☐ 1. In compliance with the closure performance standards 40 CFR 262.17(a)(8) ☐ 2. Not in compliance with the closure performance standards 40 CFR 262.17(a)(8)

16. Notification of Hazardous Secondary Material (HSM) Activity

☐ Y ☑ N	Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material.

17. Electronic Manifest Broker

☐ Y ☑ N	Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator?

18. Comments (include item number for each comment)

B. Waste Codes: Continued on attached pages 3a and 3b.

19. Certification I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11)**.

Signature of legal owner, operator or authorized representative	Date (mm/dd/yyyy)
Printed Name (First, Middle Initial Last) **Alan J. Adair**	Title **Senior Vice President Landfill Operations**
Email **adair.alan@cleanharbors.com**	

Signature of legal owner, operator or authorized representative	Date (mm/dd/yyyy)
Printed Name (First, Middle Initial Last)	Title
Email	

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT PART A FORM

1. Facility Permit Contact

First Name	**Michael**	MI	**L**	Last Name	**Meriwether**
Title	**Facility General Manager**				
Email	**meriwether.michael@cleanharbors.com**				
Phone	**580-697-3520**	Ext		Fax	

2. Facility Permit Contact Mailing Address

Street Address	**40355 S. County Road 236**	
City, Town, or Village	**Waynoka**	
State **Oklahoma**	Country **United States**	Zip Code **73860**

3. Facility Existence Date (mm/dd/yyyy)

9/6/2022

4. Other Environmental Permits

A. Permit Type	B. Permit Number	C. Description
R	35470057	RCRA Part B Permit
R	OKD065438376	RCRA Post-Closure Permit
E	47002	ODEQ Disposal Plan
N	OKSC00164	Stormwater General Permit
E	96-517-0	Air Quality Permit
E	P330-18-00361	APHIS Permit to Recieve Soil

5. Nature of Business

Treatment, Storage, and disposal of hazardous and non-hazardous waste generated by various industries and goverment agencies.

6. Process Codes and Design Capacities

Line Number		A. Process Code			B. Process Design Capacity (1) Amount	B. Process Design Capacity (2) Unit of Measure	C. Process Total Number of Units	D. Unit Name
0	1	S	0	1	408385	G	007	Container Storage
0	2	S	0	2	1166328	G	027	Tank Storage
0	3	D	8	0	11682	A	017	Landfill
0	4	T	0	1	864000	U	002	Stabilization Units
0	5	S	0	2	3950140	G	060	Wastewater

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.		A. EPA Hazardous Waste No.				B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes (1) Process Codes									D. Processes (2) Process Description (if code is not entered in 7.D1))
0	1	D	0	0	1	5,000	T	S	0	1	S	0	2				
0	2	D	0	0	2	10,000	T	S	0	1	S	0	2				
0	3	D	0	0	3	5,000	T	S	0	1	S	0	2				
0	4	D	0	0	4	10,000	T	S	0	1	S	0	2				
0	5	D	0	0	5	10,000	T	S	0	1	S	0	2				
0	6	D	0	0	6	10,000	T	S	0	1	S	0	2				
0	7	D	0	0	7	10,000	T	S	0	1	S	0	2				
0	8	D	0	0	8	10,000	T	S	0	1	S	0	2				
0	9	D	0	0	9	10,000	T	S	0	1	S	0	2				
1	0	D	0	1	0	10,000	T	S	0	1	S	0	2				
1	1	D	0	1	0	10,000	T	S	0	1	S	0	2				Continued

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

9. Facility Drawing

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

10. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

11. Comments

6. Continued T01 13000 U 060 Wastewater, Boiler
7. Description of Hazardous Wastes Continued on attached pages 8a through 8r

PART III STORAGE IN CONTAINERS- MISCELLANEOUS STORAGE AREA, DRUM DOCK AND CONTAINER MANAGEMENT BUILDING

III.A SUMMARY OF STORAGE CONTAINER

The miscellaneous Container Storage Areas receive and store wastes in new and used containers in sizes of one pint and larger.

Area 1 is the existing Truckwash Bay; Area 8 is the Reactive Unloading Pad; Area 11 is the Waste Fuel Tanks (D1 and D2) Unloading Pad; Area 12 is the Wastewater Final Treatment Container Storage Pad; and Area 18 is the Acid Storage Area.

Container Area 1 may store up to 13,760 gallons (32 55-gallon drums and 2 6,000-gallon tankers). Container Areas 8,11, and 12 may each store a maximum volume of 880 gallons (16 55-gallon drums). Container 18 may store up to 1,760 gallons (32 55-gallon drums). The majority of the containers stored in these units will be 55-gallon drums, 23 inches in diameter by 34 inches tall, although other container sizes may be present.

Drum Dock is permitted for maximum storage capacity of 24,365 gallons of hazardous waste (equivalent of 443 55-gallon drums). **See Figure 2** of permit application **Section 4.1** for the typical container storage layout for Drum Dock.

Container Management Building can store a maximum capacity of 365,860 ~~182,930~~ gallons of hazardous waste (equivalent to 6,652~~3,326~~ 55-gallon drums). **Figure 3** of **Section 4.1** of the permit application is a typical container storage layout for Container Management Building.

A summary of permitted capacity for all container management area/units is shown on **Table 1.**

Containers accepted for storage and treatment at these areas are required to be compatible with the wastes already stored within them.

During or immediately after unloading, all containers are checked for proper marking and labeling and good condition of the container and lid/cover. Facility personnel check the labeling of containers for proper identification. If a container is found to be corroded, damaged or leaking, it will be placed in an overpack or the material it contained transferred immediately to another container in good condition and compatible to the material. Markings and labels are transferred or

duplicated, to the extent necessary, to properly identify the contents of the replacement container or overpack.

Containers in the storage areas will be stacked one or two high directly on the sealed concrete floor or pallets. Double stacking of containers will require vertical offset and pallets (e.g., plywood sheets typified) placed between layers as in Figure 1 of Section 4.1 of the permit application. Small containers may be stacked more than two high; small container stacks will not be higher than six (6) feet. Boxes of conforming shape or nestable containers may be stacked without dividers if their structural integrity remains intact or if the top container is of such a size that it fits within the diameter of the bottom container (e.g., 55-gallonpail on top of a 55-gallon drum). Container storage rows with the containers containing 55 gallons or more will be one or two containers wide. Rows of smaller containers will be no wider than a pallet, with a minimum three feet wide aisle separating each row in the storage and two foot wide in receiving areas.

CHESI will maintain a minimum aisle space of three (3) feet for all long term containers stored in the miscellaneous container storage areas, Drum Dock, and Container Management Building. Secondary containment shall be provided by a reinforced concrete pad or floor constructed over a suitable base. The slab shall be maintained so as to be free of cracks or gapes, providing an impervious surface to contain leaks and spills until any accumulation is detected and removed. A curb or walls shall segregate each storage area to provide for liquid containment. Each area has sloped floors that drain to separate sumps [40 CFR 264.175]. A concrete sealant/ hardner has been applied to all concrete surfaces in the containment system sumps. This sealant is compatible with acids, caustics, and solvents. The containment system is checked each operating day for any accumulation of liquids. This daily inspection will ensure a timely removal of any accumulated liquids from sumps and low points to prevent the overflow of the containment system.

III.B PERMITTED AND PROHIBITED WASTE IDENTIFICATION

III.B.1 The permittee may store or stabilize the wastes listed in the permit application **Waste Analysis Plan, Appendix 1,** subject to the terms of this permit. The maximum amount of hazardous waste that may be stores at any time in various areas is as listed in **Table 1 (see Attachment 11):**

TABLE 1

AREAS	Permitted Volumes

Area 1	13,760
Area 8	880 gallons
Area 11	880 gallons
Area 12	880 gallons
Area 18	1,760 gallons
Container Management Building	365,860~~182,930~~ gallons

III.B.2 The permittee is prohibited from storing or stabilizing hazardous wastes in areas that are not identified in **Permit Condition III.B.1.** Other wastes may be stored temporarily, less than ten (10) days, under the conditions of 40 CFR Part 263.12 and OAC 252:205-15-2(b).

III.C CONDITION OF CONTAINERS

If a container holding hazardous waste is not in good condition (e.g., severe rusting, severe structural defects, other conditions that could contribute to the release of the content) or if it begins to leak, the Permittee shall immediately transfer that hazardous waste from such container to another container that is in good condition or otherwise manage the waste in compliance with the conditions of 40 CFR 264 Subpart I. [40 CFR 264.171]

III.D COMPATIBILITY OF WASTE WITH CONTAINERS

III.D.1 The permittee shall assure that the ability of a container to contain the waste is not impaired as required by 40 CFR 264.172.

III.D.2 If a container holding hazardous waste is not in good condition, or if it begins to leak, the Permittee must comply with Permit Condition III.C.

III.E MANAGEMENT OF CONTAINERS

III.E.1 The Permittee shall keep all containers closed during storage, except when it is necessary to add, remove, or inspect, or treat waste, and shall not open, handle

or store containers in a manner which may rupture the containers or cause the containers to leak. [40 CFR 264.173]

III.E.2 The Permittee shall sample and analyze according to **Waste Analysis Plan** any containers which are inadequately or improperly labeled in order to determine proper identification for management.

PART III STORAGE IN CONTAINERS- MISCELLANEOUS STORAGE AREA, DRUM DOCK AND CONTAINER MANAGEMENT BUILDING

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duplicated, to the extent necessary, to properly identify the contents of the replacement container or overpack.

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III.B PERMITTED AND PROHIBITED WASTE IDENTIFICATION

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Area 18	1,760 gallons
Container Management Building	365,860 gallons

III.B.2 The permittee is prohibited from storing or stabilizing hazardous wastes in areas that are not identified in **Permit Condition III.B.1.** Other wastes may be stored temporarily, less than ten (10) days, under the conditions of 40 CFR Part 263.12 and OAC 252:205-15-2(b).

III.C CONDITION OF CONTAINERS

If a container holding hazardous waste is not in good condition (e.g., severe rusting, severe structural defects, other conditions that could contribute to the release of the content) or if it begins to leak, the Permittee shall immediately transfer that hazardous waste from such container to another container that is in good condition or otherwise manage the waste in compliance with the conditions of 40 CFR 264 Subpart I. [40 CFR 264.171]

III.D COMPATIBILITY OF WASTE WITH CONTAINERS

III.D.1 The permittee shall assure that the ability of a container to contain the waste is not impaired as required by 40 CFR 264.172.

III.D.2 If a container holding hazardous waste is not in good condition, or if it begins to leak, the Permittee must comply with Permit Condition III.C.

III.E MANAGEMENT OF CONTAINERS

III.E.1 The Permittee shall keep all containers closed during storage, except when it is necessary to add, remove, or inspect, or treat waste, and shall not open, handle

or store containers in a manner which may rupture the containers or cause the containers to leak. [40 CFR 264.173]

III.E.2 The Permittee shall sample and analyze according to **Waste Analysis Plan** any containers which are inadequately or improperly labeled in order to determine proper identification for management.

TABLE 1

Lone Mountain Facility

Container Management Areas

Container Storage Area	Description	Permitted Storage Volume (Gallons)	55-gallon drum equivalents	Containment Required Volume (gallons)	Provided Containment Volume (gallons)
8	Reactives Unloading Pad[1]	880	16	88	4961
11	Tanks D1 and D2 unloading Pad[1]	880	16	88	184
12	Washwater Final Treatment	880	16	224	
1	Truckwash Bay	13,760	32+6,000 gallon containers	1376	1209
18	Acid Storage Area[1]	1,760	32	176	324
A	Container Management Building	365,860~~182,930~~	6,652~~3,326~~	36,494~~18,247~~	209368~~104,684~~
B	Drum Dock (main pad)	22,880	416	2,288	16,910
B	Drum Dock West Pad	1,485	27	149	1,542

TABLE 1

Lone Mountain Facility

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A	Container Management Building	365,860	6,652	36,494	209368
B	Drum Dock (main pad)	22,880	416	2,288	16,910
B	Drum Dock West Pad	1,485	27	149	1,542

Table T-2

Telephone list for Emergency Notification

Woodward Oklahoma		**Waynoka, Oklahoma**	
Fire Department	(580)254-8540	Fire Department	(580)327-6991
Police Department	(580)254-8518	Police Department	(580)824-2061
Ambulance	(580)254-8518	Ambulance	(580)327-6991
Hospital	(580)256-5511		
Seiling, Oklahoma		**Fairview, Oklahoma**	
Fire Department	(580)922-4460	Fire Department	(580)227-3111
Police Department	(580)922-6666	Police Department	(580)227-4444
Ambulance	(580)922-4241	Ambulance	(580)227-2322
Hospital	(580)922-7361	Hospital	(580)227-3721

MAJOR COUNTY SHERIFF'S DEPARTMENT		(580)227-4471
DEWEY COUNTY SHERIFF'S DEPARTMENT		(580)328-5558
OKLAHOMA HIGHWAY PATROL*		(580)234-6147
DEPARTMENT OF ENVIRONMENTAL QUALITY		
LAND DIVISION		(405)702-5100
COMPLAINTS AND LOCAL SERVICES		(405)702-6222
		(800)522-0206
NATIONAL RESPONSE CENTER		(800)424-8802
LONE MOUNTAIN FACILITY		
CHRIS MULLINS		
Operations Supervisor	Mobile	(580)768-9577
JOHN FUQUA		
Laboratory Manager	Mobile	(208)519-9332

CHRISTOPER CASTILLO		
Facility Operations Manager	Mobile	(339)236-4290
GARY MITCHELL		
Laboratory Chemist III	Mobile	(580)571-7989
MICHAEL MERIWETHER		
Facility General Manager	Mobile	(339)832-0602
PAUL SHAW		
Facility Foreman	Mobile	(339)933-1266

- The Fairview Fire Department will coordinate other fire departments, if applicable. The Oklahoma Highway Patrol will coordinate other law enforcement agencies, if applicable

waste will be relatively low in suspended solids with a pH of approximately eleven (11) after pretreatment, if necessary. The pretreated waste is subsequently stored in evaporator feed tanks along with wastes not requiring pretreatment. A detailed discussion of the Wastewater Treatment System is found in the Wastewater Treatment System Procedures in the permit application.

1.3 Treatment or Storage Tanks

The only other existing tanks[1] are two (2) tanks utilized in the stabilization process. The two (2) stabilization tanks are located to the north of Cell 1 and west of Cell 7. They are constructed of carbon steel and are secondarily contained by external tanks. Two (2) waste fuel tanks were once located at the final treatment area of the wastewater treatment system. These tanks were in waste fuel storage service and contained within a coated concrete secondary containment system. The tanks may be replaced with new tanks in the future.

1.4 Drum Docks

Container storage is conducted at the Drum Docks. This building is utilized for receiving, sampling, segregating, storing, and treating containerized wastes in sizes typically ranging from one (1) pint upward. A detailed description of the Drum Dock is provided in the Container Storage Management Practices and the Drum Dock Secondary Containment System and Drawings of the permit application.

1.5 Container Management Building

Container storage is also conducted at the Container Management Building. This building is utilized for receiving, sampling, segregating, storing, and treating containerized wastes in sizes typically ranging from one (1) pint upwards. A detailed description of the Container Management Building is provided in the Container Storage Management Practices and the Container Management Building Secondary Containment System and Drawings of the permit application. This most recent revision (May 2025) of this closure plan includes a proposed 25,800-square-foot expansion of the Container Management Building, connected by a walkway located on the south side of the original structure. This also includes an approximate 4,300-square-foot covered loading dock.

1.6 Future Units

A Class 3 Permit modification was approved by ODEQ to increase the waste disposal capacity of Cell 15 from 5,264,000 cy to 8,065,500 cubic yards. This cell will be constructed with a triple liner/leachate collection and detection system.

[1] Other than those tanks operating under the conditions of 40 CFR Section 262.34.

Lone Mountain Facility will record a notation on the property deed indicating that the facility has been used to dispose of hazardous wastes, and that land usage is restricted to activities that will not disturb the wastes.

4.0 Maximum Extent of Operations and Maximum Waste Inventory

Table 1 indicates the maximum inventory of hazardous wastes that could be on-site at Lone Mountain. The maximum inventory of wastes in storage would occur if all units were at maximum capacity, yet not closed. The maximum amount of waste requiring treatment would be the capacity of the storage tanks and containers.

Table 1
MAXIMUM INVENTORY OF WASTES THAT COULD BE ON-SITE AT LONE MOUNTAIN FACILITY

UNIT	DESIGN CAPACITY	STATUS (AS OF MAY 2025)
Drum Cell	---	Post-Closure
Cell 1	---	Post-Closure
Cell 2	---	Post-Closure
Cell 3	---	Post-Closure
Cell 4	---	Post-Closure
Cell 5	---	Post-Closure
Cell 6	---	Post-Closure
Cell 7	---	Post-Closure
Cell 8	---	Post-Closure
Cell 9	---	Post-Closure
Cell 10	---	Post-Closure
Cell 11	---	Post-Closure
Cell 12	---	Post-Closure
Cell 13	---	Post-Closure
Cell 14	---	Post-Closure
Cell 15	4,999 A	Active
Drum Dock	24,365 G	Active
Waste Fuel Tanks (D1 & D2)	17,098 G	Inactive/Out-of-Service
Container Management Building	182,930 G 182,930 G	Active Pending
Solids Handling Tanks	682,176 G	Pending
Stabilization Tanks	35,904 G	Active
Waste Fuel Tank Farm	405,550 G	Pending
Container Mgmt. Surge Tanks	25,600 G	Pending
Wastewater Treatment Tanks	2,286,659 G 1,663,481 G	Active (18 Tanks) Pending (42 Tanks)
Miscellaneous Container Storage Areas	18,160 G	Pending/Active
A = Acre-feet		G = Gallons

Table 2 identifies the maximum extent of operations that will be open during the active life of the facility. As units are closed, the maximum extent of operations will decrease.

Table 2 Maximum Extent of Operations That Will Be Open During the Active Life of the Facility	
Unit	Design Capacity
Cell 15	1,225 A
Drum Dock	24,365 G
Waste Fuel Tanks (D1 & D2)	17,098 G
Container Management Building	365,860 G
Solids Handling Tanks	682,176 G
Stabilization Tanks	35,904 G
Waste Fuel Tank Farm	405,550 G
Container Mgmt. Surge Tanks	25,600 G
Wastewater Treatment Tanks	3,950,140 G
A = Acre-feet	G = Gallons

5.0 Schedule for Closure

For the purpose of this plan, closure of operations at the Lone Mountain Facility is estimated to occur in 2040. Existing units and proposed future expansion units are tentatively scheduled to close as shown in Table 3[1].

Table 3 Closure Schedule for Lone Mountain Facility	
Existing Units Subject to Closure	Estimated Year of Closure
Cell 15	2040
Drum Dock	2040
Waste Fuel Tanks (D1 & D2)	2040
Stabilization Tanks	2040
Container Management Building	2040
Wastewater Treatment System	2040
Proposed Units or Future Units	Estimated Year of Closure
Container Mgmt. Surge Tanks	2040
Solids Handling Building Tanks	2040
Waste Fuel Tank Farm	2040

[1] Earlier or later closure may occur on different cells or units. This schedule is given for the basis of estimating closure costs at their maximum extent. Earlier or later closures or projections of earlier or later closures will not necessitate modification of this section or the closure plan or cost estimates.

6.0 Time Allowed for Closure

The following tables that estimate Closure Time are all based on calculations. Appendix 1 details a sample calculation to arrive at the time estimates. At the closure of the entire Lone Mountain Facility, there is a possibility additional cells will be in operation. These additional cells will be addressed in future permit applications. Table 4 details an estimate of the status of the landfill cells during the next five (5) years. The predicted status of the unit is indicated for every March and September.

Table 4 Estimated Time Requirements* for Closure of Cell 15 and Wastewater Treatment System (Partial Facility Closure, Assumes no force major delays)	
Landfill	Months
Mound Preparation	3.0
Clay Cap Liner Construction or GCL Installation	3.0
Final Cap Construction	3.0
Cover and Drainage Controls	2.5
Certification	2.0
Total	13.5
Wastewater Treatment System	Days
Treatment and Disposal of Waste	60
Clean Out and Decontaminate Truck Wash	10
Dismantle/Dispose of Tank Systems	40
Clean Pre-Treatment Buildings	20
Clean Final Treatment Buildings	20
Certification	60
Total	210

7.0 Closure of the Entire Facility

At closure of the entire facility, estimated to occur in 2040, one cell is expected to be operational. The tank systems, Drum Dock, Container Management Building, Miscellaneous Container Storage Areas, Wastewater Treatment System, and Solids Handling Building tanks should also be operational. Table 5 details the anticipated closure activities of the entire facility.

Table 5 Estimated Course of Events at Closure of the Entire Facility		
Date	Months Elapsed	Event
08/31/2039	-2	Notification to ODEQ.
10/30/2039	0	Final receipt of wastes. Begin workforce mobilization
10/30/2039	0	Commence removal and treatment of liquids in containers and tanks.
12/31/2039	2	Complete disposal or salvaging of tanks not associated with Wastewater Treatment System. Decontamination of container management areas (Drum Dock and Container Management Building), truck washout pad, or stabilization.
1/31/2040	3	Complete treatment of liquid in tanks. Commence removal, stabilization, and disposal of sludge and solids
02/28/2040	4	Complete removal, stabilization, and disposal of sludge and solids in the Solids Handling Building and Wastewater Treatment System; decontamination of Solids Handling Building.
03/31/2040	5	Completion of waste mound in landfill cell.
03/31/2040	5	Decontamination of Wastewater Treatment System piping, equipment, and building.
07/30/2040	9	Complete placement and compaction of clay cap and cap liner.

Table 5
ESTIMATED COURSE OF EVENTS AT CLOSURE OF THE ENTIRE FACILITY

DATE	MONTHS ELAPSED	EVENT
12/31/2040	14	Final drainage completed; closure completed, and certification made for all units.

CFR Part 261 will be utilized as a basis for defining "clean closure", realizing that it may not be possible to analyze for all of the Appendix VIII constituents.

Furthermore, the list of constituents will be limited to those waste codes and their constituents managed during the life of the unit. If there is contamination (i.e., the concentration of any contaminants exceeds the background[2] plus three (3) standard deviations), the soil will be removed and managed as waste according to the procedures specified in the Waste Analysis Plan. With ODEQ approval, background analyte levels may be developed using either existing data from the facility or may be developed at the time of closure. The soil removal and sampling will continue until sampling indicates that background levels (plus three (3) standard deviations) have been obtained. Uncontaminated soil will be backfilled into any excavated areas, if necessary.

3. The office and laboratory buildings and the sewage lagoon may remain in place during the closure and post-closure period. Samples of hazardous wastes stored in the laboratory will be managed as waste according to the procedures specified in the Waste Analysis Plan. Discarded laboratory chemicals will be salvaged or managed as waste according to the procedures specified in the Waste Analysis Plan. Throughout the life of the facility, equipment and units may be decommissioned, replaced, and modified. The materials deriving from the activity will be decontaminated and salvaged or managed as waste according to the procedures specified in the Waste Analysis Plan.

11.0 Area/Unit Specific Closure Consideration

11.1 Container Storage Areas Closure

Closure of both the Drum Dock and the Container Management Building is assumed to occur at a point in the life of the Lone Mountain Facility when all regulated disposal units are in full operation and at their maximum waste storage capacity. At closure, the Drum Dock and Container Management Building will be assumed to store their maximum inventories of 24,365 and 365,860 gallons, respectively.

The Drum Dock and the Container Management Building are utilized for receiving, sampling, segregating, storing, and treating containerized wastes. All wastes are transferred

[2] Background levels may be developed using existing data or may be developed at the time of closure.

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List of Appendices

1.0 Summary

The closure and post-closure cost estimates are prepared to specify the amount of money to be funded by the financial assurance mechanism to ensure that the facility may be closed in accordance with the RCRA regulation and monitored during the post-closure period. A copy of the financial assurance mechanism is located in Appendix A of Section 2.13 of this permit.

The closure and post-closure cost estimates will be adjusted, and a new financial assurance mechanism issued whenever there is a major change in operations, maintenance, or construction of the facility (e.g., new cell opened) which significantly increases the cost estimate. In addition, cost estimate changes which occur due to inflation and other minor adjustments will be determined annually.

For the standard annual revision, the most recent closure and pot-closure cost estimates will be adjusted using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its Survey of Current Business. The inflation factor will be calculated by dividing the latest published deflator by the deflator for the previous year. To arrive at the revised cost estimate, three steps are normally taken: First, any costs which are no longer applicable (e.g., cell has been closed) are subtracted from the most recent estimate. The remaining closure and post-closure estimate dollars will then be multiplied by the inflation factor. Lastly, any new amount to be funded (e.g., cell has been opened) will be added to the inflation-adjusted amount. The closure and post-closure cost estimate and underlying calculations/data used to prepare the estimate will be maintained in the facility operating record.

The information contained within this document illustrates the cost elements and methods of calculation to ensure that financial assurance is adequate. Since actual costs and specific elements may increase or decrease from year-to-year (e.g., annual leachate generation), the amount to be funded is variable. This document is provided as a demonstration of current costs, but on an annual basis, the actual cost estimate will be retained in the facility operating record. The cost estimate summary page along with the updated financial assurance mechanism will be submitted to the Oklahoma Department of Environmental Quality annually. Periodically, this document will be updated to reflect actual costs retained in the operating record.

1.1 Closure Cost Table

Closure Cost		
Task	**2009 Estimated Closure Cost**	**2024 Estimated Closure Cost**
Inventory Management	$813,968	$1,134,137
Groundwater Monitoring	$193,680	$269,863
Facility Decontamination	$362,291	$504,796
Landfill Closure	$6,066,423	$8,452,609
Leachate Management	$1,984,350	$2,764,880
Closure Sampling and Cert.	$142,620	$198,179
Total Closure Cost	**$9,563,332**	**$13,325,003**

1.2 Post Closure Cost (First Year)

The Post-Closure cost for the first year is estimated to be approximately $4,116,688.

1.3 Cell 5 Corrective Action (First Year)

Cell 5 Corrective Action	
Task	**Cost**
Groundwater Monitoring	$7,518
Groundwater Pumping	$111,639
Administrative Review/Reporting	$5,011
Total Annual Cost	**$124,168**

Total closure, post-closure, and Cell 5 cost over 30 years is estimated to be approximately $28,445,134.

2.0 Closure Cost

Since the number of active landfill cells will fluctuate, and a variety of other factors may change, the costs for closing the entire Lone Mountain Facility can vary each year. The closure and post-closure cost estimates considers the most expensive scenario which would occur if the entire facility closed immediately. Refer to Tables 1 and 2 of the Closure Plan. At the projected closure of the entire facility in 2040, the landfill cells, tank systems, Drum Dock, and Container Management Building would be closed.

The landfill cell cost estimates are based on current operations and recent cell construction at the Lone Mountain facility. Closure costs for the general facility are based on published prices. All costs are based on 2009 dollars but have been properly inflated to 2024 dollars as mentioned in section 1.0 in the Closure Cost Table. The calculations are based on projected facility operations. Since actual facility operations may be different, the assumed closure period for the landfill cells is only an estimate.

2.1 Assumptions

To determine the closure cost estimates for each area, the following basic assumptions were made:

1. As much of the existing facilities as possible will be used for performing the closure work.

2. Adequate landfill capacity is available for placing all the solid and stabilized waste in an existing cell.

3. All stabilization will be performed using the existing stabilization facilities.

4. The Wastewater Treatment System is functioning and available for treating all applicable liquid waste.

5. Facility equipment is available for performing clean-up work.

6. The closure plan stipulates the following conditions:

    a. 20% of all containers will contain solids having no free liquids and can be landfill disposed.
    b. 60% of all containers will contain solids or sludges which can be stabilized and landfilled.
    c. 10% of all containers will contain organic liquids which will be shipped off site for use as fuel.
    d. 10% of all containers will contain inorganic liquids which can be treated in the wastewater system.

7. The following assumptions are made regarding the tank capacity of the Wastewater Treatment System:

    a. 40% of the volume is sludge which can be stabilized and landfilled.
    b. 60% of the volume is liquids which can be treated in the Wastewater Treatment System.

8. The Container Management Surge Tanks can be treated as follows:

    a. 50% of all capacity contains waste fuel which can be recycled as kiln fuel.
    b. 12% of all capacity contains sludges which can be stabilized and landfilled.
    c. 38% of all capacity contains inorganic liquids which can be treated in the Wastewater Treatment System.

9. Stabilization of solids results in a 100% volume increase.

10. Closure duration is one year.

2.2 Basis for Unit Cost

The basis for unit cost are approximated in the tables below and are based on the following two criteria:

- Stabilization Cost (Current lone Mountain Cost)

- Off-Site Deep Well Injection or Wastewater Treatment

Unit Cost	
Item	Estimated Unit Cost
Landfilling Cost	$0.00
Load Bulk Waste Into Truck	$2.12
Transport 1 Mile	$0.17
Total	$2.29/CY

Wastewater Treatment Price (Current Lone Mountain Cost)	$0.33
Cement Kiln Disposal for Fuel (Current Market Price)	$0.25
Unit Price of Steam Cleaning Tank Interiors in Level B PPE	$2.82
Decontaminate Heavy Equipment	$175.51/EA
Cat 12 Motor Grader	$440.00/Hr
3 CY Loader	$39.00/Hr
10 CY Dump Truck	$26.00/Hr
Groundwater Analytical Testing (Current Mountain Facility Cost)	
Sample for RCRA/HSWA Permit Spring Event	$432.00
Sample for RCRA/HSWA Permit Spring Event	$432.00
Sample for Post Closure Permit Spring Event	$567.00
Sample for Post Closure Permit Fall Event	$273.00
3500 Gallon Water Truck (Source: Dataquest Bluebook)	$24.00/Hr
1 Backhoe/Loader (Source: Dataquest Bluebook)	$19.00/Hr

2.3 Waste Inventory Management

Tank volume capacity is detailed in the Tank System Data Summary Table. The following information regarding tank capacity is extracted from that table. The following capacities include operational tanks, out-of-service tanks that are in place, and future tanks that are expected to be constructed in the near future, if any.

2.3.1 Tanks

TANKS		
FUNCTIONAL AREA	GALLONS	ASSUMED CONTENTS
Truckwash/Unloading Area	1,191	Condition 7 Above
Neutralization Reactor	2,538	Condition 7 Above
Rotary Drum Filter Containment	760	Condition 7 Above
Acid Tank Containment	39,767	Condition 7 Above
Caustic/Reactives Containment (CT1-CT4)	132,432	Condition 7 Above
Final Effluent/Leachate Storage (EF1 & EF2)	714,844	Condition 7 Above
Final Treatment Evaporator Distillation Area	22,057	Condition 7 Above

TANKS		
FUNCTIONAL AREA	GALLONS	ASSUMED CONTENTS
Evaporator Overflow Containment	5,514	Condition 7 Above
Miscellaneous Tank Systems (T6)	1,409,947	Condition 7 Above
Stabilization Tanks	35,904	100% to Landfill
Total Tank Capacity To Be Considered	**2,364,954 gallons**	

2.3.2 Containers

CONTAINERS		
FUNCTIONAL AREA	GALLONS	ASSUMED CONTENTS
Container Management Building	365,860	Condition 6 Above
Drum Dock	24,365	Condition 6 Above
Total Container Volume	**390,225 gallons**	

2.3.3 Total Inventory

Volume to be stabilized/landfilled **Gallons**

Wastewater treatment storage = 0.4 x 2,364,954 = 945,982
Container Storage = 0.6 x 390,225 = 234,135

TOTAL 1,180,117

Total in Cubic Yards = 2 x 1,180,117 = 2,360,234 Gallons
2,360,234/7.48/27 = 11,686 CY
(7.48 gal/CF, 27 CF/CY)

Volume for Wastewater Treatment Plant **Gallons**

Wastewater treatment storage = 0.6 x 2,364,954 = 1,418,972
Container Storage = 0.1 x 390,225 = 39,023

TOTAL 1,457,995

Volume to be Directly Landfilled **Gallons**

Stabilization Tanks = 1 x 35,094 = 35,094
Container Storage = 0.2 x 390,225 = 78,045

TOTAL 113,139

Total in Cubic Yards	=	113,139 / 7.48 / 27 =	560.2 CY (7.48 gal/CF, 27 CF/CY)

Volume to be Sent to Cement Kiln for Fuel		**Gallons**
Container Storage	= 0.1 x 390,225 =	39,023
	TOTAL	**39,023**

INVENTORY MANAGEMENT TOTAL COST

Stabilization	1,180,117 x 0.25 =	$295,029
Stabilized Volumes Landfilled	11,686 x 2.29 =	$26,761
Treatment at Wastewater Plant	1,457,995 x 0.33 =	$481,138
Direct Landfilling	560.2 x 2.29 =	$1,284
Sent to Cement Kiln as Fuel	39,023 x 0.25 =	$9,756

TOTAL INVENTORY MANAGEMENT COST $813,968

2.4 Facility Decontamination

2.4.1 Tanks and Contaminated Areas

The total internal surface area of the tanks in Section 2.3.1 was calculated using the dimensions tabulated in Table 1 of the Wastewater Treatment System Procedures.

Total Internal Area= 44,754 square feet (SF)

Of this total, 29,500 SF applies to open-top tanks and 15,254 SF applies to enclosed tanks.

The total area of the secondary containment was estimated from the secondary containment volumes tabulated in Table 1 of the Tank System Secondary Containment Systems. A very conservative average wall height of 1 food was used to calculate the surface area of the concrete containment. For double-wall tanks, the surface area of the outer tank was used.

Total Secondary Containment Area = 112,486 SF

All surfaces are required to be washed and rinsed according to the permit. It is estimated there are 7,800 feet of pipe associated with the tanks. A four man crew will be able to wash and rinse 300 feet/day. (Labor at $15.00/hour and a steam cleaner at 1.00/hour).

- Residual liquid production is estimated to be 0.3 gal/sf.
- Residual solid production is estimated to be 0.04 gal/sf.

- Liquids = 0.3 x (112,486 + 44,754) x 2 = 94,344 gallons.
- Solids = 0.04 x (112,486 + 44,754) = 6,290/7.48/27 = 31 CY (7.48 gal/CF, 27 CF/CY)

Tanks and Containment Area Decontamination

Tank Interiors	2 x 15,254 x 2,86 =	$86,033
Secondary Containment And Open Topped Tanks	2 x 141,986 x 0.57=	$161,864
Piping	[(4x$15) + $1] x 8Hrs x (7800/300) =	$12,688
Off-site Deep Well Injection Or Wastewater Treatment	94,344 x 0.90 =	$90,570
Landfilling Solids	31 x 2.29 =	$71
	TOTAL	**$351,226**

2.4.2 Roadway Surfaces

The following assumptions are made for the calculated cost of decontamination of roadway surfaces.

- 15,200′ long x 24′ wide = 364,800 SF = 8.38 acres
- Assume productivity of 2+ acres/day for 4 days work
- Assume average 1″ of soil removed from entire area
- 364,800sf x 1/12/27 = 1,126 CY removed for disposal

Roadway Surface Decontamination

Cat 12 Motor Grader	4 days x 8 Hours x $40/hr =	$1,280
3 CY Loader	4 days x 8 Hours x $39/hr =	$1,248
10 CY Loader	4 days x 8 Hours x $26/hr =	$832
3 Equipment Operators	3 x 4 days x 8 Hours x $15/hr =	$1,440
1,126 CY for Disposal @$2.29/CY	=	$2,579
	TOTAL	**$7,379**

2.4.3 Equipment Decontamination

Bulldozers	2
Trackhoes	4
Off-Road Dump Trucks	3
Compactor	1
Screening Plants	2
Water Trucks	3
Guzzler Water Truck	1
Motor Grader	1
Front-End Loader	2
Shredders	2
Equipment Total	21

TOTAL 21 x $175.51 ea = $3,686

2.4.4 Total Facility Decontamination Cost

Tanks and Containment Surfaces	$351,226
Roadway Surfaces	$7,379
Equipment Decontamination	$3,686

TOTAL $362,291

2.5 Groundwater Monitoring

Two sampling events occur every year and the closure is anticipated to take one year. There are currently 61 wells being monitored at the Lone Mountain Facility. Sixty-one (61) samples are collected per sampling event (1 per well). Forty-one (41) wells are subject to the RCRA/HSWA Operations Permit. Twenty (20) wells are subject to the Post-Closure Permit.

An 8 person crew working 10 hours/day will take 10 days to do the long event sampling and 8 days to do the short event sampling. This amounts to 180 man hours per year.

The crew cost = 7 x $20/hr = 1 x $60/hr = $200/hr

Four-man weeks (160 hours) of effort is required for administration and reporting at $60 per hour, per event. Reproduction costs are $1000 per event, with two events per year, amounting to $2,000 per year.

YEARLY GROUNDWATER MONITORING COSTS		
TASK	AMOUNT	COST
Crew Cost	$200/hr x 180 hrs	$36,000
Analysis	$360.00 each x 41 samples	$69,085
	$360.00 each x 41 samples	$47,355
	$567 each x 20 samples	$11,340
Shipping Costs	$273 each x 20 samples*	$5,460
Administration and Reporting	$180 x 18 days	$3,240
Reproduction Costs	320 hours x $60/hour	$19,200
Total		$191,680

*Shipping costs are $180 per day of sampling.

2.6 Landfill Closure

Closures of Subcells in Cell 15 began in 2011. The current Closure Cost Estimate accounts for these activities.

2.7 Leachate Management

2.7.1 Leachate Production and On-Site Treatment Cost

Leachate-collection and rainfall records were examined from 2009 through 2019 to estimate current and projected leachate quantities.

The Drum Cell and Cells 1 through 8 are all closed. These closed units can be expected to produce approximately 643,000 gallons of leachate per year. Additionally; an average of 250,000 gallons of water, which is treated as leachate, is recovered from the Cell 5 RFI activities, making the total annual volume of leachate production from these cells approximately 893,000 gallons per year.

Cells 10 and 11 were closed in 1997 and 1996, respectively. The leachate volumes produced from each of these closed landfills has now stabilized, although it varies somewhat from year to year, in direct proportion to fluctuations in annual rainfall. At this time, these two cells combined are producing approximately 176,000 gallons of leachate per year.

Cells 12 and 13 were closed in 1997 and 1996, respectively. The leachate volumes produced from each of these closed landfills has now stabilized, although it varies somewhat from year to year, in direct proportion to fluctuations in annual rainfall. At this time, these two cells combined are producing approximately 127,000 gallons of leachate per year.

Cell 14 was closed in 2002. The leachate volume produced from this closed landfill has now stabilized, although it varies somewhat from year to year, in direct proportion to fluctuations in annual rainfall. At this-time, this cell is producing approximately 127,000 gallons of leachate per year.

Cell 15 is currently open and in use. The leachate production from this cell is highly erratic, corresponding largely to annual rainfall amounts. This cell has been producing an average volume of approximately 4,080,000 gallons of leachate per year. However, this cell is scheduled to begin closure of full subcells starting in 2011.

Therefore, it can be assumed that leachate production from the closed subcells will rapidly decline to rates per unit of surface area similar to those demonstrated from Cells 10, 11, 12, 13, and 14.

TOTAL LEACHATE PRODUCTION	
LOCATION	GALLONS
Drum Cells & Cells 1 – 8	893,000
Cells 10 & 11	176,000
Cells 12 & 13	127,000
Cell 14	47,000
Cell 15	4,080,000
Total	**5,323,000**

On-Site Leachate Treatment Cost: 5,323,000 x $0.33 = $1,756,590

2.7.2 Leachate Collection Cost

2 – 3,500 Gallon Water Trucks at $24/Hr
2 – Truck Divers at $15/Hr

Collection Cost:

2 x (24.00 + 15.00) x 8 hrs x 365 days = $227,760

2.7.3 Total Leachate Management Cost

TOTAL LEACHATE MANAGEMENT COST	
Item	Cost
On-Site Treatment Cost	$1,756,590
Collection Cost	$227,760
Total	**$1,984,350**

2.7.4 Off-Site Deep Well Injection or Wastewater Treatment

OFF-SITE TREATMENT COST	
Item	Cost
5,323,000 x $0.96	$5,110,080
Collection Cost	$227,760
Total	**$5,337,840**

2.8 Certification, Sampling, and Decontamination

2.8.1 Sampling and Analysis to Confirm Decontamination

Below outlines the number of samples and analyses of wash water generated from decontamination.

NUMBER OF SAMPLES FROM WASH WATER	
AREA	NO. OF SAMPLES
2 Waste Fuel Tanks	2
Waste Fuel Tanks Containment Area	1
Stabilization Containment Area	7
Drum Dock Area	2
Container Management Structure	16
Wastewater Treatment Plant	14
28 Tanks	40
Total	82

The Closure Plan requires analyzing for oil and grease, phenols, RCRA metals, TOX, TOC, and cyanides. The current cost for this water analyses is $360.00/sample.

Total Water Analyses Price:
82 samples x $360.00 = $29,520

Number of soil samples and analyses:

NUMBER OF SAMPLES FROM SOIL	
AREA	NO. OF SAMPLES
Unloading and Sampling Area	1
Stabilization Area	2
Drum Dock	4
Roadways	11
Total	18

The current cost for Appendix IX Constituents is $1,340.00 per sample.

Total Soil Analysis Price:
18 samples x $1,340 = $24,120

2.8.2 Certification by Independent Professional Engineer

It is estimated this activity will occur over a four (4) month period. It will require the services of a Professional Engineer on a part-time basis, two staff engineers on a full-time basis, and part time clerical help.

ITEM	AMOUNT	COST
Professional Engineer	100 hours x $74.00/hour	$7,400
Engineering Staff	1,400 hours x $57.00/hour	$79,800
Clerical	160 hours x $25.00/hour	$4,000
Report Reproduction	Per Report	$2,000
Total		$93,200

2.8.3 Total Cost of Certification, Sampling, and Decontamination

ITEM	COST
Water Analysis	$29,520
Soil Analysis	$24,120
Certification	$93,200
Total	$146,840

3.0 Post-Closure Cost

3.1 Groundwater Monitoring

There are two (2) required sampling event s each year, and there are currently 61 wells being monitored at Lone Mountain. Sixty-one (61) samples are collected per sampling event (1 sample per well). Forty-one (41) wells are subject to the requirements of the RCRA/HSWA Operations Permit. Twenty (20) wells are subject to the Post-Closure Permit.

An 8 person crew, working 10 hours/day will take 10 days to do the long event sampling, and 8 days to do the short event sampling. This equates to 180 crew hours per year.

Crew cost = (7 x $20.00/hr) + (1 x $60.00/hr) = $200.00/hr

Four man weeks (160 hours) of effort is required for administration and reporting at $60.00/hr. Reproduction costs are $1,000.00 per event for two events a year, amounting to $2,000.00 per year. Shipping costs are $180.00 per day of sampling. The following table summarizes the annual cost of groundwater monitoring.

TOTAL YEARLY COST OF GROUNDWATER MONITORING		
ITEM	AMOUNT	COST
Crew Cost	$200/hr x 180 hrs	$36,000
Analysis	$360.00 each x 41 samples	$69,085
	$360.00 each x 41 samples	$47,355
	$567 each x 20 samples	$11,340
	$273 each x 20 samples	$5,460
Shipping Cost	$180 x 18 days	$3,240
Administration and Reporting Cost	320 hours x $60/hr	$19,200
Reproduction Costs	Per Report	$2,000
Total		**$193,680**

3.2 Leachate Management

3.2.1 Leachate Volume Estimate

The Drum Cell and Cells 1 through 8 are currently predicted to produce 893,000 gallons of leachate per year, and this volume is likely to continue. Cells 10, 11, 12 and 14 have stabilized at a combined average annual leachate volume of approximately 350,000 gallons per year. The total annual leachate volumes estimate is summarized in the table below.

Area	Gallons of Leachate
Drum Cell and Cells 1-8	893,000
Cells 10, 11, 12, 13, & 14	350,000
Cell 15	4,080,000
Total Annual Volume	**5,323,000**

Disposal by Off-Site Deep Well or Wastewater Treatment

5,323,000 x $0.90 = $4,790,700

3.2.2 Leachate Collection Cost

Item	Cost
1 3,500 Gallon Water Truck	$24/hour
1 Truck Driver	$15/hour
Total Collection Cost*	**$16,244**

*($24.00 + $15.00) x 8 hrs x 52 days

3.2.3 Total Leachate Management Cost

Item	Cost
Off-Site Disposal	$5,138,880
Collection Cost	$16,244
Total Management Cost	**$5,155,104**

3.3 Maintenance Activities

3.3.1 Monitoring System Maintenance

Item	Cost
Technician (200 hrs x $20.00/hr)	$4,000
Well Pump Replacement: 1 Pump/3 Years = .33 x $1,400	$467
Total Monitoring System Maintenance	$4,467

3.3.2 Leachate System Maintenance

Leachate Pump Replacement:

6 pumps per year = 6 x $1,500.00 = $9,000

3.3.3 Landfill Cap Maintenance

Item	Cost	Sum
1 Backhoe/Loader	$19.00/hr x 8 hrs x 12 days	$1,824
1 Operator	$15.00/hr x 8 hrs x 12 days	$1,440
1 Pickup	$7.00/hr x 8 hrs x 12 days	$672
1 Laborer	$12.00/hr x 8 hrs x 12 days	$1,152
Total Landfill Cap Maintenance		**$5,088**

3.3.4 Weekly Inspections

Item	Cost	Sum
1 Pickup	$7.00/hr x 8 hrs x 52 days	$2,912
1 Inspector	$18.00/hr x 8 hrs x 52 days	$7,488
Total Weekly Inspections		**$10,400**

3.3.5 Total Maintenance Activities

Item	Cost	Sum
Professional Engineer	48 hrs x $74.00/hr	$3,552
Technical Staff Observation	192 hrs x $57.00/hr	$10,944
Clerical	48 hrs x $25.00/hr	$1,200
Total Administrative		**$15,696**

3.4 Annual Administrative Review/Reporting

Item	Cost	Sum
Professional Engineer	48 hrs x $74.00/hr	$3,552
Technical Staff Observation	192 hrs x $57.00/hr	$10,944
Clerical	48 hrs x $25.00/hr	$1,200
Total Administrative		**$15,696**

3.5 Final Post-Closure Certification

Item	Cost	Sum
Professional Engineer	60 hrs x $74.00/hr	$4,400
Clerical	20 hrs x $25.00/hr	$500
Total Post-Closure		**$4,900**

4.0 Cell 5 Corrective Action

4.1 Groundwater Monitoring

Two sampling events occur every year under the current monitoring schedule. The total length of the monitoring period is estimated to be 30 years. There are 14 wells to be monitored. MW5-A2 and MW5-A3 will be monitored for Cell 5 Corrective Action purposes through the semi-annual facility monitoring program. The wells will be monitored for four (4) volatile organic compounds by SW-846 Methods 8240 and8260.

A two person crew working eight hours per day will take one day to perform each sampling event for a total of 16 hours per year.

Two days (16 hours) of effort per year will be required for groundwater monitoring administration and reporting at $60.00/hr. Reproduction and sample shipping costs are relatively small and incorporated into the analytical and administrative costs. The total yearly cost of groundwater monitoring for cell 5 is summarized in the table below.

Item	Cost	Sum
Analysis	$175.00/ea x 28 samples	$4,900
Two Man Crew Cost	(2x$40.00/hr) x 16.00/hrs	$640
Administration and Reporting	$60.00/hr x 16.00/hrs	$960
Total Cell 5 Groundwater Monitoring Cost		**$6,500**

5.0 Cell 15 Closure Cost

Currently Cell 15 is the active waste disposal cell at the Lone Mountain Facility. This Cell incorporates a "moving wall" design strategy, which allows for additional subcells to be added during operation of the cell. At this time Subcells 1, 2, 3, 4, 5, 6, 7 and 8 are full, and Subcells 9, 10, 11, 12, and 13 of Cell 15 are active. Additional expansion of Cell 15 including Subcells 14,15, 16, 17, 18, 19, 20, 21, and 22 have been permitted but not constructed. Construction of these additional subcells is planned within the upcoming years. The following Table details the projected Cell 15 Closure Costs.

Cell 15 Closure Estimate					
ITEM	**ITEM DESCRIPTION**	**UNIT**	**QUANTITY**	**RATES**	**TOTAL COST**
Section 1.0 - Waste Grading					
1.1	Grade Preparing	Lump Sum	1	$75,000.00	$75,000.00
1.2	Surveying	Lump Sum	1	$50,000.00	$50,000.00
Total Waste Grading Cost					**$125,000.00**
Section 2.0 - Earthwork					
2.1	Mob/Demob	Lump Sum	N/A	$75,000.00	$75,000.00
2.2	Unclassified Soil	Cu. Yard	7,200	$6.40	$46,080.00
2.3	Perimeter Clay	Cu. Yard	3,800	$7.30	$27,740.00
2.4	Soil Protective Cover	Cu. Yard	29,000	$5.50	$159,500.00
2.5	Type I Granular Filter	Cu. Yard	3,600	$53.25	$191,700.00
2.6	Type II Granular Filter	Cu. Yard	4,800	$42.25	$202,800.00
2.7	Type V RipRap	Cu. Yard	7,200	$36.50	$262,800.00
2.8	Settlement Monument	Each	38	$40.00	$1,520.00
2.9	4" Perforated HDPE Pipe	Linear Foot	1,900	$27.50	$52,250.00
2.10	6" Perforated HDPE Pipe	Linear Foot	1,900	$18.00	$34,200.00
2.11	18" HDPE Pipe	Linear Foot	500	$65.00	$32,500.00
2.12	Gas Vents	Each	5	$235.00	$1,175.00
2.13	Concrete Inlets	Each	2	$6,000.00	$12,000.00
Total Earthwork Cost					**$1,099,265.00**
Section 3.0 - Geosynthetics					
3.1	60 mil HDPE	Sq. Yard	43,100	$4.83	$208,173.00
3.2	GCL	Sq. Yard	43,100	$4.42	$190,502.00
3.3	Geotextile Fabric	Sq. Yard	43,100	$1.65	$71,115.00
3.4	Geonet	Sq. Yard	43,100	$2.33	$100,423.00
3.5	Mob/Demob	Linear Foot	1	$5,000.00	$5,000.00
3.6	Weld Linear Edge	Linear Foot	1,900	$5.00	$9,500.00
Total Geosynthetics					**$584,713.00**
Total Construction Cost (sum of Section 1.0, 2.0, and 3.0)					**$1,808,978.00**
Section 4.0 - Project Management					
4.1	Project Management	%	$1,808,978.00	5%	$90,448.90
4.2	Quality Control	%	$1,808.978.00		$108,538.68
4.3	Quality Assurance	%	$1,808.978.00		$54,269.34
4.4	Design/Bid Documents	%	$1,808.978.00		$90,44.90
Total Project Management Cost (Section 4)					**$343,705.82**
Total Closure Cost					**$2,152,683.82**

Appendix 1

LEACHATE GENERATION VOLUMES

2006 – 2009

LEACHATE GENERATED VOLUMES					
LANDFILL	LANDFILL LEACHATE VOLUMES BY YEAR				
	2006 TOTAL	2007 TOTAL	2008 TOTAL	2009 TOTAL	4-YR AVERAGE
Drum Cell-COL.	2,107	4,039	3,499	2,782	3,107
Drum Cell-DET.	29,912	101,276	97,461	56,374	71,256
Cell 1-DET	836	0	16,481	14,195	7,878
Cell 2-DET	2,272	9,272	19,298	12,195	10,759
Cell 3-COL	2,525	2,591	2,066	2,277	2,365
Cell 3-DET	14,998	17,797	22,189	19,220	18,551
Cell 4-DET	193,155	207,476	204994	221,654	206,820
Cell 5-DET	80,045	141,356	172,283	99,484	123,292
Cell 6-DET	37,357	30,439	50,257	45,204	40,814
Cell 7-DET	64,896	80,947	197,901	175,795	130,135
Cell 8-COL	-	0	-	-	-
Cell 8-DET	19,899	28,262	32,297	29,039	27,374
Cell 10-COL	4	215	74	-	73
Cell 10-TERT-DET	412	15,887	7,248	7,557	7,776
Cell 10-D-1	1,866	4,839	8,921	5,124	5,188
Cell 10-D-2	243	5,052	4,725	5,081	3,775
Cell 11-COL	5,923	6,494	2,438	1,459	4,079
Cell 11-D-1	23,334	135,224	119,280	91,421	92,315
Cell 11-D-2	20,326	98,577	69,615	62,767	62,821
Cell 12-COL	684	538	268	8	375
Cell 12-D-1	6,649	54,385	48,759	37,833	36,907
Cell 12-D-2	19,587	74,662	73,412	54,547	55,552
Cell 13-COL	5,809	4,542	3,925	3,500	4,444
Cell 13-D-1	2,892	10,160	4,590	6,023	5,916
Cell 13-D-2	3,947	30,324	35,812	25.072	23,789
Cell 14-COL	24,909	23,718	14,182	8,525	17,834
Cell 14-D-1	13,955	6,724	3,742	2,825	6,812
Cell 14-D-2	4,260	40,638	17,425	26,632	22,239
Cell 15-COL	962,096	6,138,324	4,302,794	4,526,634	3,982,462
Cell 15-D-1	52,247	30,180	72,305	126,242	70,744
Cell 15-D-2	7,337	21,904	47,171	30,801	26,803
Cell 5-RFI-14	148,550	289,707	281,803	281,832	250,473

ATTACHMENT 11

WASTE MANAGEMENT AREAS

PERMITTED VOLUMES

III.B PERMITTED AND PROHIBITED WASTE IDENTIFICATION

III.B.1 The permittee may store or stabilize the wastes listed in the permit application **Waste Analysis Plan, Appendix 1**, subject to the terms of this permit. The maximum amount of hazardous waste that may be stores at any time in various areas is as listed in **Table 1 (see Attachment 11):**

TABLE 1

AREAS	Permitted Volumes
Area 1	13,760 gallons
Area 8	880 gallons
Area 11	880 gallons
Area 12	880 gallons
Area 18	1,760 gallons
Drum Dock	24,365 gallons
Container Management Building	365,860~~182,930~~ gallons

III.B.2 The permittee is prohibited from storing or stabilizing hazardous wastes in areas that are not identified in **Permit Condition III.B.1.** Other wastes may be stored temporarily, less than ten (10) days, under the conditions of 40 CFR Part 263.12 and OAC 252:205-15-2(b).