# SKYLINE LANDFILL CITY OF FERRIS DALLAS AND ELLIS COUNTIES, TEXAS TCEQ PERMIT NO. MSW 42D

# PERMIT AMENDMENT APPLICATION PART IV – SITE OPERATING PLAN

Prepared for

Waste Management of Texas, Inc.

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#### **APPENDIX IVA**

Example Load Inspection Report

#### **APPENDIX IVB**

Special Waste Acceptance Plan

#### **APPENDIX IVC**

Regulated Asbestos-Containing Material Plan

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Bioremediation Treatment Plan

#### **APPENDIX IVE**

Liquid Stabilization Plan

#### **APPENDIX IVF**

Alternative Daily Cover Operating Plan



# LIST OF ACRONYMS

ADC - Alternative Daily Cover

ADCOP - Alternative Daily Cover Operating Plan

CFR - Code of Federal Regulations

DOT - Department of Transportation

EPA - U.S. Environmental Protection Agency

FWS - U.S. Fish and Wildlife Service

GLER - geomembrane liner evaluation report

LCS - leachate collection system

LFG - landfill gas

MSDS - Material Safety Data Sheets

msl - mean sea level

MSW - Municipal Solid Waste

non-RACM - nonregulated asbestos-containing material

OSHA - Occupational Health and Safety Administration

PCBs - polychlorinated biphenyls

RACM - regulated asbestos-containing material

RCRA - Resource Conservation Recovery Act

SLER - soils and liner evaluation report

SOP - site operating plan

TAC - Texas Administrative Code

TCEQ - Texas Commission on Environmental Quality

TxDOT - Texas Department of Transportation

WWTP - wastewater treatment plant

#### **TABLES AND FIGURES**

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30 TAC §§330.65, 330.121, 330.123, 330.127

#### 1.1 Introduction

This Site Operating Plan (SOP) has been prepared for the Skyline Landfill consistent with 30 TAC §330.65 and contains the information required by §330.127. This SOP includes provisions for site management and site operating personnel to meet the general and site-specific requirements included in: 1) Subchapter D, §§330.121 through 330.179, relating to Operation Standards for Municipal Solid Waste Landfill Facilities and 2) Subchapter E, §§330.201 through 330.249, relating to Operational Standards for Municipal Solid Waste Storage and Processing Units for the day-to-day operation of the facility. This SOP will be retained on site throughout the active life of the facility and throughout the postclosure care maintenance period.

The Skyline Landfill is an existing Type I Municipal Solid Waste Management facility owned and operated by Waste Management of Texas, Inc. (WMTX). The Skyline Landfill is located in Dallas and Ellis Counties within the city of Ferris, Texas. The landfill address is 1201 North Central AvenueStreet, Ferris, TX. The primary function of the facility is municipal solid waste disposal. The major classifications of solid waste to be accepted at the facility include municipal solid waste, special waste, and Class 2 and 3 industrial wastes. The facility is authorized to accept wastes for liquid stabilization and bioremediation. Support facilities include a site entrance road, gatehouse, scales, equipment maintenance and storage area, mud grate facility, leachate storage facility, bioremediation facility, liquid stabilization facility, citizen's convenience center, hauling facility operations, and training room. A Landfill Gas to Energy (LFGTE) Facility (Registration No. MSW 48018, Air Permit No. 78639) is also located within the permit boundary of the Skyline Landfill.

The Skyline Landfill provides waste disposal for individuals, businesses, and communities in Dallas, Ellis, and surrounding Texas counties. The facility receives waste from public and private haulers. The Skyline Landfill currently has a waste acceptance rate of 1,040,000 tons per year or about 3,3303,333 tons per day. Based on projected waste acceptance rates, the landfill estimates that the maximum waste acceptance rate will reach 1,622,700-1,600,331 tons per year or about 5,2005,129 tons per day. This SOP includes provisions for accommodating waste receipts of up to 2,496,000 tons per year or about 8,000 tons per day.

This SOP provides guidance for site management and site operating personnel for daily operation of the Skyline Landfill. This SOP also includes provisions for site management and site operating personnel to meet the general and site-specific requirements for the waste acceptance rate established in the permit.

# 2 RECORDKEEPING REQUIREMENTS

30 TAC §330.125

#### 2.1 Documents

The Skyline Landfill will maintain the operating record for the facility on site. Consistent with §330.125(a), copies of documents that are part of the approved permitting process that are considered part of the site operating record are listed in Table 2-1.

#### 2.2 Analytical Data

In accordance with §330.125(b), the Skyline Landfill will record and retain in the site operating record any and all records for those items listed in Table 2-1 within seven working days following completion or receipt of analytical data.

# 2.3 Site Operating Record

In accordance with §330.125(c), the Skyline Landfill will place the items included in Table 2-1 into the site operating record within the specified time period. The Skyline Landfill will maintain the site operating record in an organized format, where information is easily locatable and retrievable. The site operating record will be furnished to the executive director upon request, and will be made available on site for inspection by the executive director.

#### 2.4 Record Retention

In accordance with §330.125(d), the Skyline Landfill will retain all information contained within the site operating record of the facility and all plans required for the facility at the facility for five years, at which time the information will be transferred to a third-party document storage facility where it will remain for the life of the facility, including the postclosure care period, in accordance with §330.125(g). Upon request, records stored at the third-party document storage facility will be retrieved within 72 hours and then furnished to the executive director for inspection.

# 2.5 Personnel Training Records and Licenses

In accordance with §330.125(e), the Skyline Landfill will maintain personnel training records in accordance with §335.586(d) and (e). Personnel training requirements will be consistent with Section 3 – Personnel and Training of this SOP. Personnel training records for current facility personnel will be maintained until closure of the facility. Records of former employees will be maintained for three years from the date the

employee last worked at the facility. Personnel training records may accompany personnel transferred within Waste Management. Records for each facility employee will include name, job title, job description, introductory training, continuing training, and documentation of training. In accordance with §330.125(f), the facility will maintain personnel operator licenses as required by 30 TAC Chapter 30 Subchapter F, relating to municipal solid waste facility supervisors. Personnel training records and personnel operator licenses will be maintained in the site operating record as listed in Table 2-1.

#### 2.6 Alternative Schedules

In accordance with §330.125(g), the executive director may set alternative schedules for recordkeeping and notification requirements as specified in §330.125(a)-(f), except for notification requirements contained in §330.545.

# 2.7 Annual Waste Acceptance Rate

As listed in Table 2-1, the Skyline Landfill will maintain as part of the site operating record documentation of the annual waste acceptance rate for the facility in accordance with §330.125(h). Records will include maintaining the quarterly solid waste summary reports and the annual solid waste summary report as required by §330.675. The annual waste acceptance rate, as established by the sum of the previous four quarterly summary reports, will be evaluated by the Skyline Landfill to determine if the waste acceptance rate exceeds the rate estimated in the permit application. Should an increase in waste acceptance be established, the facility will determine if the increase is due to a temporary occurrence. Should the waste acceptance rate exceed that established in the permit application, and not be due to a temporary occurrence, a permit modification would be prepared and filed within 90 days of the exceedance in accordance with then applicable TCEQ regulations to propose changes, if necessary, to manage the increased waste acceptance rate to protect human health and the environment. An increase in the waste acceptance rate that is determined to be a temporary occurrence does not require the submittal of a permit modification. This section is not intended to make an estimated waste acceptance rate a limiting parameter of the permit.

The Skyline Landfill currently has a waste acceptance rate of 1,040,000 tons per year or about 3,3303,333 tons per day. Based on projected waste acceptance rates, the landfill estimates that the maximum waste acceptance rate will reach 1,622,7001,600,331 tons per year or about 5,200 5,129 tons per day. This SOP includes provisions for accommodating waste receipts of up to 2,496,000 tons per year or about 8,000 tons per day.

# Table 2-1 Skyline Landfill Records to be Maintained in the Site Operating Record

| Marie Control (1949) COM (1947) Control (1947) A A CONTROL (1947) A A CONTROL (1947)                                                          | te Operating Record                       |                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------|
| Records to be Maintained in the Site Operating Record                                                                                         | Frequency                                 | Rule Citation                     |
| Municipal Solid Waste Disposal Permit No. 42D                                                                                                 | Submittal of Permit Amendment Application | §330.125(a)                       |
| Part I – Site and Applicant Information                                                                                                       | Submittal of Permit Amendment Application | §330.125(a)                       |
| Part II – Existing Conditions and Character of the Facility and Surrounding Area                                                              | Submittal of Permit Amendment Application | §330.125(a) and<br>§330.125(b)(1) |
| Part III – Facility Investigation and Design                                                                                                  | Submittal of Permit Amendment Application | §330.125(a)                       |
| Attachment A – Site Development Plan Narrative                                                                                                | Submittal of Permit Amendment Application | §330.125(a)                       |
| Attachment B – General Facility Design                                                                                                        | Submittal of Permit Amendment Application | §330.125(a)                       |
| Attachment C – Facility Surface Water Drainage Report                                                                                         | Submittal of Permit Amendment Application | §330.125(a)                       |
| Attachment D – Waste Management Unit<br>Design                                                                                                | Submittal of Permit Amendment Application | §330.125(a)                       |
| Attachment E – Geology Report                                                                                                                 | Submittal of Permit Amendment Application | §330.125(a)                       |
| Attachment F – Groundwater Monitoring Plan                                                                                                    | Submittal of Permit Amendment Application | §330.125(a)                       |
| Attachment G – Landfill Gas Management<br>Plan                                                                                                | Submittal of Permit Amendment Application | §§330.125(a) and 330.159          |
| Attachment H – Closure Plan                                                                                                                   | Submittal of Permit Amendment Application | §§330.125(a) and 330.125(b)(6)    |
| Attachment I – Postclosure Plan                                                                                                               | Submittal of Permit Amendment Application | §§330.125(a) and 330.125(b)(6)    |
| Attachment J – Cost Estimate for Closure and Postclosure Care                                                                                 | Submittal of Permit Amendment Application | §§330.125(a) and 330.125(b)(7)    |
| Part IV – Site Operating Plan                                                                                                                 | Submittal of Permit Amendment Application | §330.125(a)                       |
| State and Federal Regulations                                                                                                                 | Submittal of Permit Amendment Application | §330.125(a)                       |
| Location Restriction Demonstrations                                                                                                           | Submittal of Permit Amendment Application | §330.125(b)(1)                    |
| Inspection records, training procedures and notification procedures related to excluding the receipt of prohibited waste                      | Per occurrence                            | §330.125(b)(2)                    |
| Results from gas monitoring events                                                                                                            | Quarterly                                 | §§330.125(b)(3)<br>and 330.159    |
| Remediation plans relating to explosive and other gases, if applicable                                                                        | Per occurrence                            | §§330.125(b)(3) and 330.159       |
| Unit design documentation for the placement of leachate or gas condensate in the landfill                                                     | Per occurrence                            | §330.125(b)(4)                    |
| Groundwater monitoring and corrective action demonstrations, certifications, findings, monitoring, testing and analytical data, if applicable | As required                               | §330.125(b)(5)                    |
| Closure and postclosure monitoring, testing, and analytical data <del>, if applicable</del>                                                   | As required                               | §330.125(b)(6)                    |
| Cost estimates and financial assurance documentation for closure and postclosure                                                              | Annually                                  | §330.125(b)(7)                    |
| Facility operation, permit modification, approvals, and technical assistance correspondence and responses                                     | Per occurrence                            | §330.125(b)(9)                    |

are not limited to, survey instruments, bird control devices, safety equipment, and training equipment.

Equipment operators may perform routine cleaning of landfill equipment using low-volume, high-pressure spray equipment at the active—area working face of the landfill over Subtitle D lined areas. The equipment spraying consists of blowing landfill equipment radiators clean of dust and debris — a manufacturer's recommendation — allowing the equipment to continue operating through the day without accumulated dust and material creating overheating problems. Liquids containing refuse will be handled in the same manner as contaminated water is handled (see Section 8.24).

working face over an approved lined area, where the balance of the load will be discharged from the vehicle. Facility personnel will break up the waste pile and inspect the material for any prohibited waste. Known prohibited waste will be placed back into the vehicle and the driver will be instructed to depart the site. Should any regulated hazardous waste be detected, the entire load will be refused and recoverable materials will be loaded back into the waste hauling vehicle.

In addition to the above procedure, incoming loads will be inspected on a random basis. The landfill manager will be responsible for determining the random inspection schedule, with a minimum of one inspections inspections per week performed by properly trained and qualified personnel, as currently authorized. The driver of the randomly selected load will be notified at the gatehouse or at the working face and instructed to proceed as above to a load inspection area located over an approved lined area. Additional waste screening will take place as described in Section 8.2 of this SOP.

#### 5.3 Recordkeeping

The landfill manager is required to maintain and include in the site operating record the following:

- Load inspection reports for randomly inspected loads
- Records of regulated hazardous or PCB waste notifications
- Personnel training records

Load inspection reports, recorded on standardized forms, will be completed for each inspected load. The reports will include at a minimum the date and time of inspection, the name and address of the hauling company and driver, the type of vehicle, the size and source of the load, contents of the load, indicators of prohibited waste, and results of the inspection. A copy of a typical load inspection report form is included in Appendix IVA of this SOP.

The TCEQ will be notified whenever regulated hazardous or PCB waste is detected. Records of the notification will be kept in the site operating record and will include the date and time of notification, the individual contacted, and the information reported.

Personnel training records will be maintained in the site operating record and will include evidence of successful completion of the training, type of training received, and the name of the instructor.

#### 5.4 Training

The landfill manager, equipment operators, and gate attendant will maintain a thorough understanding of this SOP and will be trained in the following areas:

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

Documentation of training will be placed in the site operating record.

#### 5.5 Notification

The TCEQ executive director will be notified of any incident involving the receipt or disposal of regulated hazardous waste or PCB waste at the landfill. Records of notifications will be maintained in the site operating record including date and time of notification, the individual contacted, and the information reported.

# 5.6 Managing Prohibited Wastes

Known prohibited wastes detected during the inspection will be returned immediately to the hauler. If the hauler is not available, the waste will be safely stored until provisions for removal can be arranged.

If regulated hazardous or PCB wastes are detected, the TCEQ will be notified. As soon as is practical, the hauler will be required to remove the hazardous waste from the site.

<u>leachate storage facility on the south side of the entrance road as shown on Part III, Attachment B, Drawing B.3.</u>

# 8.25.7 Liquid Stabilization Facility

The facility may operate a portable metal solidification basin(s) placed within the landfill footprint in an existing lined cell facilityas shown on Part III, Attachment B, Drawing B.2. The facility may receive material requiring solidification. Trucks will discharge directly into the portable basin. Materials suitable for mixing will be materials acceptable for disposal including lime, fly ash, cement kiln dust, Portland cement, sawdust, dirt, or auto fluff. Any combination of these materials may be used for liquid stabilization. Mixing will be accomplished with a backhoe or other appropriate machinery. Each batch of stabilized material will be tested for free liquids in accordance with Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication Number SW-846), as amended. Upon verification of the stabilized material passing the paint filter test, the mixture will be removed from the basin and deposited in the active face for landfilling on the day it is received and will not be stored within a portable metal solidification basin placed within an existing lined cell. The procedures for acceptance, processing, odor control, and stabilizing liquid wastes accepted at the facility are included in Part IV - Site Operating Plan, Appendix IVE - Liquid Stabilization Plan.

- A stockpile of earthen material will be maintained so that it is available at all times to extinguish a fire. Two separate soil stockpiles will be provided. One stockpile will be provided adjacent to the working face, and a second soil stockpile will be provided within 2,500 feet of the active working face. The landfill equipment conducting daily waste filling operations will be suitable for placement of additional soil from the earthen stockpile for fire control.
- The total volume of earthen material available from the two stockpiles will be sized to cover the working face with a minimum 6-inch layer of earthen material.
   Earthen material stockpile will be provided based on the following table:

| Size of M  | orking Face  | Ar     | ea of Working | Face       | Total Sings                |
|------------|--------------|--------|---------------|------------|----------------------------|
| 0120 01 11 | Torking Face | Sq Ft  | Cu Ft         | Cu Yd      | Total Size of<br>Stockpile |
| L          | w            | L×W    | Sq ft x 0.5   | Cu ft / 27 | Cu yd x 1.15               |
| 150        | 100          | 15,000 | 7,500         | 278        | 320                        |
| 150        | 125          | 18,750 | 9,375         | 347        | 400                        |
| 150        | 150          | 22,500 | 11,250        | 417        | 480                        |

Based on achievable production rates, the landfill equipment identified in Table 4-1 is sufficient to cover the active working face with a minimum 6-inch soil layer from an earthen material stockpile within one hour of detecting a fire, as demonstrated in the following table:

| Equipment                  | Capacity    | Production Rate | Material Rate |
|----------------------------|-------------|-----------------|---------------|
| Excavator                  | 3 cy/load   | 240 load/hr     | 720 cy/hr     |
| Haul Trucks <sup>(1)</sup> | 16 cy/load  | 30.0 load/hr    | 480 cy/hr     |
| Scraper                    | 20 cy/load  | 30.0 load/hr    | 600 cy/hr     |
| Dozer <sup>(2)</sup>       | 3.5 cy/load | 150 load/hr     | 525 cy/hr     |
| Compactor <sup>(2)</sup>   | 3.5 cy/load | 150 load/hr     | 525 cy/hr     |

<sup>(1)</sup> Haul truck calculations are based on haul distance of 1/4 mile and average hourly speed of 15 mph.

<sup>&</sup>lt;sup>(2)</sup>Dozer and scraper material rates are below the rates published by Horace K. Church in Excavation Handbook, McGraw-Hill, Inc., New York, 1981.

- Multiple earthen stockpiles will be maintained such that the maximum amount of earthen material required for suppression of a fire at the active working face will always be within approximately 1/2 mile of the active working face.
- The active working face will be limited to the total capacity of the dozer and compactor capacity and the excavator and haul truck capacity unless larger equipment or additional capacity is provided.

# 7.2 Specific Fire-Fighting Procedures

The following procedures will be followed in the event of a fire:

- If a fire occurs on a vehicle or piece of equipment, the equipment operator should bring the vehicle or equipment to a safe stop. If safety of personnel will allow, the vehicle must be parked away from fuel supplies, uncovered solid wastes, and other vehicles. The engine should be shut off and the brake engaged to prevent movement of the vehicle or piece of equipment. Fire extinguishers should be used to extinguish fire if possible, without risk to equipment operator.
- Incoming loads with burning waste will be prevented from being unloaded in the active working face of the landfill. The gate attendant and equipment operators will be alert for signs of hot loads, such as smoke, steam, or heat being released from incoming waste loads. Should a load with burning waste be observed at the gate or active working face, the gate attendant or equipment operator will direct the driver to a designated area away from the active working face to unload. The load will be covered with soil to smother the fire.
- If a fire is in the working face, the burning area should be isolated or pushed away from the active working face before the fire can spread to other areas of the working face. If isolating or pushing the fire is not feasible or unsafe, the working face should immediately be covered with earthen material from the stockpile to smother the fire.
- If a fire occurs at the citizen's collection station/recycling facility, landfill personnel should use fire extinguishers to extinguish the fire, if possible. The general rules for fires will be implemented as included in Section 7.3 to protect landfill personnel or visitors.
- If a fire occurs at the liquid stabilization facility, the landfill personnel should use fire extinguishers to extinguish the fire, if possible. The general rules for fires will be implemented as included in Section 7.3 to protect landfill personnel or visitors.
- Firefighting methods include smothering with soil, separating burning material from other waste, and spraying with water from the water truck or water pumped from nearby ponds or streams. If detected soon enough, a small fire may be fought with a handheld fire extinguisher. Fire extinguishers will be located at the

gatehouse, citizen's convenience center/recycling facility, equipment and maintenance area, and all landfill equipment and vehicles. Under this circumstance, the fire area should also be watered or otherwise controlled to ensure that the fire is out.

## 7.3 General Rules for Fires

The following rules will be implemented in the event of a fire at the Skyline Landfill:

- Immediately contact the gatehouse and landfill manager.
- Equipment operators will be equipped with two-way radios or cell phones.
- Alert other facility personnel.
- Assess extent of fire, possibilities for the fire to spread, and alternatives for extinguishing the fire.
- If it appears that the fire can be safely fought with available fire-fighting devices until arrival of the Fire Department, attempt to contain or extinguish the fire.
- If landfill personnel cannot extinguish the fire, contact the City of Ferris Fire Department by calling 911 or 972-544-2233.
- Upon arrival of Fire Department personnel, direct them to the fire and provide assistance as appropriate.
- Do not attempt to fight the fire alone.
- Do not attempt to fight the fire without adequate personal protective equipment.
- Be familiar with the use and limitations of fire-fighting equipment available on site.

# 7.4 Fire Protection Training

Landfill personnel will be trained in the contents of Section 7 – Fire Protection Plan in accordance with Section 3.3 – Training. Landfill personnel will maintain a thorough understanding of this SOP and will be trained in fire prevention and fire control as defined in this section. The following topics will be addressed:

- Identification of burning waste, smoke, steam, or heat being released from incoming waste loads
- Procedures to prevent and contain fuel spills
- Fire prevention

- Fire safety
- Firefighting procedures with fire extinguishers, soil, and water as appropriate
- Notification procedures should a landfill fire be observed

In addition, information will be provided to the local fire department regarding waste disposal operations, fire sources, and firefighting techniques related to landfills. Documentation of training will be placed in the site operating record in accordance with Section 2.5.

#### 7.5 TCEQ Notification

The Skyline Landfill will make every reasonable effort to contact the TCEQ regional office immediately upon detection of a fire, if the fire is not extinguished within 10 minutes of detection. At a minimum, the TCEQ regional office will be contacted no later than 4 hours by phone, and in writing within 14 days. The notification will include a description of the fire and resulting response.

Waste hauling vehicles will be directed to appropriate fill areas by signs located along the landfill haul road and access road. These vehicles will deposit their loads and depart the site. Private, commercial, or public solid waste vehicles will not be allowed access to any areas other than the active portion of the landfill. Site personnel will provide traffic directions as necessary to facilitate safe movement of vehicles.

Within the site, signs will be placed along the landfill haul road and access road at a frequency adequate for users to be able to understand where disposal areas are and which roads are to be used. Roads not being used for access to disposal areas will be blocked or otherwise marked for no entry.

# 8.1.3 Inspection and Maintenance

The perimeter fence and gate will be inspected twice monthly. Refer to Section 8.26 of this SOP for site inspection and maintenance schedule. Maintenance will be performed as necessary. Should a breach be detected during inspection or at any other time, every effort will be made to make repairs within 8 hours of detection. Notification is not required if permanent repair is made within 8 hours. Should repair require more than 8 hours, the TCEQ regional office will be notified of the breach within 24 hours. Temporary repair will be performed within 24 hours of detection and permanently repaired within the time specified to the regional office following notification.

# 8.2 Unloading of Waste

The landfill is authorized to receive municipal solid waste, special wastes allowable under §330.171, and Class 2 and 3 industrial wastes allowable under §330.173. The categories of wastes that are prohibited at this site by state and federal regulations are discussed in Section 5 of this SOP. Special wastes will be handled at this landfill in accordance with TCEQ regulations and with Section 8.20 – Disposal of Special Wastes, Section 8.21 – Disposal of Industrial Waste, Appendix IVB – Special Waste Acceptance Plan, and Appendix IVC – Regulated Asbestos-Containing Material Plan of this SOP. Various unloading, disposal and processing areas are shown in Part III, Attachment B, Drawing B.2 and B.3.

Trained personnel will monitor the incoming waste on the trucks at the gatehouse and at each unloading area/active working face. Trained personnel will be on duty at each active working face during waste acceptance hours to direct and observe waste unloading.

Trained personnel at each active working face will have the authority and responsibility to reject loads which contain prohibited wastes with approval of the landfill manager. These personnel will also have the authority to require the hauler or transporter to remove prohibited waste immediately upon discovery. Should suspected prohibited waste be identified, the working face personnel will immediately notify the landfill manager. The landfill manager may direct staff to remove or manage prohibited waste appropriately, should the responsible hauler or transporter not be identified.

Solid waste unloading will be controlled to prevent disposal in locations other than those specified by site management. Any waste deposited in an unauthorized area will be promptly removed and disposed of properly at the active working face. Control will also be used to confine the active working face to a minimum width consistent with the rate of incoming waste, while allowing for safe and efficient operation. The maximum size of the unloading area will be approximately 1/2-acre with a maximum width of approximately 150 feet.

A maximum of three working faces may be used during any specific time period, but typically one working face will be used except during inclement weather. The three active working faces include two working faces for disposal of municipal solid waste and one for RACM. The size of the working faces will be limited by the availability and capacity of site equipment to place cover soil, and the location of soil stockpiles, including those adjacent to the working face. Each working face will have its own soil stockpile adjacent to the working face.

On days when RACM is accepted, the RACM unloading and disposal area will not be larger than 50 feet by 50 feet. Control will be used to confine the RACM area to a minimum width consistent with the rate of incoming RACM, while allowing for safe and efficient operation. RACM disposal is further discussed Section 8.20.

The citizen's convenience area for waste drop-off is located near the equipment maintenance and storage area. The citizen's convenience area will include roll-off containers for waste and recycled goods and an area for large items/white goods. The citizen's convenience area will not be larger than 50 feet by 250 feet. Control will be used to confine this area to a minimum area consistent with the rate of incoming waste while allowing for safe and efficient operation. The citizen's convenience area is further discussed in Section 8.25.3.

The large item storage area for large items and white goods may be provided near the active working face. The maximum size of the large item storage area will be 300 feet by 300 feet. Control will be used to confine the large item storage area to an area consistent with the rate of incoming large items and white goods while allowing for safe and efficient operation. The large item storage area is further discussed in Section 8.9 and Section 8.25.1.

A liquid stabilization basin(s) may be located in a temporary liquid stabilization area. The temporary liquid stabilization facility is further discussed in Section 8.25.7 and Appendix IVE – Liquid Stabilization Plan.

On days when wastes are accepted for treatment at the bioremediation treatment pad, the bioremediation pad unloading and disposal area will be confined to the bioremediation area and to a minimum size consistent with the rate of incoming waste while allowing for the safe and efficient operation of the bioremediation treatment pad. Additional information regarding the bioremediation treatment pad is included in Section 8.25.5 and Appendix IVD – Bioremediation Treatment Plan.

Any prohibited waste that is not discovered until after it is unloaded shall be returned to the vehicle that delivered the waste. The generator shall be responsible for the proper transportation and disposal of this rejected waste. An effort shall first be made to identify the entity that deposited the prohibited waste and have them return to the site and properly transport and dispose of the waste. In the event that the transporter of the prohibited waste cannot be located or refuses to remove the prohibited waste from the site, facility personnel will properly manage the prohibited waste and arrange for its off-site disposal at an authorized facility. A record of unauthorized waste removal will be maintained in the site operating record.

Signs with directional arrows and portable traffic barricades will help to restrict traffic to designated disposal locations. Signs will be placed along the access route to the current disposal area or other designated disposal areas that may be established. In addition, rules for waste disposal and prohibited waste will be prominently displayed on signs at the site entrance. Refer to Section 5 of this SOP for additional waste handling procedures.

# 8.3 Facility Operating Hours

The Skyline Landfill is authorized for waste acceptance 24 hours per day, Monday through Friday, and until 3:00 p.m. on Saturday. The Skyline Landfill currently accepts waste from public and private haulers from 5:00 a.m. to 5:00 p.m., Monday through Friday, and from 6:00 a.m. to 1:30 p.m. on Saturday. The Skyline Landfill will post on the site entrance sign the hours for waste acceptance from private and public waste haulers. The Skyline Landfill may be open other hours, as may be required to provide solid waste disposal services for special events, inclement weather, emergencies and other circumstances. The Skyline Landfill will notify the TCEQ regional office and will record waste acceptance hours outside of posted hours in the site operating record.

The Skyline Landfill provides waste disposal for individuals, businesses, and communities in Dallas, Ellis, and surrounding Texas counties. The service area for the facility has significant haul distances to the facility. Numerous communities and businesses have specific waste collection requirements to minimize traffic and other business impacts to their communities. The authorization of 24 hours per day, 7 days per week is essential to provide access to the facility for its entire service area. Further, these operational hours are necessary to provide 24-hour per day access to the LFGTE facility, material delivery, construction, maintenance, and operational activities as required by this SOP.

The Skyline Landfill is authorized for site operations 24 hours per day, 7 days per week. Site operations include construction, earthmoving, monitoring, transportation of construction materials, heavy equipment operation, and other non-waste acceptance operations. Access to the LFGTE facility is authorized 24 hours per day, 7 days per week.

#### 8.6 Easements and Buffer Zones

#### 8.6.1 Easements

In accordance with §330.141(a), solid waste unloading, storage, disposal, or facility operations will not occur within any easement, buffer zone, or right-of-way that crosses the site. No solid waste disposal will occur within 25 feet of any utility line or pipeline easement, unless otherwise authorized by the TCEQ. All easements will be clearly marked as specified in Section 8.7 of this SOP. Pipelines and utility easements will be marked with posts extending a minimum of 6 feet above ground surface at intervals that do not exceed 300 feet. The existing on-site Lone Star Gas easement and TU Electric easement are marked with green posts, as required. Easements are shown on Part II, Appendix IIA, Drawing IIA.21 – Buffer Zone Plan.

#### 8.6.2 Buffer Zones

The buffer zone is defined as the area between the permit boundary and the limit of waste disposal activities and solid waste processing activities, unless otherwise authorized. No solid waste unloading, storage, disposal, or processing operations will occur within any buffer zone. The buffer zones will provide for safe passage for fire-fighting and other emergency vehicles. The distance from the permit boundary to all solid waste unloading, storage disposal, or processing operations exceed the minimum buffer distance of 125 feet. Buffer zones are shown on Part III, Attachment D1.2 – Site Layout PlanPart II, Appendix IIA, Drawing IIA.21 – Buffer Zone Plan. All buffer zones will be clearly marked as specified in Section 8.7 of this SOP.

# 8.7 Landfill Markers and Benchmark

Landfill markers will be installed to clearly mark significant features as described in §330.143(b). The markers will be steel or wooden posts (or other TCEQ approved material) and will extend at least 6 feet above the ground surface. The markers will not be obscured by vegetation and will be placed in sufficient numbers to clearly show the required boundaries. Markers that are removed or destroyed will be replaced within 15 days of their removal, completion of construction project, or destruction. Landfill markers will be inspected monthly and will be maintained and repaired within 15 days as required. The landfill markers will be maintained so that they are visible during operating hours. Refer to Section 8.26 of this SOP for site inspection and maintenance schedule. Markers will be repainted as needed to retain visibility. Guidelines for type, placement, and color coding of markers are provided in §330.143(b). The required landfill markers are described in the following table.

#### **Landfill Markers**

| Marker        | Color  | Descriptions                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Boundary | Black  | The boundary markers will be placed at each corner of the site and along each boundary line at intervals no greater than 300 feet. Fencing may be placed within these markers as required.                                                                                                                                                                                                                                                                                          |
| Buffer Zone   | Yellow | The buffer zone markers will be placed along each buffer zone boundary at all corners and between corners at intervals of 300 feet.                                                                                                                                                                                                                                                                                                                                                 |
| Easements     | Green  | Easement and right-of-way markers will be placed along the centerline of an easement and along the boundary of a right-of-way at each corner within the site and at the intersection of the site boundary.                                                                                                                                                                                                                                                                          |
| Grid System   | White  | The landfill grid system will encompass at least the area expected to be filled within the next three-year period. Markers will be spaced no greater than 100 feet apart measured along perpendicular lines. Intermediate markers will be installed if necessary to allow visibility from opposite boundaries.                                                                                                                                                                      |
| SLER/GLER     | Red    | The SLER markers will be placed so that all areas for which a SLER has been submitted and approved by the Commission are readily determinable. These markers will be located so that they are not destroyed during operations or until operations extend into the next area and will provide site workers immediate knowledge of the extent of approved disposal areas. The location of the markers will be tied into the landfill grid system and reported on each SLER submitted. |
| Floodplain    | Blue   | Flood protection markers will be placed a maximum of 300 feet apart or closer if necessary to retain visual continuity. The markers will be installed for any area within a solid waste disposal facility that is within the 100-year floodplain.                                                                                                                                                                                                                                   |

A permanent benchmark has been established within the permit boundary in an area that is readily accessible and will not be used for disposal. The benchmark is a United States Coast and Geodetic Survey benchmark consistent of a bronze survey marker stamped with the elevation and survey date and set in concrete. The location of the permanent benchmark is identified in Part III, Attachment B, Drawing B.2Part II, Appendix IIA, Drawing IIA.13 – General Site Plan.

# 8.8 Materials Along the Route to the Site

Consistent with §330.145, the Skyline Landfill will take steps to encourage that vehicles hauling waste to the site are enclosed or provided with a tarpaulin, net, or other means to properly secure the load. These steps are necessary to prevent the escape of any

part of the load by blowing or spilling. The landfill will post signs at the entrance gate and gatehouse notifying haulers of this requirement and will enforce this rule by applying surcharges or other similar measures. The landfill manager may report habitual offenders to local law enforcement officers. The Skyline Landfill will provide for the cleanup of waste materials spilled along and within the right-of-way of the regular delivery routes within two miles of the entrance on Business 45 when the facility is in operation. Cleanup of the spilled materials will be performed once per day for the following regular delivery routes:

- Business 45 north of the site entrance road for a distance of 2 miles along Business 45, East Malloy Bridge Road, and the Interstate 45 access road and South of the site entrance road for a distance of 1.4 miles to the intersection of Business 45 and 8th Street
- East 5th Street east of Business 45 on East 5th Street for a distance of 0.3 miles to Interstate 45
- West 6th Street west of Business 45 on West 6th Street for a distance of <del>0.2</del>0.7 miles to Wood Street(FM 664) and a distance of 0.4 miles on FM 983
- East 8th Street east of Business 45 on East 8th Street for a distance of 0.30.6 miles to Interstate 45

These delivery routes are shown on Part II, Appendix IIA, Drawing IIA.1. The Skyline Landfill will consult with officials of TxDOT concerning the cleanup of state highways and right-of-ways consistent with §330.145.

# 8.9 Disposal of Large Items

A storage area for large items and white goods may be provided near the active working face. The large items and white goods include items such as ovens, dishwashers, freezers, air conditioners, and other large items. These items will be recycled every 180 days or less or disposed of at the working face within 180 days of acceptance at the facility.

Large items that are not recycled will be disposed of at the working face. Care will be taken during disposal of large items to ensure that: (1) large items are excluded from the initial 5 feet of waste placed over the protective cover of a liner, (2) large items are placed such that they do not interfere with continued waste filling, and (3) that other smaller municipal solid waste is placed and compacted around them.

Refrigerators, freezers, air conditioning units, or other items containing chlorinated fluorocarbon (CFC) refrigerant will be handled in accordance with 40 Code of Federal Regulations (CFR) §82.156(f), as amended. Refrigerators, freezers, air conditioning units, or other items containing CFC will not be accepted unless the CFC contained in the item has been captured and sent to an approved CFC disposal site or recycling facility and the generator or transporter provides written certification that the CFC has

been evacuated from the unit and that it was not knowingly allowed to escape into the atmosphere. The gate attendant will verify that the refrigerant has been evacuated from the appliance or shipment of appliances prior to disposal. Such verification must include a signed statement from the person from whom the appliance or shipment of appliances is obtained that all refrigerant that had not leaked previously has been recovered from the appliance or shipment of appliances in accordance with 40 CFR §82.156(g) or (h), as applicable. This statement must include the name and address of the person who recovered the refrigerant and the date the refrigerant was recovered or a contract that the refrigerant will be removed prior to delivery. The Skyline Landfill will notify persons who may deliver such items of the requirement to verify evacuation of refrigerant by signage or letter. Items such as electrical equipment, which contains PCBs, will be excluded from waste fill. Procedures for detecting and excluding PCBs are provided in Section 5.

# 8.10 Odor Management Plan

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The Skyline Landfill will manage odors associated with waste acceptance and disposal operations consistent with this Odor Management Plan. This plan addresses sources of odors and includes general instructions to control odors or sources of odors.

Measures to control odors and sources of odors may include, but are not limited to, the following items:

- The facility will accept wastes that may generate odors including municipal water and wastewater treatment plant sludges, grease trap waste, grit trap waste, other liquid waste from municipal sources, and dead animals. The sludges and other liquid wastes are required to pass a paint filter test prior to disposal. Liquid wastes may be stabilized in accordance with Appendix IVE – Liquid Stabilization Plan.
- Other sources of odors may include ponded water, decomposition of wastes, leachate, contaminated water, a liquid stabilization facility, and landfill gas (LFG).
- Wastes that are considered to generate significant odors are usually classified as special wastes. Refer to Section 8.20 – Disposal of Special Wastes for waste disposal procedures for these wastes.
- Unloading of these wastes at the active working face will be consistent with procedures established in Section 8.2 – Unloading of Waste, which limits the active working face to a minimum width, allowing prompt placement of daily cover or approved alternative daily cover over wastes that may produce odors.
- Spills of these odor producing wastes will be managed by collecting and transporting these wastes to the active working face for prompt disposal and placement of daily cover.

- Daily cover consisting of a minimum of 6 inches of soil or approved alternative daily cover will be placed over these wastes at the end of the working day consistent with procedures established in Section 8.18 – Landfill Cover.
- Waste that is determined to require additional procedures, such as dead animals
  or sludges will be isolated within the active working face and immediately
  covered with a minimum of 3 feet of other solid waste or a minimum of 1 foot of
  soil upon receipt. Additional daily cover soil will be placed if needed.
- Sludges may be mixed with other absorptive wastes to minimize odors. Waste
  with strong odors may be placed at the active working face in a matter that
  allows immediate cover placement.
- Ponded water at the site will be controlled as detailed in Section 8.19 of this SOP. Odors will be eliminated through removal of ponded water and regrading of areas consistent with Section 8.18 – Landfill Cover.
- Leachate and contaminated water will be managed and removed in accordance with Attachment D6 – Leachate and Contaminated Water Plan. Leachate is currently discharged by direct connection to the City of Ferris POTW. Leachate may be treated at an on-site or off-site treatment facility. Leachate may also be recirculated in accordance with the leachate and contaminated water plan.
- Landfill gas will be managed and removed in accordance with Attachment G –
  Landfill Gas Management Plan. Landfill gas is currently conveyed to the LFGTE
  facility. Odor reduction of landfill gas may be achieved by adjustments to the
  existing gas extraction system or by the installation of additional gas extraction
  wells.

#### 8.11 Disease Vector Control

The need for vector control (control of rodents, flies, mosquitoes, birds, etc.) will be minimized through daily site operations. Activities designed to control on-site populations of disease vectors include minimization of the size of the active working face; placement and compaction of daily, intermediate, and final cover; adherence to the ponded water plan; and following the detailed procedures described in this SOP. The Skyline Landfill will conduct daily inspections as required by Section 8.26 – Site Inspection and Maintenance Schedule to observe waste disposal operations and to remove areas that may be conducive to insects and rodents. These areas will be promptly eliminated in accordance with procedures established in this SOP. Should daily site operations not control vectors, a licensed professional will apply pesticides to ensure that proper chemicals are used and that they are properly applied.

In addition, bird control procedures are established for the facility consistent with a plan approved by the FAA. The following procedures will be used throughout the active site life of the facility:

#### **Personnel**

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One staff member will be assigned the responsibility for bird control. This staff member will be assisted by site management and other site personnel to insure that individuals are trained and backup personnel are available to cover lunch hours or for periods of illness or vacation. Site management will also insure responsibilities are performed and that assistance when needed is provided. The responsibilities include the following tasks.

- Keeping the site free of all gulls and reducing the presence of other species
- Maintaining equipment and supplies
- Assigning back-up personnel
- Record keeping (daily log)
- Evaluating effectiveness and if needed request bird control consultant to review effectiveness
- Interacting with the monitoring consultant to upgrade the program as needed

The active face of the landfill will be covered adequately by the bird control staff during operational hours. The amount of time actually devoted to bird control will vary and will be reduced over time. Once most gulls are conditioned to avoid the site, the number that will have to be repelled will be less. Equipment operators (e.g., compactor operator) are in a good position to respond to gull occurrence as the need arises. The sole responsibility for bird control, however, should not rest on this person because his mobility is restricted. Prompt attention to gull occurrence will be the rule.

#### Methods

Pyrotechnics and other methods of control will be used.

Two types of explosive projectiles will be used interchangeably. Only the number of shots necessary to discourage gulls from attempting to land or from circling over the site will be fired. Shots will be fired in close proximity to the gulls.

#### Equipment

A double-shot Pistol Launcher which used a .22 caliber blank cartridge to propel either a "Bird Banger" or a "Screamer-Siren", or equivalent, will be used.

Equipment will be maintained on-site to properly manage the bird control at the site.

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Skyline Landfill Rev. 1, 8/17/12 Part IV been evacuated from the unit and that it was not knowingly allowed to escape into the atmosphere. The gate attendant will verify that the refrigerant has been evacuated from the appliance or shipment of appliances prior to disposal. Such verification must include a signed statement from the person from whom the appliance or shipment of appliances is obtained that all refrigerant that had not leaked previously has been recovered from the appliance or shipment of appliances in accordance with 40 CFR §82.156(g) or (h), as applicable. This statement must include the name and address of the person who recovered the refrigerant and the date the refrigerant was recovered or a contract that the refrigerant will be removed prior to delivery. The Skyline Landfill will notify persons who may deliver such items of the requirement to verify evacuation of refrigerant by signage or letter. Items such as electrical equipment, which contains PCBs, will be excluded from waste fill. Procedures for detecting and excluding PCBs are provided in Section 5.

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In addition, bird control procedures are established for the facility consistent with a plan approved by the FAA. The following procedures will be used throughout the active site life of the facility:

#### Personnel

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One staff member will be assigned the responsibility for bird control. This staff member will be assisted by site management and other site personnel to insure that individuals are trained and backup personnel are available to cover lunch hours or for periods of illness or vacation. Site management will also insure responsibilities are performed and that assistance when needed is provided. The responsibilities include the following tasks.

- Keeping the site free of all gulls and reducing the presence of other species
- Maintaining equipment and supplies
- Assigning back-up personnel
- Record keeping (daily log)
- Evaluating effectiveness and if needed request bird control consultant to review effectiveness
- Interacting with the monitoring consultant to upgrade the program as needed

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#### Methods

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Two types of explosive projectiles will be used interchangeably. Only the number of shots necessary to discourage gulls from attempting to land or from circling over the site will be fired. Shots will be fired in close proximity to the gulls.

#### **Equipment**

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Equipment will be maintained on-site to properly manage the bird control at the site.

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#### **Data Sheets**

A daily log will be maintained showing the number fired, the number of birds present and other information deemed necessary. The log will be completed as observations are made and shots fired. The records will be maintained in the operating record of the site. This information will be included in the form of a Bird Control Report and submitted to TCEQ and FAA on a monthly basis.

#### 8.12 Site Access Roads

The entrance road provides access from Business 45 to the gatehouse and landfill haul road for waste hauling vehicles, operating personnel, and visitors. The entrance road is more than 2,200 feet to the haul road and is an all-weather surface constructed of concrete pavement. Other internal landfill roads will be constructed with a crushed-stone surface or other suitable material. The all-weather surface entrance, access, and internal roads will provide mud control for the waste hauling vehicles prior to exiting the site and returning to public access roads. It is not anticipated that mud or other debris will be tracked onto Business 45 given the length of the entrance road and its all-weather surface. During wet weather conditions the landfill manager will routinely inspect the site and implement measures to further minimize mud tracking onto public access roads, as necessary. Mud will be removed periodically from the paved entrance road to prevent mud accumulation and slippery conditions. Should mud or other associated debris be tracked onto Business 45, the material will be removed daily.

A mud-grate facility may be used to further minimize tracking onto public roads, as necessary. The mud-grate facility is a concrete structure with a series of metal grates that function as mud removal devices. Vehicles drive across the mud-grate facility, and mud from vehicle tires drops down through the mud grate into a mud box. The accumulated mud will be periodically removed from the mud box and placed in the active working face. The mud-grate facility provides mud removal from vehicles to prevent tracking of mud onto the entrance road or Business 45.

The landfill haul roads and access roads will be maintained to minimize dusty conditions by periodic spraying from a water truck. During dry weather conditions the landfill manager will routinely inspect the site and establish a frequency, if necessary, to spray the access roads with water to prevent nuisance conditions from developing. Grading equipment will be used as needed to control or remove mud accumulations on internal roads including the entrance road. Stockpiles of crushed stone concrete rubble, masonry demolition debris, or other similar material will be available for use in maintaining passable internal access roads, including regrading to minimize depressions, ruts, and potholes. Grading equipment will be used monthly or as needed to regrade the site access roads. Refer to Section 8.26 of this SOP for site inspection and maintenance schedule. The site entrance road, landfill haul road, and access roads will be maintained in a clean and safe condition. Litter and debris will be picked up daily and returned to the active working face.

# 8.13 Salvaging and Scavenging

Salvaging will not be allowed to interfere with prompt sanitary disposal of solid waste or to create public health nuisances. Salvaged materials will be considered as potential recycled materials. Salvaged items will be removed from the site often enough to prevent the items from becoming a nuisance, to preclude the discharge of pollutants from the area, and to prevent an excessive accumulation of the material at the site. Special wastes received at the site will not be salvaged. Pesticide, fungicide, rodenticide, or herbicide containers will not be salvaged unless they are salvaged through a state-supported recycling program. Scavenging is the uncontrolled and unauthorized removal of materials at any point in the solid waste management system. No scavenging will be allowed at this site. Scavenging will be prevented through perimeter fencing, site access controls, vector controls, odor controls, daily cover, and monitoring by facility personnel.

# 8.14 Endangered Species Protection

Development of the landfill shall be conducted to avoid and minimize potential impacts to endangered or threatened species. The facility and the operation of the facility will not result in the destruction or adverse modification of the critical habitat of endangered or threatened species, or cause or contribute to the taking of any endangered or threatened species.

A detailed threatened and endangered species survey and assessment was conducted by a qualified biologist at Halff Associates. Coordination with the United States Fish and Wildlife Service (USFWS) and the Texas Parks and Wildlife Department (TPWD) regarding the locations and specific data relating to endangered and threatened species in Texas is provided in Part II, Appendix IIE – Endangered or Threatened Species Documentation.

A review of the TPWD Natural Diversity Database (NDD) was conducted for existing records regarding threatened and endangered species, candidates for listing as threatened or endangered species, sensitive natural communities, and other features of concern known or suspected to occur in the expansion area. There are 11 species that are listed as threatened, endangered, or rare under Texas and/or Federal law that may be found in the study area. For species such as white-faced ibis and wood stork, the likelihood of occurrence is conditional on the basis that these species migrate, and their broad migratory range overlaps features on the site that may be suitable as a stopover site. The occurrence of aquatic species, such as the alligator, snapping turtle, Louisiana pigtoe, fawnsfoot, Texas heelsplitter, and Texas pigtoe would be limited to areas within the Ten Mile Creek channel for which no activities or modification are proposed. Species such as the Texas garter snake and timber rattlesnake would also be limited to forested areas in close proximity to Ten Mile Creek which would be avoided by the proposed project.

Based on the TPWD NDD file review and multiple field investigations for threatened, endangered, and candidate species, no documented sites occur within one mile of the expansion area. Additionally, no areas of suitable habitat were identified within the expansion area during field investigations. Therefore, no impacts to threatened, endangered, or candidate species are anticipated as a result of construction or operation of the Skyline Landfill expansion.

#### 8.15 Landfill Gas Control

The control and monitoring of landfill gas for the Skyline Landfill will be in accordance with Part III, Attachment G - Landfill Gas Management Plan, which was developed in accordance with §330.371. The gas management plan provides for inclusion of applicable documentation, including monitoring records for the landfill gas monitoring probes, in the site operating record, and for submittal to the executive director. Gas monitoring records will be maintained in the site operating record.

#### 8.16 Oil, Gas, and Water Wells

#### 8.16.1 Water Wells

One well identified in the TWDB database as 33-27-501 was plugged in 1992 by Waste Management; it is within the permit boundary but outside the limits of the waste disposal area and outside the groundwater monitoring system. The plugging report for 33-27-501 is located in Part III, Attachment E, Appendix E1, Figure E1-11. There are no other known water wells within the permit boundary of the Skyline Landfill and there are no water wells used for water supply. Should water wells be discovered during facility development, the Skyline Landfill will immediately provide written notification to the executive director of their location. Within 30 days of finding any water wells, the Skyline Landfill will provide written certification to the executive director of the TCEQ that all such wells have been capped, plugged, and closed in accordance with all applicable rules and regulations of the TCEQ or other applicable state agency. Should an abandoned water well be discovered during site development and facility operation, a permit modification will be submitted to the executive director if revisions to the liner installation plan are required as a result of well abandonment.

#### 8.16.2 Oil and Gas Wells

There are no known oil or gas wells located within the permit boundary of the Skyline Landfill. If oil or gas wells are located, the landfill will immediately provide written notification to the TCEQ's executive director of their location. For crude oil or natural gas wells, or other wells associated with mineral recovery, the landfill will provide the executive director of the TCEQ with written certification that all such wells have been properly capped, plugged, and closed in accordance with all applicable rules and regulations of the Railroad Commission of Texas. A copy of the well plugging report to be submitted to the appropriate state agency will also be submitted to the executive director of the TCEQ within 30 days after the well has been plugged. Should an oil or

gas well be discovered during site development and facility operation, a permit modification will be submitted to the executive director if revisions to the liner installation plan are required as a result of well abandonment.

#### 8.17 Compaction

Compaction of incoming waste provides more efficient use of available space and reduces the amount of settling after the fill is complete. Compaction of the waste will be accomplished by repeat—repeated passages of a landfill compactor weighing in excess of 40,000 pounds over the waste material. The site dozer will be used to compact waste should the compactor be temporarily out of service for repairs. Adequate compaction will be accomplished to minimize future consolidation and settlement, and provide for the proper application of intermediate and final cover. The incoming waste will be spread in layers and thoroughly compacted by repeated passages of compaction equipment.

The landfill manager or designee will be present during the placement of the first 5 feet of waste over the liner system. The landfill manager or designee will verify and document that the initial 5 feet of waste does not contain large bulky items that could damage the liner system or that cannot be compacted to the required density. Waste ballast must be compacted to a density of not less than 1,200 lb/cy or 44 pcf.

The landfill will document that the waste used for ballast has been compacted with multiple repeated passes of a wheeled compactor that weighs in excess of 40,000 pounds. The form to be used by the landfill is provided by the TCEQ.

#### 8.18 Landfill Cover

#### 8.18.1 Soil Management

Management of soil for use in and around the landfill area will be an ongoing process at the Skyline Landfill. In general, soil for use as daily cover, intermediate cover, final cover, and other uses will be available adjacent to the active area. Soil will be obtained from excavation that is ongoing as part of the initial development of future landfill cells or from other suitable sources. This on-site material will be available near the working face (the exact distance varying daily, weekly, etc., depending on the exact stage of development).

In addition to this available material located on the landfill property, a stockpile of material will be kept available adjacent to the working face. The stockpile will consist of soil that has not previously come in contact with waste, and will be of sufficient volume to provide at least one day's application of 6 inches of protective cover over the working face. As this stockpile is used, it will be replenished. The soil may also be used in emergency situations for fire control, as discussed in Section 7.

#### 8.18.2 Daily Cover

Daily cover of waste is necessary to control disease vectors, windblown waste, odors, fires, scavenging, and to promote runoff from the fill area. Once within each 24-hour period that the facility receives waste, or more frequently if needed, at least 6 inches of well compacted soil cover material that has not been previously mixed with garbage, rubbish, or other solid waste will be placed over all solid waste received during that same day, if alternate daily cover is not used. Refer to Section 8.18.4 for authorized alternate daily cover materials and placement procedures.

To ensure that the daily cover soil will be adequate (i.e., minimize vectors, contaminated stormwater runoff, odors, etc.) the following procedures will be followed:

- The daily cover will be sloped to drain.
- The daily cover will be compacted with a minimum of two passes with the dozer tracks to minimize infiltration of stormwater and graded to drain.
- The landfill manager or his designee will document where daily cover has been placed and visually inspect during placement that a minimum of 6 inches (compacted thickness) of daily cover soil has been placed. The landfill will document, on a daily basis, the daily cover placement area and indicate that the landfill manager or designee has visually verified the thickness and condition in the Cover Inspection Record as discussed in Section 8.18.8.
- Runoff from areas that have intact daily cover is not considered to have come into contact with the working face or leachate and is considered uncontaminated stormwater runoff.
- After each rainfall event, the landfill manager or his designee will inspect all daily cover areas for erosion, exposed waste, or other damage and repair as necessary. Runoff from damaged or eroded areas will be handled as contaminated water until repairs are completed.
- Alternative Daily Cover (ADC) may be used as daily cover in accordance with the Alternative Daily Cover Operating Plan (ADCOP) in Appendix IVF.

Areas with 6 inches of daily cover must be inspected daily for erosion, ponded water, seeps, protruding waste, or other detrimental conditions that may cause contaminated runoff from the daily cover. Once the area becomes active again, the daily cover may be stripped off prior to additional waste placement and used as daily cover in other areas.

#### 8.18.3 Intermediate Cover

All areas that receive waste and then become inactive for longer than 180 days will be covered with an additional 6 inches of well compacted earthen material, for a total cover thickness of at least 12 inches. The intermediate cover will be graded to prevent erosion and ponding of water as specified in Part III, Attachment C, Appendix C1-F —

Intermediate Cover Erosion and Sedimentation Control Plan. The additional 6 inches of earthen material will be capable of sustaining native plant growth and will be seeded or sodded following its application for erosion control. Plant growth and other erosion control features placed as part of the intermediate cover will be maintained. Runoff from areas that have received intermediate cover are considered to have not come into contact with the active working face or leachate, and are considered uncontaminated stormwater runoff.

#### 8.18.4 Alternative Daily Cover

The Skyline Landfill is authorized to use alternative daily cover (ADC) in accordance with §330.165(d). The ADC is limited to a 24-hour period after which either waste or daily cover, as defined in §330.165(a) and applied as described in Section 8.18.2 of this SOP, must be placed. The authorized ADC materials and placement procedures are included in Appendix IVF – Alternative Daily Cover Operating Plan.

The Skyline Landfill may request a temporary authorization to use additional types of alternative daily cover material in accordance with §305.62(k)(1)(A).

#### 8.18.5 Temporary Waiver

The Skyline Landfill does not anticipate requesting a waiver from the cover requirements of §330.165(a), (c), and (d) due to extreme seasonal climatic conditions. Should the landfill decide to request a waiver due to extreme seasonal climatic conditions, the landfill will request a waiver in accordance with §330.165(e)this section.

#### 8.18.6 Final Cover

Final cover placement over individual areas will be in accordance with Part III, Attachment H - Closure Plan and will permit ongoing landfilling operations to continue until the time of final closure. Surface water will be managed throughout the active life of the site to minimize infiltration into the filled areas and to minimize contact with solid waste. Erosion of final or intermediate cover will be repaired promptly by restoring the cover material, grading, compacting, and seeding it as necessary. Such periodic inspections and restorations are required during the entire operational life and for the postclosure maintenance period. Refer to Section 8.26 of this SOP for a site inspection and maintenance schedule.

In general, final cover placement over completed portions of the site will consist of the following steps:

- Survey controls will be implemented to control the filling of solid waste to the bottom level of the daily/intermediate cover layer elevation.
- The final cover system layers will be constructed. Testing of the various components of the final cover system will be performed in accordance with Part III, Attachment D8 – Final Cover Quality Control Plan.

- A final cover certification report complete with an as-built survey will be prepared by an independent registered professional engineer and submitted to the TCEQ for approval.
- The TCEQ-approved final cover certification report will be maintained in the site operating record, and the cover inspection record as described in Section 8.18.8 will be updated to reflect the area where final cover has been placed. The TCEQ region office will also be notified that final cover placement has occurred at the site.

#### 8.18.7 Erosion of Cover

The landfill will inspect intermediate cover at the site on a weekly basis and within 24 hours of a rainfall event of 0.5 inches or more. During the active life of the site, the landfill will inspect the final cover system on a weekly basis and within 24 hours of a rainfall event of 0.5 inches or more. The final cover system, including the erosion control structures (drainage swales and chutes), will be maintained during and after construction. Erosion gullies or washed-out areas will be repaired within five days of detection if they are deep enough (greater than 4 inches) to jeopardize the final or intermediate cover. Repair of final cover includes restoring cover, grading, compacting, and seeding as required. Should additional time be required for repairs due to weather related delays, the landfill will request from the TCEQ regional office approval of an alternate schedule. Documentation of weather delays for the repairs will be included in the cover inspection record. Inspections and restorations are required during the entire operational life and for the post-closure maintenance period of the landfill. Documentation of dates of inspections, detection of erosion, and completion of repairs are required in accordance with Section 8.18.8 - Cover Inspection Record. Refer to Section 8.26 for a site inspection and maintenance schedule.

Postclosure care inspection and repair procedures of the final cover are outlined in Part III, Attachment I - Postclosure Plan.

# 8.18.8 Cover Inspection Record

Throughout the landfill operation, a cover inspection record will be maintained and be readily available for inspection in accordance with §330.165(h). For daily, alternative daily cover, and intermediate cover, the record will specify the date cover was accomplished (no exposed waste), area covered (by use of the grid system), how it was placed, and when it was completed. For final cover, the record will show the final cover area completed, date cover was applied, and thickness of final cover. The final cover certification report for each area will be referenced in the record. Each entry in the record will be certified by the signature of the landfill manager or designee that the work was accomplished as stated in the record. The cover inspection record will document inspections required under Section 8.18.7 – Erosion of Cover and §330.165(g), including findings and corrective action taken.

#### 8.19 Ponded Water

The Skyline Landfill will prevent ponding of water over areas that have received waste through site operations including grading and maintenance. The Ponded Water Plan provides direction to the landfill operations for the prevention and elimination of ponded water. The Ponded Water Plan follows:

- The landfill will place daily cover, intermediate cover, and final cover in accordance with requirements established in Section 8.18 – Landfill Cover.
- The landfill will inspect the surface of areas that have received waste and landfill cover weekly consistent with 8.18 – Landfill Cover and Section 8.26 – Site Inspection and Maintenance Schedule.
- Site grading and maintenance as required by Section 8.18 will minimize the ponding of water over areas containing waste.
- Should ponding of water occur, the depressions will be filled in and regraded within seven days of the occurrence, weather permitting. Landfill cover will be repaired consistent with procedures specified in Section 8.18.
- Diversion berms are constructed to direct uncontaminated water away from the active working face. Should ponding of water occur behind the diversion berms, depressions will be filled in and regraded within seven days of the occurrence, weather permitting.
- Diversion berms and containment berms are constructed and maintained at the active working face to minimize contaminated water within the active working face in accordance with Part III, Attachment D6 – Leachate and Contaminated Water Plan.
- If the ponded water has come into contact with waste, or waste contaminated soils, it will be treated as contaminated water and handled in accordance with Part III, Attachment D6 – Leachate and Contaminated Water Management Plan.

# 8.20 Disposal of Special Wastes

Special wastes, as defined in §330.3, may be accepted for disposal at the facility in accordance with §330.171(b) and (c). Special wastes shall be accepted at the site in accordance with Appendix IVB – Special Waste Acceptance Plan. The special wastes that will be accepted at the site and handling procedures are discussed in Appendix IVB.

# 8.21 Disposal of Industrial Wastes

Industrial waste (nonhazardous) is defined by §330.3 as solid waste resulting from or incidental to any process of industry or manufacturing, mining, or agricultural operations.

Class 2 and Class 3 industrial solid wastes will be accepted consistent with the procedures outlined in Appendix IVB — Special Waste Acceptance Plan, provided disposal of these wastes does not interfere with proper operation of the facility.

Class 1 industrial solid waste requiring executive director approval pursuant to §330.173 will not be accepted, except Regulated Asbestos Containing Material (RACM) that has been designated Class 1 industrial solid waste due to its asbestos content, which will be accepted in accepted in accordance with the procedures in Section 8.20.1. RACM will be accepted for disposal. Refer to Appendix IVC – Regulated Asbestos-Containing Material Plan for handling practices of RACM during disposal operations. Refer to Section 5 – Detection and Prevention of Disposal of Prohibited Wastes, Section 8.2 – Unloading of Waste, and Appendix IVB – Special Waste Acceptance Plan for waste screening procedures.

RACM will be accepted for disposal. Refer to Appendix IVC - Regulated Asbestos-Containing Material Plan for handling practices of RACM during disposal operations.

# 8.22 Visual Screening of Deposited Waste

The Skyline Landfill is located within the city limits of Ferris, Texas to the north and west of residential areas. The Skyline Landfill has constructed screening berms along the south and west sides of the site to provide visual screening of the waste disposal activities. Refer to the site layout plans for the location of the berm. Natural screening is provided by Ten Mile Creek along the northern permit boundary. The Southern Pacific Railroad provides screening from Interstate Highway 45 east of the permit boundary. Existing topography and vegetation provide natural screening of deposited waste.

Visual screening of deposited waste is provided as part of normal waste disposal operations and sequence of development. As the landfill is developed above ground, final cover will be constructed as the landfill reaches final contours.

# 8.23 Leachate and Gas Condensate Recirculation

The Skyline Landfill may recirculate leachate and landfill gas condensate in accordance with Part III, Attachment D6 – Leachate and Contaminated Water Management Plan.

# 8.24 Contaminated Water Discharge

The Skyline Landfill will take all steps necessary to control and prevent the discharge of contaminated water from the facility. Should the discharge of contaminated water become necessary, the landfill will obtain specific written authorization from the TCEQ prior to discharge. All water coming in contact with waste or contaminated soils will be treated as contaminated water. Runon and runoff for the 25-year, 24-hour storm event will be controlled following the procedures set forth in Part III, Attachment D6 – Leachate and Contaminated Water Management Plan. The landfill will be operated consistent

with §330.15(h)(1)-(4) regarding discharge of solid wastes or pollutants into waters of the United States.

# 8.25 Storage and Processing Unit Operations

#### 8.25.1 Large Item Storage

A storage area for large items and white goods may be provided near the active working face. Large items and white goods include ovens, dishwashers, freezers, air conditioners, and other large items. These items will be recycled every 180 days or less or disposed of at the working face within 180 days of acceptance at the facility. The procedures for the acceptance, storage, processing, and disposal of large items are addressed in Section 8.9. The large item storage area is located within the landfill footprint as shown on Part II, Attachment B, Drawing B.2.

Surface water runoff will be diverted around the large item storage area by placement of earthen diversion berms. Surface water runoff from the large item storage area will be managed as contaminated water and contained by placement of earthen containment and diversion berms to preclude discharge from this area. Containment and diversion berms will be placed consistent with Part III, Attachment D6 – Leachate and Contaminated Water Plan.

#### 8.25.2 Reusable Materials Staging Area

Inert materials such as brick, concrete, asphalt, shingles, etc., and non-inert materials such as asphalt and shingles, are often received and staged at the facility for use as roadbase materials for facility access roads and staging areas or erosion control in drainage structures. Shingles will not be used for facility access roads. The reusable materials staging area will be located above existing lined areas and will be relocated periodically as the active working face moves. The size of the stockpiles may vary depending on the amount of inert-materials received at any given time. Since these brick and concrete materials are inert, their storage will not create a public health hazard or nuisance and runon and runoff from rainfall will not be controlled in a special manner for these materials. Since asphalt and shingles are not inert materials, they will be managed in a manner that will prevent runoff of contaminated water, discharge of waste and creation of nuisance conditions. Also, sSince these inert and non-inert materials will continuously be reused for site operations, there is no time limit on the storage of these materials.

A recyclable materials storage and staging area is provided for source-separated recyclable materials, including shingles and other materials. The items collected will be received, managed, and stored in accordance with 30 TAC Chapter 328 – Waste Minimization and Recycling and §330.209(b). The reusable materials staging area is located within the landfill footprint as shown on Part III, Attachment B, Drawing B.2.

#### 8.25.3 Citizen's Convenience Area

A citizen's convenience area for waste drop-off is located within the site entrance facilities, as shown in Part III, Attachment D1B, Drawing D1.5B.3. Thirty to forty cubic yard roll-off containers as well as containers for recycled goods may be provided. Roll-off containers will be emptied at the active working face or covered with a tarp at the end of each day.

An area for citizen recyclables drop-off boxes may be provided outside the citizen disposal facility for drop-off of source-separated recyclable materials. Recyclable materials will be collected and stored in closed containers. The items collected will be received, managed, and stored in accordance with 30 TAC Chapter 328 – Waste Minimization and Recycling and §330.209(b).

#### 8.25.4 Leachate Storage Facility

Primary leachate storage will be provided by the leachate sumps, which are located within each landfill cell. Leachate will be pumped from the sumps through a leachate forcemain to a direct connection to publicly owned treatment works (POTW). Existing storage tanks provide temporary leachate storage in the event that the direct connection to the POTW is not functional. The leachate storage facility is located near the maintenance facility, as shown in Part III, Attachment D1B, Drawing D1.5B.3. The storage facility consists of one 24,500-gallon storage tank and one 17,000-gallon storage tank. The calculations in Part III, Attachment D6, Appendix D demonstrate that the secondary containment area provides containment, with 6 inches of freeboard, for the leachate storage tanks and precipitation from the 25-year, 24-hour storm event.

#### 8.25.5 Bioremediation Treatment Pad

A bioremediation treatment pad for petroleum contaminated materials is located within the future waste fill area, as shown in Part III, Attachment D1B, Drawing D1.5B.2. The treatment pad is constructed with a minimum 18-inch-thick compacted clay liner and is surrounded by a compacted clay containment berm. The containment berm is sized for precipitation from the 25-year, 24-hour storm event. Water that comes into contact with the contaminated soils will be handled as contaminated water, as discussed in Part IV – Site Operating Plan, Appendix IVD – Bioremediation Treatment Plan. Treatment procedures, testing requirements and material disposal are described in Part IV – Site Operating Plan, Appendix IVD – Bioremediation Treatment Plan.

#### 8.25.6 Mud-Grate Facility

The mud-grate facility is a concrete structure with a series of metal grates that function as mud removal devices. Vehicles drive across the mud-grate facility and mud from vehicle tires drops down through the mud grate into a mud box. The accumulated mud will be periodically removed from the mud box and placed in the active working face. The mud-grate facility provides mud removal from vehicles to prevent tracking of mud onto the entrance road or Business 45. The mud-grate facility is located near the

<u>leachate storage facility on the south side of the entrance road as shown on Part III, Attachment B, Drawing B.3.</u>

#### 8.25.7 Liquid Stabilization Facility

The facility may operate a portable metal solidification basin(s) placed within the landfill footprint in an existing lined cell facilityas shown on Part III, Attachment B, Drawing B.2. The facility may receive material requiring solidification. Trucks will discharge directly into the portable basin. Materials suitable for mixing will be materials acceptable for disposal including lime, fly ash, cement kiln dust, Portland cement, sawdust, dirt, or auto fluff. Any combination of these materials may be used for liquid stabilization. Mixing will be accomplished with a backhoe or other appropriate machinery. Each batch of stabilized material will be tested for free liquids in accordance with Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication Number SW-846), as amended. Upon verification of the stabilized material passing the paint filter test, the mixture will be removed from the basin and deposited in the active face for landfilling on the day it is received and will not be stored within a portable metal solidification basin placed within an existing lined cell. The procedures for acceptance, processing, odor control, and stabilizing liquid wastes accepted at the facility are included in Part IV - Site Operating Plan, Appendix IVE - Liquid Stabilization Plan.

# 8.26 Site Inspection and Maintenance Schedule

| ITEM                                     | TASK                                                                                                                                             | L                                                                                                                                                                                                                                                                |                                 |                                          |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------|
| Fence/Gate                               |                                                                                                                                                  | rrequency                                                                                                                                                                                                                                                        | Inspector                       | Type of Inspection                       |
|                                          | rispect perimeter tence and gate for damage. Make repairs if necessary.                                                                          | Bi-monthlyTwice per month (An unofficial inspection of the perimeter fence and gate will also be conducted while policing for windblown waste, but the official detailed inspection of the perimeter fence and gate will be conducted bi-monthlytwice per month) | Landfill Manager or<br>Designee | Document in the Site<br>Operating Record |
| Windblown<br>Waste                       | Police working fence area, wind fences, access roads, entrance area, and perimeter fence for loose trash. Clean up as necessary.                 | Daily                                                                                                                                                                                                                                                            | Landfill Manager or<br>Designee | Document in the Site<br>Operating Record |
| Waste Spilled<br>on Route to the<br>Site | Police the entrance area and all roads at least 2 miles from the site entrance for loose trash. Clean up as necessary.                           | Daily                                                                                                                                                                                                                                                            | Landfill Manager or<br>Designee | Document in the Site<br>Operating Record |
| 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 Manager or<br>Designee | Document in the Site<br>Operating Record |
| Site Access<br>Road                      | Inspect site access road for damage from vehicle traffic, erosion, or excessive mud accumulation. Maintain as needed with crushed rock or stone. | Weekly – more often during wet weather or extended dry weather periods. Monthly regrading or more frequently in wet weather.                                                                                                                                     | Landfill Manager or<br>Designee | Document in the Site<br>Operating Record |
| Daily Cover                              | Inspect for proper placement, thickness, and compaction. Correct problems as needed.                                                             | Daily at the active face. All daily cover areas will be inspected within 24 hours of a rainfall event of 0.5 inches or more.                                                                                                                                     | Landfill Manager or<br>Designee | Document in the Site<br>Operating Record |
| Intermediate<br>Cover                    | Inspect for proper placement, thickness, erosion, compaction and for presence of waste or other contamination. Correct problems as needed.       | Weekly and within 24 hours of a rainfall event of 0.5 inches or more. Repair erosion within five days of detection.                                                                                                                                              | Landfill Manager or<br>Designee | Document in the Site<br>Operating Record |
|                                          |                                                                                                                                                  |                                                                                                                                                                                                                                                                  |                                 |                                          |

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