



# Texas Commission on Environmental Quality

## Waste Permits Division Correspondence

### Cover Sheet

Date: September 21, 2023

Facility Name: Williamson County Recycling and Disposal Facility

Permit or Registration No.: 1405B

Nature of Correspondence:

☒ Initial/New

☐ Response/Revision to TCEQ Tracking No.: \_\_\_\_\_ (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

**Table 1 - Municipal Solid Waste Correspondence**

| Applications                                                             | Reports and Notifications                                           |
|--------------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> New Notice of Intent                            | <input type="checkbox"/> Alternative Daily Cover Report             |
| <input type="checkbox"/> Notice of Intent Revision                       | <input type="checkbox"/> Closure Report                             |
| <input type="checkbox"/> New Permit (including Subchapter T)             | <input type="checkbox"/> Compost Report                             |
| <input type="checkbox"/> New Registration (including Subchapter T)       | <input type="checkbox"/> Groundwater Alternate Source Demonstration |
| <input type="checkbox"/> Major Amendment                                 | <input type="checkbox"/> Groundwater Corrective Action              |
| <input type="checkbox"/> Minor Amendment                                 | <input type="checkbox"/> Groundwater Monitoring Report              |
| <input type="checkbox"/> Limited Scope Major Amendment                   | <input type="checkbox"/> Groundwater Background Evaluation          |
| <input checked="" type="checkbox"/> Notice Modification                  | <input type="checkbox"/> Landfill Gas Corrective Action             |
| <input type="checkbox"/> Non-Notice Modification                         | <input type="checkbox"/> Landfill Gas Monitoring                    |
| <input type="checkbox"/> Transfer/Name Change Modification               | <input type="checkbox"/> Liner Evaluation Report                    |
| <input type="checkbox"/> Temporary Authorization                         | <input type="checkbox"/> Soil Boring Plan                           |
| <input type="checkbox"/> Voluntary Revocation                            | <input type="checkbox"/> Special Waste Request                      |
| <input type="checkbox"/> Subchapter T Disturbance Non-Enclosed Structure | <input type="checkbox"/> Other:                                     |
| <input type="checkbox"/> Other:                                          |                                                                     |

**Table 2 - Industrial & Hazardous Waste Correspondence**

| Applications                                              | Reports and Responses                                         |
|-----------------------------------------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> New                              | <input type="checkbox"/> Annual/Biennial Site Activity Report |
| <input type="checkbox"/> Renewal                          | <input type="checkbox"/> CPT Plan/Result                      |
| <input type="checkbox"/> Post-Closure Order               | <input type="checkbox"/> Closure Certification/Report         |
| <input type="checkbox"/> Major Amendment                  | <input type="checkbox"/> Construction Certification/Report    |
| <input type="checkbox"/> Minor Amendment                  | <input type="checkbox"/> CPT Plan/Result                      |
| <input type="checkbox"/> CCR Registration                 | <input type="checkbox"/> Extension Request                    |
| <input type="checkbox"/> CCR Registration Major Amendment | <input type="checkbox"/> Groundwater Monitoring Report        |
| <input type="checkbox"/> CCR Registration Minor Amendment | <input type="checkbox"/> Interim Status Change                |
| <input type="checkbox"/> Class 3 Modification             | <input type="checkbox"/> Interim Status Closure Plan          |
| <input type="checkbox"/> Class 2 Modification             | <input type="checkbox"/> Soil Core Monitoring Report          |
| <input type="checkbox"/> Class 1 ED Modification          | <input type="checkbox"/> Treatability Study                   |
| <input type="checkbox"/> Class 1 Modification             | <input type="checkbox"/> Trial Burn Plan/Result               |
| <input type="checkbox"/> Endorsement                      | <input type="checkbox"/> Unsaturated Zone Monitoring Report   |
| <input type="checkbox"/> Temporary Authorization          | <input type="checkbox"/> Waste Minimization Report            |
| <input type="checkbox"/> Voluntary Revocation             | <input type="checkbox"/> Other:                               |
| <input type="checkbox"/> 335.6 Notification               |                                                               |
| <input type="checkbox"/> Other:                           |                                                               |



September 21, 2023

Ms. Megan Henson  
MSW Permits Section Manager  
Texas Commission on Environmental Quality  
P.O. Box 13087- MC 124  
Austin, Texas 78711-3087

Re: Municipal Solid Waste – Williamson County Landfill  
Williamson County Recycling & Disposal Facility – MSW Permit No. 1405B  
Permit Modification Request – Site Operating Plan and Soil and Liner Quality Control Plan  
RN 100225754; CN 600897888  
CEC Project No. 324-403

Dear Ms. Henson:

Civil & Environmental Consultants, Inc., (CEC), is pleased to submit this Permit Modification request on behalf of Waste Management of Texas, Inc. (WMTX), for the Williamson County Recycling & Disposal Facility in Hutto, Texas.

The specific changes requested in this modification are (i) to update the Site Operating Plan (SOP) to provide provisions for sorting and recovery of beneficial materials from the incoming Construction & Demolition (C&D) waste stream and (ii) to update the Soil and Liner Quality Control Plan (SLQCP) to include current industry standard ASTM test methods for leachate gravel and geocomposites.

This modification proposes to revise the following sections of the facility's permit application document:

Part IV-Site Operating Plan (SOP):

The SOP was revised to include the provisions for sorting and recovery of beneficial materials from the incoming Construction & Demolition (C&D) waste stream. This activity is currently authorized in the permit in Section 4.6 of the SOP, but no details were provided related to operational practices to be employed. An appendix (i.e., Appendix C) for C&D Sorting and Recycling Plan has been added to the SOP to provide additional operational details.

Part III, Attachment 10 - Soil and Liner Quality Control Plan (SLQCP):

Section 4.3 was revised to include the current industry standard ASTM test for calcium carbonate content (i.e., ASTM D 3042), and Page III-A10-52 was revised to include the

Ms. Megan Henson  
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current industry standard tests for geocomposites, including the geonet component of the geocomposite in accordance with the Site Development Plan (SDP).

Except as discussed in this request, this modification will not impact any other aspects of the site permit documents. This modification is requested as a non-notice modification in accordance with 30 TAC §305.70(1). A signed certification for this request is also attached and the required modification fee has been paid and the receipt is included in this submittal.

Please find enclosed an original plus two (2) copies of this modification request including the redline/strikeout pages.

Thank you for your assistance with the review of this request and please contact us if you require any additional information.

Very truly yours,

**CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**  
**Texas Registered Engineering Firm F-38**



Zahirul Islam, Ph.D., P.E.  
Principal



Adam Mehevec, P.E.  
Vice President

cc: Honorable Judge Bill Gravell, Jr., Williamson County  
Mr. James Smith, WMTX  
Mr. Jayson Lang, WMTX

**Attachments**

- Permit Modification Application Form
- 1 – Redline Version of Revised SOP and SLQCP pages
- 2 – Clean Version of SOP and SLQCP pages
- 3 – Fee Payment Receipt



## Texas Commission on Environmental Quality

### Application Form for Municipal Solid Waste Permit or Registration Modification or Temporary Authorization

#### Application Tracking Information

Facility Name: Williamson County Recycling & Disposal Facility

Permittee or Registrant Name: Williamson County

MSW Authorization Number: 1405B

Initial Submission Date: 9/21/2023

Revision Date: \_\_\_\_\_

Instructions for completing this form are provided in [form TCEQ-20650-instr<sup>1</sup>](#). If you have questions, contact the Municipal Solid Waste Permits Section by email to [mswper@tceq.texas.gov](mailto:mswper@tceq.texas.gov), or by phone at 512-239-2335.

#### Application Data

##### 1. Submission Type

☒ Initial Submission ☐ Notice of Deficiency (NOD) Response

##### 2. Authorization Type

☒ Permit ☐ Registration

##### 3. Application Type

☐ Modification with Public Notice ☒ Modification without Public Notice

☐ Temporary Authorization (TA) ☐ Modification for Name Change or Transfer

##### 4. Application Fee

###### Amount

The application fee for a modification or temporary authorization is \$150.

###### Payment Method

☐ Check

☒ Online through ePay portal [www3.tceq.texas.gov/epay/](http://www3.tceq.texas.gov/epay/)

If paid online, enter ePay Trace Number: 582EA000517099

<sup>1</sup> [www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20650-instr.pdf](http://www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20650-instr.pdf)

**5. Application URL**

For modifications that require notice (other than those for arid exempt landfills), provide the URL address of a publicly accessible internet web site where the application and all revisions to the application will be posted:

Not Applicable

**6. Party Responsible for Mailing Notice**

For modifications that require notice, indicate who will be responsible for mailing notice:

☐ Applicant

☐ Agent in Service

☐ Consultant

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Email Address: \_\_\_\_\_

**7. Confidential Documents**

Does the application contain confidential documents?

☐ Yes ☒ No

If "Yes", reference the confidential documents in the application, but submit the confidential documents as an attachment in a separate binder marked "CONFIDENTIAL."

**8. Facility General Information**

Facility Name: Williamson County Recycling & Disposal Facility

Contact Name: Bill Gravell, Jr.

Title: Williamson County Judge

MSW Authorization Number (if existing): 1405B

Regulated Entity Reference Number: **RN** 100225754

Physical or Street Address: 600 Landfill Road

City: Hutto

County: Williamson

State: TX

Zip Code: 78634

Phone Number: 512-759-8881

Latitude (Degrees, Minutes Seconds): 29.40

Longitude (Degrees, Minutes Seconds): 95.72

**9. Facility Types**

☒ Type I

☐ Type IV

☐ Type V

☐ Type IAE

☐ Type IVAE

☐ Type VI

## 10. Description of the Revisions to the Facility

Provide a brief description of revisions to permit or registration conditions and supporting documents referred to by the permit or registration, and a reference to the specific provisions under which the modification or temporary authorization application is being made. Also, provide an explanation of why the modification or temporary authorization is needed:

The specific changes requested in this modification are (i) to update the Site Operating Plan (SOP) to provide provisions for sorting and recovery of beneficial materials from the incoming Construction & Demolition (C&D) waste stream and (ii) to update the Soil and Liner Quality Control Plan (SLQCP) to include current industry standard ASTM test methods for leachate gravel and geocomposites.

## 11. Facility Contact Information

### Site Operator (Permittee or Registrant)

Name: Williamson County

Customer Reference Number: **CN** 600127856

Contact Name: Bill Gravell, Jr.

Title: Williamson County Judge

Mailing Address: 710 S. Main Street, Suite 101

City: Georgetown

County: Williamson

State: TX

Zip Code: 78626

Phone Number: 512-943-1550

Email Address: ctyjudge@wilco.org

Texas Secretary of State (SOS) Filing Number: \_\_\_\_\_

### Operator (if different from Site Operator)

Name: \_\_\_\_\_

Customer Reference Number: **CN** \_\_\_\_\_

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_

County: \_\_\_\_\_

State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Texas Secretary of State (SOS) Filing Number: \_\_\_\_\_

**Consultant (if applicable)**Firm Name: Civil & Environmental Consultants, Inc.Consultant Name: Zahirul Islam, Ph.D., P.E.Texas Board of Professional Engineers Firm Registration Number: F-38Contact Name: Zahirul Islam, Ph.D., P.E. Title: PrincipalMailing Address: 1221 S. MoPac Expressway, Suite 350City: Austin County: Travis State: TX Zip Code: 78746Phone Number: 512-439-0400Email Address: zislam@cecinc.com**Agent in Service (required for out-of-state applicants)**

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: TX Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

**12. Ownership Status of the Facility**

Is this a modification that changes the legal description, the property owner, or the Site Operator (Permittee or Registrant)?

☐ Yes ☒ No

If the answer is "No", skip this section.

Does the Site Operator (Permittee or Registrant) own all the facility units and all the facility property?

☒ Yes ☐ No

If "No", provide the following information for other owners.

Owner Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: TX Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

## Signature Page

### Site Operator or Authorized Signatory

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

Name: Bill Gravell, Jr. Title: Williamson County Judge

Email Address: ctyjudge@wilco.org

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Operator or Principal Executive Officer Designation of Authorized Signatory

*To be completed by the operator if the application is signed by an authorized representative for the operator.*

I hereby designate \_\_\_\_\_ as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

Operator or Principal Executive Officer Name: \_\_\_\_\_

Email Address: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Notary

SUBSCRIBED AND SWORN to before me by the said \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

My commission expires on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

\_\_\_\_\_  
Notary Public in and for

\_\_\_\_\_ County, Texas

Note: Application Must Bear Signature and Seal of Notary Public

## Attachments for Permit or Registration Modification with Public Notice

Refer to instruction document **200650-instr** for professional engineer seal requirements.

**Attachments Table 1. Required attachments.**

| Required Attachments             | Attachment Number |
|----------------------------------|-------------------|
| Land Ownership Map               |                   |
| Landowners List                  |                   |
| Marked (Redline/Strikeout) Pages |                   |
| Unmarked Revised Pages           |                   |

**Attachments Table 2. Additional attachments as applicable.**

| Additional Attachments as Applicable<br>(select all that apply and add others as needed) | Attachment Number |
|------------------------------------------------------------------------------------------|-------------------|
| <input type="checkbox"/> TCEQ Core Data Form(s)                                          |                   |
| <input type="checkbox"/> Signatory Authority Delegation                                  |                   |
| <input type="checkbox"/> Fee Payment Receipt                                             |                   |
| <input type="checkbox"/> Confidential Documents                                          |                   |

## **Attachments for Permit or Registration Modification without Public Notice, or Temporary Authorization**

Refer to instruction document **200650-instr** for professional engineer seal requirements.

### ***Attachments Table 3. Required attachments for modifications.***

| <b>Required Attachments for Modification</b> | <b>Attachment Number</b> |
|----------------------------------------------|--------------------------|
| Marked (Redline/Strikeout) Pages             | 1                        |
| Unmarked Revised Pages                       | 2                        |

### ***Attachments Table 4. Additional attachments for modifications and temporary authorizations, as applicable.***

| <b>Additional Attachments as Applicable<br/>(select all that apply and add others as needed)</b> | <b>Attachment Number</b> |
|--------------------------------------------------------------------------------------------------|--------------------------|
| <input type="checkbox"/> TCEQ Core Data Form(s)                                                  |                          |
| <input type="checkbox"/> Signatory Authority Delegation                                          |                          |
| <input checked="" type="checkbox"/> Fee Payment Receipt                                          | 3                        |
| <input type="checkbox"/> Confidential Documents                                                  |                          |

## Attachments for Permit or Registration Name Change or Transfer Modification

Refer to instruction document **200650-instr** for professional engineer seal requirements.

**Attachments Table 5. Required attachments.**

| Required Attachments                  | Attachment Number |
|---------------------------------------|-------------------|
| TCEQ Core Data Form(s)                |                   |
| Property Legal Description            |                   |
| Property Metes and Bounds Description |                   |
| Metes and Bounds Drawings             |                   |
| On-Site Easements Drawing             |                   |
| Land Ownership Map                    |                   |
| Land Ownership List                   |                   |
| Property Owner Affidavit              |                   |
| Verification of Legal Status          |                   |
| Evidence of Competency                |                   |

**Attachments Table 6. Additional attachments as applicable.**

| Additional Attachments as Applicable<br>(select all that apply and add others as needed) | Attachment Number |
|------------------------------------------------------------------------------------------|-------------------|
| <input type="checkbox"/> Signatory Authority Delegation                                  |                   |
| <input type="checkbox"/> Fee Payment Receipt                                             |                   |
| <input type="checkbox"/> Confidential Documents                                          |                   |
| <input type="checkbox"/> Final Plat Record of Property                                   |                   |
| <input type="checkbox"/> Assumed Name Certificate                                        |                   |

**ATTACHMENT 1 – REDLINE PAGES**  
**(SOP AND SLQCP REDLINE PAGES)**

**SOP REDLINE PAGES**

FOR PERMIT PURPOSES ONLY

**WILLIAMSON COUNTY  
RECYCLING & DISPOSAL FACILITY  
PERMIT AMENDMENT APPLICATION MSW-1405B  
WILLIAMSON COUNTY, TEXAS**

**SITE OPERATING PLAN**

**PART IV**

Prepared for:

WILLIAMSON COUNTY  
301 S.E. Inner Loop, Suite 109  
Georgetown, Texas 78626

and

WASTE MANAGEMENT OF TEXAS, INC.  
9900 Giles Road  
Austin, Texas 78754

Prepared by:

SCS ENGINEERS  
Texas Board of Professional Engineers Registration No. F-3407  
12651 Briar Forest Dr., Suite 205  
Houston, Texas 77077

MAY 2005  
TECHNICALLY COMPLETE: FEBRUARY 2006  
REVISION 1: AUGUST 2009  
REVISION 2: OCTOBER 2009  
REVISION 3: DECEMBER 2009  
REVISION 4: JUNE 2011  
REVISION 5: MARCH 2012  
REVISION 6: DECEMBER 2015  
REVISION 7: OCTOBER 2016  
REVISION 8: AUGUST 2018  
**REVISION 9: SEPTEMBER 2023 (BY CEC, INC.)**

~~W-082418~~

IV

Submittal Date: December 2004  
Technically Complete: February 2006  
Revision ~~28109: December 2022 August 2018 Sept~~ December 2023



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Submittal Date: December 2004  
Technically Complete: February 2006  
Revision 9: December 2022/September 2023  
Revision 89: August 2018/December 2022

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|        |                                                          |                 |
|--------|----------------------------------------------------------|-----------------|
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FORMS

Example Operating Records Entry Form  
Example Waste Characterization Data Form  
Example Load Inspection Report Form  
Example Waste Discrepancy Report Form

FIGURES

Figure IV-1 Liquid Stabilization Basin Details  
Figure IVC-1 Typical C&D Sorting and Recycling Layout

APPENDICES

A Alternate Daily Cover Operating Plan  
A.1 Material Safety Data Sheets  
B Regulated Asbestos Containing Material Handling Plan

C C&D Sorting and Recycling Plan



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FOR PERMIT PURPOSES ONLY

## 1.0 INTRODUCTION

Theis Site Operating Plan (SOP) has been prepared on behalf of Waste Management of Texas, Inc. (WMTX) and consists of procedures to be followed by the landfill personnel for day-to-day operations at the Williamson County Recycling & Disposal Facility (RDF), which is permitted as a Type I Municipal Solid Waste (MSW) facility that may also receive rubbish (i.e., construction and demolition debris, and other non-putrescible wastes and special wastes). This SOP is submitted to the Texas Commission on Environmental Quality (TCEQ) solely to address the requirements of 30 TAC §330.65 and §330.121 through 179 and does not include any additional authorizations with the exception of those additional items required by the MSW rules adopted March 2006 or as required by MSW Permit 1405B dated May 6, 2009. Pursuant to §330.121, the SOP, along with the site permit, the complete site development plan, and records specified in §330.125 shall be maintained in the Site Operating Record. The Williamson County RDF shall be operated in accordance with the requirements of this SOP and other applicable local, state, or federal regulations. The SOP shall be retained for the life of the site facility to include the active life of the site and throughout the post-closure maintenance period.

All terms used in this SOP are as defined in 30 TAC §330.3, unless otherwise stated.

### 1.1 PRE-OPERATION NOTICE §330.123

The permittee shall provide written notice in the form of a Soils and Liner Evaluation Report (SLER) and/or Geomembrane Liner Evaluation Report (GLER) detailing the final construction and lining of a new disposal area or sector. The reports shall be submitted to the TCEQ for review 14 days prior to the placement of any waste. If verbal or written response from the TCEQ is not provided by the end of the 14th day following TCEQ receipt of the report(s), the operator may begin placing waste.

### 1.2 RECORDKEEPING REQUIREMENTS §330.125

A copy of the facility permit, the site development plan, the site operating plan, the final closure plan, the post-closure care plan, the landfill gas management plan, and any other required plan or other related document shall be maintained at the municipal solid waste facility.

The owner or operator shall within seven working days of completion or receipt of analytical-new data, as appropriate, place the following information in the site operating record:

W-082418

IV- 1

Submittal Date: December 2004  
Technically Complete: February 2006  
~~Revision 98: August 2018~~ September 2023

FOR PERMIT PURPOSES ONLY

- Any and all Location Restriction Demonstrations;
- Inspection records, training procedures, and notification procedures relating to excluding the receipt of prohibited waste;
- All results from gas monitoring and any remediation plans relating to explosive and other gases;
- Any and all unit design documentation for the ~~placement~~ re-circulation of leachate or gas condensate ~~into a municipal solid waste~~ the landfill;
- Any and all demonstrations, certifications, findings, monitoring, testing, and analytical data relating to groundwater monitoring and corrective action;
- Closure and post-closure care plans, and any monitoring, testing, or analytical data relating to post-closure requirements;
- Any and all cost estimates and financial assurance documentation relating to financial assurance for closure and post-closure;
- Any and all information demonstrating compliance with the small community arid exemption criteria as detailed in 30TAC§330.5(b);
- Copies of all correspondence and responses relating to the operation of the facility, modifications to the permit, approvals, and other matters pertaining to technical assistance;
- Any and all documents, manifests, shipping documents, trip tickets, etc. involving special waste;
- For any spray-applied alternative daily cover (ADC) material, records of the application rate and total amount ADC applied to the working face on those days in which ADC is applied; and
- Any other document(s) as specified by the approved permit or by the executive director.

Recordkeeping requirements and recommendations are further summarized on the table below:

**Recordkeeping Requirements and Recommendations**

| RECORDS NEEDED                                                                                                   | FREQUENCY                       | RULE CITATION          |
|------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------|
| Location Restriction Demonstrations                                                                              | Submittal of Permit Application | 330.125(b)(1)          |
| Prohibited Waste Inspection Records, Training and Receipt Notification Procedures                                | Per Occurrence                  | 330.125(b)(2)          |
| Gas Monitoring Results                                                                                           | Quarterly                       | 330.125(b)(3); 330.159 |
| Remediation Plans for Explosive and Other Gases                                                                  | Per Occurrence                  | 330.125(b)(3)          |
| Unit Design Documentation for Leachate or Gas Condensate Placement                                               | As Required                     | 330.125(b)(4)          |
| Groundwater Monitoring and Corrective Action Demonstration, Certification, Monitoring, Testing & Analytical Data | Per Occurrence                  | 330.125(b)(5)          |
| Closure and Post-Closure Care Plans                                                                              | Submittal of Permit Application | 330.125(b)(6)          |

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|                                                                                                                                      |                |                  |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|
| Post-Closure Monitoring, Testing and Analytical Data                                                                                 | Per Occurrence | 330.125(b)(6)    |
| Cost Estimates and Financial Assurance Documentation for Closure and Post-Closure                                                    | Annually       | 330.125(b)(7)    |
| Facility Operation, Permit Modification, Approvals, and Technical Assistance Correspondence & Responses                              | Per Occurrence | 330.125(b)(9)    |
| Special Waste Manifests, Trip Tickets and All Other Documents Relating to Special Waste                                              | Per Occurrence | 330.125(b)(10)   |
| Records of the Application Rate and Total Amount of of ADC Applied to the Working Face for any Spray-Applied Alternative Daily Cover | Per Occurrence | 330.125(b)(11)   |
| Other Documents Specified in the Permit or by the Executive Director                                                                 | As Needed      | 330.125(b)(12)   |
| Personnel Training Records per 335.586(d)-(e)                                                                                        | As Needed      | 330.125(e)       |
| Personnel Operator License                                                                                                           | As Needed      | 330.125(f)       |
| Annual Waste Acceptance Rate Documentation                                                                                           | Annually       | 330.125(h)       |
| Quarterly Solid Waste Summary Report                                                                                                 | Quarterly      | 330.675          |
| Annual Solid Waste Summary Report                                                                                                    | Annually       | 330.675          |
| Unauthorized Material Removal                                                                                                        | Per Occurrence | 330.133(b)       |
| Landfill Marker Inspections                                                                                                          | Weekly         | 330.143          |
| Landfill Gas Management Reports and Submittals                                                                                       | Per Occurrence | 330.159          |
| Cover Inspection Record                                                                                                              | Daily          | 330.165(h)       |
| RACM Acceptance Records                                                                                                              | Per Occurrence | 330.171(b)(3)(B) |
| Site Access Road Records                                                                                                             | Weekly         | Section 4.16     |
| Access Control Inspections and Maintenance                                                                                           | Weekly         | Section 4.5      |
| Notices for Access Control Breaches and Repairs                                                                                      | Per Occurrence | Section 4.5      |
| Fire Occurrence Notices                                                                                                              | Per Occurrence | Section 4.4      |
| Ponded Water Records                                                                                                                 | Weekly         | Section 4.23     |
| Site Inspection and Maintenance Records                                                                                              | Per Occurrence | Section 4.5      |
| Daily Log of Litter and Debris Pickup along Public Road                                                                              | Daily          | Section 4.12     |
| Additional Temporary Operating Hours                                                                                                 | As Needed      | 330.135(c)       |

The facility will maintain training records in accordance with 30 TAC 335.586(d) and (e), as follows:

1. The job title for each position at the facility related to waste management, and the name of the employee filling each job;
2. A written job description for each position listed under Paragraph (1). This description must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;
3. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (1); and
4. Records that document that the required training or job experience has been given to, and completed

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by, facility personnel.

Training records on current personnel will be kept until closure of the facility and training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

A designated manager with supervisory responsibility over the facility shall maintain a Class A operator licenses in accordance with 30 TAC 30, Subchapter F (30 TAC §30.201 to .212).

Annual Waste Acceptance Rate: The facility shall maintain records to document the annual waste acceptance rate for the facility. Documentation will include maintaining the quarterly solid waste summary reports and the annual solid waste summary reports required by 30 TAC 330.675 in the operating record. In accordance with §330.125(h), whenever the waste acceptance rate as established by the sum of the previous four quarterly summary reports exceeds the current operating rate upon which equipment and personnel staffing has been based, and the waste increase is not due to a temporary occurrence, the Landfill Manager shall make changes in personnel and equipment as specified in Table A - Williamson County RDF Waste Volume Equipment Schedule to ensure that the site personnel and equipment necessary to safely manage the waste are available. If the volume of waste increase is beyond the scope described in this permit application, an application to modify the permit, including the revised estimated waste acceptance rate within 90 days of the exceedance as established by the sum of the previous four quarterly summary reports will be submitted to the ED. The permit modification application will propose any needed changes in the site operating plan necessary to manage the increased waste volume in terms of equipment, and manpower to protect public health and the environment that are beyond the scope addressed in the current approved permit application. The increased waste acceptance rate may justify requiring permit conditions that are different from or absent in the existing permit.

Records Management System

It shall be the responsibility of the landfill manager to maintain the facility operating record. All required records will be retained in either a hard copy or electronic format in the facility operating record.

All information contained in the operating record shall be available for inspection upon request. The permittee shall retain the different plans required for the facility and all information contained within the Operating Record, for the life of the facility, including the post-closure care period.

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Documents will be added to the operating record within seven working days of completion of the item or receipt of analytical data. In accordance with §330.125(g), the executive director may set an alternate recordkeeping and notification schedule.

All operating record files that are older than five (5) years, may be stored at an alternate off-site location. The alternate off-site location will be recorded in the site operating record. Records approved for storage off-site will be made available for review within 72 hours of a request.

**2.0 PERSONNEL §330.127(1)**

The landfill personnel shall include, at a minimum, a landfill manager, two equipment operators, a gate attendant, and at least one laborer for other assigned tasks. The organizational chart at the end of this section provides the positions and chain-of-command of personnel necessary to operate the facility.

Landfill Manager

The landfill manager, or designated alternate (hereinafter referred to singularly as the landfill manager), shall be responsible for all activities at the landfill and shall be the designated contact person for regulatory compliance matters. The landfill manager shall provide onsite management of the landfill operations. The landfill manager shall have the authority and responsibility to reject unauthorized loads, require unauthorized materials to be removed by the transporter and/or assess appropriate surcharges, and have the unauthorized material removed.

The landfill manager will be responsible for ensuring compliance of day-to-day operations with Texas Commission on Environmental Quality (TCEQ) operating requirements and with the Site Operating Plan. In addition, the landfill manager will oversee all construction activities. The landfill manager will ensure adequate staffing to provide facility operation in accordance with the Site Development Plan (SDP), the SOP, and the TCEQ regulations, and will supervise equipment operators, gate attendants and laborers, and assign duties as necessary. The landfill manager will be responsible for fire protection training of landfill employees according to Section 4.4 of this plan. The landfill manager will be responsible for inspection and/or maintenance of all equipment and operating systems required under the permit (i.e., leachate collection system, methane gas collection system, etc.). The landfill manager will serve as the emergency contact and coordinator for the facility, and will be responsible for maintaining the Site Operating Record and required logs. The landfill manager must be experienced with and have the aptitude to implement operational aspects of solid waste disposal operations including knowledge of relevant regulations and

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permit requirements, waste-handling and safe management practices for disposal of municipal solid waste, health and safety, and waste identification. At a minimum, the landfill manager, will be an experienced manager and will maintain a Class A license as defined in 30 TAC §30.210.

Equipment Operator

Equipment operators shall be trained in the safe operation of landfill vehicles and heavy equipment. Duties to be performed may include spreading and compacting waste and cover soil as needed for the placement and containment of waste, maintaining access roads, establishing and maintaining stormwater drainage, excavation of soils, and construction activities in accordance with the SDP. The equipment operators shall also be responsible for daily inspection of equipment for operational and safety conditions. The equipment operators shall visually observe waste loads as they are placed to help ensure that prohibited wastes are not deposited within the unit. If prohibited wastes are observed, the equipment operators shall immediately notify the landfill manager. The equipment operators shall also assist other landfill personnel in fire protection operations, moving of litter fences, and other duties as directed by the landfill manager.

The minimum qualifications for an equipment operator include a demonstrated proficiency in the operation of heavy equipment and the ability to comprehend and implement the training included in Section 4.1, Personnel Training.

Gate Attendant

The gate attendant(s) shall be responsible for monitoring, documenting and measuring incoming waste and collection of appropriate fees. Duties may include selection of random loads for waste inspections in accordance with Section 4.2 of this plan, and directing waste loads to the appropriate disposal area(s). The gate attendant will be trained in safety procedures and the identification of prohibited wastes. If prohibited wastes are observed, the attendant shall not allow the waste into the landfill and shall immediately notify the landfill manager.

The minimum qualification for a scalehouse attendant includes a demonstrated ability to communicate with the customers and the ability to comprehend and use the scalehouse equipment (i.e., scales, computers, etc.) and the training included in Section 4.1, Personnel Training.

Laborer

Landfill laborers shall have responsibilities as directed by the landfill manager. These duties may include on and off site litter control, fire protection operations, dust control, inspection and maintenance of

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perimeter fences and gate(s) and litter fences and other duties as necessary. Appropriate training will be provided commensurate to the duties and responsibilities of the laborer(s).

The minimum qualifications for a laborer include a demonstrated ability to comprehend the training included in Section 4.1, Personnel Training.

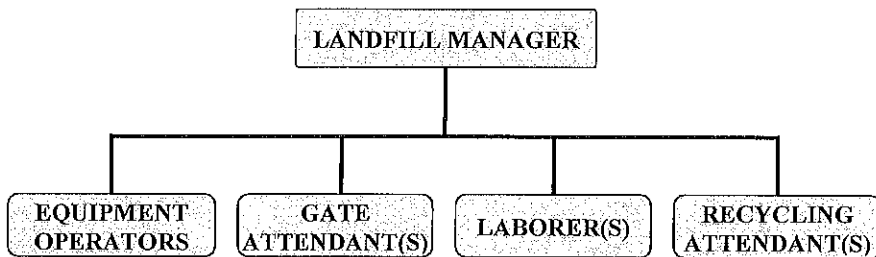
Recycling Facility Attendant

The recycling facility attendant is necessary only if the recycling facility is being operated. The recycling facility is an optional facility.

Recycling facility attendants shall have the responsibility of monitoring the incoming recyclable materials, directing the citizens to the correct drop-off locations of the recyclable materials, maintaining the recycling center, and other responsibilities as directed by the landfill manager. These duties may include on-site litter control, fire protection operations, dust control, inspection and maintenance of perimeter fences and gate(s) and other duties as necessary. Appropriate training will be provided commensurate to the duties and responsibilities of the recycling facility attendant(s).

The minimum qualifications for a recycling facility attendant include a demonstrated ability to communicate with the customers and the ability to comprehend and use the recycling facility equipment (i.e., bailer, forklift, etc.) and demonstrated ability to comprehend the training included in Section 4.1, Personnel Training.

WILLIAMSON COUNTY RECYCLING AND DISPOSAL FACILITY ORGANIZATIONAL CHART



3.0 EQUIPMENT §330.127(2)

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Heavy equipment available for day to day operations of the disposal areas shall consist of at least one landfill compactor, one dozer (Caterpillar D-8 minimum or equivalent), earth moving equipment (621E Caterpillar Scraper minimum or equivalent or excavator and dump truck(s)), one motor grader (CAT FG 85 or equivalent) and a water truck. When major repairs to heavy equipment are needed, the landfill operator or contractors will make additional equipment of similar size and function available.

The landfill compactor shall be a wheeled compactor with a minimum weight of 40,000 pounds with appropriate cleats for sufficient compaction of wastes. The dozer shall be capable of spreading MSW waste and soils for cover, and performing construction maintenance of on-site roads. The water truck shall be used for spreading water for dust control and fire prevention/protection. The earth moving equipment (i.e., loader and dump truck and/or scraper) shall be capable of moving sufficient volumes of soil as necessary. For additional information regarding the number, size, and capacities of the equipment, see Table A, Williamson County RDF Waste Volume Equipment Schedule. In addition to the required equipment listed in the table below, miscellaneous pickups, and/or other light utility vehicles as well as various portable water pumps, instruments, and safety and training equipment will be on-site as necessary. The pickup truck shall be used to haul landfill personnel within the site to conduct site duties and collect wind blown and spilled litter (both on and off site). The portable pump shall be used for pumping stormwater from excavations and from ponded areas.

The optional recycling center may have a bailer, fork lift and/or front end loader at the facility's option.

**TABLE A**  
**Williamson County RDF**  
**Waste Volume Equipment Schedule**

|           | Waste Acceptance Rate (Tons Per Day) |                             |                              |                                | Minimum Size                        | Function                                                                                                      |
|-----------|--------------------------------------|-----------------------------|------------------------------|--------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------|
|           | 0 - 1940<br>(yrs 1 - 8)              | 1941 - 2981<br>(yrs 9 - 21) | 2982 - 5821<br>(yrs 22 - 40) | 5822 - 6753<br>(years 41 - 45) |                                     |                                                                                                               |
| Compactor | 1                                    | 2                           | 3                            | 4                              | CAT 836 or equivalent               | Waste and soil spreading and compaction                                                                       |
| Dozer     | 1                                    | 2                           | 3                            | 4                              | CAT D8 or equivalent                | Waste spreading, soil spreading and compaction                                                                |
| Scraper   | 1                                    | 2                           | 2                            | 2                              | 10 to 20 cy capacity, various makes | Transportation of cover soil, excavation of new cells ( <u>may be replaced by excavator and dump trucks</u> ) |
| Excavator | 1                                    | 1                           | 1                            | 1                              | Various makes                       | Excavation of new cells (in tandem with dump truck(s), instead of scraper)                                    |

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|                          |   |           |           |           |                                     |                                                                                                                  |
|--------------------------|---|-----------|-----------|-----------|-------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Dump Truck               | 1 | 2 or more | 2 or more | 2 or more | 10 to 15 cy capacity, various makes | Transportation of cover soil (in tandem with <del>dump truck</del> <del>excavator(s)</del> , instead of scraper) |
| Maintainer               | 1 | 1         | 1         | 1         | Various makes                       | Grading of access roads                                                                                          |
| Water Truck              | 1 | 1         | 1         | 1         | 2,000 gallon, various makes         | Dust control, fire fighting support                                                                              |
| Temporary Litter Fencing | 1 | 1         | 2         | 2         | 200 feet four feet high             | Active face litter control                                                                                       |
| Rotary Broom             | 1 | 1         | 1         | 1         |                                     | Sweep roads                                                                                                      |

- Notes:
1. The years shown under the waste acceptance rates are based on the following assumptions:
    - a. Volumes are calculated by the combined efforts of a D8 dozer and an 836 Compactor handling 215.6 tons per hour.
    - b. The tons per day are based on a 9 hour work day.
  2. Daily waste acceptance rates used to estimate equipment and manpower needs are based on historic annual waste acceptance rate determined by the sum of the previous 4 consecutive quarters divided by the number of days the site was open during the previous 4 consecutive quarters.

See also section 4.4.2 Fire Protection Plan, Operating Standards for additional equipment requirements.

#### 4.0 GENERAL INSTRUCTIONS §330.127(3)

The operational procedures outlined in this SOP will be followed and will be considered a part of the operating record of this MSWLF facility. This facility is designed for Type I MSW disposal and consists of separate phases. Each phase will be constructed as the operations advance.

Operations will be conducted in a professional manner by qualified and trained personnel. Operational objectives will consist of placing the maximum amount of waste in a specified area, and operating the site in compliance with the TCEQ regulations, the site permit, and the SOP.

The following Facility Operations, Inspection, and Maintenance listing includes general instructions that the operating personnel will follow concerning the operational requirements of the facility.

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| DESCRIPTION OF ACTIVITY                         | TASK                                                                                                                                        | FREQUENCY                                                                                                                                                                                       | INSPECTOR                    | INSPECTION DOCUMENTATION                                                                          |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| Entrance Gate and Perimeter Fences              | Conduct gate and perimeter fence inspection for any breach that has occurred. If breach occurs, follow procedures specified in Section 4.5. | Weekly                                                                                                                                                                                          | Landfill Manager or Designee | Note status on Access Inspection Log, maintain in SOR                                             |
| Cover Application Record                        | Record date of cover, how it was accomplished, and the last area covered, according to 330.165.                                             | Daily                                                                                                                                                                                           | Landfill Manager or Designee | Document all cover application, sign form and maintain as part of SOR                             |
| Perimeter Drainage Channel and Pond Maintenance | Inspect channels for litter and debris, clear flowline. Inspect detention ponds for damage.                                                 | Daily                                                                                                                                                                                           | Landfill Manager or Designee | Document, maintain as part of SOR                                                                 |
| Random Load Inspection                          | Conduct inspection of selected vehicle to ensure that no unauthorized wastes are in the load.                                               | Daily as specified in Section 4.2.3                                                                                                                                                             | Landfill Manager or Designee | Place completed Random Load Inspection Report in SOR                                              |
| Unauthorized Material Removal                   | Document removal of unauthorized materials from the landfill.                                                                               | Per Occurrence                                                                                                                                                                                  | Landfill Manager or Designee | Complete Unauthorized Material Removal form and place in SOR                                      |
| Leachate Collection System                      | Measure depth of leachate in sumps, storage tanks, and record volume of leachate removed from site.                                         | Quarterly, monthly, or more frequently as necessary to maintain levels compliant with permit conditions and as described in the Site Development Plan, Section 3.2, Leachate Collection System. | Landfill Manager or Designee | Complete documentation and place in SOR                                                           |
| Paint Filter Test                               | Conduct paint filter test on each basin of stabilized materials                                                                             | Per Occurrence                                                                                                                                                                                  | Landfill Manager or Designee | Maintain paint filter test log as part of SOR                                                     |
| Final Cover Inspection                          | Inspect final cover for erosion, damage to drainage structures.                                                                             | Weekly and after a rainfall event resulting in runoff                                                                                                                                           | Landfill Manager or Designee | Complete documentation and place in SOR                                                           |
| On-site Litter Collection                       | Inspect site for litter. Collect litter on a daily basis and return to the working face for proper disposal.                                | Daily                                                                                                                                                                                           | Landfill Manager or Designee | Complete documentation and place in SOR                                                           |
| Mud and Debris Cleaned from Public Roads        | Inspect public roads for evidence of mud and debris tracked from the site                                                                   | Daily during periods of inclement weather                                                                                                                                                       | Landfill Manager or Designee | Complete documentation and place in SOR                                                           |
| Fire Extinguishers/Fire Fighting Equipment      | Inspect all fire extinguishers and/or fire fighting equipment, promptly repair or replace defective equipment.                              | Annually                                                                                                                                                                                        | Landfill Manager or Designee | Properly mark tags on fire extinguishers, document results of equipment inspections, place in SOR |
| Markers and Benchmarks                          | Inspect markers and benchmark for damage. Replace removed or destroyed markers within 15 days of removal or destruction.                    | Monthly                                                                                                                                                                                         | Landfill Manager or Designee | Complete documentation and place in SOR                                                           |
| Roadway Regrading                               | Inspect on site access roadways to                                                                                                          | Monthly                                                                                                                                                                                         | Landfill Manager             | Complete documentation                                                                            |

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|              | ensure a clean and safe condition                                                                            |        | or Designee                  | and place in SOR                        |
|--------------|--------------------------------------------------------------------------------------------------------------|--------|------------------------------|-----------------------------------------|
| Site Signs   | Inspect all site signs for damage, general location, and accuracy of posted information                      | Weekly | Landfill Manager or Designee | Complete documentation and place in SOR |
| Odor         | Inspect the perimeter of the site to assess the performance of site operations to control odor               | Daily  | Landfill Manager or Designee | Document and maintain as part of SOR    |
| Ponded Water | Inspect site for potential ponding of water and ponded water. Fill and grade low areas as soon as practical. | Weekly | Landfill Manager or Designee | Complete documentation and place in SOR |

#### 4.1 PERSONNEL TRAINING §330.127(4)

It will be the responsibility of the permittee to ensure that the landfill manager at the site is knowledgeable in the proper operation of a municipal solid waste landfill and the current operational standards required by the TCEQ. The landfill manager will be an experienced manager and will maintain the required license as defined in 30 TAC §30.210. It will be the responsibility of the landfill manager to ensure that all landfill personnel are properly trained and are operating the landfill in accordance with this SOP and operational standards required by the permit and the TCEQ municipal solid waste regulations.

Training for personnel will be ongoing and will be directed by a person trained in waste management procedures. Facility personnel will be instructed in the required waste management procedures, including contingency plan implementation, relevant to the positions in which they are employed. At a minimum, the training program will ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

- Procedures for notifying appropriate personnel in the event of an emergency
- Training in use of facility emergency response and monitoring equipment;
- Communications or alarm systems;
- Training in response to fires or explosions, hot loads, hazardous weather conditions, etc.; and
- Shutdown of operations.
- New employees will receive a comprehensive overview of landfill operations and specific training commensurate with their position, focusing on information that is necessary to protect the health and welfare of the new employee and enable them to perform their duties in accordance with this SOP, the operational standards required by the permit and the TCEQ municipal solid waste regulations.

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Following the initial training, the additional employee training will continue in the form of periodic on-the-job training. Training meetings will be scheduled and conducted for employees approximately monthly. Topics for training may vary depending on job requirements.

The landfill manager, equipment operators, gate attendants, laborers, and recycling facility attendants are trained in the contents of this SOP and other topics as described in the following table:

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| Position                     | Job Description                   | Training         |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |
|------------------------------|-----------------------------------|------------------|-----------------|--------------------|----------------|-----------------------|-----------------|-----------------|-------------------|------|--------------------|----------------|-------------------|-------|
|                              |                                   | Site Orientation | Site Operations | Endangered Species | Haz. Waste Id. | Safety (job specific) | Fire Prevention | Load Inspection | Prohibited Wastes | SPCC | Emergency Response | Litter Control | Random Inspection | SWPPP |
| Landfill Manager             | Responsible for all activities    |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |
|                              | Ensure adequate staffing          | X                | X               | X                  | X              | X                     | X               | X               | X                 | X    | X                  | X              | X                 | X     |
|                              | Inspections                       |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |
| Gate Attendant               | Take receipts                     |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |
|                              | Screen and some load inspection   | X                |                 | X                  |                | X                     | X               | X               | X                 |      | X                  |                | X                 |       |
|                              | Direct vehicles to unloading area |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |
| Equipment Operator           | Compact waste                     |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |
|                              | Visual inspection of loads        | X                |                 | X                  | X              | X                     | X               | X               | X                 | X    | X                  |                | X                 |       |
|                              | Unauthorized waste                |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |
| Laborer                      | Apply daily cover                 |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |
|                              | As assigned                       | X                |                 | X                  |                | X                     | X               |                 |                   |      | X                  | X              |                   |       |
|                              |                                   |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |
| Recycling Facility Attendant | Recycling center operations       |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |
|                              | Screen and load inspection        | X                |                 | X                  | X              | X                     | X               | X               | X                 |      | X                  | X              |                   |       |
|                              |                                   |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |

More detailed written descriptions of the type and amount of introductory and continued training provided to each employee will be maintained in the facility operating record.

Facility personnel must take part in an annual review of their initial training in accordance with §335.586(c).

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

#### 4.2 CONTROL OF PROHIBITED WASTE §330.127(5)

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WMTX will continue to implement a comprehensive program for waste screening that minimizes the potential for inadvertent acceptance of prohibited wastes. The program consists of four primary elements as follows:

1. Special/Industrial Waste Screening Program: prescreening customers bringing special waste and industrial waste to the facility. A detailed description of the special waste screening process is provided in the following Section.
2. Random Load Inspections: The facility will implement a minimum of 4 random load inspections per week.
3. Prohibited Waste Training Program: Training will be provided to Gatehouse personnel and Equipment Operators annually on prohibited waste recognition. This training plan is described in more detail in the following sections.
4. Gatehouse Waste Screening Program: During hours of operation, the gatehouse will be staffed with at least one gate attendant. The attendant will screen incoming residential customers to help ensure that no prohibited wastes are being brought to the landfill. In addition, the facility will provide a sign in a conspicuous location that will list waste that are prohibited for acceptance at the landfill. Detailed description of the Gatehouse Waste Screening Procedures is described in detail in the following sections.

These proactive policies minimize the potential that hazardous or otherwise unacceptable waste will be received by the site for disposal. Implementation of the program provides protection from the potential dangers that prohibited waste could pose to employees, the public, or the environment through improper management, and serves as a hazardous waste and PCB waste screening mechanism that minimizes the potential of these waste streams entering the landfill. These programs specifically require pre-acceptance screening procedures be followed to determine if a particular waste is non-hazardous and to determine the acceptability of the waste pursuant to facility permit conditions, applicable regulations, and operating capabilities. These programs are implemented in a number of ways, including review of waste streams prior to acceptance, monitoring under the supervision of qualified site personnel of waste arriving at the gate, and observance of the waste being disposed of at the working face by equipment operators.

The following sections discuss in detail the methods and procedures that will be used to control prohibited wastes at the site.

#### 4.2.1 Detection and Prevention of the Disposal of Regulated Hazardous Waste

Regulated hazardous waste, as defined in 40 CFR Part 261, polychlorinated biphenyls (PCB) wastes as defined in 40 CFR Part 761, and wastes listed under 30 TAC §330.15(e), and other wastes specifically excluded for acceptance (e.g., Class 1 nonhazardous industrial waste) will not be accepted at the facility, with the exception of regulated hazardous waste from ~~Conditionally Exempt~~ Very Small Quantity Generators (VCESQG). Procedures to detect and prevent these types of wastes from entering the site include:

- Informing facility customers of prohibited wastes by posting one or more signs at the facility entrance listing prohibited wastes;
- Providing customers (regular and on-time or occasional) with a written list of prohibited wastes;
- Providing vehicle drivers of incoming waste from transfer stations and transfer station operators with a written list of prohibited waste;
- Screening of waste streams prior to acceptance;
- Random inspections of incoming loads in accordance with procedures described in Section 4.2.3;
- Rejecting loads that are suspected of containing prohibited waste;
- Trained staff observing each load that is disposed of at the facility;
- Maintaining records of all inspections;
- Training for appropriate facility personnel responsible for inspecting or observing loads to recognize prohibited waste, including regulated hazardous waste or PCB waste;
- Notification of the Executive Director of any incident involving the receipt or disposal of a regulated hazardous waste or a PCB waste at the landfill; and
- Remediation of any prohibited waste, regulated hazardous waste or PCB waste discovered at the site in accordance with Section 4.2.4.

#### 4.2.2 Prohibited Wastes

The acceptance and disposal of the following prohibited wastes will not be allowed at this site:

- Regulated Hazardous Waste other than from ~~Conditionally Exempt~~ Very Small Quantity Generators (VCESQG). Municipal hazardous waste from a VCESQG may be accepted; provided the generator provides a certification that it generates no more than 220 pounds of hazardous waste per calendar month.
- Polychlorinated Biphenyls (PCBs) as discussed in Section 4.2.1.

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- Class 1 Industrial Waste with the exception of wastes which are Class I only because of asbestos content.
- Do-it-Yourself (DIY) used motor vehicle oil - per §330.15(e)(2), shall not be intentionally or knowingly accepted for disposal.
- Lead acid batteries - per §330.15(e)(1), shall not be intentionally or knowingly accepted for disposal.
- Whole used or scrap tires- per §330.15(e)(4), shall not be accepted for disposal.
- Items containing chlorinated fluorocarbons (CFC's), such as refrigerators, freezers, and air conditioners, will only be accepted at the site if 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 site operator will verify that the refrigerant has been evacuated from the appliance or shipment of appliances previously. 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 refrigerant will be removed prior to delivery. The facility will notify persons who may deliver such items of the requirement to verify evacuation of refrigerant by signage or letter.
- Liquid waste (any waste material that is determined to contain "free liquids" as deemed by EPA Method 9095 (Paint Filter Test), as described in "Test Methods for Evaluating Solid Wastes, Physical Chemical Methods" (EPA Publication Number SW-846) shall not be disposed of unless it is:
  - Bulk or noncontainerized liquid waste that is:
    - Household waste other than septic waste; or
    - Leachate or gas condensate derived from the Williamson County ~~Landfill~~ Recycling & Disposal Facility managed and disposed of in accordance with the Leachate and Contaminated Water Management Plan presented as Attachment 15 of Part III of the Site Development Plan.
  - Contained liquid waste and
    - The container is a small container similar in size to that normally found in the household waste;
    - The container is designated to hold liquids for use other than storage;
  - Or the waste is a household waste.

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- Used oil filters from internal combustion engines - per §330.171(d).
- And the following special wastes without prior approval from TCEQ and accompanied with the relevant analytical test results, material safety data sheets (MSDS) documents, or process knowledge documents:
  1. Septic tank pumpings which have been stabilized and have passed the paint filter test;
  2. Wastes from commercial or industrial wastewater treatment plants; air pollution control facilities; and tanks, drums, or containers used for shipping or storing any material that has been listed as a hazardous constituent in 40 CFR, Part 261, Appendix VIII but has not been listed as a commercial chemical product in 40 CFR Part 261.33(e) or (f);
  3. Drugs, contaminated foods, or contaminated beverages, other than those contained in normal household waste;
  4. Incinerator ash;
  5. Light ballasts and/or small capacitors containing PCB compounds with a PCB content of less than 50 parts per million;
  6. Waste from oil, gas, and geothermal activities subject to regulation by the Railroad Commission of Texas when those wastes are to be processed, treated, or disposed of at a solid waste management facility permitted under 30 TAC 330;
  7. Waste generated outside the boundaries of Texas that contains (a) any industrial waste, (b) any waste associated with oil, gas, and geothermal exploration, production, or development activities, or (c) any item listed as a special waste in this section; and
  8. Any waste stream other than household or commercial garbage, refuse, or rubbish.

Landfill personnel will check for indications of prohibited waste as detailed below.

One of the most important means to control the disposal of prohibited waste at the landfill is by the control of access into the facility by unauthorized vehicles. This issue is addressed in Section 4.5 of this operating plan (Access Control). Facility personnel will be trained to inspect vehicles and identify regulated hazardous waste, polychlorinated biphenyl (PCB) waste and any prohibited waste described above. At a minimum, the gate attendant and equipment operators at the working face will be trained in screening and inspection procedures for prohibited waste. The personnel will receive on-the-job training basis by the landfill manager. Records of employee training on prohibited waste control procedures will be maintained in the facility site operating record.

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Additionally, the facility will inform customers of prohibited waste restrictions by posting one or more signs at the facility entrance listing prohibited wastes.

If landfill personnel suspect prohibited waste is present in an incoming load, then that load will be directed to an area out of the flow of traffic, and the trained personnel will further assess the load. If the load is determined to contain prohibited waste, or if there is any suspicion that it may contain a prohibited waste, the load will be rejected and directed back to the generator. Documentation of the inspection will be placed in the site operating record within seven working days. The documentation will include the date, time, name of the inspector(s), type of inspection/screening (i.e., suspected prohibited waste), transporter/generator information, and waste information. This documentation may be provided in a waste discrepancy report. A typical form is included in this SOP.

Municipal hazardous waste from a ~~conditionally exempt~~ very small quantity generator may be accepted, provided the amount of waste does not exceed 220 pounds per month per generator.

Landfill gate attendants will be trained to help recognize incoming loads that are potential sources of prohibited waste such as microelectronics manufacturers, electronics companies, metal plating industry, automotive and vehicle repair service companies, and dry cleaning establishments.

#### 4.2.3 Random Inspections (30 TAC §330.127(5)(A) & (D))

~~Waste Management~~ WMTX's special waste acceptance procedures provides for the pre-screening of all commercial customers bringing industrial or special waste to the landfill. This has been and will continue to be an essential element to preventing the acceptance or disposal of prohibited wastes. An additional element in preventing the acceptance or disposal of prohibited waste is random inspections. The gate attendant or other designated landfill personnel will randomly select a minimum of four vehicles per week (including compactor vehicles) for inspection, notify the equipment operator, and direct the selected load to the area of the working face. Once the selected load arrives at the working face, the equipment operator will direct the vehicle to a separate but adjacent location on the working face and out of the flow of normal disposal traffic. The driver will be instructed to discharge the load onto the ground. At this point, a trained individual will visually inspect the contents of the load and document the presence of any prohibited waste observed. The Load Inspection Report Form will be used to document results of the random load inspection. If prohibited waste is observed, it will be returned to the transporter and the transporter will be instructed as to which facilities are permitted to accept the prohibited waste. The executive director will be

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notified of any incident involving the receipt or disposal of regulated hazardous waste or PCB waste at the landfill.

Loads that are excluded from random inspections are:

- Waste from transfer stations, providing that the transfer station is permitted or registered by the TCEQ and conducts random screening;
- Liquid waste; and
- Asbestos waste.

Following waste inspections, documentation of the inspection will be placed in the site's operating record within 7 days. The documentation will include information such as the date and time of inspection, name and signature of inspector(s), type of inspection/screening (i.e., random screening, suspected unauthorized waste, etc.), transporter/generator information (including hauling company name and license plate number), source of waste, contents of load as reported by driver, contents of load as observed by inspector, and approval or disapproval of the load. This type of documentation may be provided on a waste inspection/screening form such as the ones included at the end of this SOP. This inspection report will be placed in the site operating record within 7 days of the inspection.

The number of random load inspections is justified given that the random load inspection program is one of several safeguards in place at the facility to identify, screen, and prevent the disposal of prohibited wastes. As discussed, providing customers with information about prohibited wastes, reviewing proposed waste streams prior to acceptance, inspecting suspicious loads, and observing the unloading and disposal at the working face are used along with the random load inspections. Also, waste received from transfer stations is already subject to visual inspections and random screening prior to arrival at the facility.

#### **4.2.4 Prohibited Waste Remediation Plan (30 TAC §330.127(5)(E))**

Remediation procedures may range from rejecting the load at the gate, loading prohibited waste back onto generator's vehicle to loading waste in an onsite container, tarping, testing, and removal of the waste to an off-site approved facility. Upon determination that a waste is a prohibited waste and will not be accepted, the landfill operator will make arrangements for returning such waste to the generator and/or coordinating transportation to a facility approved for the specific waste in question. Drums will be marked appropriately with words for the type of prohibited waste it contains, such as "Hazardous Waste" or "PCBs".

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Remediation procedures for the incident will be documented and included in the facility operating record within 7 days.

#### 4.3 OTHER SITE ACTIVITIES

Other site activities may arise that are not discussed in this plan. The landfill manager has responsibility for on the job training of those activities and ensuring that they are conducted as required by the site permit, TCEQ regulations, or any other local, State or federal regulation. Some of these activities are briefly discussed below.

##### 4.3.1 Liquids Restrictions

The landfill shall not accept bulk or non-containerized liquid waste unless it is household waste other than septic waste. The restriction of bulk or non-containerized liquids, with the exception of household waste other than septic waste, is intended to control a source of leachate. Liquid waste refers to any waste that is determined to contain free liquids by using U.S. Environmental Protection Agency (EPA) Test Method 9095B-paint filter liquids test.

The facility may recirculate leachate or gas condensate waste into active cells with composite liners, as detailed in Part III, Attachment 15, Leachate and Contaminated Water Management Plan. Containers holding liquid waste shall not be placed in the landfill unless they are small containers of household waste. The facility shall not accept bulk liquids, such as tank trucks of liquid waste, for disposal.

The facility may accept liquid sludges, grease trap waste, and liquid waste from other municipal sources for processing in accordance with Section 4.24, Disposal of Special Waste.

##### 4.3.2 Pond and Ditch Maintenance

Periodically, as directed by the landfill manager, site drainage ditches and storm water ponds may require maintenance and/or cleaning to ensure that they function as intended. The required maintenance may be conducted by site personnel or by a contractor. The maintenance may consist of cleaning up litter and/or small brush/limbs to excavating and removing silt deposits. The amount of maintenance will be determined by the landfill manager, as required to maintain the functionality of the drainage feature(s).

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#### 4.3.3 Leachate System Maintenance

It will be the responsibility of the landfill manager to ensure that the leachate collection system remains in good working order. As leachate systems are installed for new cell constructions, landfill personnel will be trained on the operation and maintenance procedures associated with the equipment. The leachate system at each cell location will be monitored to ensure continuous operations for regulatory compliance. Any system found to not be operating properly (i.e. pump not working, level controls malfunctioning, loss of power, etc.) will be brought to the immediate attention of the landfill manager. The landfill manager, will ensure that appropriate measures are taken to repair the system as soon as possible.

#### 4.3.4 TPDES Monitoring

The landfill manager, will ensure that monitoring is conducted in accordance with the regulations for the Texas Pollutant Discharge Elimination System (TPDES) Multi Sector General Operating Permits for this site.

#### 4.3.5 Final Cover Maintenance

Final cover in waste areas will be placed as described in Part III, Attachment 12, Closure Plan. Once final cover has been placed, it will be the responsibility of the landfill manager to ensure that vegetation is established and maintained, and that erosion is minimized. If erosion of the final cover does occur that jeopardizes the integrity of the final cover, additional soil capable of sustaining vegetation, will be placed and graded according to the final contours as detailed in Part III, Attachment 7, Final Contour Map. After erosion is repaired, seeding will be provided over repaired areas to provide revegetation.

#### 4.3.6 Recycling Facility

A recycling facility may be operated near the entrance to the facility as noted on Figure III-1.1, Site Layout Plan.

This recycling facility is owned ~~and operated~~ by Williamson County, a local government, and operated by WMTX. In accordance with 30 TAC §328(a) and 30 TAC §328(a)(1), this recycling facility is exempt from registration and permit requirements of 30 TAC §330 and 30 TAC §332.

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This recycling facility will allow for citizens drop off of ~~various~~approved recyclable materials. This facility may provide for recycling of the following materials:

- Newspaper, magazines, junk mail and other paper;
- Cardboard;
- Metals;
- Plastics;
- Aluminum;
- Used oil;
- Used oil filters;
- Used antifreeze;
- Lead acid batteries;
- CFC appliances;
- Latex Paint;
- Electronics, computers, monitors, and printers; and
- Wood and Mulch

Recycling operations will be conducted pursuant to 30 TAC §328 and 30 TAC §324. Citizens enter the recycling center through ~~either~~ the existing ~~or proposed~~ entrance and are directed either by recycling facility personnel or signage to the location of the various recyclable materials for off-loading. The recyclable materials are stored in such a manner as to not cause ponding water, odors, or other environmental or human health hazards. Recyclable materials are stored on-site for transport to off-site recyclable material processing facilities or on-site disposal.

Access to the recycling facility is controlled with a 6 foot tall chain link fence around the entire perimeter of the recycling facility with a lockable gate.

Fire protection for the recycling center is in accordance with Section 4.4, Fire Protection Plan. The recycling center will have at least 3 conspicuously marked fire extinguishers. One fire extinguisher will be in the recycling building and the second will be located near the outside cardboard bale storage containers and the third near the newspapers/used oil storage area. The recycling facility shall be designated as "no-smoking".

The recycling center provides a citizen's collection station for the various recyclable materials and not as a collection station for commercial recyclers.

The recycling center will accept latex paint for recycling or disposal. Latex paint may be accepted for recycling or disposal from citizens only, not from commercial recyclers or waste haulers. The latex paint will be received in labelled, commercial-consumer containers only that describe the material as latex paint. This latex paint may be made available for pick-up to other citizens (i.e.: recycling the latex paint). Recycling center personnel will inspect all latex paint to ensure that the paint is in appropriate containers and labelled as latex paint. Paint that is not in appropriate containers or is not labelled as latex paint will not be accepted. Latex paint that is dropped off at the recycling center that is not recycled may be mixed with wood chips in a container and allowed to dry. The recycling facility will provide a container with mulch chips. Latex paint will be poured into the wood chips. Once dried, the latex paint and wood chip mixture will then be disposed of in the landfill with the municipal solid waste.

#### 4.4 FIRE PROTECTION PLAN §330.129

This plan has been prepared in accordance with §330.129 to include fire protection standards and site personnel training requirements.

The operational activities at the landfill include the storage, processing and disposal of combustible materials. These materials are located in areas of uncovered solid waste disposal; brush/wood collection areas; recycling facility; and stored used tires areas. In addition, areas around the landfill include areas for stored used oil; fuel supplies; trees, brush/wood, or unmaintained grasses; vehicles; and buildings.

##### 4.4.1 Fire Protection Standards

The following steps are taken regularly by designated landfill personnel to minimize the potential for fires:

- No burning of solid waste shall be permitted at this site;
- Burning waste is prevented from being dumped in the active area of the landfill. The gate attendant and equipment operators are trained to observe for hot loads entering the landfill by observing for signs of burning waste such as smoke, steam, or heat being released from incoming waste loads.
- Fuel spills are contained and cleaned up immediately.
- Dead trees, brush, or vegetation adjacent to the landfill are removed immediately, and grass and weeds mowed so that forest, grass, or brush fires cannot spread to the landfill.
- Smoking is not allowed on the active areas of the landfill or at the recycling facility.

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- A source of earthen material adequately sized to cover the working face is maintained in such a manner that it is available at all times to the working face or active disposal area for fire protection.
- If a fire does occur it shall be promptly extinguished using the procedures described in this SOP; and
- The potential for fires shall be minimized by use of cover soils, and caution when using equipment capable of “sparking” or creating fire.

#### **4.4.2 Operating Practices**

Operating practices related to fire protection shall include methods to minimize the potential for accidental fires. Employees shall be instructed in the control of small fires.

To reduce the possibility of fire and improve the operation of the site and pursuant to §330.165, a minimum of six inches of “daily” cover soil, or approved equivalent, shall be placed and compacted over exposed waste at the end of each working day or at least once every 24 hours in accordance with Section 4.22 of the SOP.

The landfill manager will coordinate with the City of Hutto and the City of Taylor Fire Departments to provide a tour of the facility and will provide a Site Layout Plan which locates the areas with combustible materials (i.e., the active working face, the brush/wood storage area, recycling facility, and the diesel and oil storage areas).

The following procedures are followed in the event of a fire at the facility:

- Small fires – If detected soon enough, may be fought with a hand-held fire extinguisher. The fire area may be watered down or smothered with 6 inches of soil as appropriate, to ensure the fire is out.
- Equipment Fires – 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 will 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.
- Hot Loads – Burning waste will not be unloaded in the active area of the landfill. After the gate attendant, equipment operator, recycling facility attendant or other site personnel have identified signs of a possible load of burning waste, or a hot load, the truck will be directed to a portion of the disposal area away from the working face, fuel areas, and other combustion sources where the load

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can be unloaded without danger of spreading fire. The water truck will water down the waste. The bulldozer will then spread the waste for additional water or cover of soil. The bulldozer may smother the fire with soil if the water does not sufficiently extinguish the fire. The waste will be inspected for signs of fire or hot spots. When the fire has been extinguished and the waste has cooled, the waste will be transferred to the landfill for disposal.

- If a fire is in the working face, the burning area should be isolated and pushed away from the working face quickly, or fire breaks should be cut around the fire before it can spread. If this is not possible or unsafe, efforts to cover the working face with earthen material must be initiated immediately to smother the fire. All vehicles and equipment will be immediately moved away from the fire and a working face established there or halted all together until the fire is extinguished.
- Most combustible materials at the recycling center are stored in metal fire resistant containers. The only combustible material not stored in a fire resistant container is mulch. If a small fire breaks out in one of the metal containers, the recycling facility attendant will attempt to extinguish the fire with the on-site fire extinguishers. The recycling facility attendant will notify the landfill office of the fire as soon as possible after the fire has been extinguished or immediately in the case of fires that are too large to be extinguished with fire extinguishers. The landfill water truck will water down recyclable material fires that are too large to be extinguished by hand.
- Landfill and recycling center personnel, including equipment operators, will watch for fire, smoke, steam, or signs of heat at the brush/wood collection and mulching area. If signs of fire are detected at the brush/wood collection and mulching area, all vehicles and equipment will be immediately moved away from the fire. The unloading of materials will be halted until the fire is extinguished.

Equipment such as the bulldozer, earthmoving equipment, and water truck will mobilize to the area of the fire or the location of the soil stockpile. All available landfill personnel shall be available to assist with fire protection measures unless otherwise directed by the landfill manager.

Fire fighting methods for burning solid waste include smothering with soil, separating burning material from other waste, spraying with water from an on-site water truck, or pumping water from an on-site pond. Small fires might be controlled with hand-held fire extinguishers. If the fire is at an active disposal area, if possible, the burning waste should be isolated or pushed away immediately before the fire can spread, or fire breaks should be cut around the fire before it can spread. If moving the waste is not possible, or if it is unsafe, efforts should be made to cover the working face with earth immediately to smother fire. The faster that soil can be placed over the fire, the more effective this method will be in controlling and extinguishing

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the fire. The working face diversion and containment berms and stockpiled earthen material may be used for firefighting purposes

A source of earthen material shall be maintained on the site in a manner that is available at all times to extinguish any fire, and equipment shall be available on highest priority basis for use in placing earthen material to extinguish fire should one occur. The source of earthen material shall be sized of sufficient volume of earthen material to cover a potential fire area equivalent to the size of the working face.

The following table demonstrates the related area and volume used to determine the required earthen material:

| Size of Working Face |     | Area of Working Face |             |            | Total Size of Source of Earthen Material |
|----------------------|-----|----------------------|-------------|------------|------------------------------------------|
|                      |     | Sq Ft                | Cu Ft       | Cu Yd      |                                          |
| L                    | W   | L x W                | Sq Ft x 0.5 | Cu Ft / 27 | Cu Yd x 1.15                             |
| 150                  | 100 | 15,000               | 7,500       | 278        | 320                                      |
| 200                  | 100 | 20,000               | 10,000      | 370        | 426                                      |
| 250                  | 125 | 31,250               | 15,625      | 578        | 667                                      |
| 300                  | 150 | 45,000               | 22,500      | 833        | 958                                      |
| 350                  | 175 | 61,250               | 30,625      | 1,134      | 1,304                                    |
| 400                  | 200 | 80,000               | 40,000      | 1,481      | 1,704                                    |

To calculate the maximum size of the earthen material for varying sizes of the working face, multiply the working face length (L) times the width (W) to get square feet (Sq Ft). Multiply the sq ft times 0.5 (6" of earthen material, or ½ foot) to get cubic feet (cu ft). Divide cu ft by 27 to convert to cubic yards (cu yd). Multiply the cu yd by 1.15 (using a 0.15 factor for compacting loose cubic yards to bank cubic yards) to get the total number of cubic yards of earthen material required to cover a given working face.

Sufficient on-site equipment must be provided to place a six inch layer of earthen material over any waste not already covered with daily cover within one (1) hour of detection of a fire.

The diversion and containment berms for the working face are set at a maximum spacing of 600 feet from each other. Pushing soil from the berms to the open face would result in a maximum push of approximately 300 feet. A single bulldozer (Cat D8 or similar) can spread up to 340 cubic yards in one hour with a

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maximum distance of 300 feet. For every additional 340 cubic yards of cover soil, the site shall have at least one (1) additional bulldozer (Cat D8 or similar) available on-site for fire control.

If the working face diversion and/or containment berms are used to control a fire, disposal operation will not recommence until the berms are rebuilt or new berms and a new working face are established elsewhere on the landfill.

When a fire is discovered the landfill manager will be notified, soil from the earthen material source will be loaded and carried to the area with the earth moving equipment and spread to a minimum thickness of 6-inches using a bulldozer or other appropriate equipment. All available landfill personnel shall assist with fire management measures, unless otherwise directed by the landfill manager.

#### 4.4.3 Notifications

Following any fire that is not extinguished within 10 minutes of detection, the permittee will contact the TCEQ Region 11 office in Austin. This notification to Region 11 will include:

1. Contact by telephone at 512-339-2929, as soon as possible, but no later than 4 hours following the fire discovery, and
2. Provide a written description of the fire and the resulting fire response within 14 days of fire detection to:

TCEQ Region 11  
12100 Park 35 Circle, Building A, Rm 179  
Austin TX 78753-1921 Cedar Bend Drive, Suite 150  
Austin, TX 78758-5336

Reports on all fires, including causes, durations, responses, and notifications will be completed and placed in the Site Operating Record.

#### 4.4.4 Other Emergency Contact Information

If additional fire protection/fighting measures are warranted by the landfill manager, emergency assistance may be requested from the Williamson County Emergency Services through the Sheriff's office by dialing 911. In an emergency situation, dialing 911 will direct the call to the Williamson County Sheriff's

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Department. The Sheriff's Department will assess the nature of the emergency and dispatch the appropriate emergency crews. Law enforcement assistance may respond from the County Sheriff's Department, the City of Hutto Police Department, or the City of Taylor Police Department, depending on availability. Fire, ambulance and hazardous materials emergencies may be handled by either the City of Hutto or the City of Taylor, again depending on availability.

**4.4.5 Fire Protection Training**

To minimize hazards regarding fire, employees shall be instructed in the control of small fires. Training of employees will be the responsibility of the landfill manager and will be provided to each new employee as part of the employee training program. A review of fire control measures for all landfill and recycling facility personnel will be conducted on an annual basis. All fire extinguishers and/or fire fighting equipment on-site will be inspected annually, and any equipment found to be defective will be promptly repaired or replaced. At a minimum, each landfill and recycling facility employee shall be trained for the following:

- Emergency notification requirements.
- Preventative measures to minimize or prevent the possibility of fire;
- Use of fire extinguishers or other equipment properly; and
- Procedures to extinguish fire with soil from the source (equipment operators only).

**4.5 ACCESS CONTROL §330.131**

Access to the Williamson County RDF will be controlled by means of artificial barriers, natural barriers, or a combination of both as follows:

Access control to the facility is by a combination of fencing around the perimeter of the facility and a gated entrance. The entrance gate will be designed to provide complete access restriction when the site is not open, yet allow plenty of room for vehicles to maneuver through when the facility is open. The entrance gate will be inspected periodically for damage or problems. The fence and gate will be repaired, maintained, or replaced on an as needed basis to ensure proper site security.

All landfill users shall be required to stop at the scalehouse and conduct appropriate business transactions prior to proceeding to the disposal area(s). Unauthorized vehicles shall not be allowed to proceed past the gatehouse. At this point, the vehicles are screened for waste type, in accordance with Section 4.2 of this

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SOP. If a load is identified as containing any unauthorized hazardous, special, or industrial waste, the load shall be rejected.

To prevent the entry of livestock, and to discourage unauthorized entry to the landfill, the site perimeter will be protected with a combination of fencing including six-foot chain-link and/or a 3.5 foot (minimum) three-strand barbed wire fence along all boundaries. The fence shall be inspected on a weekly basis, with repairs made as necessary. A log of access control inspections will be maintained for the purpose of demonstrating compliance with access inspection requirements. The fence, gate, and signs shall be repaired, maintained, or replaced on an as needed basis to ensure proper site security.

If the fence or gate access control system is breached, that is if there is a hole or gap in the fence or the gate is not restricting access, the TCEQ's regional office will be notified within 24 hours of detection of the breach, including when the breach will be permanently repaired. The breach will be temporarily repaired within 24 hours of detection and will be permanently repaired by the time specified to the commission's regional office when it is reported. The TCEQ's regional office will be notified when an access control breach's permanent repair is complete. If a permanent repair can be made within eight hours of detection, no notice to the commission's regional office is required. A copy of these notices will be place in the Site Operating Record.

#### 4.6 UNLOADING OF WASTE §330.133

The unloading areas at the facility may include the following:

1. Municipal solid waste will be unloaded at the active working face (one or more);
2. Brush and other wood material will be unloaded at the brush/wood storage area;
3. Liquid waste will be unloaded at the liquid stabilization processing area;
4. Asbestos waste disposal areas for receipt of RACM may be required;
5. Construction and demolition waste may be unloaded at a working face or the designated sorting area on the landfill; and
6. Tire Area.

There may be two active working faces, a single brush/wood unloading area, a single construction and demolition waste unloading area on the landfill, a tire area, an asbestos waste disposal area for receipt of RACM, a recycling facility, and a single liquid waste unloading area for a maximum total of ten unloading areas.

The unloading of solid waste at the active working face shall be confined to as small an area as practical. Every effort will be made by landfill personnel to maintain the size of the active working face to a maximum length of 400 feet and width of 200 feet. The size of the working face will be directly impacted by the amount of wastes being received and may vary accordingly. There may be one or two active municipal solid waste working faces open at any given time. Examples of when more than one municipal solid waste working face may be open at one time is when wastes are being deposited in a new cell that must receive only select wastes to cover the bottom of the new cell, during a transition from a wet weather area to another municipal solid waste working face, during disposal of Regulated Asbestos Containing Materials (RACM) or when there is a "hot load" delivered to the municipal solid waste working face area and another municipal solid waste working face is established until the fire is controlled. However, in general there will only be one active municipal solid waste working face in order to reduce odors and windblown waste and to control vector populations.

The unloading of waste in unauthorized areas shall be prohibited. Any waste deposited in an unauthorized area shall be promptly removed and disposed of properly. A trained employee shall be present at the gatehouse at all times during operating hours to monitor incoming loads of waste, and shall direct traffic to the appropriate unloading area. Trained personnel will also be on duty during regular operating hours at the working face to direct and observe unloading of solid waste. The working face staff as well as the gate attendants, will contact the landfill manager regarding the receipt of prohibited wastes. The landfill manager has the authority and responsibility to reject unauthorized loads, have unauthorized material removed by the transporter, and/or assess appropriate surcharges, and have the unauthorized material removed by on-site personnel or otherwise properly managed by the facility. The employees will be trained in the recognition of both industrial and hazardous waste and their transportation and disposal requirements. A record of unauthorized material removal will be maintained in the operating record. The facility is not required to accept any solid waste that may cause problems in maintaining full and continuous compliance with the permit.

Certain wastes are prohibited from disposal at this facility. Prohibited wastes include hazardous waste (except municipal hazardous waste from ~~conditionally exempt~~ very small quantity generators), PCB waste, and unauthorized special waste. The known disposal of prohibited wastes at the landfill shall not be allowed. Necessary steps shall be taken by the landfill operator to ensure compliance with this provision as discussed in Sections 4.2 and 4.24 of this plan. Any prohibited waste shall be returned promptly to the transporter or generator of the waste. The driver shall be advised and will be responsible for the proper

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disposal of this rejected waste. In the event the unauthorized waste is not discovered until after the vehicle that delivered it is gone, the waste will be segregated and controlled as necessary. An effort will first be made to identify the entity that deposited the prohibited waste and have them return to the site and properly dispose of the waste. In the event that identification is not possible, the landfill manager will notify the TCEQ and seek guidance on how to dispose of the waste as soon as practical.

Only those persons operating vehicles that comply with the following requirements will be authorized by the landfill manager to dispose of waste at this site:

1. Vehicles and equipment used for the collection and transportation of waste in good working order to prevent loss of waste material and to minimize health and safety hazards to landfill personnel and the public;
2. Collection vehicles and equipment maintained in a sanitary condition to preclude odors and fly breeding; and
3. Collection vehicles not equipped with an enclosed transport body will be required to have tarpaulins to preclude accidental spillage.

Signs with directional arrows and/or portable traffic barricades will help to direct 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.

The unloading of construction and demolition waste at the construction and demolition working face shall be confined to as small an area as practical. Every effort will be made by landfill personnel to maintain the size of the construction and demolition working face to a maximum length of 200 feet and width of 200 feet. The size of the construction and demolition working face will be directly impacted by the amount of construction and demolition wastes being received and may vary accordingly. There will only be one active construction and demolition waste working face on the landfill. This construction and demolition working face will be located within the landfill waste limits and may be moved within those landfill waste limits at the discretion of the facility management.

The construction and demolition waste deposited at the construction and demolition waste face will be separated by waste stream for recycling. Separation will be conducted by individual load (if waste material homogenous), with site equipment, or by hand. Some of the waste streams will be taken directly to roll-off

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containers and shipped off-site to appropriate facilities to be further processed and recycled or reused, and others, such as wood mulch and concrete may be used on site for soil stabilization, soil enhancement, or for road construction. The construction and demolition waste working face will remain free of putrescibles and household wastes.

Brush and wood may be stored onsite for on-site recycling for mulching and/or composting. Brush and wood recycled for composting will be handled in accordance with a facility Compost Plan. The brush/wood storage area will remain free of putrescibles and household wastes.

The brush and wood materials will be clean wood materials as defined by 30 TAC 332.2(10) as: "Wood or wood materials, including stumps, roots, or vegetation with intact rootball, sawdust, pallets and manufacturing rejects. Clean wood material does not include wood that has been treated, coated or painted by materials such as, but not limited to, paints, varnishes, wood preservatives, or other chemical products. Clean wood material also does not include demolition material, where the material is contaminated by materials such as but not limited to paint or other chemicals, glass, electrical wiring, metal and sheetrock." Additionally, mulch is defined by 30 TAC 332.2(33) as: "Ground, coarse, woody yard trimmings and clean wood material. Mulch is normally used around plants and trees to retain moisture and suppress weed growth, and is intended for use on top of soil or other growing media rather than being incorporated into the soil or growing media. Mulch does not include wood that has been systemically killed using herbicides."

Whole tires or tire pieces may be stored or processed onsite in an unused portion of the property in accordance with §328.54(c). Storage shall be above ground in controlled storage piles or in enclosed and lockable containers, pursuant to §328.61. The site will not store tires or tire pieces in excess of 500 used or scrap tires (or weight equivalent tire pieces or combination thereof) on the ground or 2,000 used or scrap tires (or weight equivalent tire pieces or and combination thereof) in enclosed and lockable containers. The tire storage area will remain free of putrescibles and household wastes. The tire storage and processing activity (tire area) may be conducted within the landfill permit boundaries but not within the landfill buffer zones. This tire area may be moved within the landfill permit boundaries, excluding the landfill buffer zones, at the discretion of the facility management. The tire storage and processing activity shall not be conducted in a manner that will adversely affect operations of the municipal solid waste disposal site, or other wise endanger human health or the environment.

**4.7 HOURS OF OPERATION §330.135**

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The Facility's waste acceptance hours are Monday through Friday, 5:00 a.m. to 8:00 p.m. and Saturday, 6:00 a.m. to 4:00 p.m. The Facility's hours for operation of heavy equipment and transport of materials to and from the Facility are Monday through Saturday, 3:00 a.m. to 10:00 p.m. The facility may operate within these hours at the discretion of site management. Actual facility operating hours in effect at any give time will be posted at the facility entrance.

Landfill operations outside permitted landfill operating hours will receive TCEQ approval and will be documented in the site operating record as Temporary Operating Hours.

Section 4.26 describes screening provisions regarding night operation.

#### **4.8 SITE SIGN §330.137**

A conspicuous sign measuring a minimum four feet by four feet shall be maintained at each public site entrance. The sign shall state, in letters at least three inches high, the name of the site, type of site, hours and days of operation and the TCEQ permit number. The sign will have an emergency 24-hour contact phone number or numbers that reach a key landfill staff person with the authority to obligate the facility at all times that the facility is closed, and the local emergency fire department phone number. The facility sign will be readable from the facility entrance. A sign prohibiting receipt of hazardous waste, closed drums, and smoking will be posted near the facility entrance or gatehouse. A sign stating that all loads will be properly covered or otherwise secured will be prominently displayed at the facility entrance.

Within the landfill site, additional signs will be placed along the landfill haul road and access road directing customers to where disposal areas are and which roads are to be used.

#### **4.9 CONTROL OF WINDBLOWN SOLID WASTE AND LITTER §330.139**

The working face shall be maintained and operated in a manner to control windblown solid waste. The working face shall be covered daily to avoid prolonged exposure of waste. In order to prevent disease vectors, control windblown debris and odors, reduce the possibility of fire, prevent scavenging, and improve the operation of the site, a minimum of six inches of "daily" cover soil, or approved equivalent, shall be placed and compacted over all exposed waste at the end of each working day or at least once every 24

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hours. Weather conditions may result in material occasionally being blown away from the working face during placement operations.

Litter fences of adequate height and width will be located and utilized in the immediate vicinity of the working face to help aid in the control of windblown material as needed. The landfill manager shall be responsible for determining the need, type and placement of litter fences. Litter fences shall either be portable, free-standing fences which can be readily moved, as necessary, with equipment, or they may be temporary fences which consist of poles driven into the waste/soil cover with fencing between them. Typically, the litter fences shall be placed downwind and extend the full width of the working face and shall extend above the working face. Windblown waste and litter at the working face will be collected and properly managed to control unhealthy, unsafe, or unsightly conditions. The collected waste will be returned to the active disposal area(s). Litter scattered throughout the site, along fences and access roads and at the gate shall be picked up once a day by landfill personnel, and returned to the active working face of the disposal area(s).

#### **4.10 EASEMENTS AND BUFFER ZONES §330.141**

No solid waste unloading, storage, disposal or processing operations shall occur within any easement or buffer zone that crosses the site. There are no rights-of-way within the permit boundary. No solid waste disposal shall occur within 25 feet of the centerline of any utility line or pipeline easement, unless otherwise authorized by TCBQ. All pipeline and utility easements shall be clearly marked with green colored posts that extend at least six feet above ground level, spaced at intervals no greater than 300 feet.

A 50-ft TXU Lone Star Gas Co. gas pipeline easement exists along the northern property boundary and two 15-ft Jonah Water Supply Company (WSC) waterline easements are located along the western property boundary. Refer to Figure I/II-6 for the location of these easements.

Buffer zones at the perimeter of the site will consist of at least a 50-foot buffer from the site boundary to the edge of waste placement. No solid waste unloading, storage, disposal, or processing operations shall occur within any buffer zone. The buffer zone shall not be narrower than that necessary to provide safe passage for firefighting and other emergency vehicles.

#### **4.11 LANDFILL MARKERS AND BENCHMARKS §330.143**

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All required landfill markers and benchmarks shall be maintained so that they are visible during operating hours. Markers that are removed or destroyed shall be replaced within 15 days of their removal or destruction. All markers shall be repainted as necessary to retain visibility. It shall be the responsibility of the landfill manager to ensure that landfill markers and benchmarks are inspected for damage on a monthly basis. Records of all inspections will be maintained at the facility.

Landfill markers will consist of durable posts, steel or wooden, extending at least 6 feet above ground level to clearly identify significant landfill features such as site boundaries, buffer zone, easements and rights-of-way, landfill grid system, SLER and/or GLER areas, and 100 year flood limits, if applicable. In the event a marker falls in a roadway, waterway or other area incapable of sustaining an above ground marker, an alternate marker may be placed with its offset from its true location noted on the marker. The TCEQ may approve modifications to the marker requirements to accommodate any on-site conditions. All markers will be color coded as indicated in the chart below.

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

**4.11.1 Easement and R.O.W. Markers §330.143(b)(4)**

Easement and right-of-way markers (Green) will be placed along either the centerline or the limits of an easement and along the boundary of a right-of-way at intervals of 300 feet and at each corner within the site and at the intersection of the site boundary. If a utility line has been constructed down the centerline, the marker may be off-set on the easement or R.O.W. This off-set will be noted on the site grid system drawing and the marker.

A 50-ft TXU Lone Star Gas Co. gas pipeline easement exists along the northern property boundary and two 15-ft Jonah Water Supply Company (WSC) waterline easements are located along the western property boundary. Refer to Figure I/II-6 for the location of these easements.

**4.11.2 Site Grid System Markers §330.143(b)(5)**

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A site grid system (White) will be installed at the facility. The grid system will encompass at least the area expected to be filled within the next 3 year period. The grid system will be based on the State Plane Coordinate System. Markers will be spaced no greater than 100 feet apart measured along perpendicular lines. Where markers cannot be seen from opposite boundaries, additional markers will be installed, where feasible. The location of the site grid system is shown on Part III, Attachment I, Figure III-1.1.

**4.11.3 SLER or GLER Area Markers §330.143(b)(6)**

SLER or GLER area markers (Red) will be placed so that all areas for which a SLER or GLER has been submitted and approved by the department are readily determinable. Such markers are to provide site workers immediate knowledge of the extent of approved disposal areas. These markers will be located so that they are not destroyed during operations until operations extend into the next SLER or GLER. The location of these markers will be tied into the site grid system and will be reported on each SLER or GLER submitted. SLER and GLER markers will not be placed inside the evaluated areas.

**4.11.4 100 Year Flood Limit Protection Markers §330.143(b)(7)**

Flood protection markers (Blue) shall be installed for any area within a solid waste disposal facility that is subject to flooding prior to the construction of flood protection levee. The area subject to flooding shall be clearly marked by means of permanent posts spaced not more than 300 feet apart or closer if necessary to retain visual continuity.

**4.11.5 Site Boundary Markers §330.143(b)(2)**

Site boundary markers (Black) shall be placed at each corner of the site and along each boundary line at intervals no greater than 300 feet. Fencing may be used in place of these markers as appropriate.

**4.11.6 Buffer Zone Markers §330.143(b)(3)**

Markers (Yellow) identifying the buffer zone shall be placed along each buffer zone boundary at all corners and between corners at intervals of 300 feet. Placement of the landfill grid markers may be made along a buffer zone boundary.

**4.11.7 Permanent Benchmark §330.143(b)(8)**

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A permanent benchmark has been established at the site. The benchmark monument is established at the site in an area that is readily accessible and will not be used for disposal. The monument elevation was surveyed from a known United States Coast and Geodetic Survey benchmark. The location and elevation of the reference benchmark monument location is provided on Part III, Attachment 1, Site Layout Plan. The monument is a bronze marker set in concrete with the benchmark elevation and survey date stamped on it.

**4.12 MATERIALS ALONG ROUTE TO SITE §330.145**

The landfill operator shall take the necessary steps to help ensure that vehicles hauling waste to the site are enclosed or utilize a tarpaulin, net, or other means to properly secure the load in order to prevent the escape of any part of the load by blowing or spilling. The landfill operator shall include, as necessary, the posting of signs at the landfill entrance requiring the loads to be enclosed or covered, and the possibility of reporting offenders to the City of Hutto Police or the Williamson County Sheriff's office, adding litter control surcharges, or other necessary information which may minimize public non-compliance. On a daily basis and during daylight hours when the facility is in operation, FM 1660 and all other public roads used to access the landfill; including County Roads (CR) 100, CR 101, CR 131, and CR 132 shall be inspected and picked for litter daily for a distance of two miles in either direction from any entrances used for the delivery of waste to the site. The following table provides specific access roads and the distances to be cleaned.

| PUBLIC ACCESS ROAD | DISTANCE OF RESPONSIBILITY                  |
|--------------------|---------------------------------------------|
| FM 1660 NORTH      | 0.6 miles north of intersection with CR 131 |
| FM 1660 SOUTH      | 0.1 miles east of Jonah Water Tower         |
| CR 131             | 0.7 miles west of intersection with FM 1660 |
| CR 101             | 1.3 miles east of intersection with FM 1660 |
| CR 100             | 0.7 miles east of intersection with FM 1660 |
| CR 132             | 0.7 miles east of intersection with FM 1660 |

The landfill manager will be responsible for consulting with officials of the Texas Department of Transportation (TxDOT), county, and/or local governments with maintenance authority over the roads concerning clean-up of state highways and right-of-ways.

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As necessary, litter found along the routes to the site will be picked up by landfill personnel or other persons acting in coordination with the landfill operator. The landfill pickup and personnel will be utilized to gather the litter, secure it on the vehicle and transport it back to the landfill for proper disposal. Litter control outside the site will not be conducted during hours of darkness. It shall be the responsibility of the landfill manager to ensure that litter control outside the site is conducted in a safe and timely manner. The landfill manager shall make proper arrangements to gather items that are too large to be picked up by conventional means. The landfill manager or designated alternate shall record cleanup efforts on a daily log which will be maintained in the site operating record.

**4.13 DISPOSAL OF LARGE ITEMS §330.147**

Large, heavy, or bulky items such as air conditioning units, tree trunks, white goods (refrigerators, freezers, washers/driers, and water heaters), metal tanks and metal pieces which cannot be incorporated in the regular spreading, compaction and covering operations will be recycled or crushed by compacting equipment to prevent bridging and localized subsidence. White goods may be recycled, and tree parts (i.e., limbs, trunks and stumps) and brush and wood may be chipped for mulch or compost. Items identified as being too large for proper disposal shall be refused or broken into smaller pieces, or crushed by compactor equipment, for proper disposal. A special area may be designated as a large item salvage area as discussed in Section 4.17 of this plan. These items would be removed from the site frequently to prevent them from becoming a nuisance and precluding the discharging of any pollutants.

No items containing chlorinated fluorocarbons (CFC) will be knowingly accepted. Refrigerators, freezers, air conditioners, and any other items containing CFC must be handled in accordance with 40 CFR §82.156(f), as amended and with Section 4.22 of this Site Operating Plan, which requires verification that the CFC has been evacuated from the unit and that it was not knowingly allowed to escape into the atmosphere.

**4.14 AIR CRITERIA**

The landfill is subject to commission rules concerning burning and air pollution control. The landfill manager shall ensure that any unit of the MSWLF does not violate any applicable requirements of the approved state implementation plan developed under the Federal Clean Air Act. Open burning of waste will not be permitted at this facility.

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The site is operated in accordance with the federal New Source Performance Standards (NSPS) and under the TCEQ Title V General Operating Permit (GOP). The landfill manager, or designated alternate, will ensure that the site complies with and is evaluated in accordance with requirements of NSPS and Title V GOP.

**4.15 ODOR MANAGEMENT PLAN §330.149**

Municipal solid waste landfill operations have the potential to yield odorous emissions. Odor management at a landfill is a combination of identifying the sources of odor and methods used to minimize or eliminate those odors. This odor management plan addresses the identification of potential sources of odors, and includes methods to minimize odors or sources of odors and procedures to be followed if these methods are ineffective in preventing a release of odors to the surrounding community.

**4.15.1 Sources of Odor**

Sources of odor that emanate from a landfill can vary considerably and may include the wastes being delivered to the landfill, the open working face, or the leachate collection system. Many of the wastes received at a landfill are a source of odor upon receipt, such as sludge and dead animals. Other wastes have the potential for becoming a source of odor by their biodegradable characteristics, generating gases as they advance through the decomposition process. Leachate, the contaminated water that emerges from solid waste, may also be a source of odor if not properly handled or disposed of in a timely manner. Pondered water containing contaminants, and composting, depending on the feedstock used in the operation, could become a source of odor as well.

**4.15.2 Odor Minimization**

The primary objectives for odor control at a landfill are to minimize odor generation and odor emissions. Methods used to achieve these objectives include waste and leachate handling procedures, the timely placement of cover materials, the elimination of ponded water, and gas control. These methods, described briefly below, are also included in Part III of the facility's Site Development Plan, Attachment 14, Gas Management Plan, and Attachment 15, Leachate and Contaminated Water Management Plan, and Part IV.

**Waste Handling Procedures** - Wastes are to be deposited at the working face, spread into layers that can be readily compacted, and covered with a minimum of six inches of soil or with an alternate daily cover

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material such as tarps or other applied materials. Sludges that pass paint filter are to be incorporated into the working face with other absorptive wastes. Dead animals are to be covered immediately with three feet of waste or two feet of soil.

**Cover** - The placement of daily cover is sufficient to reduce the immediate emission of odors when applied in sufficient thickness (minimum of six inches soil) and with the proper compaction or other approved cover. Daily cover also serves as the first deterrent to odor generation by preventing air and water from further impacting the wastes. If odors result during the use of alternate daily cover material, the ADC will be reevaluated to determine if it will continue to be used. The placement of the intermediate and final cover will provide a barrier that will reduce the amount of odor emissions as decomposition of wastes occurs over time.

**Leachate Handling Procedures** - Leachate must be removed from the collection system at a rate to maintain less than 30 cm of head on the liner. Leachate may be removed by pumping directly from the sump to a storage tank, evaporation pond, recirculation system, or a transfer truck. The evaporation pond may be a source for odors and be monitored and may be equipped with aerators to further reduce the emission of odors by forcing oxygen into the leachate.

**Ponded Water** - Water ponded over waste disposal areas may become a source of odors and should be eliminated prior to the occurrence of odors. Ponded water that occurs in the active portion of the site or on a closed area will be eliminated as quickly as possible and the area in which the ponding occurred shall be filled in and re-graded within seven days of the occurrence.

**Gas Extraction System** - Odor reduction may be achieved by the installation of a gas extraction system. The gas extraction system will minimize the migration of gases either horizontally or vertically. Gases collected in an extraction system may be distributed to such processing devices as a flare or processing plant.

#### **4.15.3 Odor Response Procedures**

Upon identification of landfill related-odors, landfill personnel will attempt to isolate the source of the odor. If an identifiable odor is detected at any of these areas, the landfill manager will be notified, who will initiate the necessary remedial actions. Remedial actions may include the application of additional cover over the suspect area, the use of odor controlling sprays applied directly to the working face, control of any ponded

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water on the site, adjustments to the gas extraction system, sealing the riser pipe covers of the leachate collection system, prompt landfilling of odorous waste, or other methods proven to be beneficial for the remediation of landfill odors. If odors persist, the Landfill Manager may contract with an engineer or other expert to address specific remediation issues.

**4.16 DISEASE VECTOR CONTROL §330.151**

Conditions favorable to the production or harboring of disease vectors (rodents, flies, and mosquitoes) shall be minimized through proper compaction of the waste and the use of daily and intermediate cover, as appropriate. Vectors are attracted by wastes and water that serve as food and breeding grounds. The working face of each disposal area shall be minimized and daily cover shall be applied to control disease vectors. Landfill cover procedures are described in Section 4.22 of this SOP. To further control disease vectors, ponded water shall be controlled as detailed in Section 4.23 of this SOP. Birds should also be controlled by use of the daily cover, minimizing the working face, and control of ponded water. Site personnel should be observant for insects and rodents and report problems to the landfill manager. Professional exterminators will be contacted, if necessary, to eliminate rodents or other pests that may appear at the site. If chemicals are needed for disease vector control, a professional will apply the appropriate chemical at the industry recommended rate, and use the appropriate health and safety practices to minimize any potential adverse effects.

**4.17 SITE ACCESS ROADS §330.153**

All-weather site access roads provided from the public road to the unloading area(s) will consist of compacted gravel, crushed stone, asphalt, concrete, or other road building material. The tracking of mud and debris onto public roadways from the site shall be minimized.

Tracking of mud onto public roadways, including FM 1660, CR 100, CR 101, CR 131, and CR 132, will be controlled by minimizing the amount of mud on site entrance and access roads and on vehicles leaving the site. Vehicles leaving the site will traverse all-weather site access road and paved site entrance roads allowing for mud to be removed from the vehicle. Additionally, the site may install an active wheel wash or utilize the current passive wheel wash adjacent to the site entrance road. If a wheel wash is utilized, landfill traffic may be directed through the wheel wash if mud is being tracked past the scalehouse.

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Mud on the site entrance and access roads will be removed to prevent tracking of mud onto public access roads. Mud on site access roads will be removed by grading the mud off of the road. Mud on the site entrance road may be removed by a spray of water from the site water truck, by scraping with a site bulldozer or maintainer, or with a rotary broom street sweeper. Mud will be removed from the public roadway, site entrance and access roads as necessary to control the tracking of mud onto public roads and at least once per day on days when mud associated with landfill operation may be tracked onto public roadways.

Litter and debris will be controlled. Litter and debris that are tracked onto public roadways will be removed at least once per day on days when the site is operating. Litter on FM 1660, CR 100, CR 101, CR 131, and CR 132 will be picked up in accordance with Section 4.12, Materials Along Route to Site. Litter along the site entrance and access road will be picked up in accordance with Section 4.9, Control of Windblown Solid Waste and Litter. Debris will be picked up daily from all on-site roads and from FM 1660, CR 100, CR 101, CR 131 and CR 132, for a distance of two miles in each direction from the site entrance. Site laborers will load any debris into the site pickup. The debris will be taken to the working face and disposed of.

Dust from onsite and other access roads shall be controlled on an as-needed basis to avoid becoming a nuisance to surrounding areas. A water source and the necessary equipment shall be provided by the landfill operator for dust control.

The on-site water truck shall be equipped and utilized for dust control. Sources of water for this process may be a municipal water supply, the ditches along the eastern and southern perimeters, water collected in on-site stormwater ponds, and/or outside sources. Onsite roads and ditches shall be cleaned of litter and debris on a daily basis. On site and other access roadways shall be maintained in a clean and safe condition. Access roadways will be re-graded on a monthly basis by grading and placing additional road materials to minimize depressions, ruts, and potholes, and provide uninterrupted access to the unloading area(s). Additional re-grading or maintenance may be implemented as needed.

Records will be kept in the facility Operating Records to demonstrate compliance with the requirement of this section.

**4.18 SALVAGING AND SCAVENGING \$330,155**

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Salvaging is the controlled removal of waste materials for utilization, recycling or sale. Scavenging is the uncontrolled and unauthorized removal of materials at any point in the solid waste management system. No scavenging shall be allowed at this site. This rule shall be strictly enforced through site access controls and monitoring by facility personnel. Salvaging or recycling of materials such as metals and white goods will be allowed with specific authorization from the landfill manager if the activity is supervised by landfill personnel. However, salvaging shall not be allowed to interfere with prompt sanitary disposal of solid waste or to create public health nuisances. Such items shall be removed on an as needed basis to prevent creation of nuisance conditions, to preclude the discharge of any pollutants from the area, and to prevent an excessive accumulation of the material at the facility.

Special waste received at the disposal site shall not be salvaged. Pesticide, fungicide, rodenticide, and herbicide containers shall not be salvaged unless being salvaged through a state supported recycling program.

**4.19 ENDANGERED SPECIES PROTECTION §330.157**

No endangered or threatened species are known to exist at the site that would be affected by the landfill operations; therefore the facility and the operation of the facility shall 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. Information regarding endangered species is provided in Part I/II of the site permit application.

**4.20 LANDFILL GAS CONTROL §330.159**

Landfill gas control is addressed in detail in Part III, Attachment 14, Landfill Gas Management Plan and summarized in this section. Refer to Attachment 14 for specific requirements and procedures. Landfill gas monitoring for the presence of methane gas at the site will be conducted on a regular basis. In particular, the site boundary will be monitored to identify whether there exists the possibility of off-site methane migration or perimeter methane concentrations exceeding the lower explosive limit (LEL). Additionally, on-site structures will be checked to confirm that methane concentrations do not exceed 25 percent of the LEL. The allowable limits and details of gas monitoring and recovery are more fully described in Part III, Attachment 14, Landfill Gas Management Plan.

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Monitoring for combustible gas concentrations will be performed quarterly within all enclosed site structures and around the perimeter of landfilled portions of the site. All required reports and other submittals shall be included in the operating record of the facility and submitted to the executive director. Permanent probes will be used to monitor the perimeter. Barhole probes may be used as a supplement. Probe locations are specified in Part III, Attachment 14, Landfill Gas Management Plan.

In the event that methane levels that exceed allowable lower limits are detected within structures or at the property boundary, the TCEQ will be notified and steps will be implemented to ensure the protection of human health in accordance with the Landfill Gas Management Contingency Plan. Documentation of the gas measurements and of the steps taken for human protection will be placed in the Site Operating Record within seven (7) days. A remediation plan for any methane gas releases as described in the Landfill Gas Management Plan will be implemented within 60 days of the methane detection. This remediation plan will be submitted to TCEQ to describe the proposed remediation activities within 60 days.

A passive landfill gas vent system has been designed. Parts of the landfill currently are under the influence of a gas collection and control system that includes wells, header system, and flares. This system is currently operated for odor control but may be required to be expanded in the future to comply with New Source Performance Standards (NSPS) and/or other federal and state requirements.

#### 4.21 OIL, GAS AND WATER WELLS §330.161

There is no known existing or abandoned oil and/or water wells within the site. The landfill manager shall immediately provide written notification to the TCEQ of the location of any and all existing or abandoned oil or gas wells or other wells associated with mineral recovery or water wells situated within the site upon such discovery. The landfill operator shall, within 30 days of such a discovery, provide the TCEQ with written certification that all abandoned water wells have been capped, plugged, and closed in accordance with all applicable rules and regulations of the TCEQ. The landfill operator shall provide the TCEQ with written certification that all abandoned oil or gas wells or other wells associated with mineral recovery have been capped, plugged, and closed in accordance with all applicable rules of the Railroad Commission.

If any water or other type of well under the jurisdiction of the commission is to be plugged, it shall be plugged in accordance with all applicable commission requirements and additional requirements imposed by the executive director. A copy of the well plugging report required to be submitted to the appropriate state agency shall also be submitted to the executive director within 30 days after the well has been plugged.

**4.22      COMPACTION §330.163**

The waste shall be thoroughly compacted by landfill compaction equipment in layers approximately two feet in thickness. The compaction equipment shall pass over the waste a sufficient number of times (i.e., minimum of 4 passes) to achieve thorough compaction.

When waste is used as ballast, as described in Part III, Attachment 10, Soil and Liner Quality Control Plan, the first five feet or the total thickness of ballast, whichever is less, placed on the liner system shall be free of brush and large bulky items, which would damage the underlying parts of the liner system or which cannot be compacted to the required density. When waste is used as ballast, a wheeled trash compactor having a minimum weight of 40,000 pounds, or similar equipment, shall be properly utilized to reach a compaction density of at least 1,000 pounds per cubic yard. For additional information see Part III, Attachment 10, Soil and Liner Quality Control Plan.

**4.23      LANDFILL COVER §330.165**Daily Cover

In order to prevent disease vectors, control windblown debris and odors, reduce the possibility of fire, prevent scavenging, and improve the operation of the site, a minimum of six inches of "daily" cover (earthen material that has not been previously mixed with garbage, rubbish or other solid waste), or approved equivalent, shall be placed and compacted over all exposed waste at the end of each working day or at least once every 24 hours.

To ensure that the daily cover 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, graded to drain, and will not have any waste visibly protruding through it.
- The landfill manager will document where daily cover has been placed through visual inspections during placement that a minimum of 6 inches (compacted thickness) of daily cover has been placed over the days working face area. The landfill manager will document on a daily basis the daily cover completion and placement area.

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- After each rainfall event resulting in runoff, the landfill manager will inspect all daily cover areas for erosion, exposed waste or other damage, and repair as necessary. Runoff water that comes in contact with waste will be handled as contaminated water.
- Runoff from areas that have intact daily cover is not considered as having come in contact with the working face or leachate.
- The landfill manager will inspect for seeps from daily cover. All seepage water from waste below the daily cover will be controlled by placement of soil berms and diverted to the contaminated water collection area. Contaminated water will be treated as outlined in Attachment 15.

Alternate Daily Cover

Alternative daily cover (ADC) materials may be utilized at this facility. These materials may include the use of flexible membranes, heavy duty tarpaulins, petroleum contaminated soils, synthetic foam materials, or other engineered fabrics. ADC shall not be allowed when the landfill is closed for a period greater than 24 hours. An ADC Operating Plan (ADCOP) is attached to this SOP as Appendix A.

The use of an ADC may be allowed by a temporary authorization under 30 TAC 305.70(m) on a six month trial basis. Additionally, one extension of up to six months may be granted. If the TCEQ grants temporary authorization for the use of ADC not already approved for use, status reports on the ADC will be submitted to TCEQ on a two month basis that describes the effectiveness of the alternative material, any problems that may have occurred, and corrective actions required and implemented as a result of such problems.

Permanent authorization for the use of ADC may be obtained from the TCEQ through a "Notice Modification" in accordance with 30 TAC 305.70(k)(1). Permanent authorization may be applied for during the temporary trial periods, but in no case shall ADC be continued past the trial periods without first receiving permanent authorization from the TCEQ.

Intermediate Cover

All areas that have received waste but will be inactive for longer than 180 days will be provided with intermediate cover. This intermediate cover will include six inches of suitable earthen material that is capable of sustaining native plant growth and will be seeded or sodded following its application in order to reduce erosion. Mulch may be used in conjunction with the suitable earthen materials as a method of reducing erosion after seeding and as a means of providing soil enrichment. This intermediate cover will be not less than 12 inches of suitable earthen material. These areas of intermediate cover shall be graded for proper drainage to help prevent ponding of water, and plant growth or other erosion control features

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will be maintained. Runoff from areas which have received intermediate cover will not be considered as having come into contact with the working face or leachate.

Final Cover

"Final" cover soil for the landfill shall be placed and compacted as outlined in Part III, Attachment 12, Final Closure Plan.

The final cover system including the erosion control structures (such as drainage swales and chutes) will be maintained during the active life and through post closure. During the active life of the site, the landfill manager should inspect the final cover system on a weekly basis. Erosion of final cover shall be repaired promptly by restoring the cover material, grading, compacting, and seeding it as necessary.

Erosion of Cover

Interim or final cover that has been seeded and has vegetation established will continue to be maintained. However, caution will be exercised not to damage the integrity of vegetation in these areas that will result in greater erosion through the destruction of vegetative cover to fix minor erosion riles. To address this concern, minor or incidental erosion riles will be monitored to ensure that they do not develop into areas of significant erosion. Erosion of intermediate or final cover of a magnitude that would be considered significant will consist of areas that in the opinion of the landfill manager jeopardize the integrity of the intermediate or final cover. These areas will be repaired within five days of detection as weather permits by restoring the cover material, grading, compacting, and seeding. If conditions warrant, and the commission's regional office approves otherwise, based on the extent of the damage, time to repair, or weather conditions, the five day requirement may be extended. The date of detection of erosion and date of completion or repairs, including reasons for any delays, will be documented in the cover inspection record. The landfill manager will inspect the intermediate and final cover at the site on a weekly basis and after a rain event in which runoff occurs.

Cover Inspection Record

A cover application record shall be maintained at the site and readily available for inspection by TCEQ and authorized agents or employees of local governments having jurisdiction. The record shall specify the date that cover was accomplished, how it was accomplished, and the last area covered. This applies to daily, alternate daily, intermediate, and final cover. For final cover, the record shall also specify the thickness applied on that date. Each entry shall be certified by signature of the landfill manager or designated representative.

A cover inspection record will be maintained that documents inspections of daily, intermediate and final cover, the findings, and corrective action taken when necessary.

#### 4.24 PONDED WATER §330.167

Measures shall be implemented to prevent ponding of water over waste in the disposal areas. When ponded water does occur in the active portion of the MSWLF unit, it shall be actively removed with portable pumps. Ponded water from an area with at least 12 inches of intermediate cover shall be pumped/removed to the site drainage system. Contaminated water found within active disposal areas shall be handled in accordance with Part III, Attachment 15, Leachate and Contaminated Water Management Plan. Refer to Attachment 15 for requirements and handling procedures for contaminated water. Ponded water that occurs in the active portion of the facility or on a closed portion of the facility must be eliminated and the area in which the ponding occurred will be filled in and regraded within seven days of the occurrence.

##### 4.24.1 Ponding Prevention Plan

The potential for ponding of water over waste areas will be minimized by achieving a high density compaction during the placement of the wastes and by constructing and maintaining proper cover and slope on all areas so that stormwater will not pond and drain properly, either to the site drainage system (for intermediate or final covered areas) or to run-off control structures (for active disposal areas). Measures shall be implemented to minimize ponding of water over waste in the disposal areas, such as the installation of upgradient diversion berms to minimize the amount of water entering the disposal area, and proper construction of the working face slopes.

Active portions of the landfill, including final covered areas not in post closure care, intermediate cover areas, and daily cover areas, will be inspected at least weekly for signs of ponded water or depressions that could potentially pond water. Additional inspections may be conducted after rainfall events in excess of 1/2 inch or more rain in a 24 hour period. These inspections will be conducted within a day of the rainfall event. However, during periods of extended or heavy rainfall, portions of the site may not be accessible to vehicles for inspection. During these periods it may be necessary to allow for drying prior to accessing the remote sections of the site for inspection.

During the post closure period of closed portions of the landfill, the final cover will be inspected and maintained annually, at a minimum, in accordance with Part III, Attachment 13, Post Closure Care Plan.

Depressions that could potentially pond water will be eliminated by filling and/or regrading within 7 days of identification, weather and access permitting.

Ponded water will be eliminated within 7 days of occurrence, weather and access permitting.

Ponded water areas may be corrected by implementing one or more of the following procedures:

- Pumping water out of the depression,
- Regrading and allowing the water to flow off, and
- Adding cover soils to fill the depression and forcing the water on to areas of the landfill that allows the water to flow off the landfill.

However, during periods of extended or heavy rainfall, the site may not be able to operate on the cover materials without further compromising the cover with the tracking of equipment. During these periods, the site may allow for a day of drying prior to accessing the ponded water site with equipment. The ponded water will be eliminated on the second consecutive day without rainfall.

After the ponded water has been removed the site will be regraded and/or filled with additional cover soil to eliminate the potential for ponded water and promote positive drainage.

Water that has been in contact with waste, daily cover, and/or alternate daily cover (ADC) will be removed and handled as contaminated water in accordance with Part III, Attachment 15, Leachate and Contaminated Water Management Plan and Part III, Attachment 6, Groundwater and Surface Water Protection Plan and Drainage Plan.

In general, contaminated water will be contained in the area of the working face behind the containment berm. This water will not be handled as leachate. The contaminated water will be pumped directly into a tanker truck if necessary or pumped to on-site storage tanks. Contaminated water pumped directly to a tanker truck will be disposed of off-site at an approved treatment facility. Any of the aforementioned transmission systems may be utilized.

Contaminated water may not be recirculated.

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Records will be kept in the facility Operating Record to demonstrate compliance with the requirements of this section.

**4.25 DISPOSAL OF SPECIAL WASTE §330.171**

Special waste is any solid waste or combination of solid wastes that because of its quantity, concentration, physical or chemical characteristics, or biological properties requires special handling and disposal to protect human health or the environment. The various types of special wastes are defined in 30 TAC §330.3.

The following special wastes will be accepted without prior written authorization from the TCEQ provided the waste is handled in accordance with the procedures listed below:

- Special wastes from health care related facilities that have been treated in accordance with the procedures specified in Subchapter Y of the TCEQ regulations (relating to Medical Waste Management).
- Dead animals and/or slaughterhouse waste provided the carcasses and/or slaughterhouse waste are covered by 3 feet of other solid waste or at least 2 feet of earthen material immediately upon receipt. Dead animals may also be composted in accordance with the Compost Plan and 30 TAC Chapter 332.
- Non-regulated asbestos-containing materials (non-RACM) provided the wastes are placed on the active working face and covered in accordance with the regulations. Under no circumstances shall any material containing non-RACM be placed on any surface or roadway which is subject to vehicular traffic or disposed of by any other means by which the material could be crumbled into a friable state.
- Regulated asbestos-containing material (RACM) as defined in 40 CFR ' 61 may be accepted for disposal in accordance with the asbestos handling plan (Appendix B of this Site Operating Plan).
- Empty containers that have been used for pesticides, herbicides, fungicides, or rodenticides shall be disposed of in accordance with subparagraphs (a) and (b) of this paragraph.
  - (a) These containers may be disposed of at the disposal facility provided that:
    - (i) the containers are triple-rinsed prior to receipt at the landfill;
    - (ii) the containers are rendered unusable prior to or upon receipt at the landfill; and
    - (iii) the containers are covered by the end of the same working day they are received.

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- (b) Those containers for which triple-rinsing is not feasible or practical (e.g. paper bags, cardboard containers) may be disposed of under the provisions of paragraph (6) of this Section 4.24 or in accordance with 30 TAC '330.137 (relating to Disposal of Industrial Wastes), as applicable.
- Municipal hazardous waste from a ~~conditionally-exempt~~very small quantity generator (VCESQG) provided the amount of waste does not exceed 220 pounds (100 kilograms) per month per generator, and provided the facility owner or operator authorizes acceptance of the waste.
- Sludge, grease trap waste, or grit trap waste from municipal sources if the material has been treated or processed and the treated/processed material has been tested, in accordance with Test 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, and is certified to contain no free liquids.
- Municipal wastewater treatment sludge (sewage sludge) that, upon receipt, meets the requirements of Class A sewage sludge (30 TAC 312.8) and the metal concentrations in 30 TAC 312.43(b)(3) will either be disposed as described above, or will be beneficially reused. Beneficial use of sewage sludge may include use as an soil additive to enhance establishment of vegetation on landfill intermediate or final cover areas. Sewage sludge may be added to soil in percentages ranging from zero (0) to 100 percent by volume, sludge to soil. Sewage sludge may make up a maximum of 50% by volume of the finished mixture. The finished mixture must contain at least 50% soil by volume. These percentages will vary and will be dependent on the physical characteristics of the soil and sludge being used. The sewage sludge and soil may either be mixed in a pile with an excavator, bull-dozer, or spread and plowed with a disk, harrow, rototiller, or similar device. Additional thickness of sewage enhanced soil may be required to maintain the minimum intermediate or final cover thicknesses as the organic volume of the sewage sludge decomposes. Prior to the facility's land applying of any Class A sewage sludge, all necessary authorizations required under 30 TAC 312 will be obtained.
- Sludge, grease trap waste, grit trap waste, and liquid waste from other municipal sources may be accepted for processing/stabilization at Williamson County RDF in accordance with 30 TAC 330.171(c)(7) utilizing the following procedures:
  - (a) Williamson County RDF will provide either a metal or concrete basin placed for the processing/stabilization of liquid wastes. The basin will be placed within a disposal sector which is underlain by a TCEQ-approved composite liner system or, when placed outside a disposal sector underlain by a TCEQ-approved composite liner system, the basin will be underlaid by a 3-foot thick (minimum) compacted clay zone. Under no

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circumstances will the basin be placed in an area outside of the permitted waste footprint. The 3-foot thick compacted clay zone will be constructed in accordance with the requirements for soil liners included in Part III, Attachment 10, Soil and Liner Quality Control Plan. When the basin is placed within waste fill, the excavation around the basin may be backfilled with either waste material and/or soil (a minimum 12 inches of intermediate cover soil is required over the waste backfill). When the basin is placed outside of waste fill, the excavation around the basin shall be backfilled with clean soil. The soil or intermediate cover soil will be graded around the basin to insure that stormwater runoff is directed away from the basin. The basin will be placed to insure a minimum of one foot of the basin extends above the surrounding soil.

- (b) Once the basin is in place, trucks will be able to discharge their contents directly into the basin for mixing. Lime, fly ash, cement or lime kiln dust, Portland cement, hydrated lime, dried sludge, saw dust, auto fluff, shredded paper, wood chips, dirt, or any combination of these materials may be used for liquid stabilization. Also, contaminated soils as allowed by this section may be used as the solidifying agent. All solid waste materials stockpiled as the solidifying agent for liquid stabilization shall be stored in such a manner that they do not constitute a fire, safety, or health hazard or provide food or harborage for animals and vectors, and shall be contained or bundled so as not to result in litter. All solid waste materials stockpiled as the solidifying agent for liquid stabilization shall be stored as described in Part III, Attachment 6, Groundwater and Surface Water Protection Plan and Drainage Plan regarding the minimization and management of contaminated water and the management of water that has not contacted waste. The liquid stabilization basin will be designed to control and contain a worst case spills and contaminated water from leaving the facility. To assure containment, the liquid waste stabilization basins will be placed or constructed over a composite liner system. Liquid stabilization basins may be placed or constructed in waste fill areas underlain by a TCEQ approved composite liner. Liquid stabilization basins placed or constructed in waste fill areas without a TCEQ composite liner or in non-waste filled areas will be underlain by a constructed composite liner. This composite liner system will consist of a 60-mil High Density Polyethylene (HDPE) geomembrane underlain by two feet of recompacted soil liner with a maximum hydraulic conductivity of  $1 \times 10^{-7}$  centimeters per second. The 60-mil HDPE shall have a minimum of 2 feet of protective cover to any surface of the liquid stabilization basin. These composite liner components will be constructed in accordance with Part III, Attachment 10, Soil and Liner Quality

Control Plan (SLQCP). Section 1.0 of the SLQCP addresses the purpose of the plan, regulatory requirements and full-time quality control/quality assurance; Section 2.0 addresses the construction of Soil Liners; Section 3.0 addresses Geomembrane Liners; Section 4.0 addresses Leachate Collection Layer and is not applicable to the liquid stabilization basin; Section 5.0 addresses liners constructed below the seasonal high water table and is not applicable to the liquid stabilization basin; and Section 6.0 addresses documentation and reporting. Details of the liquid stabilization basin and the composite liner are included in Figure IV-1, Liquid Stabilization Basin Details. The containment area will be operated with a minimum 1-foot freeboard, this is sufficient to account for the precipitation from the 7.9-inch, 25-year, 24-hour storm (according to the National Weather Service Precipitation Depth Maps). Control of odors, vectors, and windblown waste from the solid waste material solidification agent stockpiles shall be maintained. 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 Test Method 9095 (Paint Filter Liquids Test\_ as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication Number SW-846). Upon verification of the stabilized material passing the paint filter test, the mixture will be removed from the basin and deposited at the active working face for disposal.

- (c) The processing/stabilization of the liquid wastes received will be conducted in a manner so as to minimize the potential for odor-related nuisances. To further minimize the potential for odor-related nuisances, the liquid waste stabilization basin will be located so as to maintain a minimum of 1,000 feet separation between the basin and the nearest resident. The basin will be placed within a disposal sector which is underlain by a TCEQ-approved composite liner system or, when placed outside a disposal sector underlain by a TCEQ-approved composite liner system, the basin will be underlaid by a 3-foot thick (minimum) compacted clay zone. Under no circumstances will the basin be placed in an area outside of the permitted waste footprint. Liquid stabilization basin will not be located in Cells 2A, 3B, 3C, and 3D due to the 1,000 feet restriction from the residences. The exact location of the basins will be determined by the site operator based on operational needs of the facility. The initial area denoted for liquid stabilization basin placement is shown in Figure III-1.1, Site Layout Plan. Under no circumstances will the basin be placed in an area outside of the permitted waste footprint. Prior to relocating the basins the operator will submit a modification request

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to the TCEQ in accordance with 30 TAC 305. Upon approval of the modification request, and prior to the actual relocation of the basins, the operator will notify the TCEQ's regional office of the projected date of relocation.

(d) Each time the basin is emptied or moved, it will be inspected for holes or other signs of leakage. The basin will be covered while not in use with a portable synthetic daily cover or a fitted rigid cover to exclude rainfall from the basin.

(e) Liquid waste will be processed and disposed of the same day it is received; or, if it is not disposed of the same day it is received, the unprocessed and processed liquid waste will remain in the liquid stabilization basin and the basin will be covered or enclosed in an odor-retaining container or vessel overnight until it is processed and disposed. Soil contaminated by petroleum products, crude oils, or chemicals (also referred to as petroleum contaminated soils) may be accepted for disposal without specific TCEQ approval only if they are tested as being under the limits specified in the following table.

| CONTAMINANT                                                        | CONSTITUENTS OF CONCERN             | MAXIMUM CONTAMINANT LEVEL MUST BE LESS THAN                  | MINIMUM LANDFILL CRITERIA                                                                     |
|--------------------------------------------------------------------|-------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Automotive Gasoline                                                | Benzene<br>TPH<br>Lead <sup>2</sup> | 0.5 mg/l <sup>1</sup><br>1500 mg/kg<br>1.5 mg/l <sup>1</sup> | Type I, TCEQ approved liner or Constructed Clay Liner <sup>3</sup> and Groundwater Monitoring |
| All Other Fuels (i.e., Diesel, Kerosene, Aviation, Fuel Oil, etc.) | Benzene<br>TPH<br>Lead <sup>2</sup> | 0.5 mg/l <sup>1</sup><br>1500 mg/kg<br>1.5 mg/l <sup>1</sup> | Type I, TCEQ approved liner or Constructed Clay Liner <sup>3</sup> and Groundwater Monitoring |
| Used Motor Oil from an Internal Combustion Engine                  | Benzene<br>TPH<br>Lead <sup>2</sup> | 0.5 mg/l <sup>1</sup><br>1500 mg/kg<br>1.5 mg/l <sup>1</sup> | Type I, TCEQ approved liner or Constructed Clay Liner <sup>3</sup> and Groundwater Monitoring |
| All Other Petroleum Hydrocarbons                                   | TPH<br>PCBs <sup>4</sup>            | 1500 mg/kg<br>50 mg/kg                                       | Type I, TCEQ approved liner or Constructed Clay Liner <sup>3</sup> and Groundwater Monitoring |

<sup>1</sup> An analysis of total contaminant level may be used as a screening tool prior to Toxicity Characteristic Leaching Procedure (TCLP). To determine the maximum total contaminant level at which a TCLP is not necessary multiply the table limit by a factor of twenty. This formula is extrapolated from a twenty to one dilution factor when preparing TCLP samples for analysis (Title 40 Code of Federal Regulations, Part 261, Appendix II). If a contaminant total level exceeds twenty times the table limit (e.g. total lead >30 mg/kg, total benzene >10 mg/kg, etc), then TCLP must be performed. Please note that this extrapolation is applicable only to solids.

<sup>2</sup> If it is known, through process knowledge, that the Automotive Gasoline, fuels and motor oil did not contain lead, it is not necessary to test for lead.

<sup>3</sup> Landfill liner that meets the requirements in 30 TAC Chapter '330.331. The minimum protection liner will be a composite liner as defined in '330.331(b) or an alternate design approved by the Executive Director.

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<sup>4</sup> If it is known, through process knowledge, that All Other Petroleum Hydrocarbons did not contain PCBs, it is not necessary to test for PCBs.

<sup>5</sup> If it is known through process knowledge that motor oil did not contain benzene, it is not necessary to test for benzene.

To determine whether or not a soil meets the criteria listed in the table, one composite sample will be taken for every 50 cy of contaminated soil. The composite sample should be comprised of 4 separate grab samples from within the 50 cy. The person taking the sample should strive to obtain the most representative sample possible. All samples must be analyzed for total petroleum hydrocarbon (TPH). When additional parameters are required (benzene, lead, or PCBs) it is only necessary to analyze the sample that is determined to contain the highest level of TPH from each of 200 cy. For example, if there is 400 cy of contaminated soil, there should be eight samples tested for TPH and the two samples with the highest TPH level from those samples should be analyzed for the additional parameters of concern. Laboratory detection limits must be less than or equal to the maximum contaminant levels listed in the preceding table for the analysis to be considered valid.

Other soils contaminated by petroleum products, crude oils, or chemicals (not addressed in the table) will require specific authorization on a case-by-case basis prior to disposal. Requests for authorization to dispose of contaminated soils will be accompanied by analytical data (including signed laboratory reports, chain-of-custody information, Quality Control Data, and a sampling plan) or data as required by the TCEQ.

Prior to receiving the above types of waste, the customer/generator shall provide sufficient documentation that their wastes meet all of the requirements listed above. This type of documentation, when necessary, should include information such as the generator's information, description of the waste, description of the process generating the waste, volume of waste, waste/chemical composition, physical characteristics, and any other information the site manager deems necessary. This documentation may be included on a waste profile form such as the one included at the end of this document. Analytical data used for documentation shall not be more than one year old.

Authorized personnel responsible for reviewing special waste documentation shall be familiar with the application of relevant regulations and guidance documents pertaining to waste classification, waste characterization, and hazardous waste determination. Applicable regulations and guidance documents include: 40 CFR Part 261 - Identification and Listing of Hazardous Waste; 30 TAC §335, Subchapter R - Waste Classification; and TCEQ Regulatory Guide RG-22, Guidelines for the Classification and Coding of Industrial and Hazardous Wastes.

No other special wastes will be accepted for disposal without prior written approval from the TCEQ. The maximum allowable limits for the concentration of the constituents of concern in the wastes to be accepted in the landfill shall be per 30 TAC §335, Subchapter R, Appendix 1, Table 1, or as approved by the TCEQ.

Class I industrial non-hazardous waste not routinely collected with municipal solid wastes will not be accepted for disposal at this facility.

#### 4.26 DISPOSAL OF INDUSTRIAL WASTE §330.173

Industrial nonhazardous waste is defined by §330.3 as solid waste resulting from or incidental to any process of industry or manufacturing, or mining or agricultural operations, classified as follows: Class II industrial Solid Waste – any individual solid waste or combination of industrial solid wastes that cannot be described as Class I or Class III, as defined in §335.506 (relating to Class II waste determination). Class III Industrial Solid Waste – any inert and essentially insoluble industrial solid waste, including materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc. that are not readily decomposable as defined in §335.507 (relating to Class III waste determination). Class II and Class III industrial solid wastes may be accepted at a Type I facility, provided disposal of these wastes does not interfere with proper operation of the facility.

This facility will not accept Class I industrial solid waste, with the exception of wastes which are Class I only because of asbestos content. Waste classified as Class I only because of asbestos content may be accepted by the facility for disposal and will be managed in accordance with 30 TAC §330.171(b)(3) and Appendix B of this SOP. All shipments of Class I industrial waste only because of asbestos content must be accompanied by a manifest as required by the commission.

The amount of Class I industrial non-hazardous waste (Class I only because of asbestos content) received will not exceed 20% of the total amount of waste (not including Class I wastes) accepted during the current or previous year in accordance with §330.173(e) and §330.173(f). The amount of waste may be determined by volume or weight, but the same unit of measure must be used for each year, unless a variance is authorized by the executive director.

In the event that a prohibited industrial solid (Class I) waste arrives at the site, the landfill manager will follow the appropriate procedures as outlined in Section 4.2. The facility will operate in compliance with

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30 TAC §330.173 or any special conditions imposed by the executive director. Failure to operate in accordance with 30 TAC §330.173 may result in revocation of the authorization to accept a Class I waste.

The facility may accept Class II and III industrial solid waste for disposal provided the acceptance of this waste does not interfere with facility operations. These types of waste will be treated as typical municipal solid waste.

**4.27 VISUAL SCREENING OF DEPOSITED WASTE §330.175**

Final, intermediate, daily and ADC cover will provide screening of deposited waste materials from view. The landfill is initially screened by vegetation located along the unnamed drainage tributary along the north side of the site and Mustang Creek along the south side of the site. As aerial filling progresses to the east, final sideslope cover will be placed and vegetated on the landfill and perimeter drainage channels and final cover drainage channels and terraces will be constructed. Additionally, vegetated soil berms or vegetated berms constructed of compost or mulch may be temporarily utilized as visual screening berms at locations throughout the facility.

Also, existing vegetation in the 125 foot minimum buffer zones shall be maintained, where possible, to provide visual screening of deposited waste materials from view. The natural vegetation in the buffer zone around the site shall be left as is, as much as possible, to provide visual screening and to keep the area with the appearance of the natural surrounding. The M/S shall ensure, if necessary, that litter is cleaned from the buffer areas on a routine basis.

Existing natural vegetation in the buffer zones shall be maintained, where possible, to provide visual screening of disposal operations from public view. The facility will continue to operate the landfill in a manner that will provide the maximum screening possible within the requirements of the design until such time as the ED determines that additional screening is required.

**4.28 LEACHATE AND GAS CONDENSATE RECIRCULATION §330.177**

The landfill leachate or gas condensate derived from a landfill unit may be recirculated into a Type I landfill unit at the same facility from which the leachate or gas condensate was derived. Leachate or gas condensate can only be recirculated in landfill units that are designed and constructed with a leachate collection system and a composite liner.

The landfill will recirculate leachate in accordance with the requirements of Part III, Attachment 15, Leachate and Contaminated Water Management Plan,

The recirculation will be accomplished in a manner that prevents ponding or significant accumulations of leachate in any one area. Contaminated runoff and groundwater will not be recirculated.

The leachate and gas condensate does not need to be characterized for recirculation into an approved Type I landfill unit or sent to a publicly owned treatment works or Resource Conservation and Recovery Act authorized facility beyond that required by the treatment facility. All contaminated water shall be managed as specified in Part III, Attachment 15, Leachate and Contaminated Water Management Plan.

The landfill may also dispose of leachate or gas condensate in leachate evaporation ponds or off-site disposal as described in Part III, Attachment 15, Leachate and Contaminated Water Management Plan.

The Williamson County RDF will not discharge contaminated water without specific written authorization from the TCEQ. This facility is authorized to discharge uncontaminated storm water runoff pursuant to the TPDES permit and Storm Water Pollution Prevention Plan (SWPPP). This authorization applies only to stormwater collected in the facility drainage system. No contaminated water (water which has come in contact with solid waste or leachate) may be discharged from the site through the facility drainage system pursuant to this authorization. Storm water and any other water that collects in or runs off from the working face and/or areas with only daily cover or alternative daily cover (if authorized) material must be managed as contaminated water.

All contaminated water shall be managed as specified in Part III, Attachment 15, Section 1.0; Introduction; 1.1, Regulatory Requirements; and 3.0, Leachate Minimization Practices; and Part III, Attachment 6, Groundwater and Surface Water Protection/Drainage Plan; Sections 2.1, Surface Drainage Controls; 2.2, Minimization and Management of Contaminated Water; and 2.3, Management of Water that has Not Contacted Waste.

Additionally, the facility will be operated in accordance with provisions provided in the Site Development Plan, Part III, Section 4.0, Surface Water Protection, which states that the design and operation of the facility will not cause:

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1. a discharge of solid wastes or pollutants adjacent to or into the water in the state, including wetlands, that is in violation of the requirements of the Texas Waster Code, §26.121.
2. a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements, pursuant to §402 as amended.
3. a discharge of dredged or fill material to waters of the United States, including wetlands, that is in violation of the requirements under the Federal Clean Water Act, §404, as amended.
4. a discharge of a nonpoint source pollution of waters of the United States, including wetlands, that violates any requirement of an area wide or statewide water quality management plan that has been approved under the Federal Clean Water Act, §208 or §319, as amended.

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*Williamson County Recycling & Disposal Facility  
Permit Amendment Application MSW-1405B  
Site Operating Plan, Part IV*

**FORMS**

*IV-082418*

*IV- 60*

*Submittal Date: December 2004  
Technically Complete: February 2006  
Revision 98: August 2018 September  
2023*

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Williamson County Recycling & Disposal Facility  
Permit Amendment Application MSW-1405B  
Site Operating Plan, Part IV

EXAMPLE  
OPERATING RECORD ENTRY FORM

W-082418

IV-61

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2023

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[illegible]

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Site Operating Plan, Part IV

EXAMPLE  
WASTE CHARACTERIZATION DATA FORM

IV-082418

IV- 63

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2023

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**EXAMPLE**  
**LOAD INSPECTION REPORT FORM**

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IV- 64

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— August 2018 September 2023

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EXAMPLE  
WASTE DISCREPANCY REPORT FORM

IV-082418

IV- 65

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— ~~August 2018~~ September 2023

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**FIGURES**

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Revision 98: August 2018 September  
2023*



NORTH

EXTENTS OF C&D SORTING AND RECYCLING PAD (SIZE VARIES)

STORMWATER RUN-OFF CONTROL BERM

MATERIAL STORAGE

TIPPING AND SORTING AREA

ROCK OR ROAD BASE PAD (SIZE VARIES)

ROLL-OFF STAGING

STORMWATER RUN-ON CONTROL BERM, IF NECESSARY. EXISTING ROADS MAY SERVE THIS PURPOSE

ACCESS DRIVEWAYS

SCALE IN FEET

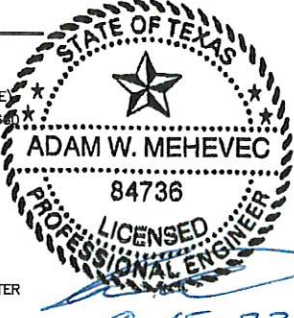
0 80 160

GENERAL NOTES

1. THE C&D SORTING AND RECYCLING AREA MAY BE PLACED ANYWHERE WITHIN THE LANDFILL PERMIT BOUNDARY THAT IS NOT CURRENTLY BEING USED FOR SOLID WASTE DISPOSAL.
2. THE LAYOUT SHOWN IS TYPICAL, BUT THE C&D SORTING AND RECYCLING PAD LAYOUT MAY BE ADJUSTED TO ACCOMMODATE EXISTING CONDITIONS AT THE SELECTED LOCATION.

LEGEND

- PERMIT BOUNDARY
- PERMITTED LIMIT OF WASTE
- CELL BOUNDARY (APPROXIMATE)
- 1000' SETBACK FROM F.M. 160
- EXISTING GROUND CONTOUR
- CELL DESIGNATION
- SITE COORDINATE GRID
- STATE PLANE COORDINATE GRID
- MONITORING WELL/PIEZOMETER LOCATION



REFERENCES

EXISTING CONTOURS, PLANIMETRIC FEATURES AND AERIAL PHOTO FROM AERIAL SURVEY BY HYDREX ENVIRONMENTAL (DATE OF PHOTOGRAPHY: FEBRUARY 1, 2022).

| REVISION RECORD |      |
|-----------------|------|
| NO              | DATE |
|                 |      |
|                 |      |
|                 |      |
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**WASTE MANAGEMENT - SOUTH TEXAS  
WILLAMSON COUNTY RECYCLING  
AND DISPOSAL FACILITY  
WILLAMSON COUNTY, TEXAS**

**TYPICAL C&D SORTING AND  
RECYCLING PAD LAYOUT**

|                               |             |              |       |
|-------------------------------|-------------|--------------|-------|
| DATE:                         | AUGUST 2022 | DRAWN BY:    | JSC   |
| DWG SCALE:                    | 1" = 60'    | CHECKED BY:  | DRAFT |
| PROJECT NO.:                  | 324403.TCEQ | APPROVED BY: |       |
| *HAND SIGNATURE ON FILE DRAFT |             |              |       |

DRAWING NO. **IV-C-1**

9-15-23

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*FOR PERMIT PURPOSES ONLY*

*Williamson County Recycling & Disposal Facility  
Permit Amendment Application MSW-1405B  
Site Operating Plan, Part IV*

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## **APPENDICES**

WILLIAMSON COUNTY  
RECYCLING & DISPOSAL FACILITY  
PERMIT AMENDMENT APPLICATION MSW-1405B  
WILLIAMSON COUNTY, TEXAS

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SITE OPERATING PLAN  
APPENDIX C-C&D SORTING AND RECYCLING PLAN

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Prepared for:

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WILLIAMSON COUNTY  
301 S.E. Inner Loop, Suite 109  
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and

WASTE MANAGEMENT OF TEXAS, INC.  
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DECEMBERSEPTEMBER 2023

IV-C-1

Submittal Date: December

2022September 2023

Revision 0: December 2022September 2023

Inert construction and demolition materials such as brick, rock, sand, glass, concrete, etc. and non-inert construction and demolition materials such as wood, asphalt, and metal may be segregated from the incoming waste stream for onsite re-use or sent offsite for recycling. These materials will be processed at the designated C&D sorting and recycling area, which may be any area within the landfill permit boundary that is not currently being used for solid waste disposal. Since the sorting and recycling area will manage non-inert materials, stormwater run-on and run-off will be controlled in this area. A typical layout for the sorting and recycling area is shown on Figure IV-C-1.

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The construction and demolition waste deposited at the C&D sorting and recycling area will be separated by waste stream for recycling. Separation will be conducted by individual load (if waste material is homogenous), with site equipment, or by hand. Some of the waste streams will be taken directly to roll-off containers and shipped off-site to appropriate facilities to be further processed and recycled or reused, and others, such as wood mulch and concrete may be used on site for soil stabilization, soil enhancement, or for road construction. The C&D sorting and recycling area will remain free of putrescibles and household wastes. These inert and non-inert materials will continuously be reused for site operations or transported offsite for recycling, and there is no time limit on the storage of these materials. If a significant work stoppage should occur at the waste sorting and recycling area due to a mechanical breakdown or other causes, the facility shall accordingly restrict the diverting of solid waste and all incoming solid waste shall be directed to the active disposal area until the sorting and processing area is returned to operation.

All waste shall be stored in such a manner that it does not constitute a fire, safety, or health hazard or provide food or harborage for animals and vectors, and shall be contained or bundled so as not to result in litter. The site water truck may be used for extinguishing fires as detailed in Section 4.4 of this SOP. All employees working at or near the sorting and recycling area shall be trained on the requirements of the Fire Protection Plan included in Section 4.4.

Road base or rock access roads will be constructed as necessary to provide all-weather access to the sorting and recycling area. All-weather pads may also be constructed within the sorting and recycling area to allow for roll-off staging and material storage. Vehicle parking for equipment and employees will be provided. Employees will park near the landfill scalehouse, maintenance facility, or at the sorting and recycling area. Equipment can be parked adjacent to the storage or processing unit.

The sorting and recycling area will be inspected weekly to verify the integrity of the stormwater controls

Williamson County Recycling & Disposal Facility  
Permit Amendment Application MSW-1405B  
Site Operating Plan, Part IV

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and look for ponded water and accumulated litter or debris that needs to be collected.

2022September 2023

IV-C-3

Submittal Date: December

Revision 0: December 2022  
September 2023

**SLQCP REDLINE PAGES**

**WILLIAMSON COUNTY  
RECYCLING & DISPOSAL FACILITY  
PERMIT AMENDMENT APPLICATION MSW-1405B  
WILLIAMSON COUNTY, TEXAS**

**SOIL AND LINER QUALITY CONTROL PLAN**

**PART III, ATTACHMENT 10**

Prepared for:

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MAY 2005

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REVISED: ~~DECEMBER 2022~~ SEPTEMBER 2023**

particle size as indicated in Section 3.11.2. Granular materials placed around collection pipes must have grain size compatible with the size of the holes in the collection pipes. Geosynthetic materials (i.e. geocomposite, geonet, and geotextiles) used in leachate collection layers must have the transmissivity and other properties as specified in the SDP.

#### **4.2 Construction**

Granular materials should be placed and spread using equipment and methods that minimize generation of fine material. Material placed over geomembrane or other geosynthetics should be placed as described in Sections 3.11.1. Granular materials should not receive any compaction other than that which is incidental to the placement and spreading process.

#### **4.3 Quality Assurance Testing**

Quality assurance testing on granular soils by the independent laboratory should consist of grain size (ASTM D 422) and permeability (ASTM D 2434) analysis conducted at a frequency of 1 per 3,000 yd<sup>3</sup> of material placed. Permeability testing requirements can be waived if it can be shown through correlation with the grain size analysis that the material easily meets the permeability criteria. All tests should be conducted on material after it has been placed to allow for any grain size reduction that may have occurred during the placement process. It is also recommended that the granular material be tested at its source for grain size (and permeability, if necessary) to pre-qualify the material prior to its use.

Granular material used in leachate collection layers must be tested for calcium carbonate content (using ASTM D 3042 or J&L Test Method S-105-89 or other appropriate method) by either the supplier or independent laboratory. The measured calcium carbonate content must not exceed 15%.

If chimney drains are not provided through the protective cover to the leachate collection system, permeability test must also be conducted on the protective cover to verify permeability no less than  $1 \times 10^{-4}$  cm/sec.

The manufacturer's test results for geosynthetic materials should be checked and verified by the GP to meet the minimum requirements for these materials established in the SDP.

HDPE Geomembrane and Geocomposites~~Geonet~~  
Material Specifications



| <u>GEOSYNTHETIC MATERIAL SPECIFICATIONS</u>                                                                                                                                                               |                    |                                    |                              |                                     |                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------|------------------------------|-------------------------------------|------------------|
| <u>SINGLE-SIDED AND DOUBLE-SIDED GEOCOMPOSITES SPECIFICATIONS</u>                                                                                                                                         |                    |                                    |                              |                                     |                  |
| <u>PROPERTY</u>                                                                                                                                                                                           | <u>TEST METHOD</u> | <u>UNITS</u>                       | <u>SPECIFIED VALUES</u>      | <u>MQC TESTING FREQUENCY</u>        | <u>QUALIFIER</u> |
| <u>GEOTEXTILE COMPONENT</u>                                                                                                                                                                               |                    |                                    |                              |                                     |                  |
| <u>TYPE</u>                                                                                                                                                                                               |                    |                                    | <u>NON-WOVEN</u>             |                                     |                  |
| <u>MASS PER UNIT AREA</u>                                                                                                                                                                                 | <u>ASTM D5261</u>  | <u>OZ/YD<sup>2</sup></u>           | <u>6</u>                     | <u>1 PER 100,000 FT<sup>2</sup></u> | <u>NORMAL</u>    |
| <u>GRAB TENSILE STRENGTH</u>                                                                                                                                                                              | <u>ASTM D4632</u>  | <u>LBS</u>                         | <u>157</u>                   | <u>1 PER 100,000 FT<sup>2</sup></u> | <u>MINIMUM</u>   |
| <u>TRAPEZOIDAL TEAR STRENGTH</u>                                                                                                                                                                          | <u>ASTM D4533</u>  | <u>LBS</u>                         | <u>56</u>                    | <u>1 PER 100,000 FT<sup>2</sup></u> | <u>MINIMUM</u>   |
| <u>PUNCTURE STRENGTH</u>                                                                                                                                                                                  | <u>ASTM D6241</u>  | <u>LBS</u>                         | <u>315</u>                   | <u>1 PER 100,000 FT<sup>2</sup></u> | <u>MINIMUM</u>   |
| <u>APPARENT OPENING SIZE</u>                                                                                                                                                                              | <u>ASTM D4751</u>  | <u>SIEVE SIZE</u>                  | <u>70</u>                    | <u>1 PER 540,000 FT<sup>2</sup></u> | <u>MINIMUM</u>   |
| <u>WATER PERMEABILITY</u>                                                                                                                                                                                 | <u>ASTM D4491</u>  | <u>CM/S</u>                        | <u>1 X 10<sup>-2</sup></u>   | <u>1 PER 540,000 FT<sup>2</sup></u> | <u>MINIMUM</u>   |
| <u>UV RESISTANCE</u>                                                                                                                                                                                      | <u>ASTM D4355</u>  | <u>PERCENT STR. RET. @ 500 HRS</u> | <u>70</u>                    | <u>PER FORMULATION</u>              | <u>MINIMUM</u>   |
| <u>GEONET COMPONENT</u>                                                                                                                                                                                   |                    |                                    |                              |                                     |                  |
| <u>POLYMER COMPOSITION</u>                                                                                                                                                                                | <u>-</u>           | <u>PERCENT</u>                     | <u>95% POLYETHYLENE</u>      | <u>-</u>                            | <u>MINIMUM</u>   |
| <u>THICKNESS</u>                                                                                                                                                                                          | <u>ASTM D5199</u>  | <u>MILS</u>                        | <u>200</u>                   | <u>1 PER 100,000 FT<sup>2</sup></u> | <u>MINIMUM</u>   |
| <u>TENSILE STRENGTH</u>                                                                                                                                                                                   | <u>ASTM D 5035</u> | <u>LB/IN</u>                       | <u>40</u>                    | <u>1 PER 100,000 FT<sup>2</sup></u> | <u>MINIMUM</u>   |
| <u>DENSITY</u>                                                                                                                                                                                            | <u>ASTM D1505</u>  | <u>G/CC</u>                        | <u>0.940</u>                 | <u>1 PER 100,000 FT<sup>2</sup></u> | <u>MINIMUM</u>   |
| <u>CARBON BLACK CONTENT</u>                                                                                                                                                                               | <u>ASTM D4218</u>  | <u>PERCENT</u>                     | <u>2.0 TO 3.0</u>            | <u>1 PER 100,000 FT<sup>2</sup></u> | <u>RANGE</u>     |
| <u>MELT INDEX</u>                                                                                                                                                                                         | <u>ASTM D1238</u>  | <u>G/10 MIN</u>                    | <u>1.0</u>                   | <u>1 PER 100,000 FT<sup>2</sup></u> | <u>MAXIMUM</u>   |
| <u>GEOCOMPOSITE</u>                                                                                                                                                                                       |                    |                                    |                              |                                     |                  |
| <u>TRANSMISSIVITY<sup>(1)</sup></u>                                                                                                                                                                       | <u>ASTM D 4716</u> | <u>M<sup>2</sup>/S</u>             | <u>7.6 X 10<sup>-4</sup></u> | <u>1 PER 540,000 FT<sup>2</sup></u> | <u>MINIMUM</u>   |
| <u>NOTES:</u>                                                                                                                                                                                             |                    |                                    |                              |                                     |                  |
| (1) <u>TRANSMISSIVITY TEST SHALL BE PERFORMED AT: APPLIED STRESS OF 10,000 PSF (MIN.), GRADIENT OF 0.02, LOAD DURATION OF 15 MINUTES AND WITH TEST CONFIGURATION BETWEEN TWO STEEL PLATES.</u>            |                    |                                    |                              |                                     |                  |
| (2) <u>SPECIFIED TEST METHODS AND PARAMETERS MAY BE MODIFIED BY THE PROFESSIONAL-OF-RECORD (POR) TO BE CONSISTENT WITH CHANGES TO THE INDUSTRY STANDARD ASTM OR GRI METHODS AS THEY BECOME AVAILABLE.</u> |                    |                                    |                              |                                     |                  |

**ATTACHMENT 2 – CLEAN PAGES**  
**(SOP AND SLQCP CLEAN PAGES)**

**SOP CLEAN PAGES**

*FOR PERMIT PURPOSES ONLY*

**WILLIAMSON COUNTY  
RECYCLING & DISPOSAL FACILITY  
PERMIT AMENDMENT APPLICATION MSW-1405B  
WILLIAMSON COUNTY, TEXAS**

**SITE OPERATING PLAN**

**PART IV**

Prepared for:

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REVISION 3: DECEMBER 2009  
REVISION 4: JUNE 2011  
REVISION 5: MARCH 2012  
REVISION 6: DECEMBER 2015  
REVISION 7: OCTOBER 2016  
REVISION 8: AUGUST 2018  
REVISION 9: SEPTEMBER 2023 (BY CEC, INC.)**



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|      |                                                          |    |
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## FORMS

Example Operating Records Entry Form  
 Example Waste Characterization Data Form  
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 Example Waste Discrepancy Report Form

## FIGURES

Figure IV-1 Liquid Stabilization Basin Details  
 Figure IVC-1 Typical C&D Sorting and Recycling Layout

## APPENDICES

- A Alternate Daily Cover Operating Plan
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- B Regulated Asbestos Containing Material Handling Plan
- C C&D Sorting and Recycling Plan



**FOR PERMIT PURPOSES ONLY**

## **1.0 INTRODUCTION**

This Site Operating Plan (SOP) has been prepared on behalf of Waste Management of Texas, Inc. (WMTX) and consists of procedures to be followed by the landfill personnel for day-to-day operations at the Williamson County Recycling & Disposal Facility (RDF), which is permitted as a Type I Municipal Solid Waste (MSW) facility that may also receive rubbish (i.e., construction and demolition debris, and other non-putrescible wastes and special wastes). This SOP is submitted to the Texas Commission on Environmental Quality (TCEQ) solely to address the requirements of 30 TAC §330.65 and §330.121 through 179 and does not include any additional authorizations with the exception of those additional items required by the MSW rules adopted March 2006 or as required by MSW Permit 1405B dated May 6, 2009. Pursuant to §330.121, the SOP, along with the site permit, the complete site development plan, and records specified in §330.125 shall be maintained in the Site Operating Record. The Williamson County RDF shall be operated in accordance with the requirements of this SOP and other applicable local, state, or federal regulations. The SOP shall be retained for the life of the facility to include the active life of the site and throughout the post-closure maintenance period.

All terms used in this SOP are as defined in 30 TAC §330.3, unless otherwise stated.

### **1.1 PRE-OPERATION NOTICE §330.123**

The permittee shall provide written notice in the form of a Soils and Liner Evaluation Report (SLER) and/or Geomembrane Liner Evaluation Report (GLER) detailing the final construction and lining of a new disposal area or sector. The reports shall be submitted to the TCEQ for review 14 days prior to the placement of any waste. If verbal or written response from the TCEQ is not provided by the end of the 14th day following TCEQ receipt of the report(s), the operator may begin placing waste.

### **1.2 RECORDKEEPING REQUIREMENTS §330.125**

A copy of the facility permit, the site development plan, the site operating plan, the final closure plan, the post-closure care plan, the landfill gas management plan, and any other required plan or other related document shall be maintained at the municipal solid waste facility.

The owner or operator shall within seven working days of completion or receipt of new data, as appropriate, place the following information in the site operating record:

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- Any and all Location Restriction Demonstrations;
- Inspection records, training procedures, and notification procedures relating to excluding the receipt of prohibited waste;
- All results from gas monitoring and any remediation plans relating to explosive and other gases;
- Any and all unit design documentation for the re-circulation of leachate or gas condensate into the landfill;
- Any and all demonstrations, certifications, findings, monitoring, testing, and analytical data relating to groundwater monitoring and corrective action;
- Closure and post-closure care plans, and any monitoring, testing, or analytical data relating to post-closure requirements;
- Any and all cost estimates and financial assurance documentation relating to financial assurance for closure and post-closure;
- Any and all information demonstrating compliance with the small community arid exemption criteria as detailed in 30TAC§330.5(b);
- Copies of all correspondence and responses relating to the operation of the facility, modifications to the permit, approvals, and other matters pertaining to technical assistance;
- Any and all documents, manifests, shipping documents, trip tickets, etc. involving special waste;
- For any spray-applied alternative daily cover (ADC) material, records of the application rate and total amount ADC applied to the working face on those days in which ADC is applied; and
- Any other document(s) as specified by the approved permit or by the executive director.

Recordkeeping requirements and recommendations are further summarized on the table below:

**Recordkeeping Requirements and Recommendations**

| RECORDS NEEDED                                                                                                   | FREQUENCY                       | RULE CITATION          |
|------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------|
| Location Restriction Demonstrations                                                                              | Submittal of Permit Application | 330.125(b)(1)          |
| Prohibited Waste Inspection Records, Training and Receipt Notification Procedures                                | Per Occurrence                  | 330.125(b)(2)          |
| Gas Monitoring Results                                                                                           | Quarterly                       | 330.125(b)(3); 330.159 |
| Remediation Plans for Explosive and Other Gases                                                                  | Per Occurrence                  | 330.125(b)(3)          |
| Unit Design Documentation for Leachate or Gas Condensate Placement                                               | As Required                     | 330.125(b)(4)          |
| Groundwater Monitoring and Corrective Action Demonstration, Certification, Monitoring, Testing & Analytical Data | Per Occurrence                  | 330.125(b)(5)          |
| Closure and Post-Closure Care Plans                                                                              | Submittal of Permit Application | 330.125(b)(6)          |

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|                                                                                                                                      |                |                  |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|
| Post-Closure Monitoring, Testing and Analytical Data                                                                                 | Per Occurrence | 330.125(b)(6)    |
| Cost Estimates and Financial Assurance Documentation for Closure and Post-Closure                                                    | Annually       | 330.125(b)(7)    |
| Facility Operation, Permit Modification, Approvals, and Technical Assistance Correspondence & Responses                              | Per Occurrence | 330.125(b)(9)    |
| Special Waste Manifests, Trip Tickets and All Other Documents Relating to Special Waste                                              | Per Occurrence | 330.125(b)(10)   |
| Records of the Application Rate and Total Amount of of ADC Applied to the Working Face for any Spray-Applied Alternative Daily Cover | Per Occurrence | 330.125(b)(11)   |
| Other Documents Specified in the Permit or by the Executive Director                                                                 | As Needed      | 330.125(b)(12)   |
| Personnel Training Records per 335.586(d)-(e)                                                                                        | As Needed      | 330.125(e)       |
| Personnel Operator License                                                                                                           | As Needed      | 330.125(f)       |
| Annual Waste Acceptance Rate Documentation                                                                                           | Annually       | 330.125(h)       |
| Quarterly Solid Waste Summary Report                                                                                                 | Quarterly      | 330.675          |
| Annual Solid Waste Summary Report                                                                                                    | Annually       | 330.675          |
| Unauthorized Material Removal                                                                                                        | Per Occurrence | 330.133(b)       |
| Landfill Marker Inspections                                                                                                          | Weekly         | 330.143          |
| Landfill Gas Management Reports and Submittals                                                                                       | Per Occurrence | 330.159          |
| Cover Inspection Record                                                                                                              | Daily          | 330.165(h)       |
| RACM Acceptance Records                                                                                                              | Per Occurrence | 330.171(b)(3)(B) |
| Site Access Road Records                                                                                                             | Weekly         | Section 4.16     |
| Access Control Inspections and Maintenance                                                                                           | Weekly         | Section 4.5      |
| Notices for Access Control Breaches and Repairs                                                                                      | Per Occurrence | Section 4.5      |
| Fire Occurrence Notices                                                                                                              | Per Occurrence | Section 4.4      |
| Ponded Water Records                                                                                                                 | Weekly         | Section 4.23     |
| Site Inspection and Maintenance Records                                                                                              | Per Occurrence | Section 4.5      |
| Daily Log of Litter and Debris Pickup along Public Road                                                                              | Daily          | Section 4.12     |
| Additional Temporary Operating Hours                                                                                                 | As Needed      | 330.135(c)       |

The facility will maintain training records in accordance with 30 TAC 335.586(d) and (e), as follows:

1. The job title for each position at the facility related to waste management, and the name of the employee filling each job;
2. A written job description for each position listed under Paragraph (1). This description must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;
3. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (1); and
4. Records that document that the required training or job experience has been given to, and completed

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by, facility personnel.

Training records on current personnel will be kept until closure of the facility and training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

A designated manager with supervisory responsibility over the facility shall maintain a Class A operator licenses in accordance with 30 TAC 30, Subchapter F (30 TAC §30.201 to .212).

Annual Waste Acceptance Rate: The facility shall maintain records to document the annual waste acceptance rate for the facility. Documentation will include maintaining the quarterly solid waste summary reports and the annual solid waste summary reports required by 30 TAC 330.675 in the operating record. In accordance with §330.125(h), whenever the waste acceptance rate as established by the sum of the previous four quarterly summary reports exceeds the current operating rate upon which equipment and personnel staffing has been based, and the waste increase is not due to a temporary occurrence, the Landfill Manager shall make changes in personnel and equipment as specified in Table A - Williamson County RDF Waste Volume Equipment Schedule to ensure that the site personnel and equipment necessary to safely manage the waste are available. If the volume of waste increase is beyond the scope described in this permit application, an application to modify the permit, including the revised estimated waste acceptance rate within 90 days of the exceedance as established by the sum of the previous four quarterly summary reports will be submitted to the ED. The permit modification application will propose any needed changes in the site operating plan necessary to manage the increased waste volume in terms of equipment, and manpower to protect public health and the environment that are beyond the scope addressed in the current approved permit application. The increased waste acceptance rate may justify requiring permit conditions that are different from or absent in the existing permit.

Records Management System

It shall be the responsibility of the landfill manager to maintain the facility operating record. All required records will be retained in either a hard copy or electronic format in the facility operating record.

All information contained in the operating record shall be available for inspection upon request. The permittee shall retain the different plans required for the facility and all information contained within the Operating Record, for the life of the facility, including the post-closure care period.

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Documents will be added to the operating record within seven working days of completion of the item or receipt of analytical data. In accordance with §330.125(g), the executive director may set an alternate recordkeeping and notification schedule.

All operating record files that are older than five (5) years, may be stored at an alternate off-site location. The alternate off-site location will be recorded in the site operating record. Records approved for storage off-site will be made available for review within 72 hours of a request.

## **2.0 PERSONNEL §330.127(1)**

The landfill personnel shall include, at a minimum, a landfill manager, two equipment operators, a gate attendant, and at least one laborer for other assigned tasks. The organizational chart at the end of this section provides the positions and chain-of-command of personnel necessary to operate the facility.

### Landfill Manager

The landfill manager, or designated alternate (hereinafter referred to singularly as the landfill manager), shall be responsible for all activities at the landfill and shall be the designated contact person for regulatory compliance matters. The landfill manager shall provide onsite management of the landfill operations. The landfill manager shall have the authority and responsibility to reject unauthorized loads, require unauthorized materials to be removed by the transporter and/or assess appropriate surcharges, and have the unauthorized material removed.

The landfill manager will be responsible for ensuring compliance of day-to-day operations with Texas Commission on Environmental Quality (TCEQ) operating requirements and with the Site Operating Plan. In addition, the landfill manager will oversee all construction activities. The landfill manager will ensure adequate staffing to provide facility operation in accordance with the Site Development Plan (SDP), the SOP, and the TCEQ regulations, and will supervise equipment operators, gate attendants and laborers, and assign duties as necessary. The landfill manager will be responsible for fire protection training of landfill employees according to Section 4.4 of this plan. The landfill manager will be responsible for inspection and/or maintenance of all equipment and operating systems required under the permit (i.e., leachate collection system, methane gas collection system, etc.). The landfill manager will serve as the emergency contact and coordinator for the facility, and will be responsible for maintaining the Site Operating Record and required logs. The landfill manager must be experienced with and have the aptitude to implement operational aspects of solid waste disposal operations including knowledge of relevant regulations and

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permit requirements, waste-handling and safe management practices for disposal of municipal solid waste, health and safety, and waste identification. At a minimum, the landfill manager, will be an experienced manager and will maintain a Class A license as defined in 30 TAC §30.210.

Equipment Operator

Equipment operators shall be trained in the safe operation of landfill vehicles and heavy equipment. Duties to be performed may include spreading and compacting waste and cover soil as needed for the placement and containment of waste, maintaining access roads, establishing and maintaining stormwater drainage, excavation of soils, and construction activities in accordance with the SDP. The equipment operators shall also be responsible for daily inspection of equipment for operational and safety conditions. The equipment operators shall visually observe waste loads as they are placed to help ensure that prohibited wastes are not deposited within the unit. If prohibited wastes are observed, the equipment operators shall immediately notify the landfill manager. The equipment operators shall also assist other landfill personnel in fire protection operations, moving of litter fences, and other duties as directed by the landfill manager.

The minimum qualifications for an equipment operator include a demonstrated proficiency in the operation of heavy equipment and the ability to comprehend and implement the training included in Section 4.1, Personnel Training.

Gate Attendant

The gate attendant(s) shall be responsible for monitoring, documenting and measuring incoming waste and collection of appropriate fees. Duties may include selection of random loads for waste inspections in accordance with Section 4.2 of this plan, and directing waste loads to the appropriate disposal area(s). The gate attendant will be trained in safety procedures and the identification of prohibited wastes. If prohibited wastes are observed, the attendant shall not allow the waste into the landfill and shall immediately notify the landfill manager.

The minimum qualification for a scalehouse attendant includes a demonstrated ability to communicate with the customers and the ability to comprehend and use the scalehouse equipment (i.e., scales, computers, etc.) and the training included in Section 4.1, Personnel Training.

Laborer

Landfill laborers shall have responsibilities as directed by the landfill manager. These duties may include on and off site litter control, fire protection operations, dust control, inspection and maintenance of

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perimeter fences and gate(s) and litter fences and other duties as necessary. Appropriate training will be provided commensurate to the duties and responsibilities of the laborer(s).

The minimum qualifications for a laborer include a demonstrated ability to comprehend the training included in Section 4.1, Personnel Training.

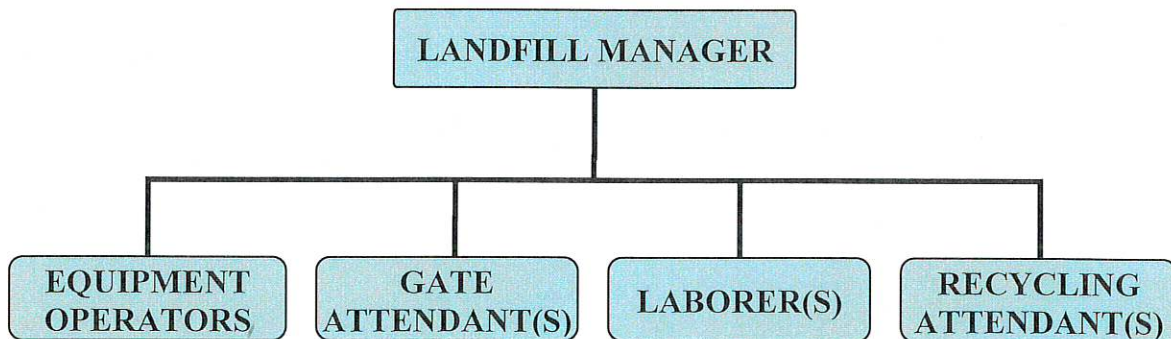
Recycling Facility Attendant

The recycling facility attendant is necessary only if the recycling facility is being operated. The recycling facility is an optional facility.

Recycling facility attendants shall have the responsibility of monitoring the incoming recyclable materials, directing the citizens to the correct drop-off locations of the recyclable materials, maintaining the recycling center, and other responsibilities as directed by the landfill manager. These duties may include on-site litter control, fire protection operations, dust control, inspection and maintenance of perimeter fences and gate(s) and other duties as necessary. Appropriate training will be provided commensurate to the duties and responsibilities of the recycling facility attendant(s).

The minimum qualifications for a recycling facility attendant include a demonstrated ability to communicate with the customers and the ability to comprehend and use the recycling facility equipment (i.e., bailer, forklift, etc.) and demonstrated ability to comprehend the training included in Section 4.1, Personnel Training.

**WILLIAMSON COUNTY RECYCLING AND DISPOSAL FACILITY ORGANIZATIONAL CHART**



**3.0 EQUIPMENT §330.127(2)**

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Heavy equipment available for day to day operations of the disposal areas shall consist of at least one landfill compactor, one dozer (Caterpillar D-8 minimum or equivalent), earth moving equipment (621E Caterpillar Scraper minimum or equivalent or excavator and dump truck(s)), one motor grader (CAT FG 85 or equivalent) and a water truck. When major repairs to heavy equipment are needed, the landfill operator or contractors will make additional equipment of similar size and function available.

The landfill compactor shall be a wheeled compactor with a minimum weight of 40,000 pounds with appropriate cleats for sufficient compaction of wastes. The dozer shall be capable of spreading MSW waste and soils for cover, and performing construction maintenance of on-site roads. The water truck shall be used for spreading water for dust control and fire prevention/protection. The earth moving equipment (i.e., loader and dump truck and/or scraper) shall be capable of moving sufficient volumes of soil as necessary. For additional information regarding the number, size, and capacities of the equipment, see Table A, Williamson County RDF Waste Volume Equipment Schedule. In addition to the required equipment listed in the table below, miscellaneous pickups, and/or other light utility vehicles as well as various portable water pumps, instruments, and safety and training equipment will be on-site as necessary. The pickup truck shall be used to haul landfill personnel within the site to conduct site duties and collect wind blown and spilled litter (both on and off site). The portable pump shall be used for pumping stormwater from excavations and from ponded areas.

The optional recycling center may have a bailer, fork lift and/or front end loader at the facility's option.

**TABLE A  
Williamson County RDF  
Waste Volume Equipment Schedule**

|           | Waste Acceptance Rate (Tons Per Day) |                             |                              |                                | Minimum Size                        | Function                                                                                             |
|-----------|--------------------------------------|-----------------------------|------------------------------|--------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------|
|           | 0 - 1940<br>(yrs 1 - 8)              | 1941 - 2981<br>(yrs 9 - 21) | 2982 - 5821<br>(yrs 22 - 40) | 5822 - 6753<br>(years 41 - 45) |                                     |                                                                                                      |
| Compactor | 1                                    | 2                           | 3                            | 4                              | CAT 836 or equivalent               | Waste and soil spreading and compaction                                                              |
| Dozer     | 1                                    | 2                           | 3                            | 4                              | CAT D8 or equivalent                | Waste spreading, soil spreading and compaction                                                       |
| Scraper   | 1                                    | 2                           | 2                            | 2                              | 10 to 20 cy capacity, various makes | Transportation of cover soil, excavation of new cells (may be replaced by excavator and dump trucks) |
| Excavator | 1                                    | 1                           | 1                            | 1                              | Various makes                       | Excavation of new cells (in tandem with dump truck(s), instead of scraper)                           |

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|                          |   |           |           |           |                                     |                                                                             |
|--------------------------|---|-----------|-----------|-----------|-------------------------------------|-----------------------------------------------------------------------------|
| Dump Truck               | 1 | 2 or more | 2 or more | 2 or more | 10 to 15 cy capacity, various makes | Transportation of cover soil (in tandem with excavator, instead of scraper) |
| Maintainer               | 1 | 1         | 1         | 1         | Various makes                       | Grading of access roads                                                     |
| Water Truck              | 1 | 1         | 1         | 1         | 2,000 gallon, various makes         | Dust control, fire fighting support                                         |
| Temporary Litter Fencing | 1 | 1         | 2         | 2         | 200 feet four feet high             | Active face litter control                                                  |
| Rotary Broom             | 1 | 1         | 1         | 1         |                                     | Sweep roads                                                                 |

- Notes:
1. The years shown under the waste acceptance rates are based on the following assumptions:
    - a. Volumes are calculated by the combined efforts of a D8 dozer and an 836 Compactor handling 215.6 tons per hour.
    - b. The tons per day are based on a 9 hour work day.
  2. Daily waste acceptance rates used to estimate equipment and manpower needs are based on historic annual waste acceptance rate determined by the sum of the previous 4 consecutive quarters divided by the number of days the site was open during the previous 4 consecutive quarters.

See also section 4.4.2 Fire Protection Plan, Operating Standards for additional equipment requirements.

#### **4.0 GENERAL INSTRUCTIONS §330.127(3)**

The operational procedures outlined in this SOP will be followed and will be considered a part of the operating record of this MSWLF facility. This facility is designed for Type I MSW disposal and consists of separate phases. Each phase will be constructed as the operations advance.

Operations will be conducted in a professional manner by qualified and trained personnel. Operational objectives will consist of placing the maximum amount of waste in a specified area, and operating the site in compliance with the TCEQ regulations, the site permit, and the SOP.

The following Facility Operations, Inspection, and Maintenance listing includes general instructions that the operating personnel will follow concerning the operational requirements of the facility.

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| DESCRIPTION OF ACTIVITY                         | TASK                                                                                                                                        | FREQUENCY                                                                                                                                                                                       | INSPECTOR                    | INSPECTION DOCUMENTATION                                                                          |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| Entrance Gate and Perimeter Fences              | Conduct gate and perimeter fence inspection for any breach that has occurred. If breach occurs, follow procedures specified in Section 4.5. | Weekly                                                                                                                                                                                          | Landfill Manager or Designee | Note status on Access Inspection Log, maintain in SOR                                             |
| Cover Application Record                        | Record date of cover, how it was accomplished, and the last area covered, according to 330.165.                                             | Daily                                                                                                                                                                                           | Landfill Manager or Designee | Document all cover application, sign form and maintain as part of SOR                             |
| Perimeter Drainage Channel and Pond Maintenance | Inspect channels for litter and debris, clear flowline. Inspect detention ponds for damage.                                                 | Daily                                                                                                                                                                                           | Landfill Manager or Designee | Document, maintain as part of SOR                                                                 |
| Random Load Inspection                          | Conduct inspection of selected vehicle to ensure that no unauthorized wastes are in the load.                                               | Daily as specified in Section 4.2.3                                                                                                                                                             | Landfill Manager or Designee | Place completed Random Load Inspection Report in SOR                                              |
| Unauthorized Material Removal                   | Document removal of unauthorized materials from the landfill.                                                                               | Per Occurrence                                                                                                                                                                                  | Landfill Manager or Designee | Complete Unauthorized Material Removal form and place in SOR                                      |
| Leachate Collection System                      | Measure depth of leachate in sumps, storage tanks, and record volume of leachate removed from site.                                         | Quarterly, monthly, or more frequently as necessary to maintain levels compliant with permit conditions and as described in the Site Development Plan, Section 3.2, Leachate Collection System. | Landfill Manager or Designee | Complete documentation and place in SOR                                                           |
| Paint Filter Test                               | Conduct paint filter test on each basin of stabilized materials                                                                             | Per Occurrence                                                                                                                                                                                  | Landfill Manager or Designee | Maintain paint filter test log as part of SOR                                                     |
| Final Cover Inspection                          | Inspect final cover for erosion, damage to drainage structures.                                                                             | Weekly and after a rainfall event resulting in runoff                                                                                                                                           | Landfill Manager or Designee | Complete documentation and place in SOR                                                           |
| On-site Litter Collection                       | Inspect site for litter. Collect litter on a daily basis and return to the working face for proper disposal.                                | Daily                                                                                                                                                                                           | Landfill Manager or Designee | Complete documentation and place in SOR                                                           |
| Mud and Debris Cleaned from Public Roads        | Inspect public roads for evidence of mud and debris tracked from the site                                                                   | Daily during periods of inclement weather                                                                                                                                                       | Landfill Manager or Designee | Complete documentation and place in SOR                                                           |
| Fire Extinguishers/Fire Fighting Equipment      | Inspect all fire extinguishers and/or fire fighting equipment, promptly repair or replace defective equipment.                              | Annually                                                                                                                                                                                        | Landfill Manager or Designee | Properly mark tags on fire extinguishers, document results of equipment inspections, place in SOR |
| Markers and Benchmarks                          | Inspect markers and benchmark for damage. Replace removed or destroyed markers within 15 days of removal or destruction.                    | Monthly                                                                                                                                                                                         | Landfill Manager or Designee | Complete documentation and place in SOR                                                           |
| Roadway Regrading                               | Inspect on site access roadways to                                                                                                          | Monthly                                                                                                                                                                                         | Landfill Manager             | Complete documentation                                                                            |

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|              |                                                                                                              |        |                              |                                         |
|--------------|--------------------------------------------------------------------------------------------------------------|--------|------------------------------|-----------------------------------------|
|              | ensure a clean and safe condition                                                                            |        | or Designee                  | and place in SOR                        |
| Site Signs   | Inspect all site signs for damage, general location, and accuracy of posted information                      | Weekly | Landfill Manager or Designee | Complete documentation and place in SOR |
| Odor         | Inspect the perimeter of the site to assess the performance of site operations to control odor               | Daily  | Landfill Manager or Designee | Document and maintain as part of SOR    |
| Ponded Water | Inspect site for potential ponding of water and ponded water. Fill and grade low areas as soon as practical. | Weekly | Landfill Manager or Designee | Complete documentation and place in SOR |

#### **4.1 PERSONNEL TRAINING §330.127(4)**

It will be the responsibility of the permittee to ensure that the landfill manager at the site is knowledgeable in the proper operation of a municipal solid waste landfill and the current operational standards required by the TCEQ. The landfill manager will be an experienced manager and will maintain the required license as defined in 30 TAC §30.210. It will be the responsibility of the landfill manager to ensure that all landfill personnel are properly trained and are operating the landfill in accordance with this SOP and operational standards required by the permit and the TCEQ municipal solid waste regulations.

Training for personnel will be ongoing and will be directed by a person trained in waste management procedures. Facility personnel will be instructed in the required waste management procedures, including contingency plan implementation, relevant to the positions in which they are employed. At a minimum, the training program will ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

- Procedures for notifying appropriate personnel in the event of an emergency
- Training in use of facility emergency response and monitoring equipment;
- Communications or alarm systems;
- Training in response to fires or explosions, hot loads, hazardous weather conditions, etc.; and
- Shutdown of operations.
- New employees will receive a comprehensive overview of landfill operations and specific training commensurate with their position, focusing on information that is necessary to protect the health and welfare of the new employee and enable them to perform their duties in accordance with this SOP, the operational standards required by the permit and the TCEQ municipal solid waste regulations.

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Following the initial training, the additional employee training will continue in the form of periodic on-the-job training. Training meetings will be scheduled and conducted for employees approximately monthly. Topics for training may vary depending on job requirements.

The landfill manager, equipment operators, gate attendants, laborers, and recycling facility attendants are trained in the contents of this SOP and other topics as described in the following table:

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| Position                     | Job Description                   | Training |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |                             |          |
|------------------------------|-----------------------------------|----------|------------------|-----------------|--------------------|----------------|-----------------------|-----------------|-----------------|-------------------|------|--------------------|----------------|-------------------|-------|-----------------------------|----------|
|                              |                                   |          | Site Orientation | Site Operations | Endangered Species | Haz. Waste Id. | Safety (job specific) | Fire Prevention | Load Inspection | Prohibited Wastes | SPCC | Emergency Response | Litter Control | Random Inspection | SWPPP | Leachate System Maintenance | Asbestos |
| Landfill Manager             | Responsible for all activities    |          |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |                             |          |
|                              | Ensure adequate staffing          |          | X                | X               | X                  | X              | X                     | X               | X               | X                 | X    | X                  | X              | X                 | X     | X                           | X        |
|                              | Inspections                       |          |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |                             |          |
| Gate Attendant               | Take receipts                     |          |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |                             |          |
|                              | Screen and some load inspection   |          | X                |                 | X                  |                | X                     | X               | X               | X                 |      | X                  |                | X                 |       |                             | X        |
|                              | Direct vehicles to unloading area |          |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |                             |          |
| Equipment Operator           | Compact waste                     |          |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |                             |          |
|                              | Visual inspection of loads        |          |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |                             |          |
|                              | Unauthorized waste                |          | X                |                 | X                  | X              | X                     | X               | X               | X                 | X    |                    | X              |                   |       | As Assigned                 | X        |
| Apply daily cover            |                                   |          |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |                             |          |
| Laborer                      | As assigned                       |          | X                |                 | X                  |                | X                     | X               |                 |                   |      | X                  | X              |                   |       |                             |          |
| Recycling Facility Attendant | Recycling center operations       |          |                  |                 |                    |                |                       |                 |                 |                   |      |                    |                |                   |       |                             |          |
|                              | Screen and load inspection        |          | X                |                 | X                  | X              | X                     | X               | X               |                   | X    | X                  |                |                   |       |                             | X        |

More detailed written descriptions of the type and amount of introductory and continued training provided to each employee will be maintained in the facility operating record.

Facility personnel must take part in an annual review of their initial training in accordance with §335.586(c).

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

#### 4.2 CONTROL OF PROHIBITED WASTE §330.127(5)

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WMTX will continue to implement a comprehensive program for waste screening that minimizes the potential for inadvertent acceptance of prohibited wastes. The program consists of four primary elements as follows:

1. Special/Industrial Waste Screening Program: prescreening customers bringing special waste and industrial waste to the facility. A detailed description of the special waste screening process is provided in the following Section.
2. Random Load Inspections: The facility will implement a minimum of 4 random load inspections per week.
3. Prohibited Waste Training Program: Training will be provided to Gatehouse personnel and Equipment Operators annually on prohibited waste recognition. This training plan is described in more detail in the following sections.
4. Gatehouse Waste Screening Program: During hours of operation, the gatehouse will be staffed with at least one gate attendant. The attendant will screen incoming residential customers to help ensure that no prohibited wastes are being brought to the landfill. In addition, the facility will provide a sign in a conspicuous location that will list waste that are prohibited for acceptance at the landfill. Detailed description of the Gatehouse Waste Screening Procedures is described in detail in the following sections.

These proactive policies minimize the potential that hazardous or otherwise unacceptable waste will be received by the site for disposal. Implementation of the program provides protection from the potential dangers that prohibited waste could pose to employees, the public, or the environment through improper management, and serves as a hazardous waste and PCB waste screening mechanism that minimizes the potential of these waste streams entering the landfill. These programs specifically require pre-acceptance screening procedures be followed to determine if a particular waste is non-hazardous and to determine the acceptability of the waste pursuant to facility permit conditions, applicable regulations, and operating capabilities. These programs are implemented in a number of ways, including review of waste streams prior to acceptance, monitoring under the supervision of qualified site personnel of waste arriving at the gate, and observance of the waste being disposed of at the working face by equipment operators.

The following sections discuss in detail the methods and procedures that will be used to control prohibited wastes at the site.

#### **4.2.1 Detection and Prevention of the Disposal of Regulated Hazardous Waste**

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Regulated hazardous waste, as defined in 40 CFR Part 261, polychlorinated biphenyls (PCB) wastes as defined in 40 CFR Part 761, and wastes listed under 30 TAC §330.15(e), and other wastes specifically excluded for acceptance (e.g., Class 1 nonhazardous industrial waste) will not be accepted at the facility, with the exception of regulated hazardous waste from Very Small Quantity Generators (VSQG). Procedures to detect and prevent these types of wastes from entering the site include:

- Informing facility customers of prohibited wastes by posting one or more signs at the facility entrance listing prohibited wastes;
- Providing customers (regular and on-time or occasional) with a written list of prohibited wastes;
- Providing vehicle drivers of incoming waste from transfer stations and transfer station operators with a written list of prohibited waste;
- Screening of waste streams prior to acceptance;
- Random inspections of incoming loads in accordance with procedures described in Section 4.2.3;
- Rejecting loads that are suspected of containing prohibited waste;
- Trained staff observing each load that is disposed of at the facility;
- Maintaining records of all inspections;
- Training for appropriate facility personnel responsible for inspecting or observing loads to recognize prohibited waste, including regulated hazardous waste or PCB waste;
- Notification of the Executive Director of any incident involving the receipt or disposal of a regulated hazardous waste or a PCB waste at the landfill; and
- Remediation of any prohibited waste, regulated hazardous waste or PCB waste discovered at the site in accordance with Section 4.2.4.

#### **4.2.2 Prohibited Wastes**

The acceptance and disposal of the following prohibited wastes will not be allowed at this site:

- Regulated Hazardous Waste other than from Very Small Quantity Generators (VSQG). Municipal hazardous waste from a VSQG may be accepted; provided the generator provides a certification that it generates no more than 220 pounds of hazardous waste per calendar month.
- Polychlorinated Biphenyls (PCBs) as discussed in Section 4.2.1.
- Class 1 Industrial Waste with the exception of wastes which are Class I only because of asbestos content.

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- Do-it-Yourself (DIY) used motor vehicle oil - per §330.15(e)(2), shall not be intentionally or knowingly accepted for disposal.
- Lead acid batteries - per §330.15(e)(1), shall not be intentionally or knowingly accepted for disposal.
- Whole used or scrap tires- per §330.15(e)(4), shall not be accepted for disposal.
- Items containing chlorinated fluorocarbons (CFC's), such as refrigerators, freezers, and air conditioners, will only be accepted at the site if 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 site operator will verify that the refrigerant has been evacuated from the appliance or shipment of appliances previously. 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 refrigerant will be removed prior to delivery. The facility will notify persons who may deliver such items of the requirement to verify evacuation of refrigerant by signage or letter.
- Liquid waste (any waste material that is determined to contain "free liquids" as deemed by EPA Method 9095 (Paint Filter Test), as described in "Test Methods for Evaluating Solid Wastes, Physical Chemical Methods" (EPA Publication Number SW-846) shall not be disposed of unless it is:
  - Bulk or noncontainerized liquid waste that is:
    - Household waste other than septic waste; or
    - Leachate or gas condensate derived from the Williamson County Recycling & Disposal Facility managed and disposed of in accordance with the Leachate and Contaminated Water Management Plan presented as Attachment 15 of Part III of the Site Development Plan.
  - Contained liquid waste and
    - The container is a small container similar in size to that normally found in the household waste;
    - The container is designated to hold liquids for use other than storage;
  - Or the waste is a household waste.
- Used oil filters from internal combustion engines - per §330.171(d).

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- And the following special wastes without prior approval from TCEQ and accompanied with the relevant analytical test results, material safety data sheets (SDS) documents, or process knowledge documents:
  1. Septic tank pumpings which have been stabilized and have passed the paint filter test;
  2. Wastes from commercial or industrial wastewater treatment plants; air pollution control facilities; and tanks, drums, or containers used for shipping or storing any material that has been listed as a hazardous constituent in 40 CFR, Part 261, Appendix VIII but has not been listed as a commercial chemical product in 40 CFR Part 261.33(e) or (f);
  3. Drugs, contaminated foods, or contaminated beverages, other than those contained in normal household waste;
  4. Incinerator ash;
  5. Light ballasts and/or small capacitors containing PCB compounds with a PCB content of less than 50 parts per million;
  6. Waste from oil, gas, and geothermal activities subject to regulation by the Railroad Commission of Texas when those wastes are to be processed, treated, or disposed of at a solid waste management facility permitted under 30 TAC 330;
  7. Waste generated outside the boundaries of Texas that contains (a) any industrial waste, (b) any waste associated with oil, gas, and geothermal exploration, production, or development activities, or (c) any item listed as a special waste in this section; and
  8. Any waste stream other than household or commercial garbage, refuse, or rubbish.

Landfill personnel will check for indications of prohibited waste as detailed below.

One of the most important means to control the disposal of prohibited waste at the landfill is by the control of access into the facility by unauthorized vehicles. This issue is addressed in Section 4.5 of this operating plan (Access Control). Facility personnel will be trained to inspect vehicles and identify regulated hazardous waste, polychlorinated biphenyl (PCB) waste and any prohibited waste described above. At a minimum, the gate attendant and equipment operators at the working face will be trained in screening and inspection procedures for prohibited waste. The personnel will receive on-the-job training basis by the landfill manager. Records of employee training on prohibited waste control procedures will be maintained in the facility site operating record.

Additionally, the facility will inform customers of prohibited waste restrictions by posting one or more signs at the facility entrance listing prohibited wastes.

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If landfill personnel suspect prohibited waste is present in an incoming load, then that load will be directed to an area out of the flow of traffic, and the trained personnel will further assess the load. If the load is determined to contain prohibited waste, or if there is any suspicion that it may contain a prohibited waste, the load will be rejected and directed back to the generator. Documentation of the inspection will be placed in the site operating record within seven working days. The documentation will include the date, time, name of the inspector(s), type of inspection/screening (i.e., suspected prohibited waste), transporter/generator information, and waste information. This documentation may be provided in a waste discrepancy report. A typical form is included in this SOP.

Municipal hazardous waste from a very small quantity generator may be accepted, provided the amount of waste does not exceed 220 pounds per month per generator.

Landfill gate attendants will be trained to help recognize incoming loads that are potential sources of prohibited waste such as microelectronics manufacturers, electronics companies, metal plating industry, automotive and vehicle repair service companies, and dry cleaning establishments.

#### **4.2.3 Random Inspections (30 TAC §330.127(5)(A) & (D))**

WMTX's special waste acceptance procedures provides for the pre-screening of all commercial customers bringing industrial or special waste to the landfill. This has been and will continue to be an essential element to preventing the acceptance or disposal of prohibited wastes. An additional element in preventing the acceptance or disposal of prohibited waste is random inspections. The gate attendant or other designated landfill personnel will randomly select a minimum of four vehicles per week (including compactor vehicles) for inspection, notify the equipment operator, and direct the selected load to the area of the working face. Once the selected load arrives at the working face, the equipment operator will direct the vehicle to a separate but adjacent location on the working face and out of the flow of normal disposal traffic. The driver will be instructed to discharge the load onto the ground. At this point, a trained individual will visually inspect the contents of the load and document the presence of any prohibited waste observed. The Load Inspection Report Form will be used to document results of the random load inspection. If prohibited waste is observed, it will be returned to the transporter and the transporter will be instructed as to which facilities are permitted to accept the prohibited waste. The executive director will be notified of any incident involving the receipt or disposal of regulated hazardous waste or PCB waste at the landfill.

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Loads that are excluded from random inspections are:

- Waste from transfer stations, providing that the transfer station is permitted or registered by the TCEQ and conducts random screening;
- Liquid waste; and
- Asbestos waste.

Following waste inspections, documentation of the inspection will be placed in the site's operating record within 7 days. The documentation will include information such as the date and time of inspection, name and signature of inspector(s), type of inspection/screening (i.e., random screening, suspected unauthorized waste, etc.), transporter/generator information (including hauling company name and license plate number), source of waste, contents of load as reported by driver, contents of load as observed by inspector, and approval or disapproval of the load. This type of documentation may be provided on a waste inspection/screening form such as the ones included at the end of this SOP. This inspection report will be placed in the site operating record within 7 days of the inspection.

The number of random load inspections is justified given that the random load inspection program is one of several safeguards in place at the facility to identify, screen, and prevent the disposal of prohibited wastes. As discussed, providing customers with information about prohibited wastes, reviewing proposed waste streams prior to acceptance, inspecting suspicious loads, and observing the unloading and disposal at the working face are used along with the random load inspections. Also, waste received from transfer stations is already subject to visual inspections and random screening prior to arrival at the facility.

#### **4.2.4 Prohibited Waste Remediation Plan (30 TAC §330.127(5)(E))**

Remediation procedures may range from rejecting the load at the gate, loading prohibited waste back onto generator's vehicle to loading waste in an onsite container, tarping, testing, and removal of the waste to an off-site approved facility. Upon determination that a waste is a prohibited waste and will not be accepted, the landfill operator will make arrangements for returning such waste to the generator and/or coordinating transportation to a facility approved for the specific waste in question. Drums will be marked appropriately with words for the type of prohibited waste it contains, such as "Hazardous Waste" or "PCBs". Remediation procedures for the incident will be documented and included in the facility operating record within 7 days.

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## **4.3 OTHER SITE ACTIVITIES**

Other site activities may arise that are not discussed in this plan. The landfill manager has responsibility for on the job training of those activities and ensuring that they are conducted as required by the site permit, TCEQ regulations, or any other local, State or federal regulation. Some of these activities are briefly discussed below.

### **4.3.1 Liquids Restrictions**

The landfill shall not accept bulk or non-containerized liquid waste unless it is household waste other than septic waste. The restriction of bulk or non-containerized liquids, with the exception of household waste other than septic waste, is intended to control a source of leachate. Liquid waste refers to any waste that is determined to contain free liquids by using U.S. Environmental Protection Agency (EPA) Test Method 9095B-paint filter liquids test.

The facility may recirculate leachate or gas condensate waste into active cells with composite liners, as detailed in Part III, Attachment 15, Leachate and Contaminated Water Management Plan. Containers holding liquid waste shall not be placed in the landfill unless they are small containers of household waste. The facility shall not accept bulk liquids, such as tank trucks of liquid waste, for disposal.

The facility may accept liquid sludges, grease trap waste, and liquid waste from other municipal sources for processing in accordance with Section 4.24, Disposal of Special Waste.

### **4.3.2 Pond and Ditch Maintenance**

Periodically, as directed by the landfill manager, site drainage ditches and storm water ponds may require maintenance and/or cleaning to ensure that they function as intended. The required maintenance may be conducted by site personnel or by a contractor. The maintenance may consist of cleaning up litter and/or small brush/limbs to excavating and removing silt deposits. The amount of maintenance will be determined by the landfill manager, as required to maintain the functionality of the drainage feature(s).

### **4.3.3 Leachate System Maintenance**

It will be the responsibility of the landfill manager to ensure that the leachate collection system remains in

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good working order. As leachate systems are installed for new cell constructions, landfill personnel will be trained on the operation and maintenance procedures associated with the equipment. The leachate system at each cell location will be monitored to ensure continuous operations for regulatory compliance. Any system found to not be operating properly (i.e. pump not working, level controls malfunctioning, loss of power, etc.) will be brought to the immediate attention of the landfill manager. The landfill manager, will ensure that appropriate measures are taken to repair the system as soon as possible.

#### **4.3.4 TPDES Monitoring**

The landfill manager will ensure that monitoring is conducted in accordance with the regulations for the Texas Pollutant Discharge Elimination System (TPDES) Multi Sector General Operating Permits for this site.

#### **4.3.5 Final Cover Maintenance**

Final cover in waste areas will be placed as described in Part III, Attachment 12, Closure Plan. Once final cover has been placed, it will be the responsibility of the landfill manager to ensure that vegetation is established and maintained, and that erosion is minimized. If erosion of the final cover does occur that jeopardizes the integrity of the final cover, additional soil capable of sustaining vegetation, will be placed and graded according to the final contours as detailed in Part III, Attachment 7, Final Contour Map. After erosion is repaired, seeding will be provided over repaired areas to provide revegetation.

#### **4.3.6 Recycling Facility**

A recycling facility may be operated near the entrance to the facility as noted on Figure III-1.1, Site Layout Plan.

This recycling facility is owned by Williamson County, a local government, and operated by WMTX. In accordance with 30 TAC §328(a) and 30 TAC §328(a)(1), this recycling facility is exempt from registration and permit requirements of 30 TAC §330 and 30 TAC §332.

This recycling facility will allow for citizens drop off of approved recyclable materials. This facility may provide for recycling of the following materials:

- Newspaper, magazines, junk mail and other paper;

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- Cardboard;
- Metals;
- Plastics;
- Aluminum;
- Used oil;
- Used oil filters;
- Used antifreeze;
- Lead acid batteries;
- CFC appliances;
- Latex Paint;
- Electronics, computers, monitors, and printers; and
- Wood and Mulch

Recycling operations will be conducted pursuant to 30 TAC §328 and 30 TAC §324. Citizens enter the recycling center through the existing entrance and are directed either by recycling facility personnel or signage to the location of the various recyclable materials for off-loading. The recyclable materials are stored in such a manner as to not cause ponding water, odors, or other environmental or human health hazards. Recyclable materials are stored on-site for transport to off-site recyclable material processing facilities or on-site disposal.

Access to the recycling facility is controlled with a 6 foot tall chain link fence around the entire perimeter of the recycling facility with a lockable gate.

Fire protection for the recycling center is in accordance with Section 4.4, Fire Protection Plan. The recycling center will have at least 3 conspicuously marked fire extinguishers. One fire extinguisher will be in the recycling building and the second will be located near the outside cardboard bale storage containers and the third near the newspapers/used oil storage area. The recycling facility shall be designated as “no-smoking”.

The recycling center provides a citizen’s collection station for the various recyclable materials and not as a collection station for commercial recyclers.

The recycling center will accept latex paint for recycling or disposal. Latex paint may be accepted for recycling or disposal from citizens only, not from commercial recyclers or waste haulers. The latex paint

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will be received in labelled, consumer containers only that describe the material as latex paint. This latex paint may be made available for pick-up to other citizens (i.e.: recycling the latex paint). Recycling center personnel will inspect all latex paint to ensure that the paint is in appropriate containers and labelled as latex paint. Paint that is not in appropriate containers or is not labelled as latex paint will not be accepted. Latex paint that is dropped off at the recycling center that is not recycled may be mixed with wood chips in a container and allowed to dry. The recycling facility will provide a container with mulch chips. Latex paint will be poured into the wood chips. Once dried, the latex paint and wood chip mixture will then be disposed of in the landfill with the municipal solid waste.

#### **4.4 FIRE PROTECTION PLAN §330.129**

This plan has been prepared in accordance with §330.129 to include fire protection standards and site personnel training requirements.

The operational activities at the landfill include the storage, processing and disposal of combustible materials. These materials are located in areas of uncovered solid waste disposal; brush/wood collection areas; recycling facility; and stored used tires areas. In addition, areas around the landfill include areas for stored used oil; fuel supplies; trees, brush/wood, or unmaintained grasses; vehicles; and buildings.

##### **4.4.1 Fire Protection Standards**

The following steps are taken regularly by designated landfill personnel to minimize the potential for fires:

- No burning of solid waste shall be permitted at this site;
- Burning waste is prevented from being dumped in the active area of the landfill. The gate attendant and equipment operators are trained to observe for hot loads entering the landfill by observing for signs of burning waste such as smoke, steam, or heat being released from incoming waste loads.
- Fuel spills are contained and cleaned up immediately.
- Dead trees, brush, or vegetation adjacent to the landfill are removed immediately, and grass and weeds mowed so that forest, grass, or brush fires cannot spread to the landfill.
- Smoking is not allowed on the active areas of the landfill or at the recycling facility.
- A source of earthen material adequately sized to cover the working face is maintained in such a manner that it is available at all times to the working face or active disposal area for fire protection.
- If a fire does occur it shall be promptly extinguished using the procedures described in this SOP; and

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- The potential for fires shall be minimized by use of cover soils, and caution when using equipment capable of “sparking” or creating fire.

#### **4.4.2 Operating Practices**

Operating practices related to fire protection shall include methods to minimize the potential for accidental fires. Employees shall be instructed in the control of small fires.

To reduce the possibility of fire and improve the operation of the site and pursuant to §330.165, a minimum of six inches of “daily” cover soil, or approved equivalent shall be placed and compacted over exposed waste at the end of each working day or at least once every 24 hours in accordance with Section 4.22 of the SOP.

The landfill manager will coordinate with the City of Hutto and the City of Taylor Fire Departments to provide a tour of the facility and will provide a Site Layout Plan which locates the areas with combustible materials (i.e., the active working face, the brush/wood storage area, recycling facility, and the diesel and oil storage areas).

The following procedures are followed in the event of a fire at the facility:

- Small fires – If detected soon enough, may be fought with a hand-held fire extinguisher. The fire area may be watered down or smothered with 6 inches of soil as appropriate, to ensure the fire is out.
- Equipment Fires – 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 will 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.
- Hot Loads – Burning waste will not be unloaded in the active area of the landfill. After the gate attendant, equipment operator, recycling facility attendant or other site personnel have identified signs of a possible load of burning waste, or a hot load, the truck will be directed to a portion of the disposal area away from the working face, fuel areas, and other combustion sources where the load can be unloaded without danger of spreading fire. The water truck will water down the waste. The bulldozer will then spread the waste for additional water or cover of soil. The bulldozer may smother the fire with soil if the water does not sufficiently extinguish the fire. The waste will be

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inspected for signs of fire or hot spots. When the fire has been extinguished and the waste has cooled, the waste will be transferred to the landfill for disposal.

- If a fire is in the working face, the burning area should be isolated and pushed away from the working face quickly, or fire breaks should be cut around the fire before it can spread. If this is not possible or unsafe, efforts to cover the working face with earthen material must be initiated immediately to smother the fire. All vehicles and equipment will be immediately moved away from the fire and a working face established there or halted all together until the fire is extinguished.
- Most combustible materials at the recycling center are stored in metal fire resistant containers. The only combustible material not stored in a fire resistant container is mulch. If a small fire breaks out in one of the metal containers, the recycling facility attendant will attempt to extinguish the fire with the on-site fire extinguishers. The recycling facility attendant will notify the landfill office of the fire as soon as possible after the fire has been extinguished or immediately in the case of fires that are too large to be extinguished with fire extinguishers. The landfill water truck will water down recyclable material fires that are too large to be extinguished by hand.
- Landfill and recycling center personnel, including equipment operators, will watch for fire, smoke, steam, or signs of heat at the brush/wood collection and mulching area. If signs of fire are detected at the brush/wood collection and mulching area, all vehicles and equipment will be immediately moved away from the fire. The unloading of materials will be halted until the fire is extinguished.

Equipment such as the bulldozer, earthmoving equipment, and water truck will mobilize to the area of the fire or the location of the soil stockpile. All available landfill personnel shall be available to assist with fire protection measures unless otherwise directed by the landfill manager.

Fire fighting methods for burning solid waste include smothering with soil, separating burning material from other waste, spraying with water from an on-site water truck, or pumping water from an on-site pond. Small fires might be controlled with hand-held fire extinguishers. If the fire is at an active disposal area, if possible, the burning waste should be isolated or pushed away immediately before the fire can spread, or fire breaks should be cut around the fire before it can spread. If moving the waste is not possible, or if it is unsafe, efforts should be made to cover the working face with earth immediately to smother fire. The faster that soil can be placed over the fire, the more effective this method will be in controlling and extinguishing the fire. The working face diversion and containment berms and stockpiled earthen material may be used for firefighting purposes

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A source of earthen material shall be maintained on the site in a manner that is available at all times to extinguish any fire, and equipment shall be available on highest priority basis for use in placing earthen material to extinguish fire should one occur. The source of earthen material shall be sized of sufficient volume of earthen material to cover a potential fire area equivalent to the size of the working face.

The following table demonstrates the related area and volume used to determine the required earthen material:

| Size of Working Face |     | Area of Working Face |             |            | Total Size of Source of Earthen Material |
|----------------------|-----|----------------------|-------------|------------|------------------------------------------|
|                      |     | Sq Ft                | Cu Ft       | Cu Yd      |                                          |
| L                    | W   | L x W                | Sq Ft x 0.5 | Cu Ft / 27 | Cu Yd x 1.15                             |
| 150                  | 100 | 15,000               | 7,500       | 278        | 320                                      |
| 200                  | 100 | 20,000               | 10,000      | 370        | 426                                      |
| 250                  | 125 | 31,250               | 15,625      | 578        | 667                                      |
| 300                  | 150 | 45,000               | 22,500      | 833        | 958                                      |
| 350                  | 175 | 61,250               | 30,625      | 1,134      | 1,304                                    |
| 400                  | 200 | 80,000               | 40,000      | 1,481      | 1,704                                    |

To calculate the maximum size of the earthen material for varying sizes of the working face, multiply the working face length (L) times the width (W) to get square feet (Sq Ft). Multiply the sq ft times 0.5 (6" of earthen material, or ½ foot) to get cubic feet (cu ft). Divide cu ft by 27 to convert to cubic yards (cu yd). Multiply the cu yd by 1.15 (using a 0.15 factor for compacting loose cubic yards to bank cubic yards) to get the total number of cubic yards of earthen material required to cover a given working face.

Sufficient on-site equipment must be provided to place a six inch layer of earthen material over any waste not already covered with daily cover within one (1) hour of detection of a fire.

The diversion and containment berms for the working face are set at a maximum spacing of 600 feet from each other. Pushing soil from the berms to the open face would result in a maximum push of approximately 300 feet. A single bulldozer (Cat D8 or similar) can spread up to 340 cubic yards in one hour with a maximum distance of 300 feet. For every additional 340 cubic yards of cover soil, the site shall have at least one (1) additional bulldozer (Cat D8 or similar) available on-site for fire control.

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If the working face diversion and/or containment berms are used to control a fire, disposal operation will not recommence until the berms are rebuilt or new berms and a new working face are established elsewhere on the landfill.

When a fire is discovered the landfill manager will be notified, soil from the earthen material source will be loaded and carried to the area with the earth moving equipment and spread to a minimum thickness of 6-inches using a bulldozer or other appropriate equipment. All available landfill personnel shall assist with fire management measures, unless otherwise directed by the landfill manager.

**4.4.3 Notifications**

Following any fire that is not extinguished within 10 minutes of detection, the permittee will contact the TCEQ Region 11 office in Austin. This notification to Region 11 will include:

1. Contact by telephone at 512-339-2929, as soon as possible, but no later than 4 hours following the fire discovery, and
2. Provide a written description of the fire and the resulting fire response within 14 days of fire detection to:

TCEQ Region 11  
12100 Park 35 Circle, Building A, Rm 179  
Austin TX 78753

Reports on all fires, including causes, durations, responses, and notifications will be completed and placed in the Site Operating Record.

**4.4.4 Other Emergency Contact Information**

If additional fire protection/fighting measures are warranted by the landfill manager, emergency assistance may be requested from the Williamson County Emergency Services through the Sheriff's office by dialing 911. In an emergency situation, dialing 911 will direct the call to the Williamson County Sheriff's Department. The Sheriff's Department will assess the nature of the emergency and dispatch the appropriate emergency crews. Law enforcement assistance may respond from the County Sheriff's Department, the City of Hutto Police Department, or the City of Taylor Police Department, depending on availability. Fire,

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ambulance and hazardous materials emergencies may be handled by either the City of Hutto or the City of Taylor, again depending on availability.

**4.4.5 Fire Protection Training**

To minimize hazards regarding fire, employees shall be instructed in the control of small fires. Training of employees will be the responsibility of the landfill manager and will be provided to each new employee as part of the employee training program. A review of fire control measures for all landfill and recycling facility personnel will be conducted on an annual basis. All fire extinguishers and/or fire fighting equipment on-site will be inspected annually, and any equipment found to be defective will be promptly repaired or replaced. At a minimum, each landfill and recycling facility employee shall be trained for the following:

- Emergency notification requirements.
- Preventative measures to minimize or prevent the possibility of fire;
- Use of fire extinguishers or other equipment properly; and
- Procedures to extinguish fire with soil from the source (equipment operators only).

**4.5 ACCESS CONTROL §330.131**

Access to the Williamson County RDF will be controlled by means of artificial barriers, natural barriers, or a combination of both as follows:

Access control to the facility is by a combination of fencing around the perimeter of the facility and a gated entrance. The entrance gate will be designed to provide complete access restriction when the site is not open, yet allow plenty of room for vehicles to maneuver through when the facility is open. The entrance gate will be inspected periodically for damage or problems. The fence and gate will be repaired, maintained, or replaced on an as needed basis to ensure proper site security.

All landfill users shall be required to stop at the scalehouse and conduct appropriate business transactions prior to proceeding to the disposal area(s). Unauthorized vehicles shall not be allowed to proceed past the gatehouse. At this point, the vehicles are screened for waste type, in accordance with Section 4.2 of this SOP. If a load is identified as containing any unauthorized hazardous, special, or industrial waste, the load shall be rejected.

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To prevent the entry of livestock, and to discourage unauthorized entry to the landfill, the site perimeter will be protected with a combination of fencing including six-foot chain-link and/or a 3.5 foot (minimum) three-strand barbed wire fence along all boundaries. The fence shall be inspected on a weekly basis, with repairs made as necessary. A log of access control inspections will be maintained for the purpose of demonstrating compliance with access inspection requirements. The fence, gate, and signs shall be repaired, maintained, or replaced on an as needed basis to ensure proper site security.

If the fence or gate access control system is breached, that is if there is a hole or gap in the fence or the gate is not restricting access, the TCEQ's regional office will be notified within 24 hours of detection of the breach, including when the breach will be permanently repaired. The breach will be temporarily repaired within 24 hours of detection and will be permanently repaired by the time specified to the commission's regional office when it is reported. The TCEQ's regional office will be notified when an access control breach's permanent repair is complete. If a permanent repair can be made within eight hours of detection, no notice to the commission's regional office is required. A copy of these notices will be placed in the Site Operating Record.

#### **4.6 UNLOADING OF WASTE §330.133**

The unloading areas at the facility may include the following:

1. Municipal solid waste will be unloaded at the active working face (one or more);
2. Brush and other wood material will be unloaded at the brush/wood storage area;
3. Liquid waste will be unloaded at the liquid stabilization processing area;
4. Asbestos waste disposal areas for receipt of RACM may be required;
5. Construction and demolition waste may be unloaded at a working face or the designated sorting area; and
6. Tire Area.

There may be two active working faces, a single brush/wood unloading area, a single construction and demolition waste unloading area on the landfill, a tire area, an asbestos waste disposal area for receipt of RACM, a recycling facility, and a single liquid waste unloading area for a maximum total of ten unloading areas.

The unloading of solid waste at the active working face shall be confined to as small an area as practical. Every effort will be made by landfill personnel to maintain the size of the active working face to a maximum

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length of 400 feet and width of 200 feet. The size of the working face will be directly impacted by the amount of wastes being received and may vary accordingly. There may be one or two active municipal solid waste working faces open at any given time. Examples of when more than one municipal solid waste working face may be open at one time is when wastes are being deposited in a new cell that must receive only select wastes to cover the bottom of the new cell, during a transition from a wet weather area to another municipal solid waste working face, during disposal of Regulated Asbestos Containing Materials (RACM) or when there is a "hot load" delivered to the municipal solid waste working face area and another municipal solid waste working face is established until the fire is controlled. However, in general there will only be one active municipal solid waste working face in order to reduce odors and windblown waste and to control vector populations.

The unloading of waste in unauthorized areas shall be prohibited. Any waste deposited in an unauthorized area shall be promptly removed and disposed of properly. A trained employee shall be present at the gatehouse at all times during operating hours to monitor incoming loads of waste, and shall direct traffic to the appropriate unloading area. Trained personnel will also be on duty during regular operating hours at the working face to direct and observe unloading of solid waste. The working face staff as well as the gate attendants, will contact the landfill manager regarding the receipt of prohibited wastes. The landfill manager has the authority and responsibility to reject unauthorized loads, have unauthorized material removed by the transporter, and/or assess appropriate surcharges, and have the unauthorized material removed by on-site personnel or otherwise properly managed by the facility. The employees will be trained in the recognition of both industrial and hazardous waste and their transportation and disposal requirements. A record of unauthorized material removal will be maintained in the operating record. The facility is not required to accept any solid waste that may cause problems in maintaining full and continuous compliance with the permit.

Certain wastes are prohibited from disposal at this facility. Prohibited wastes include hazardous waste (except municipal hazardous waste from very small quantity generators), PCB waste, and unauthorized special waste. The known disposal of prohibited wastes at the landfill shall not be allowed. Necessary steps shall be taken by the landfill operator to ensure compliance with this provision as discussed in Sections 4.2 and 4.24 of this plan. Any prohibited waste shall be returned promptly to the transporter or generator of the waste. The driver shall be advised and will be responsible for the proper disposal of this rejected waste. In the event the unauthorized waste is not discovered until after the vehicle that delivered it is gone, the waste will be segregated and controlled as necessary. An effort will first be made to identify the entity that deposited the prohibited waste and have them return to the site and properly dispose of the waste. In

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the event that identification is not possible, the landfill manager will notify the TCEQ and seek guidance on how to dispose of the waste as soon as practical.

Only those persons operating vehicles that comply with the following requirements will be authorized by the landfill manager to dispose of waste at this site:

1. Vehicles and equipment used for the collection and transportation of waste in good working order to prevent loss of waste material and to minimize health and safety hazards to landfill personnel and the public;
2. Collection vehicles and equipment maintained in a sanitary condition to preclude odors and fly breeding; and
3. Collection vehicles not equipped with an enclosed transport body will be required to have tarpaulins to preclude accidental spillage.

Signs with directional arrows and/or portable traffic barricades will help to direct 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.

The unloading of construction and demolition waste at the construction and demolition working face shall be confined to as small an area as practical. Every effort will be made by landfill personnel to maintain the size of the construction and demolition working face to a maximum length of 200 feet and width of 200 feet. The size of the construction and demolition working face will be directly impacted by the amount of construction and demolition wastes being received and may vary accordingly. There will only be one active construction and demolition waste working face on the landfill. This construction and demolition working face will be located within the landfill waste limits and may be moved within those landfill waste limits at the discretion of the facility management.

The construction and demolition waste deposited at the construction and demolition waste face will be separated by waste stream for recycling. Separation will be conducted by individual load (if waste material homogenous), with site equipment, or by hand. Some of the waste streams will be taken directly to roll-off containers and shipped off-site to appropriate facilities to be further processed and recycled or reused, and others, such as wood mulch and concrete may be used on site for soil stabilization, soil enhancement, or for

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road construction. The construction and demolition waste working face will remain free of putrescibles and household wastes.

Brush and wood may be stored onsite for on-site recycling for mulching and/or composting. Brush and wood recycled for composting will be handled in accordance with a facility Compost Plan. The brush/wood storage area will remain free of putrescibles and household wastes.

The brush and wood materials will be clean wood materials as defined by 30 TAC 332.2(10) as: "Wood or wood materials, including stumps, roots, or vegetation with intact rootball, sawdust, pallets and manufacturing rejects. Clean wood material does not include wood that has been treated, coated or painted by materials such as, but not limited to, paints, varnishes, wood preservatives, or other chemical products. Clean wood material also does not include demolition material, where the material is contaminated by materials such as but not limited to paint or other chemicals, glass, electrical wiring, metal and sheetrock." Additionally, mulch is defined by 30 TAC 332.2(33) as: "Ground, coarse, woody yard trimmings and clean wood material. Mulch is normally used around plants and trees to retain moisture and suppress weed growth, and is intended for use on top of soil or other growing media rather than being incorporated into the soil or growing media. Mulch does not include wood that has been systemically killed using herbicides."

Whole tires or tire pieces may be stored or processed onsite in an unused portion of the property in accordance with §328.54(c). Storage shall be above ground in controlled storage piles or in enclosed and lockable containers, pursuant to §328.61. The site will not store tires or tire pieces in excess of 500 used or scrap tires (or weight equivalent tire pieces or combination thereof) on the ground or 2,000 used or scrap tires (or weight equivalent tire pieces or and combination thereof) in enclosed and lockable containers. The tire storage area will remain free of putrescibles and household wastes. The tire storage and processing activity (tire area) may be conducted within the landfill permit boundaries but not within the landfill buffer zones. This tire area may be moved within the landfill permit boundaries, excluding the landfill buffer zones, at the discretion of the facility management. The tire storage and processing activity shall not be conducted in a manner that will adversely affect operations of the municipal solid waste disposal site, or other wise endanger human health or the environment.

#### **4.7 HOURS OF OPERATION §330.135**

The Facility's waste acceptance hours are Monday through Friday, 5:00 a.m. to 8:00 p.m. and Saturday, 6:00 a.m. to 4:00 p.m. The Facility's hours for operation of heavy equipment and transport of materials to

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and from the Facility are Monday through Saturday, 3:00 a.m. to 10:00 p.m. The facility may operate within these hours at the discretion of site management. Actual facility operating hours in effect at any give time will be posted at the facility entrance.

Landfill operations outside permitted landfill operating hours will receive TCEQ approval and will be documented in the site operating record as Temporary Operating Hours.

Section 4.26 describes screening provisions regarding night operation.

#### **4.8 SITE SIGN §330.137**

A conspicuous sign measuring a minimum four feet by four feet shall be maintained at each public site entrance. The sign shall state, in letters at least three inches high, the name of the site, type of site, hours and days of operation and the TCEQ permit number. The sign will have an emergency 24-hour contact phone number or numbers that reach a key landfill staff person with the authority to obligate the facility at all times that the facility is closed, and the local emergency fire department phone number. The facility sign will be readable from the facility entrance. A sign prohibiting receipt of hazardous waste, closed drums, and smoking will be posted near the facility entrance or gatehouse. A sign stating that all loads will be properly covered or otherwise secured will be prominently displayed at the facility entrance.

Within the landfill site, additional signs will be placed along the landfill haul road and access road directing customers to where disposal areas are and which roads are to be used.

#### **4.9 CONTROL OF WINDBLOWN SOLID WASTE AND LITTER §330.139**

The working face shall be maintained and operated in a manner to control windblown solid waste. The working face shall be covered daily to avoid prolonged exposure of waste. In order to prevent disease vectors, control windblown debris and odors, reduce the possibility of fire, prevent scavenging, and improve the operation of the site, a minimum of six inches of "daily" cover soil, or approved equivalent, shall be placed and compacted over all exposed waste at the end of each working day or at least once every 24 hours. Weather conditions may result in material occasionally being blown away from the working face during placement operations.

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Litter fences of adequate height and width will be located and utilized in the immediate vicinity of the working face to help aid in the control of windblown material as needed. The landfill manager shall be responsible for determining the need, type and placement of litter fences. Litter fences shall either be portable, free-standing fences which can be readily moved, as necessary, with equipment, or they may be temporary fences which consist of poles driven into the waste/soil cover with fencing between them. Typically, the litter fences shall be placed downwind and extend the full width of the working face and shall extend above the working face. Windblown waste and litter at the working face will be collected and properly managed to control unhealthy, unsafe, or unsightly conditions. The collected waste will be returned to the active disposal area(s). Litter scattered throughout the site, along fences and access roads and at the gate shall be picked up once a day by landfill personnel, and returned to the active working face of the disposal area(s).

**4.10 EASEMENTS AND BUFFER ZONES §330.141**

No solid waste unloading, storage, disposal or processing operations shall occur within any easement or buffer zone that crosses the site. There are no rights-of-way within the permit boundary. No solid waste disposal shall occur within 25 feet of the centerline of any utility line or pipeline easement, unless otherwise authorized by TCEQ. All pipeline and utility easements shall be clearly marked with green colored posts that extend at least six feet above ground level, spaced at intervals no greater than 300 feet.

A 50-ft TXU Lone Star Gas Co. gas pipeline easement exists along the northern property boundary and two 15-ft Jonah Water Supply Company (WSC) waterline easements are located along the western property boundary. Refer to Figure I/II-6 for the location of these easements.

Buffer zones at the perimeter of the site will consist of at least a 50-foot buffer from the site boundary to the edge of waste placement. No solid waste unloading, storage, disposal, or processing operations shall occur within any buffer zone. The buffer zone shall not be narrower than that necessary to provide safe passage for firefighting and other emergency vehicles.

**4.11 LANDFILL MARKERS AND BENCHMARKS §330.143**

All required landfill markers and benchmarks shall be maintained so that they are visible during operating hours. Markers that are removed or destroyed shall be replaced within 15 days of their removal or destruction. All markers shall be repainted as necessary to retain visibility. It shall be the responsibility of

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the landfill manager to ensure that landfill markers and benchmarks are inspected for damage on a monthly basis. Records of all inspections will be maintained at the facility.

Landfill markers will consist of durable posts, steel or wooden, extending at least 6 feet above ground level to clearly identify significant landfill features such as site boundaries, buffer zone, easements and rights-of-way, landfill grid system, SLER and/or GLER areas, and 100 year flood limits, if applicable. In the event a marker falls in a roadway, waterway or other area incapable of sustaining an above ground marker, an alternate marker may be placed with its offset from its true location noted on the marker. The TCEQ may approve modifications to the marker requirements to accommodate any on-site conditions. All markers will be color coded as indicated in the chart below.

| <b>Marker</b> | <b>Color</b> |
|---------------|--------------|
| Site Boundary | Black        |
| Buffer Zone   | Yellow       |
| Easements     | Green        |
| Grid System   | White        |
| SLER/GLER     | Red          |
| Floodplain    | Blue         |

**4.11.1 Easement and R.O.W. Markers §330.143(b)(4)**

Easement and right-of-way markers (Green) will be placed along either the centerline or the limits of an easement and along the boundary of a right-of-way at intervals of 300 feet and at each corner within the site and at the intersection of the site boundary. If a utility line has been constructed down the centerline, the marker may be off-set on the easement or R.O.W. This off-set will be noted on the site grid system drawing and the marker.

A 50-ft TXU Lone Star Gas Co. gas pipeline easement exists along the northern property boundary and two 15-ft Jonah Water Supply Company (WSC) waterline easements are located along the western property boundary. Refer to Figure I/II-6 for the location of these easements.

**4.11.2 Site Grid System Markers §330.143(b)(5)**

A site grid system (White) will be installed at the facility. The grid system will encompass at least the area expected to be filled within the next 3 year period. The grid system will be based on the State Plane Coordinate System. Markers will be spaced no greater than 100 feet apart measured along perpendicular

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lines. Where markers cannot be seen from opposite boundaries, additional markers will be installed, where feasible. The location of the site grid system is shown on Part III, Attachment 1, Figure III-1.1.

**4.11.3 SLER or GLER Area Markers §330.143(b)(6)**

SLER or GLER area markers (Red) will be placed so that all areas for which a SLER or GLER has been submitted and approved by the department are readily determinable. Such markers are to provide site workers immediate knowledge of the extent of approved disposal areas. These markers will be located so that they are not destroyed during operations until operations extend into the next SLER or GLER. The location of these markers will be tied into the site grid system and will be reported on each SLER or GLER submitted. SLER and GLER markers will not be placed inside the evaluated areas.

**4.11.4 100 Year Flood Limit Protection Markers §330.143(b)(7)**

Flood protection markers (Blue) shall be installed for any area within a solid waste disposal facility that is subject to flooding prior to the construction of flood protection levee. The area subject to flooding shall be clearly marked by means of permanent posts spaced not more than 300 feet apart or closer if necessary to retain visual continuity.

**4.11.5 Site Boundary Markers §330.143(b)(2)**

Site boundary markers (Black) shall be placed at each corner of the site and along each boundary line at intervals no greater than 300 feet. Fencing may be used in place of these markers as appropriate.

**4.11.6 Buffer Zone Markers §330.143(b)(3)**

Markers (Yellow) identifying the buffer zone shall be placed along each buffer zone boundary at all corners and between corners at intervals of 300 feet. Placement of the landfill grid markers may be made along a buffer zone boundary.

**4.11.7 Permanent Benchmark §330.143(b)(8)**

A permanent benchmark has been established at the site. The benchmark monument is established at the site in an area that is readily accessible and will not be used for disposal. The monument elevation was

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surveyed from a known United States Coast and Geodetic Survey benchmark. The location and elevation of the reference benchmark monument location is provided on Part III, Attachment 1, Site Layout Plan. The monument is a bronze marker set in concrete with the benchmark elevation and survey date stamped on it.

**4.12 MATERIALS ALONG ROUTE TO SITE §330.145**

The landfill operator shall take the necessary steps to help ensure that vehicles hauling waste to the site are enclosed or utilize a tarpaulin, net, or other means to properly secure the load in order to prevent the escape of any part of the load by blowing or spilling. The landfill operator shall include, as necessary, the posting of signs at the landfill entrance requiring the loads to be enclosed or covered, and the possibility of reporting offenders to the City of Hutto Police or the Williamson County Sheriff's office, adding litter control surcharges, or other necessary information which may minimize public non-compliance. On a daily basis and during daylight hours when the facility is in operation, FM 1660 and all other public roads used to access the landfill; including County Roads (CR) 100, CR 101, CR 131, and CR 132 shall be inspected and picked for litter daily for a distance of two miles in either direction from any entrances used for the delivery of waste to the site. The following table provides specific access roads and the distances to be cleaned.

| <b>PUBLIC ACCESS ROAD</b> | <b>DISTANCE OF RESPONSIBILITY</b>           |
|---------------------------|---------------------------------------------|
| FM 1660 NORTH             | 0.6 miles north of intersection with CR 131 |
| FM 1660 SOUTH             | 0.1 miles east of Jonah Water Tower         |
| CR 131                    | 0.7 miles west of intersection with FM 1660 |
| CR 101                    | 1.3 miles east of intersection with FM 1660 |
| CR 100                    | 0.7 miles east of intersection with FM 1660 |
| CR 132                    | 0.7 miles east of intersection with FM 1660 |

The landfill manager will be responsible for consulting with officials of the Texas Department of Transportation (TxDOT), county, and/or local governments with maintenance authority over the roads concerning clean-up of state highways and right-of-ways.

As necessary, litter found along the routes to the site will be picked up by landfill personnel or other persons acting in coordination with the landfill operator. The landfill pickup and personnel will be utilized to gather the litter, secure it on the vehicle and transport it back to the landfill for proper disposal. Litter control outside the site will not be conducted during hours of darkness. It shall be the responsibility of the landfill

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manager to ensure that litter control outside the site is conducted in a safe and timely manner. The landfill manager shall make proper arrangements to gather items that are too large to be picked up by conventional means. The landfill manager or designated alternate shall record cleanup efforts on a daily log which will be maintained in the site operating record.

**4.13 DISPOSAL OF LARGE ITEMS §330.147**

Large, heavy, or bulky items such as air conditioning units, tree trunks, white goods (refrigerators, freezers, washers/driers, and water heaters), metal tanks and metal pieces which cannot be incorporated in the regular spreading, compaction and covering operations will be recycled or crushed by compacting equipment to prevent bridging and localized subsidence. White goods may be recycled, and tree parts (i.e., limbs, trunks and stumps) and brush and wood may be chipped for mulch or compost. Items identified as being too large for proper disposal shall be refused or broken into smaller pieces, or crushed by compactor equipment, for proper disposal. A special area may be designated as a large item salvage area as discussed in Section 4.17 of this plan. These items would be removed from the site frequently to prevent them from becoming a nuisance and precluding the discharging of any pollutants.

No items containing chlorinated fluorocarbons (CFC) will be knowingly accepted. Refrigerators, freezers, air conditioners, and any other items containing CFC must be handled in accordance with 40 CFR §82.156(f), as amended and with Section 4.22 of this Site Operating Plan, which requires verification that the CFC has been evacuated from the unit and that it was not knowingly allowed to escape into the atmosphere.

**4.14 AIR CRITERIA**

The landfill is subject to commission rules concerning burning and air pollution control. The landfill manager shall ensure that any unit of the MSWLF does not violate any applicable requirements of the approved state implementation plan developed under the Federal Clean Air Act. Open burning of waste will not be permitted at this facility.

The site is operated in accordance with the federal New Source Performance Standards (NSPS) and under the TCEQ Title V General Operating Permit (GOP). The landfill manager, or designated alternate, will ensure that the site complies with and is evaluated in accordance with requirements of NSPS and Title V GOP.

#### **4.15 ODOR MANAGEMENT PLAN §330.149**

Municipal solid waste landfill operations have the potential to yield odorous emissions. Odor management at a landfill is a combination of identifying the sources of odor and methods used to minimize or eliminate those odors. This odor management plan addresses the identification of potential sources of odors, and includes methods to minimize odors or sources of odors and procedures to be followed if these methods are ineffective in preventing a release of odors to the surrounding community.

##### **4.15.1 Sources of Odor**

Sources of odor that emanate from a landfill can vary considerably and may include the wastes being delivered to the landfill, the open working face, or the leachate collection system. Many of the wastes received at a landfill are a source of odor upon receipt, such as sludge and dead animals. Other wastes have the potential for becoming a source of odor by their biodegradable characteristics, generating gases as they advance through the decomposition process. Leachate, the contaminated water that emerges from solid waste, may also be a source of odor if not properly handled or disposed of in a timely manner. Pondered water containing contaminants, and composting, depending on the feedstock used in the operation, could become a source of odor as well.

##### **4.15.2 Odor Minimization**

The primary objectives for odor control at a landfill are to minimize odor generation and odor emissions. Methods used to achieve these objectives include waste and leachate handling procedures, the timely placement of cover materials, the elimination of ponded water, and gas control. These methods, described briefly below, are also included in Part III of the facility's Site Development Plan, Attachment 14, Gas Management Plan, and Attachment 15, Leachate and Contaminated Water Management Plan, and Part IV.

**Waste Handling Procedures** - Wastes are to be deposited at the working face, spread into layers that can be readily compacted, and covered with a minimum of six inches of soil or with an alternate daily cover material such as tarps or other applied materials. Sludges that pass paint filter are to be incorporated into the working face with other absorptive wastes. Dead animals are to be covered immediately with three feet of waste or two feet of soil.

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Cover - The placement of daily cover is sufficient to reduce the immediate emission of odors when applied in sufficient thickness (minimum of six inches soil) and with the proper compaction or other approved cover. Daily cover also serves as the first deterrent to odor generation by preventing air and water from further impacting the wastes. If odors result during the use of alternate daily cover material, the ADC will be reevaluated to determine if it will continue to be used. The placement of the intermediate and final cover will provide a barrier that will reduce the amount of odor emissions as decomposition of wastes occurs over time.

Leachate Handling Procedures - Leachate must be removed from the collection system at a rate to maintain less than 30 cm of head on the liner. Leachate may be removed by pumping directly from the sump to a storage tank, evaporation pond, recirculation system, or a transfer truck. The evaporation pond may be a source for odors and be monitored and may be equipped with aerators to further reduce the emission of odors by forcing oxygen into the leachate.

Ponded Water - Water ponded over waste disposal areas may become a source of odors and should be eliminated prior to the occurrence of odors. Ponded water that occurs in the active portion of the site or on a closed area will be eliminated as quickly as possible and the area in which the ponding occurred shall be filled in and re-graded within seven days of the occurrence.

Gas Extraction System - Odor reduction may be achieved by the installation of a gas extraction system. The gas extraction system will minimize the migration of gases either horizontally or vertically. Gases collected in an extraction system may be distributed to such processing devices as a flare or processing plant.

#### **4.15.3 Odor Response Procedures**

Upon identification of landfill related-odors, landfill personnel will attempt to isolate the source of the odor. If an identifiable odor is detected at any of these areas, the landfill manager will be notified, who will initiate the necessary remedial actions. Remedial actions may include the application of additional cover over the suspect area, the use of odor controlling sprays applied directly to the working face, control of any ponded water on the site, adjustments to the gas extraction system, sealing the riser pipe covers of the leachate collection system, prompt landfilling of odorous waste, or other methods proven to be beneficial for the remediation of landfill odors. If odors persist, the Landfill Manager may contract with an engineer or other expert to address specific remediation issues.

#### **4.16 DISEASE VECTOR CONTROL §330.151**

Conditions favorable to the production or harboring of disease vectors (rodents, flies, and mosquitoes) shall be minimized through proper compaction of the waste and the use of daily and intermediate cover, as appropriate. Vectors are attracted by wastes and water that serve as food and breeding grounds. The working face of each disposal area shall be minimized and daily cover shall be applied to control disease vectors. Landfill cover procedures are described in Section 4.22 of this SOP. To further control disease vectors, ponded water shall be controlled as detailed in Section 4.23 of this SOP. Birds should also be controlled by use of the daily cover, minimizing the working face, and control of ponded water. Site personnel should be observant for insects and rodents and report problems to the landfill manager. Professional exterminators will be contacted, if necessary, to eliminate rodents or other pests that may appear at the site. If chemicals are needed for disease vector control, a professional will apply the appropriate chemical at the industry recommended rate, and use the appropriate health and safety practices to minimize any potential adverse effects.

#### **4.17 SITE ACCESS ROADS §330.153**

All-weather site access roads provided from the public road to the unloading area(s) will consist of compacted gravel, crushed stone, asphalt, concrete, or other road building material. The tracking of mud and debris onto public roadways from the site shall be minimized.

Tracking of mud onto public roadways; including FM 1660, CR 100, CR 101, CR 131, and CR 132, will be controlled by minimizing the amount of mud on site entrance and access roads and on vehicles leaving the site. Vehicles leaving the site will traverse all-weather site access road and paved site entrance roads allowing for mud to be removed from the vehicle. Additionally, the site may install an active wheel wash or utilize the current passive wheel wash adjacent to the site entrance road. If a wheel wash is utilized, landfill traffic may be directed through the wheel wash if mud is being tracked past the scalehouse.

Mud on the site entrance and access roads will be removed to prevent tracking of mud onto public access roads. Mud on site access roads will be removed by grading the mud off of the road. Mud on the site entrance road may be removed by a spray of water from the site water truck, by scraping with a site bulldozer or maintainer, or with a rotary broom street sweeper. Mud will be removed from the public roadway, site entrance and access roads as necessary to control the tracking of mud onto public roads and

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at least once per day on days when mud associated with landfill operation may be tracked onto public roadways.

Litter and debris will be controlled. Litter and debris that are tracked onto public roadways will be removed at least once per day on days when the site is operating. Litter on FM 1660, CR 100, CR 101, CR 131, and CR 132 will be picked up in accordance with Section 4.12, Materials Along Route to Site. Litter along the site entrance and access road will be picked up in accordance with Section 4.9, Control of Windblown Solid Waste and Litter. Debris will be picked up daily from all on-site roads and from FM 1660, CR 100, CR 101, CR 131 and CR 132, for a distance of two miles in each direction from the site entrance. Site laborers will load any debris into the site pickup. The debris will be taken to the working face and disposed of.

Dust from onsite and other access roads shall be controlled on an as-needed basis to avoid becoming a nuisance to surrounding areas. A water source and the necessary equipment shall be provided by the landfill operator for dust control.

The on-site water truck shall be equipped and utilized for dust control. Sources of water for this process may be a municipal water supply, the ditches along the eastern and southern perimeters, water collected in on-site stormwater ponds, and/or outside sources. Onsite roads and ditches shall be cleaned of litter and debris on a daily basis. On site and other access roadways shall be maintained in a clean and safe condition. Access roadways will be re-graded on a monthly basis by grading and placing additional road materials to minimize depressions, ruts, and potholes, and provide uninterrupted access to the unloading area(s). Additional re-grading or maintenance may be implemented as needed.

Records will be kept in the facility Operating Records to demonstrate compliance with the requirement of this section.

#### **4.18 SALVAGING AND SCAVENGING §330.155**

Salvaging is the controlled removal of waste materials for utilization, recycling or sale. Scavenging is the uncontrolled and unauthorized removal of materials at any point in the solid waste management system. No scavenging shall be allowed at this site. This rule shall be strictly enforced through site access controls and monitoring by facility personnel. Salvaging or recycling of materials such as metals and white goods will be allowed with specific authorization from the landfill manager if the activity is supervised by landfill personnel. However, salvaging shall not be allowed to interfere with prompt sanitary disposal of solid

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waste or to create public health nuisances. Such items shall be removed on an as needed basis to prevent creation of nuisance conditions, to preclude the discharge of any pollutants from the area, and to prevent an excessive accumulation of the material at the facility.

Special waste received at the disposal site shall not be salvaged. Pesticide, fungicide, rodenticide, and herbicide containers shall not be salvaged unless being salvaged through a state supported recycling program.

#### **4.19 ENDANGERED SPECIES PROTECTION §330.157**

No endangered or threatened species are known to exist at the site that would be affected by the landfill operations; therefore the facility and the operation of the facility shall 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. Information regarding endangered species is provided in Part I/II of the site permit application.

#### **4.20 LANDFILL GAS CONTROL §330.159**

Landfill gas control is addressed in detail in Part III, Attachment 14, Landfill Gas Management Plan and summarized in this section. Refer to Attachment 14 for specific requirements and procedures. Landfill gas monitoring for the presence of methane gas at the site will be conducted on a regular basis. In particular, the site boundary will be monitored to identify whether there exists the possibility of off-site methane migration or perimeter methane concentrations exceeding the lower explosive limit (LEL). Additionally, on-site structures will be checked to confirm that methane concentrations do not exceed 25 percent of the LEL. The allowable limits and details of gas monitoring and recovery are more fully described in Part III, Attachment 14, Landfill Gas Management Plan.

Monitoring for combustible gas concentrations will be performed quarterly within all enclosed site structures and around the perimeter of landfilled portions of the site. All required reports and other submittals shall be included in the operating record of the facility and submitted to the executive director. Permanent probes will be used to monitor the perimeter. Barhole probes may be used as a supplement. Probe locations are specified in Part III, Attachment 14, Landfill Gas Management Plan.

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In the event that methane levels that exceed allowable lower limits are detected within structures or at the property boundary, the TCEQ will be notified and steps will be implemented to ensure the protection of human health in accordance with the Landfill Gas Management Contingency Plan. Documentation of the gas measurements and of the steps taken for human protection will be placed in the Site Operating Record within seven (7) days. A remediation plan for any methane gas releases as described in the Landfill Gas Management Plan will be implemented within 60 days of the methane detection. This remediation plan will be submitted to TCEQ to describe the proposed remediation activities within 60 days.

A passive landfill gas vent system has been designed. Parts of the landfill currently are under the influence of a gas collection and control system that includes wells, header system, and flares. This system is currently operated for odor control but may be required to be expanded in the future to comply with New Source Performance Standards (NSPS) and/or other federal and state requirements.

#### **4.21 OIL, GAS AND WATER WELLS §330.161**

There is no known existing or abandoned oil and/or water wells within the site. The landfill manager shall immediately provide written notification to the TCEQ of the location of any and all existing or abandoned oil or gas wells or other wells associated with mineral recovery or water wells situated within the site upon such discovery. The landfill operator shall, within 30 days of such a discovery, provide the TCEQ with written certification that all abandoned water wells have been capped, plugged, and closed in accordance with all applicable rules and regulations of the TCEQ. The landfill operator shall provide the TCEQ with written certification that all abandoned oil or gas wells or other wells associated with mineral recovery have been capped, plugged, and closed in accordance with all applicable rules of the Railroad Commission.

If any water or other type of well under the jurisdiction of the commission is to be plugged, it shall be plugged in accordance with all applicable commission requirements and additional requirements imposed by the executive director. A copy of the well plugging report required to be submitted to the appropriate state agency shall also be submitted to the executive director within 30 days after the well has been plugged.

#### **4.22 COMPACTION §330.163**

The waste shall be thoroughly compacted by landfill compaction equipment in layers approximately two feet in thickness. The compaction equipment shall pass over the waste a sufficient number of times (i.e., minimum of 4 passes) to achieve thorough compaction.

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When waste is used as ballast, as described in Part III, Attachment 10, Soil and Liner Quality Control Plan, the first five feet or the total thickness of ballast, whichever is less, placed on the liner system shall be free of brush and large bulky items, which would damage the underlying parts of the liner system or which cannot be compacted to the required density. When waste is used as ballast, a wheeled trash compactor having a minimum weight of 40,000 pounds, or similar equipment, shall be properly utilized to reach a compaction density of at least 1,000 pounds per cubic yard. For additional information see Part III, Attachment 10, Soil and Liner Quality Control Plan.

#### **4.23 LANDFILL COVER §330.165**

##### Daily Cover

In order to prevent disease vectors, control windblown debris and odors, reduce the possibility of fire, prevent scavenging, and improve the operation of the site, a minimum of six inches of "daily" cover (earthen material that has not been previously mixed with garbage, rubbish or other solid waste), or approved equivalent, shall be placed and compacted over all exposed waste at the end of each working day or at least once every 24 hours.

To ensure that the daily cover 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, graded to drain, and will not have any waste visibly protruding through it.
- The landfill manager will document where daily cover has been placed through visual inspections during placement that a minimum of 6 inches (compacted thickness) of daily cover has been placed over the days working face area. The landfill manager will document on a daily basis the daily cover completion and placement area.
- After each rainfall event resulting in runoff, the landfill manager will inspect all daily cover areas for erosion, exposed waste or other damage, and repair as necessary. Runoff water that comes in contact with waste will be handled as contaminated water.
- Runoff from areas that have intact daily cover is not considered as having come in contact with the working face or leachate.

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- The landfill manager will inspect for seeps from daily cover. All seepage water from waste below the daily cover will be controlled by placement of soil berms and diverted to the contaminated water collection area. Contaminated water will be treated as outlined in Attachment 15.

Alternate Daily Cover

Alternative daily cover (ADC) materials may be utilized at this facility. These materials may include the use of flexible membranes, heavy duty tarpaulins, petroleum contaminated soils, synthetic foam materials, or other engineered fabrics. ADC shall not be allowed when the landfill is closed for a period greater than 24 hours. An ADC Operating Plan (ADCOP) is attached to this SOP as Appendix A.

The use of an ADC may be allowed by a temporary authorization under 30 TAC 305.70(m) on a six month trial basis. Additionally, one extension of up to six months may be granted. If the TCEQ grants temporary authorization for the use of ADC not already approved for use, status reports on the ADC will be submitted to TCEQ on a two month basis that describes the effectiveness of the alternative material, any problems that may have occurred, and corrective actions required and implemented as a result of such problems.

Permanent authorization for the use of ADC may be obtained from the TCEQ through a "Notice Modification" in accordance with 30 TAC 305.70(k)(1). Permanent authorization may be applied for during the temporary trial periods, but in no case shall ADC be continued past the trial periods without first receiving permanent authorization from the TCEQ.

Intermediate Cover

All areas that have received waste but will be inactive for longer than 180 days will be provided with intermediate cover. This intermediate cover will include six inches of suitable earthen material that is capable of sustaining native plant growth and will be seeded or sodded following its application in order to reduce erosion. Mulch may be used in conjunction with the suitable earthen materials as a method of reducing erosion after seeding and as a means of providing soil enrichment. This intermediate cover will be not less than 12 inches of suitable earthen material. These areas of intermediate cover shall be graded for proper drainage to help prevent ponding of water, and plant growth or other erosion control features will be maintained. Runoff from areas which have received intermediate cover will not be considered as having come into contact with the working face or leachate.

Final Cover

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"Final" cover soil for the landfill shall be placed and compacted as outlined in Part III, Attachment 12, Final Closure Plan.

The final cover system including the erosion control structures (such as drainage swales and chutes) will be maintained during the active life and through post closure. During the active life of the site, the landfill manager should inspect the final cover system on a weekly basis. Erosion of final cover shall be repaired promptly by restoring the cover material, grading, compacting, and seeding it as necessary.

Erosion of Cover

Interim or final cover that has been seeded and has vegetation established will continue to be maintained. However, caution will be exercised not to damage the integrity of vegetation in these areas that will result in greater erosion through the destruction of vegetative cover to fix minor erosion riles. To address this concern, minor or incidental erosion riles will be monitored to ensure that they do not develop into areas of significant erosion. Erosion of intermediate or final cover of a magnitude that would be considered significant will consist of areas that in the opinion of the landfill manager jeopardize the integrity of the intermediate or final cover. These areas will be repaired within five days of detection as weather permits by restoring the cover material, grading, compacting, and seeding. If conditions warrant, and the commission's regional office approves otherwise, based on the extent of the damage, time to repair, or weather conditions, the five day requirement may be extended. The date of detection of erosion and date of completion or repairs, including reasons for any delays, will be documented in the cover inspection record. The landfill manager will inspect the intermediate and final cover at the site on a weekly basis and after a rain event in which runoff occurs.

Cover Inspection Record

A cover application record shall be maintained at the site and readily available for inspection by TCEQ and authorized agents or employees of local governments having jurisdiction. The record shall specify the date that cover was accomplished, how it was accomplished, and the last area covered. This applies to daily, alternate daily, intermediate, and final cover. For final cover, the record shall also specify the thickness applied on that date. Each entry shall be certified by signature of the landfill manager or designated representative.

A cover inspection record will be maintained that documents inspections of daily, intermediate and final cover, the findings, and corrective action taken when necessary.

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**4.24 PONDED WATER §330.167**

Measures shall be implemented to prevent ponding of water over waste in the disposal areas. When ponded water does occur in the active portion of the MSWLF unit, it shall be actively removed with portable pumps. Ponded water from an area with at least 12 inches of intermediate cover shall be pumped/removed to the site drainage system. Contaminated water found within active disposal areas shall be handled in accordance with Part III, Attachment 15, Leachate and Contaminated Water Management Plan. Refer to Attachment 15 for requirements and handling procedures for contaminated water. Ponded water that occurs in the active portion of the facility or on a closed portion of the facility must be eliminated and the area in which the ponding occurred will be filled in and regraded within seven days of the occurrence.

**4.24.1 Ponding Prevention Plan**

The potential for ponding of water over waste areas will be minimized by achieving a high density compaction during the placement of the wastes and by constructing and maintaining proper cover and slope on all areas so that stormwater will not pond and drain properly, either to the site drainage system (for intermediate or final covered areas) or to run-off control structures (for active disposal areas). Measures shall be implemented to minimize ponding of water over waste in the disposal areas, such as the installation of upgradient diversion berms to minimize the amount of water entering the disposal area, and proper construction of the working face slopes.

Active portions of the landfill; including final covered areas not in post closure care, intermediate cover areas, and daily cover areas, will be inspected at least weekly for signs of ponded water or depressions that could potentially pond water. Additional inspections may be conducted after rainfall events in excess of 1/2 inch or more rain in a 24 hour period. These inspections will be conducted within a day of the rainfall event. However, during periods of extended or heavy rainfall, portions of the site may not be accessible to vehicles for inspection. During these periods it may be necessary to allow for drying prior to accessing the remote sections of the site for inspection.

During the post closure period of closed portions of the landfill, the final cover will be inspected and maintained annually, at a minimum, in Accordance with Part III, Attachment 13, Post Closure Care Plan.

Depressions that could potentially pond water will be eliminated by filling and/or regrading within 7 days of identification, weather and access permitting.

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Ponded water will be eliminated within 7 days of occurrence, weather and access permitting.

Ponded water areas may be corrected by implementing one or more of the following procedures:

- Pumping water out of the depression,
- Regrading and allowing the water to flow off, and
- Adding cover soils to fill the depression and forcing the water on to areas of the landfill that allows the water to flow off the landfill.

However, during periods of extended or heavy rainfall, the site may not be able to operate on the cover materials without further compromising the cover with the tracking of equipment. During these periods, the site may allow for a day of drying prior to accessing the ponded water site with equipment. The ponded water will be eliminated on the second consecutive day without rainfall.

After the ponded water has been removed the site will be regraded and/or filled with additional cover soil to eliminate the potential for ponded water and promote positive drainage.

Water that has been in contact with waste, daily cover, and/or alternate daily cover (ADC) will be removed and handled as contaminated water in accordance with Part III, Attachment 15, Leachate and Contaminated Water Management Plan and Part III, Attachment 6, Groundwater and Surface Water Protection Plan and Drainage Plan.

In general, contaminated water will be contained in the area of the working face behind the containment berm. This water will not be handled as leachate. The contaminated water will be pumped directly into a tanker truck if necessary or pumped to on-site storage tanks. Contaminated water pumped directly to a tanker truck will be disposed of off-site at an approved treatment facility. Any of the aforementioned transmission systems may be utilized.

Contaminated water may not be recirculated.

Records will be kept in the facility Operating Record to demonstrate compliance with the requirements of this section.

**4.25 DISPOSAL OF SPECIAL WASTE §330.171**

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Special waste is any solid waste or combination of solid wastes that because of its quantity, concentration, physical or chemical characteristics, or biological properties requires special handling and disposal to protect human health or the environment. The various types of special wastes are defined in 30 TAC §330.3.

The following special wastes will be accepted without prior written authorization from the TCEQ provided the waste is handled in accordance with the procedures listed below:

- Special wastes from health care related facilities that have been treated in accordance with the procedures specified in Subchapter Y of the TCEQ regulations (relating to Medical Waste Management).
- Dead animals and/or slaughterhouse waste provided the carcasses and/or slaughterhouse waste are covered by 3 feet of other solid waste or at least 2 feet of earthen material immediately upon receipt. Dead animals may also be composted in accordance with the Compost Plan and 30 TAC Chapter 332.
- Non-regulated asbestos-containing materials (non-RACM) provided the wastes are placed on the active working face and covered in accordance with the regulations. Under no circumstances shall any material containing non-RACM be placed on any surface or roadway which is subject to vehicular traffic or disposed of by any other means by which the material could be crumbled into a friable state.
- Regulated asbestos-containing material (RACM) as defined in 40 CFR ' 61 may be accepted for disposal in accordance with the asbestos handling plan (Appendix B of this Site Operating Plan).
- Empty containers that have been used for pesticides, herbicides, fungicides, or rodenticides shall be disposed of in accordance with subparagraphs (a) and (b) of this paragraph.
  - (a) These containers may be disposed of at the disposal facility provided that:
    - (i) the containers are triple-rinsed prior to receipt at the landfill;
    - (ii) the containers are rendered unusable prior to or upon receipt at the landfill;  
and
    - (iii) the containers are covered by the end of the same working day they are received.
  - (b) Those containers for which triple-rinsing is not feasible or practical (e.g. paper bags, cardboard containers) may be disposed of under the provisions of paragraph (6) of this Section 4.24 or in accordance with 30 TAC '330.137 (relating to Disposal of Industrial Wastes), as applicable.

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- Municipal hazardous waste from a very small quantity generator (VSQG) provided the amount of waste does not exceed 220 pounds (100 kilograms) per month per generator, and provided the facility owner or operator authorizes acceptance of the waste.
- Sludge, grease trap waste, or grit trap waste from municipal sources if the material has been treated or processed and the treated/processed material has been tested, in accordance with Test 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, and is certified to contain no free liquids.
- Municipal wastewater treatment sludge (sewage sludge) that, upon receipt, meets the requirements of Class A sewage sludge (30 TAC 312.8) and the metal concentrations in 30 TAC 312.43(b)(3) will either be disposed as described above, or will be beneficially reused. Beneficial use of sewage sludge may include use as an soil additive to enhance establishment of vegetation on landfill intermediate or final cover areas. Sewage sludge may be added to soil in percentages ranging from zero (0) to 100 percent by volume, sludge to soil. Sewage sludge may make up a maximum of 50% by volume of the finished mixture. The finished mixture must contain at least 50% soil by volume. These percentages will vary and will be dependent on the physical characteristics of the soil and sludge being used. The sewage sludge and soil may either be mixed in a pile with an excavator, bulldozer, or spread and plowed with a disk, harrow, rototiller, or similar device. Additional thickness of sewage enhanced soil may be required to maintain the minimum intermediate or final cover thicknesses as the organic volume of the sewage sludge decomposes. Prior to the facility's land applying of any Class A sewage sludge, all necessary authorizations required under 30 TAC 312 will be obtained.
- Sludge, grease trap waste, grit trap waste, and liquid waste from other municipal sources may be accepted for processing/stabilization at Williamson County RDF in accordance with 30 TAC 330.171(c)(7) utilizing the following procedures:
  - (a) Williamson County RDF will provide either a metal or concrete basin placed for the processing/stabilization of liquid wastes. The basin will be placed within a disposal sector which is underlain by a TCEQ-approved composite liner system or, when placed outside a disposal sector underlain by a TCEQ-approved composite liner system, the basin will be underlaid by a 3-foot thick (minimum) compacted clay zone. Under no circumstances will the basin be placed in an area outside of the permitted waste footprint. The 3-foot thick compacted clay zone will be constructed in accordance with the requirements for soil liners included in Part III, Attachment 10, Soil and Liner Quality Control Plan. When the basin is placed within waste fill, the excavation around

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the basin may be backfilled with either waste material and/or soil (a minimum 12 inches of intermediate cover soil is required over the waste backfill). When the basin is placed outside of waste fill, the excavation around the basin shall be backfilled with clean soil. The soil or intermediate cover soil will be graded around the basin to insure that stormwater runoff is directed away from the basin. The basin will be placed to insure a minimum of one foot of the basin extends above the surrounding soil.

- (b) Once the basin is in place, trucks will be able to discharge their contents directly into the basin for mixing. Lime, fly ash, cement or lime kiln dust, Portland cement, hydrated lime, dried sludge, saw dust, auto fluff, shredded paper, wood chips, dirt, or any combination of these materials may be used for liquid stabilization. Also, contaminated soils as allowed by this section may be used as the solidifying agent. All solid waste materials stockpiled as the solidifying agent for liquid stabilization shall be stored in such a manner that they do not constitute a fire, safety, or health hazard or provide food or harborage for animals and vectors, and shall be contained or bundled so as not to result in litter. All solid waste materials stockpiled as the solidifying agent for liquid stabilization shall be stored as described in Part III, Attachment 6, Groundwater and Surface Water Protection Plan and Drainage Plan regarding the minimization and management of contaminated water and the management of water that has not contacted waste. The liquid stabilization basin will be designed to control and contain a worst case spills and contaminated water from leaving the facility. To assure containment, the liquid waste stabilization basins will be placed or constructed over a composite liner system. Liquid stabilization basins may be placed or constructed in waste fill areas underlain by a TCEQ approved composite liner. Liquid stabilization basins placed or constructed in waste fill areas without a TCEQ composite liner or in non-waste filled areas will be underlain by a constructed composite liner. This composite liner system will consist of a 60-mil High Density Polyethylene (HDPE) geomembrane underlain by two feet of recompacted soil liner with a maximum hydraulic conductivity of  $1 \times 10^{-7}$  centimeters per second. The 60-mil HDPE shall have a minimum of 2 feet of protective cover to any surface of the liquid stabilization basin. These composite liner components will be constructed in accordance with Part III, Attachment 10, Soil and Liner Quality Control Plan (SLQCP). Section 1.0 of the SLQCP addresses the purpose of the plan, regulatory requirements and full-time quality control/quality assurance; Section 2.0 addresses the construction of Soil Liners; Section 3.0 addresses Geomembrane Liners; Section 4.0 addresses Leachate Collection Layer and is not applicable to the liquid

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stabilization basin; Section 5.0 addresses liners constructed below the seasonal high water table and is not applicable to the liquid stabilization basin; and Section 6.0 addresses documentation and reporting. Details of the liquid stabilization basin and the composite liner are included in Figure IV-1, Liquid Stabilization Basin Details. The containment area will be operated with a minimum 1-foot freeboard, this is sufficient to account for the precipitation from the 7.9-inch, 25-year, 24-hour storm (according to the National Weather Service Precipitation Depth Maps). Control of odors, vectors, and windblown waste from the solid waste material solidification agent stockpiles shall be maintained. 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 Test Method 9095 (Paint Filter Liquids Test, as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication Number SW-846). Upon verification of the stabilized material passing the paint filter test, the mixture will be removed from the basin and deposited at the active working face for disposal.

- (c) The processing/stabilization of the liquid wastes received will be conducted in a manner so as to minimize the potential for odor-related nuisances. To further minimize the potential for odor-related nuisances, the liquid waste stabilization basin will be located so as to maintain a minimum of 1,000 feet separation between the basin and the nearest resident. The basin will be placed within a disposal sector which is underlain by a TCEQ-approved composite liner system or, when placed outside a disposal sector underlain by a TCEQ-approved composite liner system, the basin will be underlaid by a 3-foot thick (minimum) compacted clay zone. Under no circumstances will the basin be placed in an area outside of the permitted waste footprint. Liquid stabilization basin will not be located in Cells 2A, 3B, 3C, and 3D due to the 1,000 feet restriction from the residences. The exact location of the basins will be determined by the site operator based on operational needs of the facility. The initial area denoted for liquid stabilization basin placement is shown in Figure III-1.1, Site Layout Plan. Under no circumstances will the basin be placed in an area outside of the permitted waste footprint. Prior to relocating the basins the operator will submit a modification request to the TCEQ in accordance with 30 TAC 305. Upon approval of the modification request, and prior to the actual relocation of the basins, the operator will notify the TCEQ's regional office of the projected date of relocation.

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- (d) Each time the basin is emptied or moved, it will be inspected for holes or other signs of leakage. The basin will be covered while not in use with a portable synthetic daily cover or a fitted rigid cover to exclude rainfall from the basin.
- (e) Liquid waste will be processed and disposed of the same day it is received; or, if it is not disposed of the same day it is received, the unprocessed and processed liquid waste will remain in the liquid stabilization basin and the basin will be covered or enclosed in an odor-retaining container or vessel overnight until it is processed and disposed. Soil contaminated by petroleum products, crude oils, or chemicals (also referred to as petroleum contaminated soils) may be accepted for disposal without specific TCEQ approval only if they are tested as being under the limits specified in the following table.

| CONTAMINANT                                                        | CONSTITUENTS OF CONCERN             | MAXIMUM CONTAMINANT LEVEL MUST BE LESS THAN                  | MINIMUM LANDFILL CRITERIA                                                                     |
|--------------------------------------------------------------------|-------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Automotive Gasoline                                                | Benzene<br>TPH<br>Lead <sup>2</sup> | 0.5 mg/l <sup>1</sup><br>1500 mg/kg<br>1.5 mg/l <sup>1</sup> | Type I, TCEQ approved liner or Constructed Clay Liner <sup>3</sup> and Groundwater Monitoring |
| All Other Fuels (i.e., Diesel, Kerosene, Aviation, Fuel Oil, etc.) | Benzene<br>TPH<br>Lead <sup>2</sup> | 0.5 mg/l <sup>1</sup><br>1500 mg/kg<br>1.5 mg/l <sup>1</sup> | Type I, TCEQ approved liner or Constructed Clay Liner <sup>3</sup> and Groundwater Monitoring |
| Used Motor Oil from an Internal Combustion Engine                  | Benzene<br>TPH<br>Lead <sup>2</sup> | 0.5 mg/l <sup>1</sup><br>1500 mg/kg<br>1.5 mg/l <sup>1</sup> | Type I, TCEQ approved liner or Constructed Clay Liner <sup>3</sup> and Groundwater Monitoring |
| All Other Petroleum Hydrocarbons                                   | TPH<br>PCBs <sup>4</sup>            | 1500 mg/kg<br>50 mg/kg                                       | Type I, TCEQ approved liner or Constructed Clay Liner <sup>3</sup> and Groundwater Monitoring |

<sup>1</sup> An analysis of total contaminant level may be used as a screening tool prior to Toxicity Characteristic Leaching Procedure (TCLP). To determine the maximum total contaminant level at which a TCLP is not necessary multiply the table limit by a factor of twenty. This formula is extrapolated from a twenty to one dilution factor when preparing TCLP samples for analysis (Title 40 Code of Federal Regulations, Part 261, Appendix II). If a contaminant total level exceeds twenty times the table limit (e.g. total lead >30 mg/kg, total benzene >10 mg/kg, etc), then TCLP must be performed. Please note that this extrapolation is applicable only to solids.

<sup>2</sup> If it is known, through process knowledge, that the Automotive Gasoline, fuels and motor oil did not contain lead, it is not necessary to test for lead.

<sup>3</sup> Landfill liner that meets the requirements in 30 TAC Chapter '330.331. The minimum protection liner will be a composite liner as defined in '330.331(b) or an alternate design approved by the Executive Director.

<sup>4</sup> If it is known, through process knowledge, that All Other Petroleum Hydrocarbons did not contain PCBs, it is not necessary to test for PCBs.

<sup>5</sup> If it is known through process knowledge that motor oil did not contain benzene, it is not necessary to test for benzene.

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To determine whether or not a soil meets the criteria listed in the table, one composite sample will be taken for every 50 cy of contaminated soil. The composite sample should be comprised of 4 separate grab samples from within the 50 cy. The person taking the sample should strive to obtain the most representative sample possible. All samples must be analyzed for total petroleum hydrocarbon (TPH). When additional parameters are required (benzene, lead, or PCBs) it is only necessary to analyze the sample that is determined to contain the highest level of TPH from each of 200 cy. For example, if there is 400 cy of contaminated soil, there should be eight samples tested for TPH and the two samples with the highest TPH level from those samples should be analyzed for the additional parameters of concern. Laboratory detection limits must be less than or equal to the maximum contaminant levels listed in the preceding table for the analysis to be considered valid.

Other soils contaminated by petroleum products, crude oils, or chemicals (not addressed in the table) will require specific authorization on a case-by-case basis prior to disposal. Requests for authorization to dispose of contaminated soils will be accompanied by analytical data (including signed laboratory reports, chain-of-custody information, Quality Control Data, and a sampling plan) or data as required by the TCEQ.

Prior to receiving the above types of waste, the customer/generator shall provide sufficient documentation that their wastes meet all of the requirements listed above. This type of documentation, when necessary, should include information such as the generator's information, description of the waste, description of the process generating the waste, volume of waste, waste/chemical composition, physical characteristics, and any other information the site manager deems necessary. This documentation may be included on a waste profile form such as the one included at the end of this document. Analytical data used for documentation shall not be more than one year old.

Authorized personnel responsible for reviewing special waste documentation shall be familiar with the application of relevant regulations and guidance documents pertaining to waste classification, waste characterization, and hazardous waste determination. Applicable regulations and guidance documents include: 40 CFR Part 261 - Identification and Listing of Hazardous Waste; 30 TAC §335, Subchapter R - Waste Classification; and TCEQ Regulatory Guide RG-22, Guidelines for the Classification and Coding of Industrial and Hazardous Wastes.

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No other special wastes will be accepted for disposal without prior written approval from the TCEQ. The maximum allowable limits for the concentration of the constituents of concern in the wastes to be accepted in the landfill shall be per 30 TAC §335, Subchapter R, Appendix 1, Table 1, or as approved by the TCEQ.

Class I industrial non-hazardous waste not routinely collected with municipal solid wastes will not be accepted for disposal at this facility.

**4.26 DISPOSAL OF INDUSTRIAL WASTE §330.173**

Industrial nonhazardous waste is defined by §330.3 as solid waste resulting from or incidental to any process of industry or manufacturing, or mining or agricultural operations, classified as follows: Class II industrial Solid Waste – any individual solid waste or combination of industrial solid wastes that cannot be described as Class I or Class III, as defined in §335.506 (relating to Class II waste determination). Class III Industrial Solid Waste – any inert and essentially insoluble industrial solid waste, including materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc. that are not readily decomposable as defined in §335.507 (relating to Class III waste determination). Class II and Class III industrial solid wastes may be accepted at a Type I facility, provided disposal of these wastes does not interfere with proper operation of the facility.

This facility will not accept Class 1 industrial solid waste, with the exception of wastes which are Class I only because of asbestos content. Waste classified as Class I only because of asbestos content may be accepted by the facility for disposal and will be managed in accordance with 30 TAC §330.171(b)(3) and Appendix B of this SOP. All shipments of Class I industrial waste only because of asbestos content must be accompanied by a manifest as required by the commission.

The amount of Class I industrial non-hazardous waste (Class I only because of asbestos content) received will not exceed 20% of the total amount of waste (not including Class 1 wastes) accepted during the current or previous year in accordance with §330.173(e) and §330.173(f). The amount of waste may be determined by volume or weight, but the same unit of measure must be used for each year, unless a variance is authorized by the executive director.

In the event that a prohibited industrial solid (Class I) waste arrives at the site, the landfill manager will follow the appropriate procedures as outlined in Section 4.2. The facility will operate in compliance with

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30 TAC §330.173 or any special conditions imposed by the executive director. Failure to operate in accordance with 30 TAC §330.173 may result in revocation of the authorization to accept a Class I waste.

The facility may accept Class II and III industrial solid waste for disposal provided the acceptance of this waste does not interfere with facility operations. These types of waste will be treated as typical municipal solid waste.

**4.27 VISUAL SCREENING OF DEPOSITED WASTE §330.175**

Final, intermediate, daily and ADC cover will provide screening of deposited waste materials from view. The landfill is initially screened by vegetation located along the unnamed drainage tributary along the north side of the site and Mustang Creek along the south side of the site. As aerial filling progresses to the east, final sideslope cover will be placed and vegetated on the landfill and perimeter drainage channels and final cover drainage channels and terraces will be constructed. Additionally, vegetated soil berms or vegetated berms constructed of compost or mulch may be temporarily utilized as visual screening berms at locations throughout the facility.

Also, existing vegetation in the 125 foot minimum buffer zones shall be maintained, where possible, to provide visual screening of deposited waste materials from view. The natural vegetation in the buffer zone around the site shall be left as is, as much as possible, to provide visual screening and to keep the area with the appearance of the natural surrounding. The M/S shall ensure, if necessary, that litter is cleaned from the buffer areas on a routine basis.

Existing natural vegetation in the buffer zones shall be maintained, where possible, to provide visual screening of disposal operations from public view. The facility will continue to operate the landfill in a manner that will provide the maximum screening possible within the requirements of the design until such time as the ED determines that additional screening is required.

**4.28 LEACHATE AND GAS CONDENSATE RECIRCULATION §330.177**

The landfill leachate or gas condensate derived from a landfill unit may be recirculated into a Type I landfill unit at the same facility from which the leachate or gas condensate was derived. Leachate or gas condensate can only be recirculated in landfill units that are designed and constructed with a leachate collection system and a composite liner.

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The landfill will recirculate leachate in accordance with the requirements of Part III, Attachment 15, Leachate and Contaminated Water Management Plan,

The recirculation will be accomplished in a manner that prevents ponding or significant accumulations of leachate in any one area. Contaminated runoff and groundwater will not be recirculated.

The leachate and gas condensate does not need to be characterized for recirculation into an approved Type I landfill unit or sent to a publicly owned treatment works or Resource Conservation and Recovery Act authorized facility beyond that required by the treatment facility. All contaminated water shall be managed as specified in Part III, Attachment 15, Leachate and Contaminated Water Management Plan.

The landfill may also dispose of leachate or gas condensate in leachate evaporation ponds or off-site disposal as described in Part III, Attachment 15, Leachate and Contaminated Water Management Plan.

The Williamson County RDF will not discharge contaminated water without specific written authorization from the TCEQ. This facility is authorized to discharge uncontaminated storm water runoff pursuant to the TPDES permit and Storm Water Pollution Prevention Plan (SWPPP). This authorization applies only to stormwater collected in the facility drainage system. No contaminated water (water which has come in contact with solid waste or leachate) may be discharged from the site through the facility drainage system pursuant to this authorization. Storm water and any other water that collects in or runs off from the working face and/or areas with only daily cover or alternative daily cover (if authorized) material must be managed as contaminated water.

All contaminated water shall be managed as specified in Part III, Attachment 15, Section 1.0; Introduction; 1.1, Regulatory Requirements; and 3.0, Leachate Minimization Practices; and Part III, Attachment 6, Groundwater and Surface Water Protection/Drainage Plan; Sections 2.1, Surface Drainage Controls; 2.2, Minimization and Management of Contaminated Water; and 2.3, Management of Water that has Not Contacted Waste.

Additionally, the facility will be operated in accordance with provisions provided in the Site Development Plan, Part III, Section 4.0, Surface Water Protection, which states that the design and operation of the facility will not cause:

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1. a discharge of solid wastes or pollutants adjacent to or into the water in the state, including wetlands, that is in violation of the requirements of the Texas Waster Code, §26.121.
2. a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements, pursuant to §402 as amended.
3. a discharge of dredged or fill material to waters of the United States, including wetlands, that is in violation of the requirements under the Federal Clean Water Act, §404, as amended.
4. a discharge of a nonpoint source pollution of waters of the United States, including wetlands, that violates any requirement of an area wide or statewide water quality management plan that has been approved under the Federal Clean Water Act, §208 or §319, as amended.

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## **FORMS**

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**EXAMPLE**  
**OPERATING RECORD ENTRY FORM**

[illegible]

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*Williamson County Recycling & Disposal Facility  
Permit Amendment Application MSW-1405B  
Site Operating Plan, Part IV*

**EXAMPLE**  
**WASTE CHARACTERIZATION DATA FORM**

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**EXAMPLE  
LOAD INSPECTION REPORT FORM**

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**EXAMPLE**  
**WASTE DISCREPANCY REPORT FORM**

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*Williamson County Recycling & Disposal Facility  
Permit Amendment Application MSW-1405B  
Site Operating Plan, Part IV*

## **FIGURES**



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*Williamson County Recycling & Disposal Facility  
Permit Amendment Application MSW-1405B  
Site Operating Plan, Part IV*

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## **APPENDICES**

**WILLIAMSON COUNTY  
RECYCLING & DISPOSAL FACILITY  
PERMIT AMENDMENT APPLICATION MSW-1405B  
WILLIAMSON COUNTY, TEXAS**

**SITE OPERATING PLAN  
APPENDIX C - C&D SORTING AND RECYCLING PLAN**

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**SEPTEMBER 2023**

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Inert construction and demolition materials such as brick, rock, sand, glass, concrete, etc. and non-inert construction and demolition materials such as wood, asphalt, and metal may be segregated from the incoming waste stream for onsite re-use or sent offsite for recycling. These materials will be processed at the designated C&D sorting and recycling area, which may be any area within the landfill permit boundary that is not currently being used for solid waste disposal. Since the sorting and recycling area will manage non-inert materials, stormwater run-on and run-off will be controlled in this area. A typical layout for the sorting and recycling area is shown on Figure IV-C-1.

The construction and demolition waste deposited at the C&D sorting and recycling area will be separated by waste stream for recycling. Separation will be conducted by individual load (if waste material is homogenous), with site equipment, or by hand. Some of the waste streams will be taken directly to roll-off containers and shipped off-site to appropriate facilities to be further processed and recycled or reused, and others, such as wood mulch and concrete may be used on site for soil stabilization, soil enhancement, or for road construction. The C&D sorting and recycling area will remain free of putrescibles and household wastes. These inert and non-inert materials will continuously be reused for site operations or transported offsite for recycling, and there is no time limit on the storage of these materials. If a significant work stoppage should occur at the waste sorting and recycling area due to a mechanical breakdown or other causes, the facility shall accordingly restrict the diverting of solid waste and all incoming solid waste shall be directed to the active disposal area until the sorting and processing area is returned to operation.

All waste shall be stored in such a manner that it does not constitute a fire, safety, or health hazard or provide food or harborage for animals and vectors, and shall be contained or bundled so as not to result in litter. The site water truck may be used for extinguishing fires as detailed in Section 4.4 of this SOP. All employees working at or near the sorting and recycling area shall be trained on the requirements of the Fire Protection Plan included in Section 4.4.

Road base or rock access roads will be constructed as necessary to provide all-weather access to the sorting and recycling area. All-weather pads may also be constructed within the sorting and recycling area to allow for roll-off staging and material storage. Vehicle parking for equipment and employees will be provided. Employees will park near the landfill scalehouse, maintenance facility, or at the sorting and recycling area. Equipment can be parked adjacent to the storage or processing unit.

The sorting and recycling area will be inspected weekly to verify the integrity of the stormwater controls and look for ponded water and accumulated litter or debris that needs to be collected.

**SLQCP CLEAN PAGES**

**WILLIAMSON COUNTY  
RECYCLING & DISPOSAL FACILITY  
PERMIT AMENDMENT APPLICATION MSW-1405B  
WILLIAMSON COUNTY, TEXAS**

**SOIL AND LINER QUALITY CONTROL PLAN**

**PART III, ATTACHMENT 10**

Prepared for:

**WILLIAMSON COUNTY  
301 S.E. Inner Loop, Suite 109  
Georgetown, Texas 78626**

and

**WASTE MANAGEMENT OF TEXAS, INC.  
9900 Giles Road  
Austin, Texas 78754**

Prepared By:

**RJR ENGINEERING, LTD., L.L.P.  
12651 Briar Forest Dr., Suite 205  
Houston, Texas 77077**

Revised by:

**Civil & Environmental Consultants, Inc.  
Texas Registered Engineering Firm F-38  
3711 S. MoPac Expressway  
Building 1, Suite 550  
Austin, TX 78746**



**MAY 2005  
TECHNICALLY COMPLETE: FEBRUARY 2006  
REVISED: SEPTEMBER 2023**

particle size as indicated in Section 3.11.2. Granular materials placed around collection pipes must have grain size compatible with the size of the holes in the collection pipes. Geosynthetic materials (i.e. geocomposite, geonet, and geotextiles) used in leachate collection layers must have the transmissivity and other properties as specified in the SDP.

#### **4.2 Construction**

Granular materials should be placed and spread using equipment and methods that minimize generation of fine material. Material placed over geomembrane or other geosynthetics should be placed as described in Sections 3.11.1. Granular materials should not receive any compaction other than that which is incidental to the placement and spreading process.

#### **4.3 Quality Assurance Testing**

Quality assurance testing on granular soils by the independent laboratory should consist of grain size (ASTM D 422) and permeability (ASTM D 2434) analysis conducted at a frequency of 1 per 3,000 yd<sup>3</sup> of material placed. Permeability testing requirements can be waived if it can be shown through correlation with the grain size analysis that the material easily meets the permeability criteria. All tests should be conducted on material after it has been placed to allow for any grain size reduction that may have occurred during the placement process. It is also recommended that the granular material be tested at its source for grain size (and permeability, if necessary) to pre-qualify the material prior to its use.

Granular material used in leachate collection layers must be tested for calcium carbonate content (using ASTM D 3042 or J&L Test Method S-105-89 or other appropriate method) by either the supplier or independent laboratory. The measured calcium carbonate content must not exceed 15%.

If chimney drains are not provided through the protective cover to the leachate collection system, permeability test must also be conducted on the protective cover to verify permeability no less than  $1 \times 10^{-4}$  cm/sec.

The manufacturer's test results for geosynthetic materials should be checked and verified by the GP to meet the minimum requirements for these materials established in the SDP.

FOR PERMIT PURPOSES ONLY

Williamson County Recycling & Disposal Facility  
Permit Amendment Application MSW-1405B  
Soil and Liner Quality Control Plan, Part III, Attachment 10

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## HDPE Geomembrane and Geocomposites Material Specifications



| GEOSYNTHETIC MATERIAL SPECIFICATIONS                                                                                                                                                               |             |                             |                        |                               |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------|------------------------|-------------------------------|-----------|
| SINGLE-SIDED AND DOUBLE-SIDED GEOCOMPOSITES SPECIFICATIONS                                                                                                                                         |             |                             |                        |                               |           |
| PROPERTY                                                                                                                                                                                           | TEST METHOD | UNITS                       | SPECIFIED VALUES       | MOC TESTING FREQUENCY         | QUALIFIER |
| <b>GEOTEXTILE COMPONENT</b>                                                                                                                                                                        |             |                             |                        |                               |           |
| TYPE                                                                                                                                                                                               |             |                             | NON-WOVEN              |                               |           |
| MASS PER UNIT AREA                                                                                                                                                                                 | ASTM D5261  | OZ/YD <sup>2</sup>          | 6                      | 1 PER 100,000 FT <sup>2</sup> | NORMAL    |
| GRAB TENSILE STRENGTH                                                                                                                                                                              | ASTM D4632  | LBS                         | 157                    | 1 PER 100,000 FT <sup>2</sup> | MINIMUM   |
| TRAPEZOIDAL TEAR STRENGTH                                                                                                                                                                          | ASTM D4533  | LBS                         | 56                     | 1 PER 100,000 FT <sup>2</sup> | MINIMUM   |
| PUNCTURE STRENGTH                                                                                                                                                                                  | ASTM D6241  | LBS                         | 315                    | 1 PER 100,000 FT <sup>2</sup> | MINIMUM   |
| APPARENT OPENING SIZE                                                                                                                                                                              | ASTM D4751  | SIEVE SIZE                  | 70                     | 1 PER 540,000 FT <sup>2</sup> | MINIMUM   |
| WATER PERMEABILITY                                                                                                                                                                                 | ASTM D4491  | CM/S                        | 1 X 10 <sup>-2</sup>   | 1 PER 540,000 FT <sup>2</sup> | MINIMUM   |
| UV RESISTANCE                                                                                                                                                                                      | ASTM D4355  | PERCENT STR. RET. @ 500 HRS | 70                     | PER FORMULATION               | MINIMUM   |
| <b>GEONET COMPONENT</b>                                                                                                                                                                            |             |                             |                        |                               |           |
| POLYMER COMPOSITION                                                                                                                                                                                | -           | PERCENT                     | 95% POLYETHYLENE       | -                             | MINIMUM   |
| THICKNESS                                                                                                                                                                                          | ASTM D5199  | MILS                        | 200                    | 1 PER 100,000 FT <sup>2</sup> | MINIMUM   |
| TENSILE STRENGTH                                                                                                                                                                                   | ASTM D 5035 | LB/IN                       | 40                     | 1 PER 100,000 FT <sup>2</sup> | MINIMUM   |
| DENSITY                                                                                                                                                                                            | ASTM D1505  | G/CC                        | 0.940                  | 1 PER 100,000 FT <sup>2</sup> | MINIMUM   |
| CARBON BLACK CONTENT                                                                                                                                                                               | ASTM D4218  | PERCENT                     | 2.0 TO 3.0             | 1 PER 100,000 FT <sup>2</sup> | RANGE     |
| MELT INDEX                                                                                                                                                                                         | ASTM D1238  | G/10 MIN                    | 1.0                    | 1 PER 100,000 FT <sup>2</sup> | MAXIMUM   |
| <b>GEOCOMPOSITE</b>                                                                                                                                                                                |             |                             |                        |                               |           |
| TRANSMISSIVITY <sup>(1)</sup>                                                                                                                                                                      | ASTM D 4716 | M <sup>2</sup> /S           | 7.6 X 10 <sup>-4</sup> | 1 PER 540,000 FT <sup>2</sup> | MINIMUM   |
| NOTES:                                                                                                                                                                                             |             |                             |                        |                               |           |
| (1) TRANSMISSIVITY TEST SHALL BE PERFORMED AT: APPLIED STRESS OF 10,000 PSF (MIN.), GRADIENT OF 0.02, LOAD DURATION OF 15 MINUTES AND WITH TEST CONFIGURATION BETWEEN TWO STEEL PLATES.            |             |                             |                        |                               |           |
| (2) SPECIFIED TEST METHODS AND PARAMETERS MAY BE MODIFIED BY THE PROFESSIONAL-OF-RECORD (POR) TO BE CONSISTENT WITH CHANGES TO THE INDUSTRY STANDARD ASTM OR GRI METHODS AS THEY BECOME AVAILABLE. |             |                             |                        |                               |           |

## ATTACHMENT 3 – FEE PAYMENT RECEIPT

**Perkin, Corey**

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**From:** steers@tceq.texas.gov  
**Sent:** Thursday, December 15, 2022 9:05 AM  
**To:** Perkin, Corey  
**Subject:** TCEQ ePay Receipt for 582EA000517099

This is an automated message from the TCEQ ePay system. Please do not reply.

Trace Number: 582EA000517099

Date: 12/15/2022 09:05 AM

Payment Method: CC - Authorization 0000011195

TCEQ Amount: \$150.00

Texas.gov Price: \$153.63\*

\* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Actor: COREY PRAY PERKIN

Email: cperkin@cecinc.com

Payment Contact: COREY PERKIN

Phone: 512-439-0400

Company: CIVIL & ENVIRONMENTAL CONSULTANTS

Address: 3711 S MOPAC EXPRESSWAY BUIL, AUSTIN, TX 78746

**Fees Paid:**

Fee Description AR Number Amount

HAZARDOUS WASTE PERMIT - NEW, AMENDMENTS & MODIFICATIONS \$100.00

30 TAC 305.53B HWP NOTIFICATION FEE \$50.00

-----  
TCEQ Amount: \$150.00

=====

Voucher: 605732

Trace Number: 582EA000517099

Date: 12/15/2022 09:05 AM

Payment Method: CC - Authorization 0000011195

Voucher Amount: \$100.00

Fee Paid: HAZARDOUS WASTE PERMIT - NEW, AMENDMENTS & MODIFICATIONS

RN Number: RN100225754

Site Name: WILLIAMSON COUNTY RECYCLING & DISPOSAL FACILITY

Site Location: HUTTO

Customer Name: WASTE MANAGEMENT OF TEXAS INC

Customer Address: 600 LANDFILL RD, HUTTO, TX 78634

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Voucher: 605733

Trace Number: 582EA000517099

Date: 12/15/2022 09:05 AM  
Payment Method: CC - Authorization 0000011195  
Voucher Amount: \$50.00  
Fee Paid: 30 TAC 305.53B HWP NOTIFICATION FEE

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To print out a copy of the receipt and vouchers for this transaction  
either click on or copy and paste the following url into your browser:

[https://www3.tceq.texas.gov/epay/index.cfm?fuseaction=cor.search&trace\\_num\\_txt=582EA000517099](https://www3.tceq.texas.gov/epay/index.cfm?fuseaction=cor.search&trace_num_txt=582EA000517099).

This e-mail transmission and any attachments are believed to have been sent free of any virus or other defect that might affect any computer system into which it is received and opened. It is, however, the recipient's responsibility to ensure that the e-mail transmission and any attachments are virus free, and the sender accepts no responsibility for any damage that may in any way arise from their use.