

CITY OF DEL RIO LANDFILL

VAL VERDE COUNTY, TEXAS

TCEQ PERMIT NO. MSW-207B

MAJOR PERMIT AMENDMENT APPLICATION PART IV — SITE OPERATING PLAN

Prepared for

City of Del Rio

October 2020

Prepared by

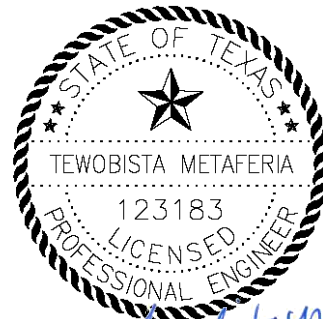
CP&Y Inc

TPBE Registration No. F-1741

1820 Regal Row, Suite 200

Dallas, TX 75235

214-638-0500



Teowobista Metaferia
10-16-2020

This document is intended for permitting purposes only.



Tawobista Metaferia
10-16-2020

Part IV
SITE OPERATING PLAN

TABLE OF CONTENTS

1 Purpose IV-1

2 Recordkeeping Requirements..... IV-1

 2.1 Required Records..... IV-2

 2.2 Training Records IV-3

 2.3 Additional Records..... IV-4

3 Waste Acceptance Rates IV-5

4 Types of Landfill Personnel IV-5

 4.1 Personnel..... IV-5

 4.2 Organizational Chart..... IV-6

 4.3 Key Personnel IV-7

 4.3.1 Public Works Director/City Engineer IV-7

 4.3.2 Streets and Drainage Superintendent..... IV-7

 4.3.3 Landfill Supervisor (City) IV-8

 4.3.4 Landfill Superintendent (Landfill Coordinator) IV-8

 4.3.5 Equipment Operators (Landfill Operator) IV-8

 4.3.6 Landfill Attendants IV-9

 4.3.7 Spotter..... IV-9

 4.3.8 Other Site Personnel IV-9

5 Facility Equipment..... IV-9

 5.1 Equipment IV-9

 5.2 Minimum Equipment..... IV-10

 5.3 Supplemental Equipment IV-11

6 General Instructions..... IV-11

7 Personnel Training IV-12

 7.1 General IV-12

 7.2 New Employee Orientation and Training IV-13

 7.3 Additional Training IV-13

8 Detection and Prevention of Disposal of Prohibited Waste IV-14

 8.1 Types of Waste Received..... IV-14

 8.2 Control of Incoming Waste..... IV-15

 8.3 Random Inspections IV-16

 8.4 Unloading Areas..... IV-18

 8.5 Special Waste Acceptance Procedure IV-18

9 Fire Protection..... IV-20

 9.1 Fire Protection Plan IV-20

 9.2 Local Fire Department IV-21

 9.3 Fire Event Rules IV-21

 9.4 Fire Protection for Specialty Unloading Areas..... IV-22

 9.5 Solid Waste Fires at the Working Face IV-23

 9.6 Fires at the Brush Stockpile/Mulching Area IV-24



Teowobista Metaferia
 10-16-2020

9.7	Burning Waste (Hot Loads)	IV-24
9.8	Vehicle and Fuel Fires	IV-24
9.9	Soil Stockpile	IV-25
9.10	TCEQ Notification	IV-25
10	Access Control	IV-25
10.1	General	IV-25
10.2	Control Measures	IV-25
10.3	Access Breach	IV-26
11	Unloading of Waste	IV-26
12	Facility Operating Hours	IV-27
13	Site Sign	IV-27
14	Control of Windblown Solid Waste and Litter	IV-28
15	Easements and Buffer Zones	IV-28
16	Landfill Markers and Benchmark	IV-29
16.1	Landfill Markers	IV-29
16.2	Site Benchmark	IV-30
17	Materials Along the Route to the Site	IV-30
18	Disposal of Large Items	IV-31
19	Odor Management Plan	IV-31
19.1	General	IV-31
19.2	Odor Management Plan	IV-31
19.3	Particulate and Dust Control	IV-32
20	Disease Vector Control	IV-33
21	Site Access Roads	IV-33
21.1	All Weather Roads	IV-33
21.2	Particulate and Dust Control	IV-34
22	Salvaging and Scavenging	IV-34
23	Endangered Species Protection	IV-34
24	Landfill Gas Control	IV-35
25	Oil, Gas, and Water Wells	IV-35
26	Compaction	IV-36
27	Landfill Cover	IV-36
27.1	Daily Cover	IV-36
27.2	Alternative Daily Cover	IV-36
27.3	Intermediate Cover	IV-36
27.4	Final Cover	IV-37
27.5	Cover Log	IV-37
27.6	Erosion of Cover	IV-37
28	Ponded Water	IV-37
28.1	Landfill Area	IV-37
29	Waste in Enclosed Containers at Type IV Landfills	IV-38
30	Disposal of Special Waste	IV-38
31	Disposal of Industrial Waste	IV-39
32	Visual Screening of Deposited Waste	IV-39
33	Contaminated Water Discharge	IV-39
33.1	Minimizing Contaminated Water	IV-39
33.2	Disposal of Contaminated Water and Leachate	IV-39
34	Leachate and Gas Condensate Recirculation	IV-40

TABLES AND FIGURES

Tables		Page
Table 2-1	Required Plans	IV-2
Table 2-2	Required Operating Record Information	IV-3
Table 2-3	Required Training Records	IV-4
Table 2-4	Additional Record	IV-4
Table 3-1	Waste Acceptance Rate Records	IV-5
Table 3-2	Waste Acceptance Rate Records	IV-5
Table 5-1	Minimum Equipment	IV-11
Table 5-2	Supplement Equipment	IV-11
Table 7-1	Prevention Training	IV-14
Table 8-1	Random Inspection Schedule	IV-16
Table 8-2	Unloading Areas	IV-18
Table 9-1	Fire Extinguisher List	IV-22
Table 9-2	Time to Place Soil Cover	IV-23
Table 10-1	Access Breach Reporting Requirements	IV-26
Table 16-1	Marker Color	IV-29
Table 19-1	Odor Control Measures	IV-32

Figures

Figure 4-1	Organization Chart
------------	--------------------



Teobista Metaferia
10-16-2020

1 PURPOSE

This Site Operating Plan (SOP) is intended to provide instructions and procedures for the daily operation of every component of the City of Del Rio Municipal Landfill. The SOP has been prepared consistent with Title 30 Texas Administrative Code (TAC) §330.650. This SOP, the permit and the current Texas Commission on Environmental Quality (TCEQ) regulation will be kept onsite throughout the facility's operating life.

The approved Site Development Plan, the Site Operating Plan, the Final Closure Plan, the Post Closure Maintenance Plan, the Landfill Gas Management Plan, and all documents and plans required by TAC §330, Subchapter D, shall become operational requirements and shall be considered a part of the operating record of the facility. Any deviation from the permit and incorporated plans or other related documents associated with the permit is a violation of TAC §330, Subchapter D.

The terms TCEQ and "Executive Director" (ED) shall refer to the current executive director of the TCEQ or the ED's designated representative. References to the permit for this facility shall refer to the most current version of the permit, including any approved amendments or modifications.

The Landfill Supervisor shall have general responsibility for implementing this SOP. Specific individual responsibilities are described in Section 4 of this SOP.

When a specific rule citation is listed, it shall refer to a rule under 30 TAC Chapter 330, and shall be listed in the form of "§330. 'rule number'".

If any questions arise regarding this SOP, City of Del Rio Landfill personnel should consult with:

- Texas Commission of Environmental Quality
Municipal Solid Waste Section
Austin, TX
Tel.: 512-239-2335
- Texas Commission of Environmental Quality
Region 16
Laredo, TX
Tel.: 956-791-6611
- Texas General Land Office
Spill Reporting Phone: 1-800-832-8224

2 RECORDKEEPING REQUIREMENTS

The ED may set an alternative schedule for recordkeeping and notification.

2.1 Required Records

Table 2.1 - Required Plans

Record Required	Frequency	Rule Citation
Facility Permit No. MSW 207A	Submittal of Permit Application	§330.125(a)
Site Development Plan	Submittal of Permit Application	§330.125(a)
Site Operating Plan	Submittal of Permit Application	§330.125(a)
Final Closure Plan	Submittal of Permit Application	§330.125(a)
Post-Closure Maintenance Plan	Submittal of Permit Application	§330.125(a)
Landfill Gas Management Plan	Submittal of Permit Application	§330.125(a)
Any other required plan and any other related document(s)	As required	§330.125(a)

These documents are considered a part of the Site Operating Record. They shall be maintained at the landfill, or an alternate location approved by the ED, and made available for inspection by TCEQ staff on request.

The facility shall also maintain current files of the following information as a part of the Site Operating Record. This information shall be recorded and updated within seven (7) working days of completion of the event or receipt of related analytical data, as appropriate, record and retain in the operating record the information listed in Table 2.2.

Table 2-2 - Required Operating Record Information

Record Required	Frequency	Rule Citation
Location-restriction demonstrations	Submittal of Permit Application	§330.125(b)(1)
Inspection records, training procedures, and notification procedures relating to excluding the receipt of prohibited waste	Per Occurrence	§330.125(b)(2)
Results from gas monitoring and any remediation plans relating to explosive and other gases	Per Occurrence	§330.125(b)(3)
Unit design documentation for the placement of leachate or gas condensate in a municipal solid waste landfill	As necessary	§330.125(b)(4)
Demonstration, certification, findings, monitoring, testing, and analytical data relating to groundwater monitoring and corrective action (not required at this facility)	Monitoring – Semi-annual Corrective action – as required	§330.125(b)(5)
Closure and post-closure care plans	Submittal of Permit Application	§330.125(b)(6)
Cost estimates and financial assurance documentation relating to financial assurance for closure and post-closure	Annually	§330.125(b)(7)
Information demonstrating compliance with the small community exemption criteria (not applicable at this facility)	Submittal of Permit Application	§330.125(b)(8)
Copies of all correspondence and responses relating to the operation of the facility, modifications to the permit, approvals, and other matters pertaining to technical assistance	Per Occurrence	§330.125(b)(9)
Documents, manifests, trip tickets, etc., involving special waste	Per Occurrence	§330.125(b)(10)
For any spray applied alternative daily cover (ADC) material, records of application rate and total amount of ADC applied on the days when the ADC is applied (N/A to this facility)	Per Occurrence	§330.125(b)(11)
Any other document(s) as specified by the approved permit or by the TCEQ ED	As necessary	§330.125(b)(12)

2.2 Training Records

The facility shall maintain personnel training records as listed in Table 2-3.

The facility shall employ at least one responsible employee credentialed with a Class A license issued pursuant to the requirements of 30 TAC Chapter 30, Subchapter F.

Table 2-3 - Required Training Records

Training Records	Citation
Training Records required by TAC § 335.586(d) and (e).	§330.125.(e)
Personnel operator license records	§330.125(f)

2.3 Additional Records

Although the city is not required by 30 TAC Chapter 330 to maintain the following record and documents, it is good practice to record and maintain these records to demonstrate compliance with the relative TCEQ regulations.

Table 2-4 – Additional Records

Record Required	Frequency	Rule Citation
Access control breach and repair notices to TCEQ when notification is required (See Section 10.3)	Each Occurrence	§330.131
Access control inspection and maintenance	Daily	§330.131
Daily litter pickup	Daily	Section 17
Fire occurrence notices, if applicable (See Section 9 – Fire Protection Plan)	Each Occurrence	§330.129
Windblown waste and litter control operations	Daily	Section 14
Management and disposal of large items	As necessary	
Documentation of compliance with approved odor management plan	As necessary	
Dust nuisance control efforts	As necessary	
Access roadway regrading	As necessary	
Salvaged material storage nuisance control efforts	As necessary	
Ponding prevention compliance documentation	As necessary	§330.167
Special waste operational plan compliance documentation	As necessary	
Special waste contingency plan compliance, if applicable	As necessary	
RACM contingency plan compliance, if applicable	As necessary	
Class 1 industrial waste contingency plan (not applicable at this facility)	N/A	
Documentation when alternate operating hours are used	As Necessary	§330.135
Documentation of efforts taken in response to gas detection and steps taken	As Necessary	§330.371
Cover Inspection Record	Daily	§330.165

Annual written notice shall be submitted to the ED for each occurrence that documents are placed into the operating record. This notification shall include a listing of all records added to the operating record and the date that they were added. Upon request, all information in the operating record shall be made available to the ED.

All information contained within the operating record shall be retained for the life of the facility including the post-closure care period.

3 WASTE ACCEPTANCE RATES

In accordance with §330.125(H), the waste acceptance rates are provided to aid in obtaining the correct balance of available on-site equipment, personnel, and other provisions related to implementing this SOP. The waste acceptance rate is reported in tons, and includes all waste that is accepted at the site. The facility shall maintain the waste acceptance record listed in Table 3-1, and provide these reports to the ED as required by §330.675.

Table 3-1 – Waste Acceptance Rate Records

Records	Citation
Quarterly solid waste summary reports	§330.125(h) and §330.675
Annual solid waste summary reports	§330.125(h) and §330.675

The permit for the facility does not establish a waste acceptance rate, nor does it restrict acceptance. The previous four quarterly reported waste acceptance rates are listed in the table below. The future waste acceptance rate is projected for a five-year period. Those figures are presented in the following Table 3-2.

Table 3-2 – Waste Acceptance Rate Records

City Fiscal Year	Landfill Disposal	Brush (Diverted)	White Goods (Diverted)	Sludge (Diverted)	Tires (Diverted)
2014-15	44,708	4,527	66	670	93
2015-16	54,092	5,265	106	905	86
2016-17	51,515	7,135	135	249	85
2017-18	42,072	6,010	137	553	99
2018-19	45,399	5,778	140	0	73
Five- Year Average	47,557	5,743	117	475	87
Days per Year	286	286	286	286	286
Average Tons per Day	166	20	0.41	1.6	0.30

If the annual waste acceptance rate exceeds the rate estimated in the landfill permit application and the waste increase is not due to a temporary occurrence, the facility shall file an application to modify the permit application, including the revised estimated waste acceptance rate, in accordance with TAC §305.70(k) (relating to Municipal Solid Waste Permit and Registration Modifications), within 90 days of the exceedance as established by the sum of the previous four quarterly summary reports. The application must propose any needed changes in the Site Operating Plan to manage the increase waste acceptance rate to protect public health and the environment.

4 TYPES OF LANDFILL PERSONNEL

4.1 Personnel

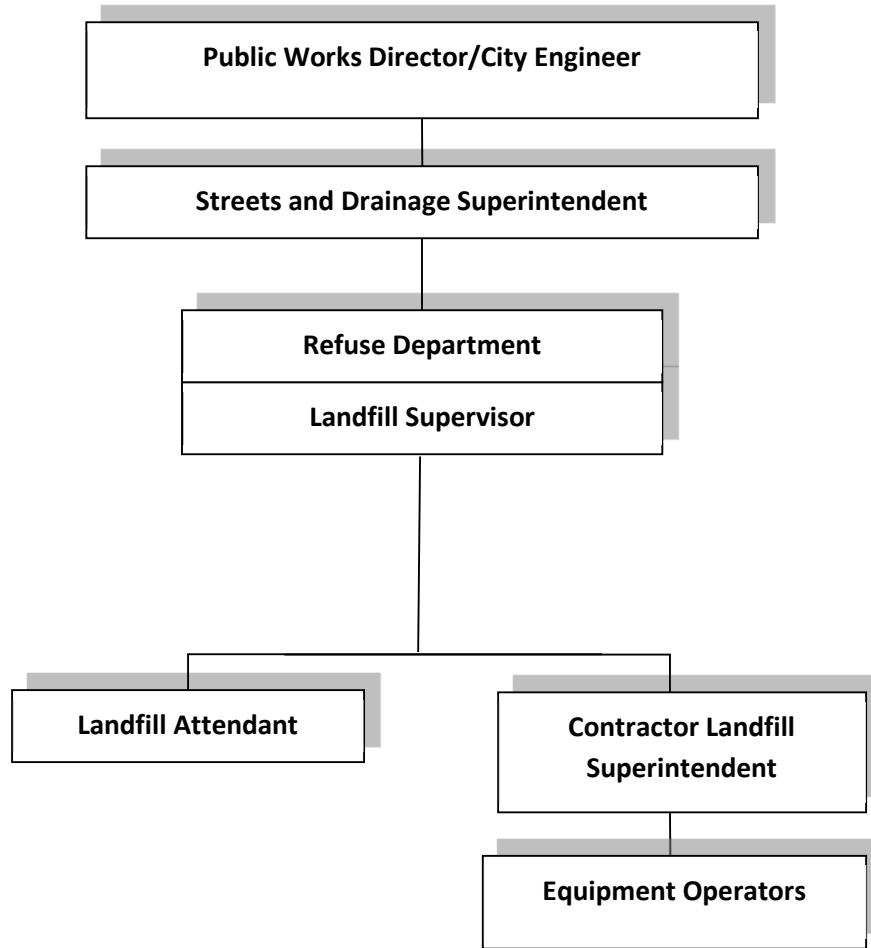
Responsibility for overall facility management and operation rests with the Del Rio City Council. The Council working through the City Manager is responsible for assuring that adequate personnel and equipment are available for facility operation in accordance with the Site Development Plan (SDP) and the

TCEQ Rules & Regulations. The City Manager delegates responsibility to the City's Public Works Director/City Engineer for directing the activities of the Facility. The City currently contracts with Red River Waste Solutions LP to provide landfill services. The contractor, or his successor is referred to as the "Landfill Operator" in this plan. The Landfill operator is responsible for the day-to-day operation of the landfill. At all times that the Landfill is in operation, a landfill operator with a TCEQ issued Class A license shall be in responsible charge of Landfill Operations.

4.2 Organizational Chart

The organizational chart shown in Figure 4-1 provides a graphical illustration of the chain of command for City of Del Rio and Landfill Operator. Personnel and job titles are subject to change based on particular assignments, operational conditions, and/or personnel turnover.

**Figure 4-1
Organizational Chart**



4.3 Key Personnel

4.3.1 Public Works Director/City Engineer

The Public Works Director/City Engineer is designated as the contact person for matters related to regulatory compliance and management of the refuse collection and Landfill Operator. He/she shall be a licensed professional engineer in the state of Texas.

4.3.2 Streets and Drainage Superintendent

The Streets and Drainage Superintendent's duties include assisting the Public Works Director/City Engineer to plan, organize, direct, and control the activities of the department, and specifically supervise the Refuse Department (waste collection and disposal) consisting of approximately three (3) or more employees. The Superintendent has project management responsibility for the landfill, a long-term civil project, including working with outside consulting engineers on landfill construction and planning projects. The Superintendent oversees landfill development, operation performance of mandated

controls, and permit compliance; ensures the timely preparation of recurring reports, such as reports to regulatory agencies; and administers contracts. The Superintendent assists with managerial studies including new regulations, outlining proposed compliance plans, studies and reports of new procedures and equipment, implementation of control procedures including personnel training, and provides administrative continuity in the absence of the Director. Under the direction of The Public Works Director/City Engineer, the Superintendent is responsible for assuring that all provisions of the Soil and Liner Quality Control Plan and the Landfill Gas Monitoring Plan are carried out on an ongoing basis.

4.3.3 Landfill Supervisor (City)

A City Landfill Supervisor, under the direct supervision of the Streets and Drainage Superintendent and working with the Contractor Landfill Superintendent, shall monitor the landfill on a daily basis. Duties include planning, organizing, and directly overseeing landfill operations for the City on a daily basis; maintaining and improving the waste disposal and waste diversion procedures at the landfill; planning and constructing earthwork projects (levees, berms, ditches, stockpiles, etc.) using City personnel or landfill crews; coordinating with contract construction crews as needed; overseeing the operation of the landfill within the local, state, and federal regulations pertaining to solid waste; managing concerns and complaints from citizens and other landfill users; and maintaining thorough effective communications between the City landfill staff and the Landfill Operator staff.

Landfill Supervisor must have current certificates of safety and supervision and a waste screening certificate, demonstrated mechanical knowledge of heavy equipment and the ability to operate a desktop personal computer for landfill scale program and daily tracking reports, a high school diploma or equivalent, with four years increasingly responsible experience, additional experience in landfill work, computer usage, and supervision is preferred. Landfill Supervisor shall have, or be able to obtain, a TCEQ "Class A" License.

The Landfill Supervisor and the Landfill Superintendent shall not be absent from the landfill at the same time.

4.3.4 Landfill Superintendent (Landfill Coordinator)

Duties include supervising landfill crews, coordinating with the Landfill Supervisor on the planning, organizing, and direct daily oversight of landfill operations; conducting a variety of technical tasks including scheduling of manpower and equipment; assigning and prioritizing work assignments for the landfill crews; managing waste disposal and diversion; maintaining heavy equipment and instruments; supervising the construction of earthwork projects (levees, berms, ditches, stockpiles, etc.) with onsite labor and equipment; coordinating with other departments and contract construction crews as needed; operating the landfill within the local, state, and federal regulations pertaining to solid waste; managing concerns and complaints from citizens and other landfill users, providing and coordinating staff training and discipline procedures, and maintaining thorough effective communications with the Landfill Supervisor. Landfill Supervisor must have demonstrated mechanical knowledge of heavy equipment and the ability to operate desktop personal computer for landfill scale program and daily tracking reports. A high school diploma or equivalent, four years increasingly responsible experience and a Class B Texas driver's license is required. Additional experience in landfill work, computer usage, and supervision is preferred. The Landfill Superintendent shall directly supervise landfill operations and shall possess a TCEQ issued Class A License pursuant to 30 TAC Chapter 30, Subsection F, and a waste screening certificate.

4.3.5 Equipment Operators (Landfill Operator)

Equipment Operators are under the supervision of the Landfill Coordinator. Duties include operating bulldozers, compactors, scrapers, loaders utilized in the movement of solid waste; and performing a

number of miscellaneous tasks related to burial of waste, operation of the landfill, and construction maintenance. As the personnel most closely involved with the actual waste filling operations, the employees are responsible for being alert to any potentially dangerous conditions, careless or improper actions on the part of any person on-site, and reporting such observations to the Landfill Superintendent.

Equipment Operators also perform secondary duties which must not interfere with the safe operation of equipment nor any operations at the working face. Secondary duties include observing waste unloading, assisting landfill customers if problems arise, and to preclude prohibited waste. In addition, they must be able to operate the landfill scales in order to provide relief to the Landfill Attendant. A high school diploma or equivalent is preferred. Two years experience operating heavy equipment and a Class B license are required. Equipment Operators should have a TCEQ Waste Screening Certificate.

4.3.6 Landfill Attendants

The Landfill Attendant(s) or gate attendant(s), stationed at the site entrance, is primarily responsible for the implementation of landfill admission policies by controlling incoming traffic, screening loads for prohibited hazardous waste, maintaining control of the traffic through the scales, and preserving good public relations. The Attendant shall weigh vehicles and maintain complete and accurate records of vehicles and visitors entering and leaving the facility. The Attendant shall maintain records of daily waste flow using a computer and automated scale software. He or she shall collect and account for daily gate receipts, and report any emergencies or unusual activities to the Superintendent. The Attendant(s) shall check all waste loads for adequate cover, or that loads are otherwise protected or contained. All incoming vehicles shall be visually observed for evidence of improper operation, faulty equipment, or unsafe conditions. A high school diploma or equivalent is required. The Attendant shall visually screen waste to assure no unacceptable materials are included in the load and must also have, or be able to obtain, a TCEQ Waste Screening Certificate. Gate scales are calibrated annually by a State of Texas weights and measures certified technician from Western Weights. The Landfill Operators shall be responsible for the annual inspection and pay all costs for said services.

4.3.7 Spotter

The Landfill Operator shall employ spotters to observe all waste delivered to the work face of the landfill. The spotter shall have and maintain a TCEQ Waste Screening Certificate. The spotter shall be located in a safe location that affords a view of waste dumping activities at the landfill

4.3.8 Other Site Personnel

Other site personnel shall be employed from time-to-time as required to maintain proper and safe landfill operations. Categories of additional employment are maintenance, construction, and site clean-up. A list of staff shall be maintained with the Streets and Drainage Superintendent.

5 FACILITY EQUIPMENT

5.1 Equipment

Equipment requirements shall vary in accordance with the scope of landfill operations. Based upon operational considerations and equipment requirements at the landfill, additional and different types of equipment may be added and used occasionally to enhance operational efficiency. Routine preventative maintenance of equipment shall be provided. In selecting equipment, the landfill operator has considered the following:

- Site clearing requirements
- Site conditions such as topography
- Auxiliary tasks such as maintaining roads and drainage, assisting in vehicle unloading and moving other materials and equipment around the site
- Quantity and type of refuse
- Variation in refuse quantities receiver
- Quantity and type of soil to be removed
- Distance soil must be moved
- Time required for covering and soil compaction
- Maintenance needs
- Availability of parts and maintenance
- Standby or backup equipment needs
- Reliability of equipment
- Purchase and operating costs
- Operator comfort
- Variation in weather conditions

5.2 Minimum Equipment

At a minimum, the types of equipment presented in Table 5-1 shall be maintained at the facility and available during normal operating hours. A dated listing or chart of the routine maintenance performed should be kept. Records should be kept to show operator inspections and findings on equipment and the maintenance history of the equipment. In the event of mechanical breakdown of any of the Landfill Operator's equipment that inhibits his ability to receive, compact, and cover waste, he shall have either a standby piece of equipment or the ability to rent the needed equipment and have it on site and functioning within a 48-hour period.

Table 5-1 – Minimum Equipment

Equipment Type	No. of Units Waste Acceptance Range (tpd)		Minimum Size or Capacity	Function
	*Current to 500	N/A		
Compactor	1		81,000 lbs (Cat 826 or equivalent)	Waste and soil spreading and compaction
Track Dozer	1		230 (cat 06 or equivalent)	Waste and soil spreading and compaction
Track Loader or Wheel Loader	1		175 hp/3cy	Transportation of daily cover, fire fighting support
Self-Propelled off-Road with Spraying Equipment Water Truck	1		1,000 gallon	Dust control, fire fighting support
Motor Grader	1		145 hp	Grading of access roads, soil spreading
Self-Loading Scraper or Articulated Dump	2		10 cy	Transportation of daily cover, fire fighting support
Skid Loader with broom attachment and bucket	1		5,000 pounds	Misc. use. Load scrap metal, clean access road

*The projected growth in acceptance shall never exceed 500 tpd during the remaining life of the landfill.

5.3 Supplemental Equipment

In addition to the minimum equipment provided at the site, additional equipment may be available and used when needed as determined by the site personnel. Other equipment items that are routinely available for use at the facility are outlined in the Table 5-2. Various additional vehicles and pieces of equipment are also used.

Table 5-2 – Supplemental Equipment

Equipment Type	No. of Units	Minimum Size or Capacity	Function
Fuel Tanks	2	250 and 500 Gal	Equipment refueling
Portable Water Pump	2 (min.)	3-inch	Removal of water from excavations
Pickup Truck	2	3/4-Ton	Personnel or small equipment transportation
Air Compressor	1		Clean air filters, check tire pressure

6 GENERAL INSTRUCTIONS

The City of Del Rio shall provide adequate management supervision of the site and operations to assure compliance with the TCEQ Rules and Regulations, the SLQCP, the Landfill Gas Management Plan, and the site operating permit. Duties and responsibilities of personnel are presented in Section 4 – Types of Landfill Personnel.

This SOP contains the procedures necessary for day-to-day site operations, but is not intended to be a comprehensive operating manual for all aspects of this municipal solid waste facility. This document is a general set of instructions that the operating personnel shall follow for operational requirements. The landfill supervisor, a qualified representative of the City of Del Rio, shall make regular inspections of all drainage features, soil coverage, and other construction features to insure that they are functioning as required to provide adequate protection of ground and surface water. A recommended form for this inspection is included in Appendix 1 – Municipal Landfill Checklist. These inspections shall be conducted daily by site personnel, and at least quarterly by the City of Del Rio. The City of Del Rio shall insure that corrective action is taken for problems found at the maintenance inspections. Detailed procedures can be found in subsequent sections of this SOP.

7 PERSONNEL TRAINING

7.1 General

Preparedness and prevention measures have been developed to minimize both the frequency and severity of accidents and emergency situations threatening human health.

The City's Landfill Supervisor and the Landfill Operator Superintendent shall receive off-site training required to obtain a TCEQ Class A license and shall maintain said licenses. Assigned personnel shall receive 8 hours of off-site training in waste screening consistent with the requirements of 30 TAC 330.127(4) from an authorized provider.

Classroom or on-the-job personnel training shall be provided to all facility operating personnel. Site personnel include the Landfill Supervisor, Landfill Operator Superintendent, and all site operating personnel. Training shall include safety and accident prevention, permit requirements, and contingency plans. Site training meetings shall be scheduled at least monthly. If a regular monthly meeting is cancelled, it shall be rescheduled or combined with the regularly scheduled training the following month. Personnel shall be scheduled for training sessions so that site operations may be continued with minimal disturbance. Records of site personnel attending training sessions and material covered shall be maintained as a part of the Site Operating Record. Training topics may vary each month; however, training in the following subjects shall be conducted at least annually.

- Safety
- Fire protection, prevention, and evacuation, and fire extinguisher use
- Asbestos waste management
- Emergency procedures, equipment and systems, and response to fires, explosions, groundwater contamination, and site shutdown.
- Litter control and windblown waste pick-up
- Prohibited waste management
- Properties of methane gas and safety procedure for methane gas
- Waste screening, and hazardous waste and PCB waste detection and prevention

All training shall be directed by a person properly trained in waste management procedures. All key personnel shall have their training reviewed annually to ensure that their training is current and complete.

7.2 New Employee Orientation and Training

All newly hired employees of the facility shall be given training in the following areas upon beginning work at the landfill.

- Safety Procedures
- Contingency Plans
- Permit Requirements

All landfill employees shall be supplied with and required to use foot protection, hard hats, hearing protection, and safety vests for personnel directing traffic. In addition, eye protection, respiratory protection, and hand protection equipment shall be made available for use and personnel trained in the use of safety equipment as required by OSHA.

7.3 Additional Training

In addition to the mandatory annual training requirements, site personnel shall receive periodic training in the following areas:

- Instruct each employee of the site's requirement to post and maintain signs at the site entrance informing the public and waste transporters of the allowable waste for acceptance and the listing of specific waste NOT allowed for disposal.
- Employees shall be trained to be able to safely identify and categorize waste suitable and unsuitable for acceptance or disposal at the Facility.

Employees shall be trained to monitor/observe incoming waste loads as part of a detection and prevention program concerning regulated hazardous waste and PCB waste as listed in Table 7-1.

Table 7-1 – Prevention Training

Training Area	Procedures
Recognition of prohibited waste	Regulated hazardous waste – 40 CFR Part 261 PCB waste – 40 CFR Part 761
Detection and prevention of disposal of prohibited waste	Random inspection of incoming loads Inspection of compactor vehicles Observe each load that is disposed at the landfill Maintain records of all inspections
Notification	ED to be notified of any incident involving the receipt or disposal of prohibited waste
Remediation of incidents	Landfill personnel have the authority to reject prohibited waste. Those prohibited items which may be accepted at specific unloading areas (such as tires, oil, batteries, and white goods) must not be unloaded at the working face. If they are, these items must be retrieved and sent to the proper unloading area.

8 DETECTION AND PREVENTION OF DISPOSAL OF PROHIBITED WASTE

8.1 Types of Waste Received

The landfill is permitted to receive only municipal solid waste and those special solid waste allowable under 30 TAC 330.171. These special wastes listed in §330.171 may be accepted if managed per the handling procedures for each waste identified in §330.171(c)(1)-(7). Procedures for accepting special waste are detailed in Section 8.3 of this SOP. In the event that the City elects to accept other special waste in the future, TCEQ’s authorization shall be sought and procedures for acceptance prior to accepting these waste shall be provided. The site is not authorized to receive regulated hazardous waste or PCB waste for disposal, as defined in 40 CFR 261 and 30 TAC §330.5. The facility may receive Class I industrial non-hazardous waste with written approval from the ED and a manifest per 30 TAC §335.10. Requests for authorization to accept Class I waste must be submitted in writing to the ED. This request must include a description of chemical and physical characteristics of the waste, a hazardous waste statement and the quantity, rate and frequency of disposal as well as an operating plan containing handling procedures, personnel protection and on site emergency equipment and a written contingency plan meeting the requirements of 30 TAC §335.589. In accordance with the City’s permit and current policy, the following special waste items may be accepted under specific procedures as described:

- Municipal water/wastewater sludges
- Slaughterhouse waste
- Dead animals
- Pesticide containers
- Discarded materials containing asbestos

Prohibited waste, which are not accepted for disposal at this facility, include:

- Septic tank pumpings

- Incinerator ash
- Soil contaminated by petroleum products or chemicals
- Used oil
- Waste from mineral recovery operations
- Lead acid storage batteries
- Used oil filters
- Waste generated outside of Texas that contains items listed here
- Items containing PCBs
- Items containing chlorinated fluorocarbon (CFC), unless all CFC contained within has been properly managed and disposed of.
- Liquid waste, as defined

The landfill does accept lead acid batteries, motor oil, tires, and items containing CFC's, not for disposal at the working face, but to be stored in a designated area until they are transported off-site for re-use or to be properly disposed of.

All wastes generated by the facility will be processed or disposed at an authorized solid waste management facility.

8.2 Control of Incoming Waste

A detection and acceptance prevention program shall be implemented at the facility to address the detection and prevention of prohibited waste, regulated hazardous waste as defined in 40 Code of Federal Regulations Part 261, and polychlorinated biphenyls (PCB) waste as defined in 40 CFR Part 761.

The program shall document the training of all site personnel to recognize and handle unauthorized waste in a safe and environmentally sound manner. The detection and acceptance prevention program applies to all unloading areas including the working face and all specialty unloading areas. Employee training shall include the following:

- Instruct each employee of the site's requirement to post and maintain signs at the site entrance informing the public and waste transporters of the allowable waste for acceptance and the listing of specific waste NOT allowed for disposal.
- Employees shall be trained and equipped to be able to safely identify and categorize waste suitable and unsuitable for acceptance or disposal at the Facility.

Incoming waste are controlled in three ways so that the facility does not inadvertently receive waste materials which would violate the TCEQ Rules & Regulations. In addition, rules for waste disposal and prohibited waste shall be prominently displayed on sign(s) at the site entrance.

The first level of control is knowledge and training of City of Del Rio and personnel as to what constitutes special, prohibited, regulated hazardous waste and PCB waste, and of the particular requirements for their disposal, and the state and federal regulations which govern the transportation and disposal of these and all other types of industrial and municipal solid waste. This shall aid the City to properly inform the customers as to the restrictions at this landfill. This shall also provide the basis for random inspections. (See Section 8.3)

The second level of control is the Landfill Operator’s residential/commercial collection vehicle drivers. These individuals are also informed of the typical visible characteristics of special prohibited and hazardous waste, and which of their customers are likely to be generators of these waste. They shall then be alert to the possible presence of these waste within the waste they collect.

The third level of control is provided by site personnel. The landfill attendant, equipment operators, and spotter shall be alert for indications of unpermitted waste, and shall be familiar with the rules and regulations governing acceptable and unacceptable waste for this facility. A thorough knowledge of §330.15 and 330.171 of the TCEQ Rules & Regulations and a basic understanding of both industrial and hazardous waste generators and their associated transportation and disposal requirements shall be required by site personnel. Particular items, which personnel shall look for, are barrels, possible liquids, TCEQ transporter numbers on trucks, or company names on trucks which could be industrial or hazardous waste generators or generators of unpermitted special waste. This level of control is for non-contractor/city transport vehicles. Pre-inspection techniques shall assist in prevention of unloading of prohibited waste. Pre-inspection techniques include monthly ads in the local paper explaining rules and regulations for disposal at the landfill, information presented on the city web site, and signs on site notifying customers of what waste are allowable and what is prohibited. Should any prohibited waste be observed or suspected, the material shall be isolated, if possible, and excluded from land-filled material. Even if the material is inadvertently mixed with other waste on the working face, procedures shall be implemented whenever safely possible to extract that material and isolate it. Once a suspected unpermitted waste has been isolated and secured, the City of Del Rio’s Public Works Director/City Engineer management staff shall be notified to determine the proper course of action.

In the event that a regulated or hazardous waste arrives at the site, the appropriate departments and offices within the TCEQ shall be notified. The applicable phone numbers shall be included in the list of emergency numbers posted. If the waste presents an emergency situation, the services of a hazardous waste specialty firm shall be retained. The appropriate agencies shall be requested to provide assistance to the City through their respective enforcement capabilities in the proper management of unpermitted waste received at the site.

8.3 Random Inspections

Random inspections of the incoming vehicles shall be performed to ensure that they do not contain regulated hazardous waste, PCB waste, or prohibited waste. Characteristics to be first observed might be unusual odors, heat, fumes, large containers, unusual dust, liquids, or sludge. Random inspections shall be carried out according to the following table.

Table 8-1 – Random Inspection Schedule

Day of Week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
No. of Vehicles	0	1	2	1	2	2	2

The average number of trucks (loose, compacted, pickups, etc.) entering the landfill facility is about 120 per day or about 720 per week (the landfill is closed on Sunday). This inspection schedule amounts to ten (10) vehicles inspected per week; this quantity equals well over 1% of total vehicles accepted at the site, and at least 1% of vehicles shall be inspected. The quantity of random inspections shall be reevaluated every six months to maintain 1% vehicle coverage. Random inspections shall augment the other normal procedures utilized at the facility, including the observation of the load by the spotters and equipment

operators as it is unloaded at the working face and observation by the landfill attendant of loads delivered in open vehicles.

The working face staff has the authority and responsibility to reject unauthorized loads and have unauthorized materials removed by the transporter, or have on-site personnel remove or otherwise properly manage the materials.

All site personnel, including landfill supervisors, equipment operators, and landfill attendants, should maintain a thorough understanding of this SOP and should be trained in the following areas:

- Customer notification and load inspection procedures
- Identification of prohibited, regulated hazardous and PCB waste
- Waste handling procedures
- Health and safety
- Recordkeeping

The facility shall maintain copies of the waste screening inspections in the Site Operating Record. These records shall minimally contain the date and time of the inspection, transporter name and address, driver name, vehicle type, the size and source of load, contents of the load, indicators of prohibited waste, and the results of the screening inspection.

In the event that screened waste are suspected to be unauthorized waste, the employee conducting the screening shall immediately notify a supervisor, who will instruct the site personnel in specific activities to be conducted to secure the suspect waste from adversely impacting individuals or the environment.

Investigations to determine if the waste are unauthorized shall be conducted under the direction of the supervisor. In the event that the waste are unauthorized, but no hazardous or PCB waste are identified, facility personnel shall be instructed in the appropriate manner to load the unauthorized waste into the transporter's vehicle for disposal at an approved facility. Site personnel under the direction of the Landfill Supervisor shall prepare an incident report, which will be kept at the site and placed in the Site Operating Record, with a copy mailed to the TCEQ Regional Office within ten (10) business days of the event. This incident report shall minimally note the transporter of the unauthorized materials, their address, telephone number, driver's name, site inspector, location of the inspection, time of inspection, suspected unauthorized waste, and the resolution of the occurrence.

In the event that the waste materials are suspected to contain regulated hazardous waste or PCB waste, the supervisor shall secure the immediate area around the suspect materials. Landfill personnel shall notify the TCEQ ED of the event by telephone, fax transmission, and mail. Landfill personnel shall prepare an incident report, which shall be kept at the site, with a copy mailed to the TCEQ Region office, within ten (10) business days of the event. This incident report shall minimally note the transporter of the unauthorized materials, their address, telephone number, driver's name, site inspector, location of the inspection, time of inspection, suspected unauthorized waste, and the resolution of the occurrence.

8.4 Unloading Areas

Table 8-2 – Unloading Areas

Unloading Area	Number	Maximum Area Size	Description
Lead Acid Batteries	1	20ft x 10ft	Housed in metal cargo box
Motor Oil and Anti-freeze	1	20ft x 10ft	Stored in separate 275 gal containers, housed in metal cargo box
Tires	1	65ft x 18ft	Tires stored in 53 ft enclosed trailer
White Goods	1	30ft x 20ft	Items placed in 40 yd roll-offs
Working Face	1	Normal 40ft x 75ft Max 50ft x 100ft	
Wood Chipping	1	20ft x 20ft	Wood chips piled on open ground

- Lead Acid batteries are not accepted at the working face, but are collected in the designated area. Batteries are temporarily stored in a 20 ft x 10 ft area within a metal cargo/storage box. The batteries are hauled off by a local recycler on a regular basis. If necessary, the recycler shall be called for additional pick ups.
- Motor oil, filters, and anti-freeze are not accepted at the working face, but are collected in the designated area. Motor oil is stored in 275 gal containers, anti-freeze is stored in drums, and filters are stored in metal drums. These materials are picked up by a local recycler on a regular basis. The recycler is called if additional pick ups re needed.
- Tires are collected separately and stored in an enclosed 53 ft trailer. The trailer is hauled away and replaced with an empty trailer by a local recycler as needed.
- White goods are separated from other waste as they enter the landfill gate, and are stored temporarily in 40 SY roll-off containers. As these containers fill, they are transported to a local salvage operation. Any CFC containing materials are included in this category.
- Wood chips are stored in a 20 ft x 20 ft stockpile, near the other specialty unloading areas. The chipping operations, however, occur in a similar sized area about 100 ft from the working face or as directed by the city. Wood materials are chipped and then transported to the stockpile storage area for distribution to local residents.

8.5 Special Waste Acceptance Procedure

In accordance with current City policy, acceptance procedures for special waste are as follows:

- Water and wastewater treatment plant sludges that have been tested with the Method 9095 Paint Filter Liquids Test and are certified to contain no free liquids, which have been treated or processed, are not hazardous, and are not hauled in vacuum, may be accepted at this landfill. Quantities shall be limited to that which can be adequately handled at the landfill without creating

odor problems, and shall be placed in area(s) designated by the city. Such material shall be applied to the closed areas of the landfill and disked into the soil as directed by the city.

- Dead animals and slaughterhouse waste shall be covered by at least two feet of soil, or three feet of other solid waste, immediately upon receipt.
- Drums and metal tanks shall not be accepted at the landfill unless the tops have been removed so that the interiors can be observed prior to crushing.
- Empty containers, which have been used for pesticides, herbicides, fungicides, or rodenticides, may be disposed of in accordance with TAC 330.171(c)(5). Containers shall be triple-rinsed and rendered unusable prior to receipt at the site, and shall be covered by the end of the same working day they are received. If it is not feasible to triple-rinse the containers (e.g., paper bags), the waste must be placed in the active disposal area and covered with at least three feet of solid waste, or the waste must be placed in a specially designated area and covered with at least two feet of compacted soil. Salvaging or scavenging of containers, which have been used for pesticides, herbicides, fungicides, or rodenticides, shall not be allowed under any circumstances.

Regulated asbestos-containing material (RACM) may be accepted at the site if procedures outlined in TAC 330.171(c)(3) are followed. In general these procedures are:

- The facility has been authorized by the ED to accept RACM.
- The site operator contemplating acceptance of RACM shall provide written notification to the ED of the intent to accept RACM.
- A specific area or areas shall be dedicated to receive RACM. The designated area shall be surveyed and marked by a Registered Professional Land Surveyor and identified on a current site diagram. One copy of the diagram shall be submitted to the ED and one shall be maintained at the site.
- The site shall maintain a record of each load of RACM accepted as to its location, depth, and volume of material.
- Upon closure of the MSWLF unit, which accepted RACM, a notation that the site accepted RACM shall be placed in the deed records with a site diagram identifying the RACM disposal areas. Concurrently, a copy of the deed recordation and site diagram identifying the RACM disposal areas shall be submitted to the ED.
- Delivery of the RACM to the site shall be coordinated by the owner/operator so that the waste shall arrive at a time it can be properly handled and covered.
- RACM shall be accepted only in tightly closed and unruptured containers or bags, or shall be wrapped as necessary with six-mil polyethylene.
- Bags or containers of RACM shall be placed, where possible, below natural grade. Where not possible, provisions shall be made to insure that the RACM shall not be subject to future exposure due to erosion or weathering of the cover. RACM placed above natural ground shall be located such that it will not be less than 20 feet from any final side slope, and shall be at least 10 feet below the final surface at closure of the MSWLF unit.
- Bags or containers holding the RACM shall be carefully unloaded and placed in final position so as not to rupture any containers. The containers shall be covered promptly with 12 inches of clean earth, or three feet of solid waste containing no asbestos, taking care not to rupture the containers.

- In the event of an accidental spill, a contingency plan shall be prepared by the owner/operator prior to accepting RACM. The Plan shall specify the responsible person(s) and the procedure for the collection and disposal of the spilled material.
- RACM, which has been classified as a Class 1 industrial waste, may be accepted, provided the RACM is handled as detailed above and the owner/operator maintains a manifest record of each Class 1 shipment received for at least 3 years; submits a written report of Class 1 waste received to the ED no later than the 25th day of the month following the month of acceptance; and submits monthly reports of Class 1 waste shipments to the ED after receiving any Class 1 waste.

Non-regulated asbestos waste may be disposed of at this landfill in accordance with TAC §330.171(c)(4). The waste shall be accepted only if the load is covered and shall be placed at the toe of the working face. If the waste cannot be placed at the toe, it shall be placed on an area of the working face which shall not be subject to vehicular traffic or disposed of by any means by which the material could be crumbled into a friable state.

Other special wastes not identified above or in TAC §330.171(c)-(d) may not be accepted without written approval from the ED. Approvals will be waste specific and/or site specific and will be granted only to appropriate facilities in compliance with Chapter 330. Requests for approval to accept special wastes must be submitted by the generator to the ED, or to a facility with an approval plan. Requests for approval to accept special wastes must include a description of physical and chemical characteristics and a statement whether or not it is a Class I industrial waste as defined by §330.3, and the quantity and rate at which it is produced and/or the expected frequency of disposal.

- For Class I industrial waste, a hazardous waste determination as required by 30 TAC §335.6 will be included.
- All requests for approval to accept special wastes must include an operational plan containing the proposed procedures for handling each waste and listing required protective equipment for operating personnel and on-site emergency equipment.
- All requests for approval to accept special waste must include a contingency plan outlining responsibility for containment and clean up of any accidental spills occurring during the delivery and/or disposal operations.
- Soils containing petroleum products are not accepted for disposal.
- The ED may authorize the receipt of special waste with a written concurrence from the facility, however, the facility operator is not required to accept the waste.
- The ED may revoke an authorization to accept special waste if the owner or operator does not maintain compliance with the rules and conditions imposed in the authorization to accept special waste.
- Used oil filters are not accepted for disposal.

9 FIRE PROTECTION

9.1 Fire Protection Plan

The "No Smoking" rule applies equally to all landfill patrons, City and contract personnel, and visitors, and shall be rigidly enforced by all personnel. Smoking shall be confined to designated areas only, away from active areas of the landfill, fuel stations, and other fire-sensitive areas.

Open burning is prohibited at the site except on an infrequent basis of specific waste as may be authorized by the TCEQ. Any open burning shall be carried out away from any uncovered solid waste, and away from the active area.

All on-site personnel shall be familiar with the locations, uses, and limitations of firefighting equipment.

A fire-fighting soil stockpile shall be kept in close proximity to the active face for aerial fill operations as well as for below-grade operations. Additional soil stockpiles are located near the other types of unloading areas for use in fire-fighting activities.

General fire-fighting methods include smothering with soil, separating burning material from other waste, and/or spraying with water from a water wagon or truck. Water or other fluids used as fire-fighting materials shall be treated as contaminated water. If detected soon enough, a small fire shall be fought with a hand-held extinguisher.

Dead trees, brush, or vegetation adjacent to the active area shall be removed immediately, and grass and weeds mowed so that forest, grass, or brush fires cannot spread to the landfill.

Wood-chipping operations shall be kept in a neat and manageable area separate from the disposal operations.

Landfill equipment shall be moved a minimum of 50 feet from the active disposal area each night.

The site shall be supplied with fire extinguishers of a type, size, location, and number as recommended by the City of Del Rio Fire Department or the City's insurance carrier. Fire extinguishers will be fully-charged and ready for use at all times. Fire extinguishers shall be inspected at least annually and recharged as necessary by a qualified service company, and display a current inspection tag. The gatehouse, and all vehicles and equipment listed as "Minimum Equipment" in Section 5.1 of this SOP, shall be equipped with a fire extinguisher. Fire extinguisher inspection shall be performed after a fire extinguisher has been discharged.

Following a fire event, the facility staff shall review the occurrence to evaluate the fire control procedures to determine if any modifications to the fire prevention plan are warranted. Additionally, the City of Del Rio Municipal Landfill will measure its fire-fighting capabilities by an annual re-evaluation of fire control procedures, status of employee training, availability and volume of soil stockpile, and availability and capacity of equipment.

9.2 Local Fire Department

The City of Del Rio fire station, which would respond to a fire at the City of Del Rio Municipal Landfill, is located approximately one mile from the landfill site. Fire station personnel shall be invited for a tour and orientation of the landfill facility on an annual basis. The orientation shall include a description of on-site combustible materials, the location of the combustible materials, the on-site road network, and the on-site water sources.

9.3 Fire Event Rules

The following tasks should be carried out in the event of any fire:

- All personnel shall have received training in fire protection, prevention, and use of fire extinguishers. Additionally, every employee shall be trained on facility evacuation procedures so that everyone is aware of actions to be taken in the event that an evacuation becomes necessary.

- Personnel shall take immediate precautions to protect themselves including donning appropriate personal protective equipment. Do not attempt to fight a fire alone, or without adequate personal protective equipment.
- Remove all equipment and personnel from the area of the fire, as necessary.
- Alert on-site supervisors and other facility personnel.
- Alert off-site personnel including the Public Works Director/City Engineer, City of Del Rio Fire Department (a City of Del Rio Fire Station is located approximately one mile from the landfill site), and City of Del Rio Police Department, as appropriate and necessary.
- Determine the type of fire, if possible, to ascertain any immediately required evasive actions necessary including evacuating the area, moving upwind, etc.
- Assess the extent and likelihood of the fire spreading, and determine materials and equipment needed to address the fire.
- Attempt to contain, suppress, or extinguish the fire using established methods and procedures and in accordance with site safety policies.
- Upon arrival of other staff, provide updates on actions taken, assistance needed, etc.
- In the event a fire is beyond the fire-fighting capabilities of the site personnel, or the fire includes unknown substances, the City of Del Rio Fire Department should assume responsibility and the landfill staff shall support the Fire Department as needed and requested. If a fire is not extinguished or under control and lessening in intensity after 10 minutes of action by facility personnel, the City of Del Rio Fire Department will become actively involved.

9.4 Fire Protection for Specialty Unloading Areas

The specialty unloading areas are located in the “front” of the landfill facility, as opposed to the “pit area” where the working face is located. The front area also includes the facility office, scale house, and tool room. Fire extinguishers are available in these areas and the pit area as detailed in the table below:

Table 9-1 – Fire Extinguisher List

Location	Number of Fire Extinguishers	Size of Fire Extinguishers
Office	1	5 lb
Scale house	2	5 lb
Tool room	1	5 lb
Oil unloading area	1	5 lb
Battery unloading area	1	5 lb
Site utility vehicles (pickups, 2 ea.)	1 per vehicle	10 lb
Heavy Equipment	1 per heavy equipment	5 lb
Additionally, the site has a 1,000 gal tanker with pump and hose available for fire fighting.		

Soil stockpiles adequate for fire fighting in the specialty unloading areas are also maintained at distances less than 1000 ft away. Three soil stockpiles with volumes in excess of 93 cy each, are available in addition to the stockpile designated for use on the working face.

9.5 Solid Waste Fires at the Working Face

If the fire is in the working face, the burning area shall be isolated or pushed away from the working face quickly before the fire can spread throughout the working face. If this is unsafe or not possible, efforts to cover the working face with earth shall be initiated immediately to smother the fire. The faster stockpiled soil can be placed over the fire, the more effective this method will be in controlling and extinguishing the fire. A sufficient stockpile of soil shall be kept in near proximity to the working face to cover the entire working face with at least six inches of soil.

The Landfill Operator shall maintain sufficient equipment on-site to place 6-inches of soil cover over all waste not already covered by 6-inches of soil within one hour in the event of a landfill fire. This is verified by the table and calculation below. The soil stockpile is located less than 8,800 ft from the active face (a stockpile of material is maintained within 2,500 feet of the active area of the facility); therefore, sufficient equipment is provided.

Table 9-2 – Time to Place Soil Cover

Time to Place Soil Cover	
Volume of Cover Required	93 cy
Capacity of Earth Moving Equipment	10 cy
Equipment Quantity	2
Required Loads	5
Load-up Time	1.5 min
Un-load Time	0.5 min
Maximum Equipment Speed (Loaded)	25 mph
Average Equipment Travel Speed	20 mph
	1,760 fpm
Maximum Time to Place Cover	60 min
Calculated Maximum Time per Load	10:00 min
Maximum Distance from Working Face	8,800 ft

Determine the Required Loads per Earth Mover:

$$\frac{93 \text{ cy}}{10 \text{ cy/load}} \approx 10 \text{ loads}$$

$$\frac{10 \text{ loads}}{2 \text{ (# of equipment)}} = 5 \text{ loads each}$$

Determine the Time per Load

$$\frac{60 \text{ min}}{5 \text{ loads}} = 12:00 \text{ min per load}$$

$$12:00 - 1.5 - 0.5 = 10:00 \text{ min travel time}$$

Determine Stockpile Maximum Distance from Working Face

$$\frac{10.0 \text{ min} * 1760 \text{ fpm}}{2} = 8,800 \text{ ft one way}$$

A water truck shall also be kept in a state of readiness for firefighting. In general, the tank should be maintained at least half-full of water at all times, and refilled as necessary. The fire hydrant is located adjacent to the entrance to the landfill near the Landfill Operator's office and maintenance yard. There is a second fire hydrant near the back of the landfill located at the end of Las Palmas Road where it intersects the haul road. It is marked by a large yellow double gate in the landfill fence.

9.6 Fires at the Brush Stockpile/Mulching Area

The brush area will be regularly monitored for smoke or fire. If fire is detected at the brush area, the fire procedures in Section 9.3 will be initiated. If it is safe to do so, a track dozer will be used to create a fire line between the burning material and the remainder of the stockpile. The Del Rio fire department will be contacted to provide firefighting support.

9.7 Burning Waste (Hot Loads)

Incoming "hot loads" shall be prevented from dumping in the active area of the landfill. The landfill attendant and other personnel shall be alert for signs of hot loads, such as smoke, steam, or heat being released from incoming waste loads.

Vehicles containing hot loads shall be directed to an area suitable for containing a hot load, away from the working face, to discharge their load. This area shall be away from uncovered solid waste, brush, other vehicles, and fuel supplies.

When a hot load arrives at the landfill, the landfill policy is to have the Landfill Supervisor, or his designee, meet the collection vehicle at the scale house in a pickup truck. The Supervisor, or his designee, will then lead the collection vehicle to an appropriate location within the landfill to discharge the hot load. This location changes frequently due to various conditions at the landfill, including working face location and wind direction. Once the hot load is discharged, the waste should be spread out, and, if necessary, have water applied to it, to extinguish the fire and cool the waste. Once the hot load has thoroughly cooled, the waste shall be transferred to the working face for disposal.

9.8 Vehicle and Fuel Fires

If the fire is contained within a vehicle or piece of equipment, the first step is to bring the vehicle or equipment to a safe stop. If safety of the personnel allows, the vehicle should be parked away from fuel supplies, uncovered solid waste, and other vehicles. Shut off the engine and engage brake or other method to prevent subsequent movement of the vehicle or equipment. After contacting the local Fire Department, all reasonable measures should be employed to contain or extinguish the vehicle fire.

Motorized equipment shall not be parked near fuel stations longer than necessary for refueling. Fuel spills shall be contained and cleaned up immediately.

9.9 Soil Stockpile

A soil stockpile, large enough to cover the working face and any land-filled solid waste covered with alternate daily cover with at least six inches of soil, shall be maintained within close proximity to the active area. The stockpile volume shall be evaluated periodically and adjusted to accommodate the projected working face area. The normal working face area is approximately 40 feet by 75 feet (3,000 sf), and the maximum area is approximately 50 feet by 100 feet (5,000 sf). The soil volume required to cover the maximum area with six inches of soil is 93 cubic yards.

$$50\text{ ft} * 100\text{ ft} * 0.5\text{ ft} * \frac{1\text{ yd}^3}{27\text{ ft}^3} = 92.6\text{ yd}^3$$

9.10 TCEQ Notification

After any fire that is related to solid waste management activities, which cannot be extinguished within ten (10) minutes of discovery, the facility shall notify the TCEQ's regional office. The TCEQ notification shall include:

- Contact by telephone within 4 hours of the fire discovery
- A written description of the cause and extent of the fire and the response to the fire shall be mailed or faxed within fourteen (14) days of the event.

10 ACCESS CONTROL

10.1 General

Primary access to the site shall be via Railway Avenue to a privately maintained access road maintained by the City of Del Rio on the city-owned land adjacent to the landfill. Collection vehicle routes to the landfill are along Railway Avenue De La Rosa Street and Virginia Street. The main entrance into the site shall be controlled by the landfill attendant. Access controls shall provide for the safety of non-city/contract personnel. Site security measures are designed to prevent unauthorized persons from entering the site, to protect the facility and its equipment from possible damage caused by trespassers, to prevent unauthorized waste disposal and illegal dumping, and to prevent disruption of facility operations caused by unauthorized site entry.

10.2 Control Measures

The site is enclosed on all sides by a 4-foot tall three- or four-strand barbed wire fence. In areas where the fence has been repaired, for one reason or another, four strands of wire have been placed. To prevent inadvertent unauthorized entry, conspicuous warning signs legible from a distance of at least 25 feet will be placed at maximum 600-foot intervals on the fences surrounding the site. These signs shall state "NO TRESPASSING." The site perimeter fence, gates, and locks shall be inspected on a weekly basis at a minimum to determine if all signs are in place and readable, if any breach has occurred, or if the fence or gates have been damaged in any way. In the event of a breach, the site personnel shall respond as outlined below. A written log documenting these inspections should be maintained as a part of the facility records.

During normal site operating hours, facility personnel regularly in the vicinity of the operational area and the entrance can observe any unauthorized persons in these areas. Outside normal operating hours, both

the gates at the point where Railroad Avenue intersects City property and at the access road to the landfill site, will be secured with a padlock.

Entry to the active portion of the site will be restricted by City of Del Rio policy to designated personnel, approved waste haulers, and properly identified persons whose entry is authorized by site management. The City of Del Rio reserves the right to restrict access to the site. Visitors will be allowed on the active area only when accompanied by a site representative.

10.3 Access Breach

In the event of an access breach, attempts will be made to permanently repair the breach within eight (8) hours of discovery. If permanent repair is not possible within this time frame, temporary repairs shall be put in place. The TCEQ regional office shall be notified of access breaches according to the following table. As noted in this table, if a breach can be permanently repaired within eight (8) hours of discovery, notification to the TCEQ is not required. A record of all repairs and copies of any notifications should be kept with the facility records.

Table 10-1 – Access Breach Reporting Requirements

Requirements	Access Breach Permanently repaired within 8 hours	Access Breach Not permanently repaired within 8 hours
Notify regional office of breach and repair schedule	Not required	Within 24 hours
Make temporary repairs	Not required	Within 24 hours
Make permanent repairs	Within 8 hours	Within schedule submitted to regional office in initial notice
Notify regional office when permanent repair completed	Not required	Within schedule submitted to regional office in initial notice

11 UNLOADING OF WASTE

All incoming loads will be monitored and observed by trained and currently certified personnel. All prohibited waste will be identified and controlled as outlined in this plan.. Prohibited waste that may be accepted at specialty unloading areas will be directed to these specific areas for unloading. The specialty unloading areas include lead acid batteries, motor oil and anti-freeze, tires, and white goods (potential CFCs).

Solid waste unloading at the landfill will be controlled to prevent disposal in locations other than those specified by site management. Such control will also be used to confine the working face to a minimum width, yet allow safe and efficient operations. Only one working face will be active on any given day, with all deposited waste in other areas secured by at least daily cover or interim soil cover, as a minimum. Clean loads of brush and landscape waste may be diverted to a separate area for chipping that is well removed from the working face.

Signs with directional arrows and traffic barricades will facilitate restricting the designated disposal locations. These will be placed conspicuously along the access route to the working face of the landfill or other designated disposal areas which will be established for the general public with small loads. The

landfill attendant and working face landfill personnel will direct landfill patrons to the proper area. Any waste deposited in an unauthorized area is prohibited and will be promptly collected and disposed of properly by the Contractor (Landfill Operator) at the working face.

The working face of the landfill will be reduced to a compact cell of waste at the end of each day's operation. The width and length of the working face will be maintained as small as practicable in order to maintain the appearance of the site, control windblown waste potential, and minimize the amount of cover soil, or alternate daily cover material required each day. The maximum width of the working face will normally be 40 feet or less.

12 FACILITY OPERATING HOURS

Waste acceptance hours approved for the facility are currently between the hours of 6:00 am to 6:00 pm, Monday through Friday, and 6:00 am to 2:00 pm on Saturday. The landfill is normally closed on Sunday and City-observed holidays. Waste acceptance hours remain unchanged following city-observed holidays. Additional facility operations may occur during these hours, and may be extended outside of these hours, not to exceed 5:00 am to 9:00 pm, and may include routine facility operation and maintenance, such as waste compaction, daily cover application, general cleanup, road construction/maintenance and the operation of heavy equipment. Other activities, such as shop/equipment maintenance and office/clerical work is allowed twenty-four hours a day, seven days a week. At no time will the operation of heavy equipment and/or the transportation of materials be allowed between the hours of 9:00 pm and 5:00 am, unless temporary approval is obtained from the TCEQ regional office, in order to accommodate disasters or other emergency situations, or other unforeseen circumstances that could result in the disruption of waste receipt at the facility.

When alternate or additional operating hours are utilized, all approvals of any changes in the waste acceptance and/or operating hours, including heavy equipment operations, will be documented in the Site Operating Record, citing the dates and times. In accordance with 30 TAC §330.135, both the waste acceptance hours as well as hours of operation will be posted at the site entrance. The facility is not required to notify the TCEQ regional office on days in which the facility will be closed.

13 SITE SIGN

Signs shall be posted on site to alert customers to operational procedures, facility rules, regulatory provisions, and traffic control procedures.

A sign shall be located at the site entrance and be readable from outside of the entrance gate. The sign shall measure at least four feet square with three-inch lettering. At a minimum, the sign shall state the following: Del Rio Type I Landfill, TCEQ Permit No. MSW 207A, the hours and days of operation, a 24-hour emergency contact phone number, and local fire department emergency contact phone number(s).

A sign shall also be posted and maintained near the site entrance outlining the prohibited waste, hazardous waste, and other unpermitted special waste that will not be accepted. A sign shall also be located at the site entrance or gatehouse prohibiting uncovered or unsecured loads. A "No Smoking" sign shall also be prominently displayed at the site entrance or gatehouse.. Signs shall be inspected monthly and repaired or replaced as necessary.

14 CONTROL OF WINDBLOWN SOLID WASTE AND LITTER

Windblown waste will be controlled by combining several measures:

All waste transportation vehicles using this facility will be required to have in place adequate covers or other means of containment for the waste they transport, in accordance with City ordinance and state law. The adequacy of covers or containment of incoming waste will be checked at the facility entrance. Signs will be posted and offenders will be reported to law enforcement officials. Appropriate surcharges and fines will be levied for non-compliance.

Another method to control windblown waste is the prompt landfilling of the waste which have been deposited near the working face. Landfill equipment will be positioned to spread and compact it as rapidly as possible. This will minimize the amount of time the waste remains exposed to the wind and thereby minimize the potential for windblown waste. Also, soil cover or other cover will be placed on the deposited waste as needed during the day's operation to prevent the material from becoming airborne. The size of the working face will be kept as small as practical for solid waste operations.

To further minimize windblown waste, the Landfill Operator will provide portable litter control fences, as necessary, at appropriate locations near the working face and elsewhere. The litter control fences are constructed of a mesh material attached to a free-standing metal frame. The individual litter control fence sections will be located as close as practical to the active area. The screens are transported by landfill equipment or pickup trucks and can be deployed by hand. Multiple sections will be used as required. Screening barriers such as the temporary berms will serve as additional wind breaks.

During extremely windy periods, additional temporary litter control fences will be erected as needed. Also, on days when prevailing winds are from a certain direction, it may be possible to locate the working face operation in a protected or semi-protected area of the site.

Landfill Operator shall inspect the site daily, and collect and return to the working face any windblown waste that has been scattered on-site, or has accumulated on fences, gates, and access roads on days when the facility is in operation. A log of litter inspection and control activities should be maintained in the Site Operating Record to demonstrate compliance.

It shall be the Landfill Operator's responsibility to provide enough personnel or mechanical means to be able to collect and dispose of all windblown litter that occurs in a day's time.

Litter shall be collected from site access roads on a daily basis.

15 EASEMENTS AND BUFFER ZONES

Any easements or rights-of-way within the site will be visually marked to minimize potential danger to site personnel from damage to the utility. No solid waste unloading, storage, disposal, or processing operations shall occur within any easement or right-of-way. In addition, no waste disposal is allowed within 25 feet of the centerline of any easement. To assure non-interference with the utility uses, the easements will be marked in the field in accordance with the TCEQ Rules & Regulations using posts extending above the ground at least six feet and spread at intervals no greater than 300 feet. Removed or destroyed markers will be replaced within 15 days. The existing on-site utility easements and rights-of-way are described as follows:

- American Electric Power Easement, P.O. Box 420579, Del Rio, Texas 78842, – An overhead power line easement intersects the property boundary at the northeast corner of the site. The easement width is 150 ft; however, this easement will not affect landfill operations.

- West Texas Gas Marketing Inc. attention J.J King (432-682-6311) is the current owner and operator of– An easement for an 8-inch high pressure natural gas pipeline runs parallel to and approximately 34 feet inside the northeast permit boundary line. The easement for the gas line is 50 feet wide. This easement is located so that no solid waste management activities will occur within 30 feet of gas line.

A buffer zone of at least 50 feet exists between all solid waste unloading, storage, disposal, and processing operations and the facility boundary. This buffer zone shall be maintained as to allow the safe passage of firefighting and emergency vehicles, and shall be clearly marked.

16 LANDFILL MARKERS AND BENCHMARK

16.1 Landfill Markers

Landfill markers shall be installed at the site to clearly mark the following significant features:

- Site Boundary - (To be placed at each corner of the facility and along the boundary line at intervals not greater than 300 ft).
- Buffer Zone - (To be placed along buffer zone boundary at intervals not greater than 300 ft).
- Easements - (To be placed along centerline of easement and along the boundary of a right-of-way at each corner of the facility and at the intersection of the facility boundary).
- Landfill Grid System.
- SLER area (FMLER not applicable at this site) - (To be placed in areas currently under evaluation and can be determined and maintained through construction and operation. Must not be placed inside liner constructed areas).
- 100-year flood limits (if applicable) – (N/A to this site)

Markers shall be color coded per the following:

Table 16-1 – Marker Color

Marker	Color
Site Boundary	Black
Buffer Zone	Yellow
Easements	Green
Grid System	White
SLER	Red
Floodplain	Blue

The ED may modify specific marker requirements to accommodate unique site-specific conditions.

The markers shall consist of posts extending no less than 6 feet above the ground and shall not be obscured by vegetation or other obstructions. There shall be sufficient numbers of markers to clearly define the significant feature, but the markers shall be placed no further apart than 300 feet for each significant feature. All markers must be maintained to retain visibility. Markers which are damaged or removed must be replaced or repaired within 15 days of the discovery of damage, or removal of the

marker. Markers must be inspected and maintained at least monthly. The documentation of marker inspection and maintenance should be maintained in the facility records.

To facilitate the operations and waste volume calculations, a grid reference system is currently in use for the entire landfill area and will continue to be used at the facility unless written approval of the ED allows its removal. The system consists of numbered markers along the east and west sides of the landfill and lettered markers on the north and south sides of the landfill. The north-to-south grid lines (spaced 100 feet apart) will be perpendicular to the west-to-east grid lines forming squares. The grid marker system will be altered as required to accommodate the TCEQ Rules & Regulations. The grid markers are white 6-foot posts placed to mark 100-foot grid intervals.

The grid markers will be referenced for daily operations. For each submittal of monitoring well installation, each SLER report, each Methane Detection report, and other general references, the site will use either the on-site monuments which are tied to a known datum or the grid markers.

16.2 Site Benchmark

The landfill has multiple monuments on the site. The primary monument is located at on the northwest side of the landfill as follows:

<u>Latitude and Longitude</u>	<u>X and Y Coordinates</u>	<u>Elevation</u>
29° 21' 21.20400"N	1378005.56050E	1051.091
100° 51' 13.87200"W	13681619.57178N	

This monument is accessible at all times the landfill is in operation.

17 MATERIALS ALONG THE ROUTE TO THE SITE

The measures detailed in Section 14 – Control of Windblown Solid Waste and Litter shall be employed to ensure vehicles using the site have properly secured loads through the use of tarps, nets, or enclosed vehicles. All uncovered waste hauling vehicles will be charged 200 percent of the current gate fee. In addition, litter cleanup crews will inspect the major public access roads serving the facility daily and collect any litter for a distance of 2 miles in each direction from the site entrance. Roadways include: 1) Railway Avenue southeast from De La Rosa Street and south from U.S. Highway 90 to the Site Entrance, 2) Virginia Street east from Dr. Fermin Calderon Blvd. to the entrance to the landfill, and 3) Access Road from the gate to the active landfill site. A log indicating the date and time of these inspections and cleanup activities should be maintained at the site.

Between the hours of 6:00 am and 6:00 pm, the City Streets and Drainage Department and Landfill site shall maintain telephone service to allow the report of any liter along the roads to the site. Between 6:00 pm and 6:00 am, any liter that could be considered a road hazard can be reported to the police department who in turn will call an emergency contact with the City.

Since the City of Del Rio has maintenance authority over all roadways providing a route to the site, the appropriate City departments are aware that landfill personnel, or persons under the direction of landfill personnel, patrol, and collect landfill related litter along the roadways surrounding the site, as described above.

18 DISPOSAL OF LARGE ITEMS

The facility shall have an established area for the acceptance of large items, including, but not limited to, white goods (stoves, dishwashers, and other household appliances), air conditioner units, and large metal pieces. The area provided for the collection and temporary storage of these items just inside the landfill entrance and adjacent to the road leading to the back of the landfill. Large metal items are placed in roll-off-type bins or other containers to minimize exposure or contact to stormwater.

Large items collected at the site will be removed and recycled as demand warrants, and care should be taken to not create nuisance conditions or a source of disease vectors, and to prevent the discharge of pollutants. Large items that are not recycled should be disposed of at the working face. Care should be taken to minimize the potential for damage to the landfill liner system by excluding large items from the first five (5) feet of waste placed over the protective cover or liner, placing large items so that they do not interfere with continued landfill operations, and placing and compacting other smaller waste around any large item.

Any item (refrigerator, freezer, air conditioner, etc.) containing chlorinated fluorocarbon (CFC) must be handled in accordance with 40 CFR §82.156(f), as amended. It is preferred that all CFC present has been removed, captured, and sent to an approved CFC disposal or recycling facility before being delivered to the landfill. If the item contains CFC upon delivery to the site, it will be placed in a designated area for collection and temporary storage and transported to a recycling center for proper disposal. Items such as electrical transformers, containing PCBs shall not be accepted at the landfill.

19 ODOR MANAGEMENT PLAN

19.1 General

The landfill is subject to TCEQ rules concerning the burning of waste, and air pollution control. The site shall be operated so that the facility does not violate any applicable requirement of the approved State Implementation Plan developed under the Federal Clean Air Act, §110, as amended, and §330.5(d), which prohibits the open burning of waste at any municipal solid waste landfill facility, and includes particulate matter, nuisance odors, and visible emissions requirements.

19.2 Odor Management Plan

Specific methods to control potential odors on the site will vary dependent upon the potential odor source. In general, the following will apply to most odor sources:

- Identify potential odor sources at the gatehouse and alert working face personnel prior to discharge of the waste
- Immediately cover the odorous waste with other waste or thicker earth cover
- Minimize the size of the working face to minimize odors
- Spills of odorous materials should be immediately cleaned up or properly covered
- Repair areas where soil cover has eroded by placing additional cover material.

Odor control, as it applies to specific operations and various unloading areas, is summarized in the following Table 19-1:

Table 19-1 – Odor Control Measures

Operation or Unloading Area	Odor Control Measures
Wood chipping	No odor problems or special attention required. Wood chips are piled up for local residents to pick up. Wood chips are clean of other materials. This is not a compost pile.
Landfill gas management	Arid climate prevents development of significant gases detectible by smell. No gas connection system operated at the site.
Oil storage	Oil is stored in containers and inside metal storage structure.
Tire storage	Tires are stacked inside an enclosed semi-trailer.
Battery storage	Stored inside metal storage structure.
Working face	Immediately cover odorous materials. Repair eroded areas by recovering.
Septage and grease traps	Potential odors from septage and grease traps do not emanate from this site, as these waste are not currently accepted at the facility. Dried sludge from the water and waste water treatment plant are accepted at the landfill (see Section 8.3 – City of Del Rio Special Waste Acceptance Procedures – which states that quantities of sludge accepted at the landfill will be limited to that which can be adequately handled at the landfill without creating odor problems.
Ponded water	Any ponded water on the site shall be controlled to prevent the occurrence of nuisance odors as discussed in Section 28 – Ponded Water. If ponded water produces objectionable odors, the area should be drained or pumped dry, and the low area filled with soil and regraded to promote proper drainage.
Dead animals	Dead animals will be received and properly disposed of as outlined in Section 8.3. Proper handling will minimize odors from this source.
Leachate	Leachate is collected through the leachate collection system, which drains to a leachate collection sump. The leachate pump is located in the leachate sump, at the bottom of a riser pipe. The leachate is pumped through a closed system and discharged directly into a tanker truck. The leachate is transported to a sewer manhole inside the landfill property and discharged. The potential odors from leachate management are very minimal. The riser pipes for cleanout of the leachate collection system are capped to prevent any landfill gas or leachate odors from escaping. The leachate pump riser pipe is capped at the ground surface, and the leachate pump is located below grade in the sump on the bottom liner, minimizing the potential for odor generation. The leachate collection system cleanout riser and sump riser pipe caps and leachate piping should be inspected monthly and maintained to minimize the potential for escaping odors. These inspection and maintenance activities should be documented in the facility records.

19.3 Particulate and Dust Control

Dust and particulate control will be maintained by periodic applications of water to the access roads during dry, windy, and/or dusty periods.

20 DISEASE VECTOR CONTROL

The need for extensive vector control (control of rodents, flies, and mosquitoes) will be minimized through proper site operation, including ongoing compaction and application of daily and final cover, minimizing the size of the working face, minimizing the size of all unloading areas, and maintaining order and neatness throughout the landfill site waste collection areas. Site personnel should make daily checks of the integrity of the cover, and the condition of all the unloading areas, for insects and rodents and report any problems to a supervisor. If found necessary, insect and rodent control within enclosed structures will be carried out at the site by a qualified licensed pest control specialist. Birds will be controlled by properly covering the waste as soon as possible in order to reduce their food source. Mosquitoes will be controlled by preventing stagnant water from developing on the site.

21 SITE ACCESS ROADS

21.1 All Weather Roads

As a part of the overall site maintenance program, facility personnel will collect any windblown waste materials on a daily basis, which have been trapped on-site, in drainage channels and on the access roads.

On-site access roads will be maintained to be freely draining, passable by transportation vehicles in two directions, and free from excessive ruts. The road to the inclement weather disposal area will be maintained as an all-weather road, with an asphalt surface. This should facilitate movement of traffic into and out of the site during waste acceptance hours. Roadways shall be inspected weekly to determine the need for maintenance and regrading. Inspections should be documented as a part of the facility operating records. Regrading or repairs should be performed weekly, or as necessary to minimize ruts, potholes, or other depressions which may affect vehicle traffic. These activities should also be documented in the facility operating records.

Solid waste transportation vehicles arrive at the working face at random intervals throughout the day. Often there are a number of vehicles unloading waste at the same time while other vehicles are waiting. Operations at the working face will be conducted in a manner which will encourage the efficient movement of transportation vehicles to and from the working face, and to expedite the unloading of solid waste.

The approach to the working face will be maintained such that two or more vehicles may safely unload side-by-side. An adequate turning area for hauling vehicles will be provided (typically a 100' maneuvering area at the active face), and a vehicle turn-around area large enough to enable vehicles to arrive and turn around safely with reasonable speed will be provided adjacent to the unloading area. The vehicles will be directed back to a vacant area near the working face to unload. Upon completion of the unloading operation, the transportation vehicles will immediately leave the working face area. On-site personnel will direct traffic as necessary to expedite safe movement of vehicles.

All on-site access roads will be maintained in a reasonably dust-free condition by periodic spraying from the facility's water truck. The water truck will be filled from a nearby fire hydrant.

Heavy equipment at the site will be used as necessary to control or remove mud accumulations on on-site roads. The City will also maintain a stockpile of crushed rock, recycled concrete, masonry demolition debris, recycled asphaltic concrete pavement (RAC) or other similar material for use in maintaining passable access roads during wet weather.

All-weather roads will be used during inclement periods. The site personnel will barricade unimproved interior access roads during hours of operation in wet weather. The barricades will remain in place until site personnel verify that the unimproved roads can be accessed in a safe and reasonably mud-free condition.

The length of paved entrance road from the access gate to the active landfill has been adequate for the past 15 years to control mud from vehicles departing the site to off-site access roads. However, if the current methods of mud control become ineffective, additional on-site mud removal techniques will be employed. Tracked mud and associated debris will be removed at least once per day on days when mud is being tracked onto public roadways. Mud removal will be accomplished by suitable equipment (e.g., motor grader, loader with brush attachment, or street sweeping equipment). Documentation of the mud and debris inspection and abatement measures should be maintained in the site records.

The City shall maintain the paved access road to the Landfill. The Landfill Operator shall be responsible for the maintenance of the working roads within the landfill cell and all on site roadways within the permit boundary.

Site operation will continuously reserve disposal areas adjacent to all-weather access roads for wet weather disposal.

21.2 Particulate and Dust Control

Dust and particulate control shall be maintained by periodic applications of water to the access roads during dry, windy, and/or dusty periods by the Landfill Operator.

22 SALVAGING AND SCAVENGING

Salvaging refers to the controlled diversion of certain items with the intent to recycle these items. The landfill may direct various items, such as white goods, to a designated area for recycling; however, salvaging shall not interfere with prompt disposal of solid waste received at the site. Recyclable items shall be handled according to Section 18 – Disposal of Large Items. Pesticide, fungicide, rodenticides, or herbicide containers shall not be salvaged. Class I industrial and other special wastes received at the disposal facility must not be salvaged.

Scavenging refers to the uncontrolled, unauthorized diversion or removal of waste in the system. Scavenging will not be allowed and individuals will be properly informed of this policy, and any waste scavenged will be returned to the working face for disposal.

23 ENDANGERED SPECIES PROTECTION

Neither endangered or threatened species, nor any critical habitat of such species have been identified on the site. The operation of the site will not contribute to or cause the destruction or adverse modification of any critical habitats, nor will it contribute to or cause the taking of any endangered or threatened species.

In a letter dated December 8, 1987, the United States Department of the Interior Fish and Wildlife Service stated that no Federally-listed endangered or threatened species or their critical habitat would be impacted in regards to the development of a municipal solid waste landfill in Val Verde County. For the site's 1994 permit amendment, Horizon Environmental Services, Inc. conducted a study and field reconnaissance on May 13, 1994. They concluded that, although two additional species had been listed,

the black-capped vireo and Texas snowbells, the site does not exhibit suitable habitat conditions for the vireo and none were detected during the site reconnaissance. The site also does not exhibit the bluffs that are characteristic of habitat for the Texas snowbells. Copies of this correspondence are in the 1994 permit amendment.

Neither the facility nor its operation will result in the destruction or adverse modification of critical habitat of endangered or threatened species, or cause the taking of any endangered or threatened species.

24 LANDFILL GAS CONTROL

The Landfill Gas Management Plan will be followed to monitor and evaluate the migration of methane gases in accordance with §330.3371. Perimeter monitoring of methane will be conducted on a quarterly basis, and samples of gas from probes installed at evenly spaced intervals not to exceed 1000 feet will be analyzed and checked against the allowable maximum of the LEL (lower explosive limit). Methane detection for on-site structures is also conducted in accordance with the Methane Detection Plan. Gas monitoring will continue for the life of the landfill and for the closure and post-closure periods of the facility.

Should methane levels exceed the LEL at the perimeter probes, the City will engage a professional engineer to configure a gas recovery system to reduce the methane concentrations. Methane gas concentrations shall not exceed 25% of the LEL in facility structures.

If methane gas concentrations exceed the limits specified above, facility personnel will take the following steps per §330.371:

Immediately

- Take steps to protect human health
- Contact the TCEQ ED
- Additionally, contact local and county officials, emergency officials, and the public as appropriate.

Within Seven Days

- Update the Site Operating Record with a report documenting the gas levels detected, and the steps taken to protect human health.

Within Sixty Days

- Implement a remediation plan for the methane gas releases. A copy of this plan must be included in the Site Operating Record, and a copy sent to the ED.

All gas management reports and analytical data shall be included in the Site Operating Record and submitted to the ED.

25 OIL, GAS, AND WATER WELLS

No producing oil, gas, or water wells are located within the permit boundary, and no abandoned wells have been identified. If an abandoned oil, gas, or water well is discovered during the continued development and operation of the facility, the ED shall be notified in writing within 30 days. The well shall be capped, plugged, and closed in accordance with the TCEQ and/or Railroad Commission of Texas Rules and Regulations. Within 30 days of the well plugging, the facility operator shall notify the ED in writing to

verify that the well has been properly capped, plugged, and closed, and a copy of the well plugging reports will be submitted to the ED.

If a well is encountered, abandoned, and plugged, it will be necessary to submit a permit modification to the ED for approval if such well abandonment will cause any changes to the liner installation plan.

26 COMPACTION

Compaction of waste loads will be carried out to minimize future consolidation and settlement and provide for the proper application of daily, interim, and final cover. The equipment operator's training shall include the expertise necessary to know when the desired compaction has been achieved. Compaction also provides for fire protection and litter control.

Waste loads will be deposited, as directed by the spotter, at the working face, and quickly spread into layers to be compacted. Compaction of the waste will be accomplished by repeated passages of landfill compaction equipment over the waste material. The thickness of a typical lift compacted waste is approximately 2 feet. Compaction of this layer with two through five passes of the equipment will follow immediately.

27 LANDFILL COVER

27.1 Daily Cover

A readily available stockpile of soil cover material will be maintained on-site. This cover will be earthen material that has not been previously mixed with waste. The goal will be to provide a sufficient stock pile for a minimum of six inches of daily cover soil for one day's accumulation of solid waste such that in the event of inclement weather, the active fill can be covered and wet weather operations initiated. Alternate daily cover (tarps), as approved by the TCEQ, will also be used at the site.

When soil materials are used for daily cover, they will be compacted with a minimum of five passes by the landfill equipment to minimize infiltration of storm water. After soil placement, there should be no waste materials visibly protruding through the cover.

On-site soils are suitable for cover material. Approved alternative daily cover (ADC) for this site consists of tarpaulins, stored adjacent to the working face. Available soil cover material will also be stockpiled adjacent to the working face for emergency fire control. Daily cover shall be inspected daily for proper placement and recorded in the site operating record.

27.2 Alternative Daily Cover

Tarpaulins (tarps) are used for alternative daily cover at the site, as approved by the TCEQ. Tarps are placed to completely cover the compacted waste. The tarps are removed the following day and more waste is placed over the previous day's waste. Alternative daily cover may not be used when the landfill will be closed for longer than 24 hours.

27.3 Intermediate Cover

Interim cover will be applied to solid waste fill areas which have reached either a final cover elevation, an interim completion stage, or have been inactive without intermediate cover for 180 days. Interim cover soil will consist of clean soils (not previously in contact with solid waste), spread evenly over the daily cover and compacted to a thickness of at least one foot. Intermediate cover must be graded and

maintained to prevent ponding. Runoff from properly placed interim cover will be considered uncontaminated, provided it does not come in contact with the working face or filling area. As filling operations progress vertically, a portion of the interim cover may be removed to leave no less than six inches of soil prior to placement of the subsequent waste cell. Interim cover may remain in place prior to placement of the final cover soil layers, or may be removed as the final cover is placed. Site personnel should inspect intermediate cover monthly, and after major rainfall events for erosion. Eroded areas should be repaired within 5 days of discovery, weather permitting. The performance of the periodic inspections and conducting of repair operations on intermediate cover areas should be documented in the facility records.

27.4 Final Cover

Landfill final cover shall be performed in accordance with the Final Closure Plan, of the permit amendment and Subchapter K of Chapter §330. The final cover must be inspected and maintained throughout the site life and post-closure period. Pertinent information is contained in the final closure plan.

Final cover shall consist of an 18" thick infiltration layer overlain by a 12-inch thick erosion layer on the 5 percent slope and a 24-inch layer on the 20 percent slope. The top 6 inches of the erosion layer shall be top soil possessing the characteristics of representative soils on the site that produces growth of grass or other vegetation. The closed area will be seeded with native grasses suitable for the arid climate. The infiltration layer will be placed in 6-inch lifts and compacted to 90% of the maximum dry density determined using the modified Proctor methods (ASTM D1557). Density testing shall be one (1) density test for each 8,000 square feet of surface area per lift. Permeability testing shall be a minimum of one (1) test per surface acre. The minimum permeability shall be 1×10^{-7} cm/sec. The erosion layer compaction shall be achieved by the dozer spreading operation. The final 6 inches shall not be compacted.

27.5 Cover Log

Throughout the landfill operation, a cover application log for daily, intermediate, and final cover will be maintained and readily available for inspection in accordance with the TCEQ Rules & Regulations. The log will specify the date (or period of time) the cover was applied, and the thickness and materials applied, how it was accomplished, and the last area covered, for daily and intermediate cover. For final cover, this record shall specify the area covered, the date cover was applied, and the thickness applied that date. Each entry will be certified by the signature of an on-site supervisor that the work was accomplished as stated in the record.

27.6 Erosion of Cover

The integrity of landfill cover will be inspected on the next working day following any significant rainfall event occurring at the site. Inspections will occur at a minimum, weekly during the active fill life, and at least monthly during the post-closure period. Repairs should be promptly completed and the areas reseeded. Post-closure care and inspection procedures are outlined in Appendix III G, Post-Closure Maintenance Plan.

28 PONDED WATER

28.1 Landfill Area

As an on-going routine, the City will construct a series of dikes and detention structures on-site to control rainfall runoff and direct it away from the active fill area. Temporary ditches and sumps will be progressively constructed and advanced in coordination with the progressing active fill area. Runoff will

be collected and diverted in areas above the excavation and directed to the perimeter drainage features. Water collected in the excavation area prior to placement of the first deposit of solid waste, or ponded water that has not come into direct contact with solid waste, will be treated as uncontaminated water and pumped off-site per the TPDES permit. Water in contact with the working face or potentially in contact with solid waste, including runoff from daily cover soil, runoff immediately adjacent to the working face area, runoff from the bermed portion of the active area adjacent to the working face and ponded water, will be considered as contaminated water. The active fill area will at all times be contained by a perimeter dike/berm of sufficient dimensions to both retain a 25-year 24-hour storm flow from the contaminated flow area, and to prevent on-flow from the uncontaminated flow area. In the event that uncontaminated water flows over the active fill perimeter dike/berm, the water will be handled as contaminated water.

The contaminated ponded water shall be managed in accordance with the Leachate and Contaminated Water Plan. The Plan requires the use of berms to segregate contaminated runoff from uncontaminated runoff in parts of the cell that have not yet received waste. As operations progress to aerial fill, an intermediate layer of soil will be placed over areas that remain inactive for more than 30 days, and are not filled to final grade. A drainage layer shall be placed above the compacted clay liner to allow leachate to flow laterally to perforated collection pipes that take the leachate to collection sumps for delivery through a sewer manhole, to the wastewater treatment plant.

During and after extended wet weather conditions, the active site shall be inspected daily for ponding water and for integrity of the perimeter dike. Ponded water shall be drained to the leachate collection system and the low area filled to allow drainage as soon as weather conditions allow. During rainy weather, the area of the working face shall be contained as much as possible to minimize any potential leachate production.

Active areas and previously land-filled areas with intermediate or final cover will be periodically monitored to identify potential ponding issues. The ponding of water over areas where waste has been placed shall be prevented or promptly eliminated after identification. Areas should be properly sloped to prevent ponding. The site should be inspected monthly, and after rainfall events to identify areas of ponding that require correction. These activities should be recorded in the facility records.

29 WASTE IN ENCLOSED CONTAINERS AT TYPE IV LANDFILLS

There is no waste in enclosed containers at the Del Rio Landfill. (This section is not applicable to this site as it is a Type 1 Facility).

30 DISPOSAL OF SPECIAL WASTE

The landfill is permitted to receive only municipal solid waste and those special solid waste allowable under §330.171. The site is not authorized to receive hazardous waste regulated by the TCEQ, PCB waste or prohibited waste as discussed in Section 8.

Special waste will not be handled at this landfill except in accordance with TCEQ Rules & Regulations, and only when appropriate provisions have been made at the site for proper disposal. City ordinance currently prohibits receipt of any special waste, with the exception of medical waste, municipal water/wastewater sludges, slaughterhouse waste, dead animals, pesticide containers, and RACM in accordance with Section 8.3 of this SOP. If other special waste is considered in the future for disposal at this site, approval must be obtained from the TCEQ as outlined in §330.171.

31 DISPOSAL OF INDUSTRIAL WASTE

This site does not accept Class I Industrial Waste. Class II and Class III Industrial Waste (not classified as special waste) may be accepted, provided disposal of these waste does not interfere with the proper operations of the facility. Certain Class II waste may receive special handling at the landfill such as mixing with municipal solid waste immediately upon receipt; this type of waste is termed 'special waste'.

32 VISUAL SCREENING OF DEPOSITED WASTE

The landfill site is located in a relatively undeveloped area generally remote from residential property. The setting for the landfill features relatively flat topography with desert vegetative cover. The City's old closed-out landfill and City-owned property borders the landfill to the northwest. Undeveloped desert landscape borders the landfill on the remaining sides. A buffer zone of at least 50 feet wide and, in most areas, several hundred feet wide, surrounds the property.

33 CONTAMINATED WATER DISCHARGE

All water coming in contact with waste or contaminated soils shall be treated as contaminated water. Contaminated water shall be controlled by site personnel as described in Section 28.1, and shall not be discharged from the facility without prior written authorization from the TCEQ. All wastewaters generated by the facility shall be managed as contaminated water.

33.1 Minimizing Contaminated Water

The discharge of contaminated water shall be controlled/prevented by site personnel by making weekly inspections of the berm/dike system to assure that the 24-hour, 25-year rainfall event can be managed and make repairs to the system if required. All reasonable steps shall be taken to prevent water from coming into contact with solid waste to allow contamination. Such steps include minimizing the working face to the maximum necessary to handle the incoming waste and providing berms in the active cell to separate active and inactive areas of fill. Site personnel shall inspect the active landfill weekly and after each rainfall event for ponded water and areas where the potential for ponded water may occur (low areas). The leachate collection system, to include the leachate collection sump and pump, will be inspected weekly to assure proper operation.

33.2 Disposal of Contaminated Water and Leachate

The City of Del Rio Municipal Landfill has an arrangement with the Wastewater Treatment Plant serving this area for disposition of leachate. The Landfill Operator is responsible for collecting leachate from the leachate collection system into a suitable tank truck. Once approved by the WWTP, the leachate is then pumped into a Sewer manhole within the landfill property. From this manhole, the wastewater piping delivers the leachate to the WWTP. The manhole is located inside the landfill fencing, approximately 110 feet from the main entrance gate. The manhole is approximately 4.5 ft in diameter, 10 ft deep, and has a metal manhole cover which reads "Wastewater – Sewer". If the WWTP ever rejects the collected leachate, disposal with a local hazardous waste management company shall be arranged.

The facility will be operated in accordance with its SWPPP (Texas Multi-sector General Permit TXR050000 and Stormwater Permit TXR05Q319), and in accordance with 30 TAC 330.55(b)(1)(A-D) and 330.139.

34 LEACHATE AND GAS CONDENSATE RECIRCULATION

The landfill does not recirculate leachate or landfill gas condensate.

35 SITE INSPECTION AND MAINTENANCE LIST SUMMARY

The table on the following page summarizes the various site inspections that are completed on a recurring bases. The person responsible for the inspection, the frequency, and the reference within this Site Operation Plan are shown.

Site Inspections are summarized here and any corrective actions taken shall be documented in the Site Operating Record.

ITEM INSPECTED	TASK	Frequency	Inspector	Referenced In this SOP
Fence/Gates	Inspect perimeter fence and gates for damage. Make repairs if necessary.	Weekly	Landfill Supervisor or Designee	Section 10.2
Windblown Waste	Police working face area, access roads, entrance areas, and perimeter fence for loose trash. Clean up as necessary.	Daily	Landfill Superintendent or Designee	Section 14
Waste Spilled on Route to the Site	Police the entrance areas and all roads at least 2 miles from the site entrances for loose trash. Clean up as necessary.	Daily	Landfill Superintendent or Designee	Section 17
Landfill Markers	Inspect all landfill markers for damage, color-coding, and general location. Correct or replace damaged markers within 15 days of discovery.	Monthly	Landfill Supervisor or Designee	Section 16.1
Site Access Road	Inspect site access road for damage from vehicle traffic, erosion, or excessive mud accumulation. Maintain as needed. Grading equipment will be used control or remove mud accumulations on roads as well as minimize depressions, ruts, and potholes.	Daily – more often during wet weather or extended dry weather periods.	Landfill Supervisor & Superintendent or Designee	Section 21
Daily Cover	Inspect for proper placement, thickness, and compaction. Correct problems as needed. Verify that vectors are not an issue.	Daily at the active face and all daily cover areas will be inspected.	Landfill Superintendent or Designee	Section 27.1
Intermediate Cover	Inspect for proper placement, thickness, erosion, compaction and for presence of waste or other contamination. Correct problems as needed.	Weekly and within 72-hours of a rainfall event of 0.5 inches or more.	Landfill Superintendent or Designee	Section 27.3
Final Cover	Inspect for proper placement, thickness, compaction, slope, settlement and erosion. Maintenance will be ongoing throughout post-closure care period. Correct problems as needed.	Weekly and within 72-hours of a rainfall event of 0.5 inches or more.	Landfill Superintendent or Designee	Section 27.4
Leachate	Measure depth of leachate in sump, as required.	Weekly	Landfill Supervisor or Designee	Section 33
Leachate Odor	Inspect the caps and piping of the cleanout riser and sump riser of the leachate collection system to prevent potential odor escape.	Monthly	Landfill Supervisor or Designee	Table 19.1
Site Signs	Inspect all site signs for damage, general location, and accuracy of posted information.	Weekly	Landfill Supervisor or Designee	Section 13
Ponded Water	Inspect site for ponded water areas. Correct problems as needed.	Weekly and within 72-hours of a rainfall event of 0.5 inches or more.	Landfill Superintendent or Designee	Section 28.1 & 33
Odor	Inspect the perimeter of the site to assess the performance of site operations to control odor.	Daily	Landfill Supervisor & Superintendent or Designee	Section 19.1
Perimeter Channels/Ponds	Inspect perimeter channels and berms/dikes to verify that they are functioning as designed.	Weekly and within 72-hours of a rainfall event of 0.5 inches or more.	Landfill Supervisor & Superintendent or Designee	Section 33