



HAZARDOUS WASTE PERMIT NO. 50397  
EPA ID. NO. TXR00005788 000075788  
ISWR NO. 50397

Texas Commission on  
Environmental Quality  
Austin, Texas

PERMIT FOR INDUSTRIAL SOLID  
WASTE MANAGEMENT SITE issued  
under provisions of TEXAS HEALTH AND  
SAFETY CODE ANN.  
Chapter 361 (Vernon)

Name of Permittee:	Waste Control Specialists LLC P.O. Box 1129 Andrews, Texas 79714
Site Owner:	Waste Control Specialists LLC P.O. Box 1129 Andrews, Texas 79714
Registered Agent for Service:	Corporation Service Company 800 Brazos Austin, Texas 78701
Classification of Site:	Hazardous industrial solid waste on-site/off-site, storage and disposal, commercial facility.

The permittee is authorized to manage wastes in accordance with the limitations, requirements, and other conditions set forth herein. This permit is granted subject to the rules of the Commission and other Orders of the Commission, and laws of the State of Texas. This permit does not exempt the permittee from compliance with the Texas Clean Air Act. This permit will be valid until canceled, amended, modified or revoked by the Commission, except that the authorization to dispose of wastes shall expire midnight, ten (10) years after the date of original permit approval.

All provisions in this permit stem from State and/or Federal authority. Those provisions marked with an asterisk (\*) stem from Federal authority and will implement the applicable requirements of HSWA for which the Texas Commission on Environmental Quality has not been authorized.

ISSUED: **DEC 23 2008**

  
For The Commission

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A - SITE LEGAL DESCRIPTION

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PERMIT/COMPLIANCE PLAN ACRONYMS

ACL	–	Alternate Concentration Limit
ALR	–	Action Leakage Rate
AMP	–	Attenuation Monitoring Point
AOC	–	Area(s) of Concern
APA	–	Affected Property Assessment
APAR	–	Affected Property Assessment Report
APOE	–	Alternate Point of Exposure
Appendix VIII	–	40 CFR 261, Appendix VIII (Identification And Listing Of Hazardous Waste - Hazardous Constituents)
ASTM	–	American Society for Testing and Materials
BGS	–	Below Ground Surface
BLRA	–	Baseline Risk Assessment
CAO	–	Corrective Action Observation
CAS	–	Corrective Action System
CCC	–	Coastal Coordination Council
CEMS	–	Continuous Emissions Monitoring System
CFR	–	Code of Federal Regulations
CMI	–	Corrective Measures Implementation
CMP	–	Texas Coastal Management Program
CMS	–	Corrective Measures Study
COC	–	Constituent(s) of Concern
EPA	–	United States Environmental Protection Agency
EPA SW-846	–	Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, Third Edition, November 1986
GWPS	–	Ground-Water Protection Standard
HSWA	–	Hazardous Solids Waste Amendments of 1984
ICM	–	Interim Corrective Measures
LDR	–	Land Disposal Restrictions
LLMW	–	Low-Level Mixed Waste
LLRW	–	Low-Level Radioactive Waste
MDL	–	Method Detection Limit
MQL	–	Method Quantitation Limit
MSL	–	Mean Sea Level
NAPL	–	Non-Aqueous Phase Liquid
NOR	–	Notice of Registration
PCB	–	Polychlorinated Biphenyl
PCL	–	Protective Concentration Level
PMZ	–	Plume Management Zone
POC	–	Point of Compliance



PERMIT/COMPLIANCE PLAN ACRONYMS

POE	–	Point of Exposure
ppm	–	Parts Per Million
ppmv	–	Parts Per Million by Volume
PQL	–	Practical Quantitation Limit
psi	–	Pounds Per Square Inch
QA/QC	–	Quality Assurance/Quality Control
RACR	–	Response Action Completion Report
RAER	–	Response Action Effectiveness Report
RAP	–	Response Action Plan (for Action Leakage Rate in landfills)
RAP	–	Remedial Action Plan
RCRA	–	Resource Conservation Recovery Act
RFA	–	RCRA Facility Assessment
RFI	–	RCRA Facility Investigation
RRR	–	TCEQ Risk Reduction Rules
RSA	–	Remedy Standard A
RSB	–	Remedy Standard B
SR/WM	–	Source Reduction and Waste Minimization
SSI	–	Statistically Significant Increase
SWDA	–	Solid Waste Disposal Act
SWMU	–	Solid Waste Management Unit(s)
TAC	–	Texas Administrative Code
TCEQ	–	Texas Commission on Environmental Quality
TCEQ QAPP	–	“Quality Assurance Project Plan for Environmental Monitoring and Measurement Activities Relating to the Resource Conservation Recovery Act and Underground Injection Control”
THC	–	Total Hydrocarbons
TRRP	–	Texas Risk Reduction Program

Permittee: Waste Control Specialists LLC

## I. FACILITY DESCRIPTION

A. Size and Location of Site

A permit is issued to Waste Control Specialists LLC (hereafter called the permittee), to operate a hazardous waste storage and disposal facility located one mile north of Highway 176 and 0.25 miles East of the Texas-New Mexico state line and approximately 30 miles West of Andrews, in Andrews County, Texas, drainage area of Segment 2311 in the Rio Grande River Basin (North Latitude 32° 26' 32.79 ", West Longitude 103° 3' 16.31"). The legal description of the facility submitted in Permit No. 50397 application dated June 22, 2007, is hereby made a part of this permit as "Attachment A". The hazardous waste management facility as delineated by the permittee's application map is hereby made a part of this permit as "Attachment B".

B. Incorporated Application Materials

This permit is based on, and the permittee shall follow the Part A and Part B Industrial and Hazardous Waste Application submittals dated May 24, 2006, July 20, 2006, June 22, 2007, November 5, 2007, February 1, 2008, December 22, 2010, February 25, 2011 and September 30, 2011 (Class 3 modification to extend the construction schedule for one landfill and two (2) container storage areas (CSA) for more than six months (up to four years); relocate the two container storage areas; modify the landfill configuration and leachate collection system design; revise the Construction Quality Assurance Plan, the Waste Analysis Plan, and the Closure Plan; revise the number and location of groundwater monitoring wells; revise the groundwater sampling procedures; and to add an impermeable interior coating/lining compatible with waste to the container storage units), April 27, 2012 (Class 1 modification to revise Table III.E.2, Emergency Coordinators List), May 2, 2012 (Class 1<sup>1</sup> modification to revise Section V., Engineering Report), August 1, 2012 (Class 1<sup>1</sup> modification to revise the initial FA amount), September 6, 2012 (Class 2 modification to revise the Waste Analysis Plan and Engineering Report to allow macroencapsulation), September 13, 2012 and November 1, 2012 (Class 2 modification to revise the Waste Analysis Plan and Engineering Report to allow codisposal), November 1, 2012 (Class 1 modification to revise the name of the facility manager and contingency plan), February 6, 2013 (Class 1 modification to revise the contingency plan), April 11, 2013 (Class 1<sup>1</sup> modification to revise the Landfill Operations Plan, Waste Analysis Plan, and Waste Acceptance Plan), May 31, 2013 (Class 1 modification to revise the contingency plan and Provision I.B.), August 13, 2013 (Class 2 modification to revise the consolidated emergency response plan), August 16, 2013 (Class 3 modification to add the leachate and contact water storage tanks and wastewater treatment system tanks to the permit), November 20, 2013 (Class 1 modification to revise the emergency coordinator), January 14, 2014 (Class 1<sup>1</sup> modification to revise the Waste Acceptance Plan), June 10, 2014 (Class 1 modification to revise the contingency plan, revise Table VII.E.1., update Attachments E, F, and H and correct omissions), July 31, 2014 (Class 1 modification to revise the contingency plan and Provision I.B.), October 9, 2014 (Class 1 modification to revise the contingency plan and Provision I.B.), June 1, 2015 (revise the Contingency Plan and Provision I.B. to change the Alternate Emergency Coordinators List), July 22, 2015 (revise the Contingency Plan and Provision I.B. to change the Alternate Emergency Coordinators List), January 27, 2016 (revise the Contingency Plan and Provision I. B. to change the Emergency Coordinators List and Alternate Emergency Coordinators List ), May 10,



[I.B Continued]

2016 ( revise the Contingency Plan and Provision I.B. to change the Alternate Emergency Coordinators List and correct typographical errors), May 17, 2016 ( to change the Alternate Emergency Coordinators List) and the Application Elements listed in "Attachment C", which are hereby approved subject to the terms of this permit and any other orders of the Texas Commission on Environmental Quality.

These materials are incorporated into this permit by reference as if fully set out herein. Any and all revisions to these elements shall become conditions of this permit upon the date of approval by the Commission.

## II. GENERAL FACILITY STANDARDS

### A. Standard Permit Conditions

The permittee has a duty to comply with the Standard Permit Conditions under 30 Texas Administrative Code (TAC) Section 305.125. Moreover, the permittee has a duty to comply with the following permit conditions:

#### 1. Modification of Permitted Facilities

The facility units and operational methods authorized are limited to those described herein and by the application submittals identified in Provision I.B. All facility units and operational methods are subject to the terms and conditions of this permit and TCEQ rules. Prior to constructing or operating any facility units in a manner which differs from either the related plans and specifications contained in the permit application or the limitations, terms or conditions of this permit, the permittee must comply with the TCEQ permit amendment/modification rules as provided in 30 TAC Sections 305.62 and 305.69.

#### 2. Duty to Comply

The permittee must comply with all the conditions of this permit, except that the permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency order issued by the Commission. Any permit noncompliance, other than noncompliance authorized by an emergency order, constitutes a violation of the Resource Conservation and Recovery Act (RCRA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [30 TAC Section 305.142]

#### 3. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

#### 4. Definitions



[II.A.4 Continued]

For purposes of this permit, terms used herein shall have the same meaning as those in 30 TAC Chapters 305, 335, and 350 unless this permit specifically provides otherwise; where terms are not defined in the regulations or the permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. Application data - data used to complete the final application and any supplemental information.

5. Permit Expiration

In order to continue a permitted activity after the expiration date of the permit the permittee shall submit a new permit application at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the Executive Director. Authorization to continue such activity will terminate upon the effective denial of said application.

6. Certification Requirements

For a new facility, the permittee may not commence storage, processing, or disposal of solid waste; and for a facility being modified, the permittee may not process, store or dispose of solid waste in the modified portion of the facility, except as provided in 30 TAC Section 305.69 (relating to Solid Waste Permit Modification at the Request of the Permittee) until the following has been accomplished [30 TAC Section 305.144]:

- a. The permittee has submitted to the Executive Director and the local Regional Office of the TCEQ, by certified mail or hand delivery, a letter signed by the permittee, and signed and sealed by a Texas licensed Professional Engineer stating that the facility has been constructed or modified in compliance with the permit. If the certification is being provided to document proper closure of a permitted unit, or to certify installation or repair of a tank system, then the certification must be signed and sealed by an independent Texas licensed Professional Engineer. Required certification shall be in the following form:

"This is to certify that the following activity (specify activity, e.g., construction, installation, closure, etc., of an item) relating to the following item (specify the item, e.g., the particular facility, facility unit, unit component, subcomponent part, or ancillary component), authorized or required by TCEQ Permit No. 50397 has been completed, and that construction of said facility component has been performed in accordance with and in compliance with good engineering practices and the design and construction specifications of Permit No. 50397."

- b. A certification report has been submitted, with the certification described in Provision II.A.6.a., which is logically organized and describes in detail the tests, inspections, and measurements performed, their results, and all other bases for the conclusion that the facility unit, unit component, and/or closure have been constructed, installed and/or performed in conformance with the

[II.A.6.b. Continued]

design and construction specifications of this permit and in compliance with this permit. The report shall describe each activity as it relates to each facility unit or component being certified including reference to all applicable permit provisions. The report shall contain the following items, at a minimum:

- (1) Scaled, as-built plan-view and cross-sectional drawings which accurately depict the facility unit and all unit components and subcomponents and which demonstrate compliance with the design and construction specifications approved and detailed in the terms of this permit;
  - (2) All necessary references to dimensions, elevations, slopes, construction materials, thickness and equipment; and
  - (3) For all drawings and specifications, the date, signature, and seal of a Professional Engineer who is licensed in the State of Texas.
- c. The Executive Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or if within fifteen (15) days of submission of the letter required by paragraph (a) of this section, the permittee has not received notice from the Executive Director of the intent to inspect, prior inspection is waived and the permittee may commence processing, storage, or disposal of solid waste.

\* 7. Land Disposal Restrictions

The permittee shall comply with the land disposal restrictions as found in 40 Code of Federal Regulations (CFR) 268 and any subsequent applicable requirements promulgated through the Federal Register. Requirements include modifying/amending the permittee's waste analysis plan to include analyses to determine compliance with applicable treatment standards or prohibition levels, pursuant to 40 CFR 268.7(c) and 264.13(a).

8. Dust Suppression

Pursuant to 40 CFR 266.23(b)/30 TAC Section 335.214(b), the permittee shall not use waste, used oil, or any other material which is contaminated with dioxin, polychlorinated biphenyls (PCBs), or any other hazardous waste (other than a waste identified solely on the basis of ignitability) for dust suppression or road treatment.

9. Permit Reopener

This permit shall be subject to review by the Executive Director five (5) years from the date of permit issuance or reissuance and shall be modified as necessary to assure that the facility continues to comply with currently applicable requirements of the Solid Waste Disposal Act (SWDA) and the rules and



[II.A.9 Continued]

regulations of the Commission. The permittee shall submit any information as may be reasonably required by the Executive Director to ascertain whether the facility continues to comply with currently applicable requirements of the SWDA and the rules and regulations of the Commission.

10. Texas Coastal Management Program (Reserved)
11. Monitoring of Commercial Hazardous Waste Management Facility Operations  
Within the first year after Commission action on this permit, the permittee shall provide notice to affected persons of the intent to have an independent annual environmental audit of the facility performed. The notice shall be issued in accordance with the requirements of 30 TAC Section 305.147(1). If an affected party requests the audit, then the permittee must follow the requirements of 30 TAC Section 305.147(2)-(6), and (8), for selecting an independent inspector, paying for the notice and audit, submission of a written report, and determining the scope of the inspection.

12. Failure to Submit Relevant Facts in Permit Application

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the Executive Director, the permittee shall promptly submit the correct information or facts to the Executive Director. [30 TAC Section 305.125(19)]

B. Recordkeeping and Reporting Requirements

1. Monitoring and Records

- a. All data submitted to the TCEQ shall be in a manner consistent with the latest version of the "Quality Assurance Project Plan for Environmental Monitoring and Measurement Activities Relating to the Resource Conservation Recovery Act and Underground Injection Control" (TCEQ QAPP).
- b. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity. The method used to obtain a representative sample of the material to be analyzed shall be the appropriate method from Appendix I of 40 CFR Part 261 or an equivalent method approved in writing prior to use by the Executive Director of the TCEQ. Laboratory methods shall be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, 1987 (EPA SW-846), as revised; *Standard Methods for the Examination of Water and Wastewater, Eighteenth Edition, 1992, and 18<sup>th</sup> Edition supplement, 1994, or current adopted edition*; *RCRA Ground-Water Monitoring: Draft Technical Guidance, 1992*, OSWER Directive 9950.1, or an equivalent method, as specified in the Waste Analysis Plan, Attachment IV.D. of the Part B Application, and approved



[II.B.1.b Continued]

in writing prior to use by the Executive Director. [30 TAC Section 305.125(11)(A)]

- c. The permittee shall retain in an organized fashion and furnish to the Executive Director, upon request, records of all monitoring information, copies of all reports and records required by this permit, and the certification required by 40 CFR 264.73(b)(9), for a period of at least three (3) years from the date of the sample, measurement, report, record, certification, or application [30 TAC Section 305.125(11)(B)].
- d. Records of monitoring shall include the following [30 TAC Section 305.125(11)(C)]:
  - (1) The date, time, and place of sample or measurement;
  - (2) The identity of individual who collected the sample or measurement;
  - (3) The dates analyses were performed;
  - (4) The identity of individual and laboratory who performed the analyses;
  - (5) The analytical techniques or methods used; and
  - (6) The results of such analyses or measurements.

2. Operating Record

In addition to the recordkeeping and reporting requirements specified elsewhere in this permit, the permittee shall maintain a written operating record at the facility, in accordance with 40 CFR 264.73. These records will be made available to representatives of the TCEQ upon request.

3. Retention of Application Data

A permittee shall keep records throughout the term of the permit of data used to complete the final application and any supplemental information. All copies of renewals, amendments, revisions and modifications must also be kept at the facility such that the most current documents are available for inspection at all times. All materials, including any related information, submitted to complete the application shall be retained, not just those materials which have been incorporated into the permit. [30 TAC Section 305.47]

4. Reporting of Noncompliance

The permittee shall report to the Executive Director of the TCEQ information regarding any noncompliance which may endanger human health or the environment. [30 TAC Section 305.125(9)]

[II.B.4. Continued]

- a. Report of such information shall be provided orally within twenty-four (24) hours from the time the permittee becomes aware of the noncompliance.
- b. A written submission of such information shall also be provided within five (5) days of the time the permittee becomes aware of the noncompliance. The written submission shall contain the following:
  - (1) a description of the noncompliance and its cause;
  - (2) the potential danger to human health or safety, or the environment;
  - (3) the period of noncompliance, including exact dates and times;
  - (4) if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
  - (5) steps taken or planned to reduce, eliminate, and prevent the recurrence of the noncompliance, and to mitigate its adverse effects.

5. Twenty-Four Hour Reporting

The following shall be included as information which must be reported orally within twenty-four (24) hours pursuant to 30 TAC Section 305.125(9) [30 TAC Section 305.145]:

- a. Information concerning release of any solid waste that may cause an endangerment to public drinking water supplies; and
- b. Any information of a release or discharge of solid waste, or of a fire or explosion which could threaten the environment or human health or safety, outside the facility. The description of the occurrence and its cause shall include:
  - (1) name, address, and telephone number of the owner or operator;
  - (2) name, address, and telephone number of the facility;
  - (3) date, time, and type of incident;
  - (4) name and quantity of material(s) involved;
  - (5) the extent of injuries, if any;
  - (6) an assessment of actual or potential hazards to the environment and human health or safety outside the facility, where this is

[II.B.5.b(6) Continued]

applicable; and

- (7) estimated quantity and disposition of recovered material that resulted from the incident.

6. Notice Waiver

The Executive Director may waive the five (5) day written notice requirement specified in Provision II.B.4.b. in favor of a written report submitted to the Commission within fifteen (15) days of the time the permittee becomes aware of the noncompliance or condition. [30 TAC Section 305.145(b)]

7. Biennial Report

The permittee shall prepare and submit to the Executive Director all information and records required by 40 CFR 264.75. By March 1st of each even-numbered year for the preceding odd-numbered year's activities the permittee shall submit either a Biennial Report or letter certifying submission of the above. One copy of the report/letter shall be submitted to the TCEQ Industrial & Hazardous Waste Permits Section and an additional copy shall be submitted to the appropriate TCEQ Regional Office.

8. Pollution Prevention

Facilities subject to 30 TAC Chapter 335, Subchapter Q - Pollution Prevention: Source Reduction and Waste Minimization must prepare a five (5) year Source Reduction and Waste Minimization Plan and submit a Source Reduction and Waste Minimization (SR/WM) Annual Report to the TCEQ Small Business and Environmental Assistance Division. This report must be submitted annually on the dates specified in the rule.

9. Waste Minimization

The permittee shall annually certify, by January 25<sup>th</sup> for the previous calendar year, the following information [40 CFR 264.73(b)(9)]:

- a. that the permittee has a program in place to reduce the volume and toxicity of all hazardous wastes which are generated by the permittee's facility operation to the degree determined to be economically practicable; and
- b. that the proposed method of treatment, storage, or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment. This waste minimization certification is to be included in the facility operating records until closure.

10. Annual Detection Monitoring Report



[II.B.10 Continued]

The permittee shall submit an Annual Detection Monitoring Report as required by Provision VI.G. by March 1<sup>st</sup> of each year.

11. Manifest Discrepancy Report

If a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy. If not resolved within fifteen (15) days, the permittee must submit a report, describing the incident, to the Executive Director, as per the requirements of 30 TAC Section 335.12(c)(2). A copy of the manifest must be included in the report.

12. Unmanifested Waste Report

A report must be submitted to the Executive Director within fifteen (15) days of receipt of unmanifested waste, as per the requirements of 30 TAC Section 335.15(3).

13. Monthly Summary

The permittee shall prepare a monthly report, of all manifests received during the month, summarizing the quantity, character, transporter identity, and the method of storage, processing and disposal of each hazardous waste or Class 1 waste shipment received, itemized by manifest document number. This monthly summary report shall be submitted to the TCEQ Registration, Review, and Reporting Division on or before the 25<sup>th</sup> day of each month for waste received during the previous month. [30 TAC Section 335.15(2)]

C. Incorporated Regulatory Requirements

1. State Regulations

To the extent applicable to the activities authorized by this permit, the following TCEQ regulations are hereby made provisions and conditions of the permit. Issuance of this permit with incorporated rules in no way exempts the permittee from compliance with any other applicable state statute and/or commission rules:

- a. 30 TAC Chapter 37, Subchapter P, Financial Assurance for Hazardous and Nonhazardous Industrial Solid Waste Facilities;
- b. 30 TAC Chapter 305, Subchapter A: General Provisions;
- c. 30 TAC Chapter 305, Subchapter C: Application for Permit;
- d. 30 TAC Sections 305.61 - 305.69 (regarding amendments, renewals, transfers, corrections, revocation and suspension of permits);
- e. 30 TAC Sections 305.121 - 305.125 (regarding permit characteristics and conditions);

[II.C.1 Continued]

- f. 30 TAC Sections 305.127 - 305.129 (regarding permit conditions, signatories and variance procedures);
- g. 30 TAC Chapter 305, Subchapter G: Additional Conditions for Hazardous and Industrial Solid Waste Storage, Processing and Disposal Permits;
- h. 30 TAC Chapter 335, Subchapter A, Industrial Solid Waste and Municipal Hazardous Waste in General;
- i. 30 TAC Chapter 335, Subchapter B, Hazardous Waste Management General Provisions;
- j. 30 TAC Section 335.152, Standards;
- k. 30 TAC Sections 335.153 - 335.155 (regarding reporting of emergency situations and additional reports required);
- l. 30 TAC Sections 335.156 - 335.167 (regarding applicability of groundwater monitoring programs and corrective action requirements);
- m. 30 TAC Sections 335.173 - 335.174 (regarding the design and operating requirements and closure and post-closure care of landfills);
- n. 30 TAC Sections 335.175 - 335.176 (regarding special requirements for containers and bulk and containerized waste);
- o. 30 TAC Sections 335.177 - 335.179 (regarding general performance standard, cost estimate for closure, and financial assurance);
- p. 30 TAC Chapter 335, Subchapter Q, Pollution Prevention: Source Reduction and Waste Minimization; and
- q. 30 TAC Chapter 350, Texas Risk Reduction Program.

Issuance of this permit with incorporated rules in no way exempts the permittee from compliance with any other applicable state statute and/or Commission Rule.

2. Federal Regulations

To the extent applicable to the activities authorized by this permit, the following provisions of 40 CFR Parts 264, and Part 268, adopted by reference by 30 TAC Section 335.152 and 335 Subchapter O are hereby made provisions and conditions of this permit, to the extent consistent with the Texas Solid Waste Disposal Act, Texas Health and Safety Code Ann., Chapter 361 (Vernon), and the rules of the TCEQ:

[II.C.2. Continued]

- a. Subpart B -- General Facility Standards;
- b. Subpart C -- Preparedness and Prevention;
- c. Subpart D -- Contingency Plan and Emergency Procedures;
- d. Subpart E -- Manifest System, Recordkeeping, and Reporting;
- e. Subpart G -- Closure and Post-closure;
- f. Subpart H -- Financial Requirements;
- g. Subpart I -- Use and Management of Containers;
- h. Subpart N -- Landfills;
- i. Subpart AA -- Air Emission Standards for Process Vents;
- j. Subpart BB -- Air Emission Standards for Equipment Leaks;
- k. Subpart CC -- Air Emission Standards for Tanks, Surface Impoundments, and Containers;
- l. 40 CFR Part 268 -- Land Disposal Restrictions (LDR).

III. FACILITY MANAGEMENT

A. Operation of Facility

The permittee shall construct, maintain, and operate the facility to minimize the possibility of a fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment, as required by 40 CFR 264.31. All equipment and structures used to manage hazardous waste at the facility shall be maintained in proper operating condition.

B. Personnel Training

The permittee shall ensure that all facility personnel involved with hazardous waste management successfully complete a training program as required by 40 CFR 264.16. The permittee shall maintain training documents and records, as required by 40 CFR 264.16(d) and (e).

C. Security

- 1. The permittee shall provide and maintain an artificial or natural barrier which completely surrounds the active waste management portion(s) of the facility and shall have a means to control entry, at all times, through gates or other entrances to these same facility areas.



[III.C Continued]

2. The permittee shall post warning signs at all points of access to the active waste management portion(s) of the facility and along the natural and/or artificial barriers in sufficient numbers to be seen from any approach to that (those) portion(s) of the facility. The signs shall be printed so that they may be clearly read from a distance of at least twenty-five (25) feet, and shall state "Danger - Unauthorized Personnel Keep Out" in English and in Spanish.

D. General Inspection Requirements

The permittee shall follow the inspection schedule contained in the permit application submittals identified in Provision I.B. and as set out in Table III.D. - Inspection Schedule. The permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by 40 CFR 264.15(c). Records of inspection shall be kept, as required by 40 CFR 264.15(d). Any remedial actions taken in response to facility inspections and the date of the remediation shall be included in the inspection records.

E. Contingency Plan

1. The permittee shall follow the Contingency Plan, developed in accordance with 40 CFR Part 264 Subpart D, and contained in the permit application submittals identified in Provision I.B. Copies of this plan shall be available to all employees involved in waste management at the facility.
2. The permittee shall immediately initiate clean-up procedures for removal of any spilled hazardous or industrial nonhazardous wastes and waste residues and shall take all steps necessary to prevent surface-water or groundwater contamination as a result of any spills.
3. Collected hazardous or industrial nonhazardous wastes, spills, leaks, clean-up residues, and contaminated rainfall runoff, including contaminated stormwater from the drainage control system(s) associated with the permitted units, shall be removed promptly after the spillage and/or rainfall event in as timely a manner as is necessary to prevent overflow of the system by the following method(s):
  - a. Removal to an on-site authorized facility unit;
  - b. Removal to an authorized industrial solid waste management facility or authorized off-site facility; or
  - c. Discharge in accordance with a wastewater discharge permit.
4. The permittee shall ensure that any equipment or vehicles which have come in contact with waste in the loading/unloading, storage, processing, and/or disposal areas have been decontaminated prior to their movement into designated uncontaminated areas of the site property. At a minimum, all contaminated equipment shall be externally decontaminated and contaminated vehicles shall

[III.E.4 Continued]

have their undercarriages and tires or tracks decontaminated to remove all waste residues and to prevent contamination of uncontaminated areas. All wash water generated shall be collected and disposed of in accordance with Provision III.E.3.

5. Preparedness and Prevention

- a. At a minimum, the permittee shall equip the facility as set forth in Table III.E.3. - Emergency Equipment, as required by 40 CFR 264.32.
- b. All sumps, pumps, fire- and spill-control equipment, decontamination equipment, and all other equipment and structures authorized or required through the Contingency Plan shall be tested and maintained, as necessary, to assure its proper operation in time of emergency, as required by 40 CFR 264.33.
- c. The permittee shall maintain access to the communications or alarm system, as required by 40 CFR 264.34.
- d. A trained emergency coordinator shall be available at all times in case of an emergency and will have the responsibility for coordinating all emergency response measures as required by 40 CFR 264.55 and 264.56. Emergency number(s) shall be posted in all waste management portions of the facility and all employees in those areas shall be trained in the location of those postings.
- e. The names, addresses, and phone numbers of all persons qualified to act as emergency coordinator in Table III.E.2 - Emergency Coordinators of the Part B application shall be supplied to the Executive Director at the time of certification required by Provision II.A.6., rather than at the time of application. [40 CFR 264.52(d)]

F. Special Permit Conditions

Not applicable

IV. WASTES AND WASTE ANALYSIS

A. Waste Analysis Plan

The permittee shall follow the Waste Analysis Plan, developed in accordance with 40 CFR 264.13 and contained in Attachment IV. of the Part B application identified in Provision I.B.

B. Authorized Wastes

1. The permittee is authorized to manage hazardous wastes listed in Table IV.B. - Wastes Managed in Permitted Units, subject to the limitations provided herein.

[IV.B Continued]

Wastes authorized for storage and disposal include those generated from facility sources and from off-site sources.

2. Hazardous Waste Received From Off-Site Sources

When the permittee may receive hazardous waste from an off-site source (except where the permittee is also the generator), the permittee shall inform the generator in writing that the permittee has the appropriate permits and will accept

the waste the generator is shipping. The permittee shall keep a copy of this written notice as part of the operating record. [40 CFR 264.12(b)]

3. The wastes authorized in Table IV.B. shall not contain any of the following:

- a. PCB waste, as defined by the Environmental Protection Agency (EPA) in regulations issued pursuant to the Toxic Substances Control Act under 40 CFR Part 761, unless the permittee is compliant with the federal requirements for PCB storage as specified in 40 CFR Part 761;
- b. Radioactive materials/wastes unless the permittee is authorized to store and/or process these wastes in compliance with specific licensing and permitting requirements under Chapter 401 of the Texas Health and Safety Code. In accordance with 30 TAC Section 336.203, no person shall dispose of radioactive material unless that person has a license from the TCEQ or an exemption from the Texas Department of State Health Services (TDSHS) under Texas Health and Safety Code, Section 401.106(a).
- c. Explosive material, as defined by the Department of Transportation under 49 CFR Part 173;
- d. Dioxin-containing wastes, identified by EPA as F020, F021, F022, F023, F026, and F027 wastes in 40 CFR 261.31;
- e. Ignitable compressed gases;
- f. Garbage as defined in 30 TAC Section 330.3(56);
- g. Municipal Solid Waste as defined in 30 TAC Section 330.3(88);
- h. Putrescible Waste as defined in 30 TAC Section 330.3(119); or
- i. Special Waste from Health-Care Related Facilities subject to 25 TAC Chapter 1 or 30 TAC Chapter 330.

4. Prior to accepting any additional wastes not authorized in Table IV.B., the permittee shall follow the permit amendment or modification requirements listed in 30 TAC Sections 305.62 and 305.69.



[IV.B Continued]

5. The permittee may store wastes restricted under 40 CFR Part 268 solely for the purpose of accumulating quantities necessary to facilitate proper recovery, treatment, or disposal provided that it meets the requirements of 40 CFR 268.50(a)(2) including, but not limited to the following:
  - a. Clearly marking each container to identify its contents and the date each period of accumulation begins;
  - b. Clearly marking each tank with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank is recorded and maintained in the operating record at that facility.

C. Sampling and Analytical Methods

1. Table IV.C. - Sampling and Analytical Methods, shall be used in conjunction with the Waste Analysis Plan referenced in Provision IV.A., in performing all waste analyses.
2. The permittee shall ensure that all waste analyses utilized for waste identification or verification have been performed in accordance with methods specified in the current editions of EPA SW-846, American Society for Testing and Materials (ASTM) or other methods accepted by the TCEQ. The permittee shall have a Quality Assurance/Quality Control (QA/QC) program that is consistent with EPA SW-846 and the TCEQ QAPP.
3. In accordance with the sampling requirements set forth in the Waste Analysis Plan referenced in Provision IV.A., the permittee shall test a sufficient number of representative waste samples to assure that free liquids are not placed in the landfill. All testing for free liquids shall be according to Test Method 9095 (Paint Filter Liquids Test - or the most current version) as described in EPA SW-846 or according to the Waste Analysis Plan to assure that free liquids are not placed in the landfill.
4. If the sampling required in Provision IV.C.3. indicates that a waste contains free liquids, the waste shall not be accepted for disposal.
5. In accordance with the sampling requirements set forth in the Waste Analysis Plan referenced in Provision IV.A., and 40 CFR Part 268, the permittee shall test a sufficient number of representative waste samples to assure that waste meets the LDR standards.

Prior to first receipt of LDR wastes, the permittee shall perform corroborative sampling and analysis on the wastes, in accordance with the sampling requirements set forth in the Waste Analysis Plan referenced in Provision IV.A., for all applicable LDR constituents in accordance with 40 CFR Part 268. In lieu

[IV.C.5 Continued]

of corroborative sampling and analysis, the generator may provide a certification, including analytical results, as applicable, to the permittee verifying the waste meets all applicable LDR standards. Such analysis by the permittee or certification by the generator shall be repeated at least annually. Records shall be maintained demonstrating compliance with the above requirements and shall be kept on site and available for review by TCEQ representatives.

V. AUTHORIZED UNITS AND OPERATIONS

A. Authorized Units

1. The permittee is authorized to operate the facility units listed in "Attachment D" for storage and disposal subject to the limitations herein. All waste management activities not otherwise exempted from permitting under 30 TAC Section 335.2 shall be confined to the authorized facility units listed in "Attachment D". References hereinafter in this permit to "TCEQ Permit Unit No. \_\_\_\_" shall be to the facility units listed in "Attachment D". All authorized units must be clearly identified as numbered in "Attachment D". These units must have signs indicating "TCEQ PERMIT UNIT NO. \_\_\_\_".
2. The permittee shall comply with 40 CFR 264.17, relating to general requirements for ignitable, reactive, or incompatible wastes.
3. The permittee shall prevent inundation of any permitted units and prevent any discharges of any waste or runoff of waste contaminated stormwater from permitted units. Additionally, each loading or unloading area, associated with a permitted hazardous or nonhazardous waste management unit, shall be provided with a drainage control system which will collect spills and precipitation in such a manner as to satisfy the following:
  - a. Preclude the release from the system of any collected spills, leaks or precipitation;
  - b. Minimize the amount of rainfall that is collected by the system; and
  - c. Prevent run-on into the system from other portions of the facility.
4. The permittee shall construct, operate, and maintain the facility to prevent washout of any hazardous waste by a 100-year flood, as required by 40 CFR 264.18(b)(1).

B. Container Storage Areas

1. Container storage areas are shown in Table V.B. - Container Storage Areas. The



[V.B Continued]

permittee is authorized to operate the facility container storage areas for storage subject to the limitations contained herein.

2. Containers holding hazardous waste shall be managed in accordance with 40 CFR 264.171, Condition of containers; 40 CFR 264.172, Compatibility of waste with containers; and 40 CFR 264.173, Management of containers.
3. The permittee shall construct and maintain the containment systems for the container storage areas in accordance with the drawings and details included in the Part B Application identified in Provision I.B. At a minimum, the containment system must meet the requirements of 40 CFR 264.175.

C. Tanks and Tank Systems

1. The permitted tank units and their approved waste types are shown in Table V.C.-Tanks and Tank Systems. The Permittee is authorized to operate the permitted tank units for storage and processing subject to the limitations contained herein.
2. The permittee shall not place hazardous waste or treatment reagents in the tank system if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail. [40 CFR 264.194(a)]
3. The permittee shall prevent spills and overflows from the tank or containment system as per the requirements of 40 CFR 264.194(b).
4. Secondary containment systems must be provided with a leak-detection system that is operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within twenty-four (24) hours.
5. The permittee shall report to the Executive Director within twenty-four (24) hours of detection when a leak or spill occurs from the tank system or secondary containment system to the environment. [40 CFR 264.196(d)(1)] (A leak or spill of one pound or less of hazardous waste that is immediately contained and cleaned-up need not be reported.) [40 CFR 264.196(d)(2)] (Releases that are contained within a secondary containment system need not be reported.)
6. Within thirty (30) days of detecting a release to the environment from the tank system or secondary containment system, the permittee shall report the following information to the Executive Director: [40 CFR 264.196(d)(3)]
  - a. Likely route of migration of the release;
  - b. Characteristics of the surrounding soil (including soil composition, geology, hydrology, and climate);



[V.C.6 Continued]

- c. Results of any monitoring or sampling conducted in connection with the release. If the permittee finds it will be impossible to meet this time period, the permittee shall provide the Executive Director with a schedule of when the results will be available. This schedule must be provided before the required thirty (30) day submittal period expires;
  - d. Proximity of downgradient drinking water, surface water, and populated areas; and
  - e. Description of response actions taken or planned.
7. The permittee shall submit to the Executive Director all certifications of major repairs to correct leaks within seven (7) days of returning the tank system to use. [40 CFR 264.196(f)]

D. Surface Impoundments

Reserved

E. Waste Piles

Reserved

F. Land Treatment Units

Reserved

G. Landfills

- 1. The permittee may dispose of a total volume of 4,000,000 cubic yards of hazardous waste in one permitted landfill. The landfill cells shall meet the specifications listed in Table V.G.1. Landfills. The permittee is authorized to operate the permitted landfill for waste disposal subject to the limitations contained herein.
- 2. Test Fill
  - a. Prior to construction of any new landfill or landfill cell with changes in the design, specifications, materials, and/or construction specifications for the liner system, the permittee shall construct and evaluate a test fill(s) to verify that material specifications, and construction specifications, methodology and equipment proposed to construct a full-scale compacted clay liner achieve a field hydraulic conductivity of  $1 \times 10^{-7}$  cm/sec or less in the testfill(s). The test fill construction plans, specifications and documentation procedures shall conform with the guidance described in Section 2.3.4.1.2. (Test Fill Construction) of

[V.G.2.a. Continued]

"Construction Quality Assurance For Hazardous Waste Land Disposal Facilities" (EPA Publication No. 530-SW-021, dated October, 1985) and "Quality Assurance and Quality Control for Waste Containment Facilities" (EPA/600/R-93/182). Hydraulic conductivity of the test fill pad shall be determined using the sealed double-ring infiltrometer (ASTM D 5093), or an equivalent method approved by the Executive Director.

The permittee shall complete construction and evaluation of the test fill in accordance with the terms of this permit and shall submit certification of proper construction and evaluation in accordance with Provision II.A.6. This certification shall be signed by both the permittee and a qualified, licensed Professional Engineer competent in geotechnical engineering with experience in construction of compacted clay liners and evaluation of field permeabilities of compacted clay liners.

- b. The test fill certification report shall include the following information:
  - (1) Results of all preconstruction, construction, and post construction quality assurance inspections and testing performed;
  - (2) A summary of material specifications and construction specifications, methodology and equipment necessary to construct a full-scale compacted clay liner or cover achieving a field hydraulic conductivity of  $1 \times 10^{-7}$  cm/sec or less;
  - (3) Complete documentation, including a summary of raw data, detailing how the field hydraulic conductivity of the compacted test fill clay liner was measured and calculated; and
  - (4) The qualifications of the engineer certifying proper test fill construction and testing.

3. General Landfill Design and Construction Requirements

- a. The landfill liner system shall consist of at least two liners which meet the requirements of 40 CFR 264.301(c)(1)(i)(A) and (B). In addition, a leachate collection/leak detection system which meets the requirements of 40 CFR 264.301(c)(2) and (3) shall be installed above and between the liners. The landfill liner system and leachate collection/leak detection system shall meet the specifications listed in Table V.G.3. - Landfill Liner System and Table V.G.4. - Landfill Leachate Collection System.

- b. Soil Liner

All constructed clay-rich soil structures (liners, dikes, and cover) shall be constructed according to the specifications and methodologies established for the soil liner test fill and shall meet or exceed the

[V.G.3.b. Continued]

following minimum specifications:

- (1) Materials for all constructed clay-rich structures shall be excavated, broken down, hydrated to the proper moisture content (if necessary) and then recompactd in loose lifts not less than 6.0 inches nor greater than 9.0 inches in thickness. If the soils are significantly below optimum moisture content ( $>3\%$  below optimum moisture content) the maximum clod size of the soils will be reduced to less than 2 inches so that hydration can occur uniformly. Each lift shall be scarified to a depth no greater than 2.0 inches nor less than 0.5 inches prior to placement of the following lift;
- (2) Compaction shall be to at least 95% Standard Proctor Density at or slightly above optimum moisture content. The permittee shall compact each clay-rich structure with a sheepsfoot-type roller of the same drum diameter and length, empty and/or ballasted weight, length and face area of the feet, and yoking arrangement as used to construct the test fill required in this section. The permittee with the prior approval of the Executive Director may use a different roller of similar size and type that provides equivalent or greater compactive effort as the sheepsfoot-type roller. For areas inaccessible to a sheepsfoot roller, a tamping foot-type compactor, smooth-drum roller or vibrating-plate compactor having foot pressures of at least 250 psi shall be substituted;
- (3) The term "clay-rich soil", as described in this permit, shall be defined as soil exhibiting the following minimum characteristics:
  - (a) Plasticity index greater than or equal to 15,
  - (b) Liquid limit greater than or equal to 30, and
  - (c) Percent passing No. 200 sieve greater than or equal to 30.
- (4) Laboratory Standard Proctor Density and optimum moisture content tests performed in accordance with ASTM D-698 for a minimum of one (1) representative sample from each 2630 cubic yards of soil;
- (5) Field density and moisture control tests on constructed soil liners performed in accordance with ASTM D-1556, ASTM D-2167, ASTM D-2922, or an equivalent method at a frequency of at least one per every 10,000 square feet of each lift placed;
- (6) Atterberg Limits performed in accordance with ASTM D-4318 at a frequency of at least one per every 1000 cubic yards of soil



[V.G.3.b. Continued]

and for a minimum of two (2) tests per layer per cell;

- (7) Percent passing No. 200 sieve performed in accordance with ASTM D-1140 at a frequency of at least one per every 650 cubic yards of soil and for a minimum of two (2) tests per layer per cell;
- (8) Soil liner thickness and slope determinations at a rate of at least one (1) determination by appropriate surveying techniques per every 10,000 square feet of soil liner installed; and
- (9) Hydraulic conductivity measurements expressed in terms of cm/sec for representative undisturbed core samples of the constructed soil liner system components at a frequency of one per acre per lift.

c. Geomembrane Liner

- (1) The following conditions shall be satisfied prior to the installation of any geomembrane liner:
  - (a) The upper four (4) inches of the supporting soil for the liner shall not contain any stones, roots, or foreign objects having a dimension greater than one (1) inch;
  - (b) The surface to be lined shall be prepared so as to provide a surface that is free of irregularities, loose earth, desiccation cracks, and abrupt changes in grade; and
  - (c) The compacted clay liner shall be maintained at or slightly above optimum moisture content and free of desiccation cracks prior to placement of any overlying geomembrane liner. Verification testing and modifications to moisture content shall be performed for the compacted clay liner during soil compaction activities and hence at least every seven (7) days until placement of the overlying component of the liner system. Final soil moisture content determinations must be performed for the clay liner within twenty-four (24) hours of placement of the overlying component of the liner system. At a minimum, soil moisture content shall be measured at six (6) inch depths at a minimum rate of one (1) test per 10,000 square feet of soil liner. The date, location, and results of all soil moisture measurements and the date and location of the synthetic liner placement shall be included in the required certification report. The results of a visual inspection made by the certifying engineer, noting the presence or absence of desiccation cracks and any remedial measures

[V.G.3.c. Continued]

taken to remove these features, must also be included in the certification report for the landfill (cell).

- (2) During installation, all persons walking on the liner shall wear shoes which will not damage the liner.
- (3) The geomembrane shall not be installed during rainfall or in an area of pooled water.
- (4) The geomembrane shall be installed so that there will not be tension or wrinkles at the anticipated average temperature for its final use.
- (5) All personnel seaming the geomembrane shall have previous project experience in field seaming geomembrane liner using similar seaming methods.
- (6) An anchor trench having minimum dimensions of two (2) feet in width and two (2) feet in depth shall be constructed along the perimeter of the landfill trench.
- (7) The geomembrane panel shall be secured at the ground surface in the anchor trench specified in Provision V.C.3.c.(6), and shall be installed such that field seams, to the extent possible, are aligned parallel to the landfill sidewall slope.
- (8) Adjacent panels of the geomembrane shall be overlapped at least three (3) inches.
- (9) All seam areas of the geomembrane shall be clean and free of moisture, dust, dirt, and any other foreign material of any kind.
- (10) Each seaming unit for extrusion welding shall have temperature gauges that indicate the temperature of the extrudate in the machine and at the nozzle.
- (11) Field seaming shall not be done if the ambient temperature is below 34°F.
- (12) Field seaming shall not be done if the ambient temperature is below 50°F, but greater than 34°F, unless the geomembrane is preheated above that temperature by either the sun or a hot air device.
- (13) Prior to field seaming the geomembrane each day, all personnel responsible for seaming shall prepare a test seam of at least two (2) feet in length. These test seams shall be tested for adequate strength (seam peel stress equal to 100 percent of the tensile

[V.G.3.c.(13) Continued]

strength of the geomembrane used) prior to field seaming the geomembrane. All test seaming shall be performed under the same conditions as production seaming. Any problems with equipment or test seam strength shall be corrected prior to field seaming the geomembrane.

- (14) All seam and nonseam areas of the geomembrane shall be visually inspected for signs of defective seams, blisters, punctures, undispersed raw materials, and any sign of contamination by foreign matter. Any problems discovered shall be marked, repaired, and retested or re-evaluated. The geomembrane surface shall be clean at the time of these inspections.
- (15) All field seams shall be nondestructively tested over their entire length. Seam testing shall be performed as field seaming progresses. Any defects shall be marked, repaired, and retested.
- (16) Field seams shall be tested using, at a minimum, an ultrasonic tester, a pressure tester, or a vacuum tester suited for this purpose. All testing equipment shall be calibrated or properly adjusted prior to use each day.
- (17) All field seams shall be destructively tested at a minimum frequency of one sample for every 500 feet of weld for adequate strength as defined above. Areas of removed samples shall be patched and the patched seams nondestructively tested in accordance with Provision V.G.3.c.(15). above.
- (18) If any seam tested in accordance with Provisions V.G.3.c.(15)., (16)., and (17). is shown to be defective, the permittee shall evaluate the entire length of seam represented by the defective test results to determine the extent of the defect(s). The permittee shall replace or repair defective seams prior to progressing with field seaming operations.

d. Leachate Collection/Leak Detection System

- (1) Sieve analysis tests on nonsynthetic material at a minimum rate of one (1) test per 400 cubic yards.
- (2) Hydraulic conductivity measurements expressed in units of cm/sec at a frequency of at least 4 representative samples collected from each compacted drainage layer.
- (3) Drainage layer thickness determinations at a rate of at least three (3) determination by appropriate surveying techniques per every cell or 10,000 square feet of drainage layer installed.



[V.G.3.d. Continued]

- (4) Drainage pipe slope determinations at a rate at least one determination by appropriate surveying techniques per every 20 feet of drainage pipe and an overall visual inspection of all pipes for sagging and improper bedding.

e. Run-On and Run-Off Control Systems

The permittee shall design and construct a run-on control system and a run-off management system as specified in the approved Part B Permit Application Attachment V.G., which is incorporated into this permit through permit Provision I.B. [30 TAC Sections 335.173(g) and (h)]

- f. The permittee shall submit certification of proper landfill construction prior to the placement of waste in a landfill or landfill cell. The certification shall be submitted in accordance with Provision II.A.6. Within thirty (30) days of submittal of such certification, the permittee shall submit a certification report which contains the results of all tests conducted. The permittee shall conduct any tests, inspections, or measurements that are deemed necessary in the judgement of the registered professional engineer supervising the cell construction, for the engineer to certify that the landfill cell has been constructed in conformance with the design and construction specifications of this permit. The certification report shall, at a minimum, contain the following drawings and test results:

- (1) Scaled plan-view and cross-sectional drawings that accurately depict the areal boundaries and dimensions of the cell; separation distance(s) of the cell from the property boundary; minimum, maximum, and representative elevations of the excavation of the cell; minimum, maximum, and representative elevations of the cell as component parts of the liner system; location, site, volume, materials of construction, and slope, as applicable, of all soil and synthetic liners and leachate collection and leak detection system components; and
- (2) For the soil liner, geomembrane liner, and leachate collection/leak detection system; all observations, tests, and analyses required to ensure that installation has been completed in accordance with the terms of this permit and the incorporated design plans.

4. General Landfilling Operations

The permittee shall conduct landfilling operations according to the following requirements:

- a. The initial two (2) feet of waste or soil placed in a landfill cell shall be placed with a tracked vehicle (D-6 Caterpillar size or smaller) and shall be composed of bulk or processed non-containerized waste. Rubber-

[V.G.4. Continued]

tired vehicles and roller-type compaction equipment shall not drive on any portion of the leachate collection system in a landfill cell until the initial two (2) foot layer of waste or soil has been placed;

- b. Upon compliance with Provision V.G.4.a., all subsequent waste, except containerized waste, shall be applied in lifts not greater than eighteen (18) inches and compacted sufficiently to minimize settlement of landfilled waste;
- c. In areas of the landfill where placement of final cover will not occur when the wastes reach final grade elevation, the permittee shall install an interim cover of at least two feet of red bed clay soil when the wastes reach final grade elevation.
- d. All collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems shall be maintained and must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system. [30 TAC Section 335.173(i)];
- e. All precipitation that collects in an active landfill cell, including water that drains into the landfill cell from interior access roads, shall be managed as contaminated water and disposed of accordingly at an authorized on-site waste management unit or at an authorized off-site facility;
- f. While a landfill cell is in operation, it must be inspected at least weekly and after storm events in accordance with 40 CFR 264.303(b);
- g. The permittee shall remove leachate from collection sumps as often as necessary to ensure that the leachate depth in the leachate collection/leak detection system is always less than the thickness of the drainage material and never exceeds 12 inches;
- h. The permittee shall inspect each leak detection system and record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period of the landfill.
- i. Liquids removed from the leachate collection/leak detection systems shall be classified in accordance with 30 TAC Chapter 335, Subchapter R (Waste Classification) and shall be managed accordingly at an authorized on-site waste management unit or at an authorized off-site facility;
- j. Control of Wind Dispersal of Particulate Matter

The permittee shall cover or otherwise manage the landfill to control wind dispersal of particulate matter in accordance with the procedures described in Attachment V.G. of the permittee's approved permit application [30 TAC Section 335.173(j)];



[V.G.4 Continued]

- k. The permittee shall sequence the construction of an interim and/or final cover as the waste material reaches the final grade in accordance with the approved Part B Permit Application Attachment V.G., which is incorporated into this permit through permit Provision I.B.;

l. Requirements for Ignitable, Reactive or Incompatible Wastes

The permittee shall manage ignitable, reactive incompatible wastes in accordance with the following conditions:

- (1) Ignitable or reactive wastes shall not be placed in a landfill, unless the waste and landfill meet all applicable requirements of 40 CFR 268, and the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 40 CFR 261.21 or 261.23 [40 CFR 264.312],
- (2) Ignitable wastes in containers may be disposed in the landfill cells in accordance with 40 CFR 264.312(b), and
- (3) Incompatible wastes, or incompatible wastes and materials must not be placed in the same landfill cell unless the permittee complies with 40 CFR 264.17(b);

- m. Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027.

The permittee shall not place hazardous wastes F020, F021, F022, F023, F026, and F027) in the landfill.

n. Stabilization of Liquid Wastes

The permittee shall not place liquids or waste containing free liquids, whether or not sorbents have been added (except lab waste in overpacked containers, as described in 40 CFR 264.316) in landfill cells. "Free liquids" are liquids which readily separate from the solid portion of a waste when the waste mixture is at a temperature above 32°F and ambient pressure.

An absorbent is defined as a material that is capable of physically holding a liquid within pores or interstices by such physical forces as tension or capillary action. An adsorbent is defined as a material that is capable of physically adhering a liquid to its (the material's) surface(s) through molecular polar forces. The terms "absorbent" and "adsorbent" shall both be indicated whenever the term "sorbent" is used in this permit;

o. Stabilization of LDR Wastes



[V.G.4.o. Continued]

Appropriate stabilization methods shall be used for waste streams requiring treatment to meet the 40 CFR Part 268 treatment standards.

Successful stabilization is said to be achieved if post-treatment analyses demonstrate that applicable treatment standards will be achieved in accordance with the land disposal restrictions of 40 CFR Part 268;

p. Special Requirements for Containers

All containers, unless they are very small, such as an ampule, must be either at least 90 percent full when placed in the landfill, or crushed, shredded or similarly reduced in volume to the maximum practical extent before burial in the landfill [40 CFR 264.315];

q. Special Requirements for the Disposal of Lab Packs

The permittee shall not place containers holding liquid waste, or waste containing free liquids in a landfill, unless the following conditions apply [30 TAC 335.175(e)]:

- (1) The container is very small, such as an ampule,
- (2) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor, or
- (3) The container is a lab pack as defined and managed in accordance with 40 CFR 264.316;

r. Waste to Liner Compatibility

The permittee shall ensure that wastes to be landfilled will not impair the function of the synthetic liner. At a minimum, waste to liner compatibility testing shall be conducted for those wastes whose compatibility with the selected membrane liner have not been conducted and the effects are unknown. For wastes and liners upon which tests have been conducted and the results and/or effects are known (manufacturer's literature, other experimental literature, etc.), additional testing is not required. The permittee shall maintain test results and/or documentation that confirms waste to liner compatibility at the facility;

5. Action Leakage Rate and Response Action Plan [40 CFR 264.302 and 264.304].

The permittee shall establish an Action Leakage Rate (ALR) pursuant to 40 CFR 264.302. The permittee shall determine if the ALR, given in gallons per acre per day, for each sump has been exceeded by converting the weekly or monthly flow rate from the monitoring data obtained to an average daily flow rate (gallons per acre per day) for each sump. The permittee shall calculate the average daily flow rate for each landfill sump on a weekly basis during the active life and closure period. The ALR for the sumps in each landfill cell is given on Table V.G.1 –

[V.G.5. Continued]

Landfills.

Prior to receipt of waste, the permittee shall have in place an approved Response Action Plan (RAP) which meets the requirements of 40 CFR 264.304. The RAP shall set forth the actions to be taken if the ALR is exceeded.

6. Cell Location Survey

The permittee shall maintain the following items in the operating record:

- a. A map with the exact location and dimensions (including depth) of each cell with respect to permanently surveyed benchmarks; and
- b. A record of the areal and vertical location of each waste placed into a landfill cell.

H. Incinerators

Reserved

I. Boilers/Industrial Furnaces

Reserved

J. Drip Pads

Reserved

K. Miscellaneous Units

Reserved

L. Containment Buildings

Reserved

VI. GROUNDWATER DETECTION MONITORING

A. Groundwater Monitoring Program

The permittee shall design, construct and maintain a ground-water monitoring program to monitor area ground water throughout the active life of the facility and any post-closure care period. Groundwater monitoring at the facility shall at a minimum consist of a Detection Monitoring System for the locally named "225-foot zone" of the Triassic Dockum Group of the Chinle Formation. In addition, observation wells will monitor the locally named "125-foot zone" of the Dockum Group. The Detection Monitoring System shall yield groundwater samples from the uppermost aquifer that represent the quality of background water and the quality of ground water at the point of compliance.

[VI.A. Continued]

1. Identification of Detection Monitoring Program Unit(s)/Area(s)

The Detection Monitoring Program is specific to the RCRA-regulated unit listed in Table VI.B.3.b.-Unit Groundwater Detection Monitoring System and as authorized by Provision V.G. (Landfills) for which groundwater monitoring requirements apply pursuant to 30 TAC Section 335.164.

2. Capabilities of Detection Monitoring Systems

The Detection Monitoring System shall yield groundwater samples from the uppermost aquifer/water-bearing zone that represent the quality of background water that has not been affected by operation of the regulated unit(s) and that represent the quality of ground water passing the point of compliance. This system shall be capable of detecting a release from the regulated unit to the ground water.

3. Point of Compliance

The point of compliance for the Detection Monitoring System is defined by a vertical surface, located at the hydraulically downgradient limit of the waste management area (or permitted unit) that extends down into the uppermost aquifer/water bearing zone underlying the regulated unit. The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of the regulated unit.

4. Detection Monitoring Program

The permittee is required to install and operate a Detection Monitoring System subject to the limitations contained herein. The Detection Monitoring System wells for each unit/area are listed in Table VI.B.3.b - Unit Groundwater Detection Monitoring System.

a. A Detection Monitoring System shall, at a minimum, consist of two categories of wells, Background and Point of Compliance Wells, which will be used to establish groundwater quality for each RCRA-regulated unit.

(1) Background Well(s) are those wells that are unaffected by the operations of the unit. The Background Well(s) are depicted in Attachment E (Groundwater Monitoring Well Location Map) and are also listed in Table VI.B.3.b. - Unit Groundwater Detection Monitoring System.

(2) Point of Compliance (POC) Wells are used to demonstrate compliance with the Detection Monitoring Parameters which are listed on Table VI.B.3.c. - Groundwater Detection Monitoring Parameters. POC Wells are designated in Attachment E (Groundwater Monitoring Well Location Map) and are also listed in Table VI.B.3.b. - Unit Groundwater Detection



[VI.A.4.a.(2) Continued]

Monitoring System.

- (3) The Detection Monitoring System may also include Observation Wells, as necessary, to establish groundwater quality and hydrogeologic conditions of the uppermost aquifer/water-bearing zone and any other water-bearing zones.
- b. The permittee shall determine groundwater quality in the uppermost aquifer throughout the active life of the facility and any post-closure care period in accordance with the parameter list and sampling schedule specified in Provisions VI.C.2. and VI.D.2., respectively.
- c. The design, construction, maintenance and operation of the authorized components of the Detection Monitoring Program must be in accordance with this permit and approved Part B Permit Application, Section VI.B., which is incorporated into this permit through Permit Provision I.B.

B. Construction, Certification, and Plugging

Wells shall be constructed and maintained so groundwater samples are representative of the aquifer's water quality. A record of drilling and construction details demonstrating compliance with the terms of this permit section shall be prepared in accordance with Attachment F (Well Design and Construction Specifications). Wells constructed prior to issuance of this permit may be utilized as groundwater monitoring wells if they meet the standards of Attachment F (Well Design and Construction Specifications).

1. Well Construction

- a. For all groundwater monitor wells to be constructed in accordance with this permit, the permittee shall notify the Executive Director to report the proposed monitor well location and screened interval at least thirty (30) days in advance of the anticipated date of installation or in accordance with an approved schedule for installation. Alternatively, a schedule for installation issued as part of an approved work plan shall constitute such notification. New well construction shall commence upon written approval of the Executive Director within the timeframes specified in this permit.
- b. The permittee shall install the wells of the Detection and Observation Monitoring System and submit certification of this installation within sixty (60) days of installation, as described in Attachment F (Well Design and Construction Specifications). The Detection and Observation Monitoring Wells shall be installed in accordance with the specifications outlined in Attachment F (Well Design and Construction Specifications).

2. Replacement Wells

Prior to installation of a replacement well, the permittee shall submit to the

[VI.B.2 Continued]

Executive Director for approval, the replacement well specifications and an explanation of why the well is being replaced. For any Detection Monitoring System well to be considered a replacement well and not a new well, the well shall have no design changes from the well being replaced; shall be drilled within fifteen (15) feet of the well being replaced; and shall be installed in accordance with this Provision and Attachment F (Well Design and Construction Specifications).

3. Well Management Activities Requiring Permit Modification

- a. If the permittee or the Executive Director determines that the well integrity, materials of construction, or well placement no longer enable a well to yield samples representative of groundwater quality from the desired aquifer(s), then the permittee shall submit a permit modification or amendment request to the Executive Director in accordance with the provisions of 30 TAC Sections 305.62 and 305.69, respectively, describing actions the permittee will take to remedy the situation. The permittee shall also notify the Executive Director within fifteen (15) days of such determination regarding a well.
- b. The permittee shall submit a permit modification or amendment request to the Executive Director in accordance with the provisions of 30 TAC Sections 305.62 and 305.69, respectively, when new POC or Background Wells are to be constructed after issuance of this permit (i.e., if the wells have not been included in the approved Part B Permit Application materials referenced in Permit Provision I.B.).
- c. The permittee shall submit a permit modification or amendment request, for installation of a new well, to the Executive Director in accordance with the provisions of 30 TAC Sections 305.62 and 305.69, respectively, when any wells being replaced do not meet the requirements of Provision VI.B.2.

4. Plugging and Abandonment Procedures

- a. If a Detection Monitoring Well listed in Table VI.B.3.b. - Unit Groundwater Detection Monitoring System is plugged and abandoned and a replacement well is not installed in accordance with this permit, then a modification request shall be submitted in accordance with 30 TAC Section 305.69 within ninety (90) days of the plugging and abandonment procedure to update Table VI.B.3.b. - Unit Groundwater Detection Monitoring System of the permit.
- b. For all wells to be plugged and abandoned after issuance of this permit, the permittee shall follow the procedures specified in Attachment F (Well Design and Construction Specifications).



[VI.B.4 Continued]

C. Detection Monitoring System: Operation

1. Uppermost Aquifer/Water-Bearing Zone Monitored by the Detection Monitoring System. The Detection Monitoring System shall be designed to monitor the ground water in the uppermost aquifer/water-bearing zone. The "uppermost aquifer", as referenced in this permit, refers to the locally named "225-foot zone" of the Triassic Dockum Group of the Chinle Formation. The "225 foot zone" of the Dockum Group ranges in elevation from approximately 3250 feet above Mean Sea Level (MSL) to 3215 above MSL. The top of the uppermost aquifer/water-bearing zone is approximately 225 feet below ground surface (BGS). Ground water is typically encountered 225 feet BGS. A siltstone zone that occurs at a depth of 125 feet below ground surface and is locally named the "125-foot zone" of the Dockum Group shall be monitored in accordance with provision VI.A.4.a.(3).
2. Groundwater Detection Monitoring Parameters and Compliance
  - a. The permittee shall monitor well numbers identified in Provision VI.A.4. and Table VI.B.3.b. - Unit Groundwater Detection Monitoring System. The uppermost aquifer's groundwater quality will be evaluated based on the parameters listed in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters. Sampling and analysis for the Groundwater Detection Monitoring Parameters of Table VI.B.3.c. - Groundwater Detection Monitoring Parameters shall be conducted in accordance with Provision II.B.1.b. of this permit. [30 TAC Section 335.164(1)]
  - b. Background groundwater quality for a monitoring parameter or constituent shall be based on a sequence of at least one sample. The permittee shall determine the concentrations of the detection monitoring parameters and water quality parameters listed in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters for each sample collected.
  - c. Compliance with the Groundwater Detection Monitoring Parameters listed in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters is defined by the results of the data evaluation of Provision VI.D.4. wherein the groundwater monitoring data for each well does not exhibit evidence of contamination over background values. If any POC Well is determined to be noncompliant with Table VI.B.3.c. - Groundwater Detection Monitoring Parameters at any time during the Detection Monitoring Program, the permittee shall respond and report according to Provision VI.E.1.
3. Post-Closure Care Period

The area(s) listed in Provision VI.A.1. shall remain in the Detection Monitoring Program during the active life of the unit(s) and during any applicable Post-Closure Care Period. After closure activities are completed for a specified unit



[VI.C.3 Continued]

and certification of closure is received by the Executive Director, any applicable Post-Closure Care period shall begin. If the Post-Closure Care Period has expired and evidence of Statistically Significant Increase (SSI) of the Groundwater Detection Monitoring Parameters of Table VI.B.3.c. - Groundwater Detection Monitoring Parameters has not been confirmed in the ground water, then the permittee shall notify the Executive Director in writing at least thirty (30) days prior to discontinuing the Detection Monitoring Program for the specified unit. Within ninety (90) days of the notification, the permittee shall submit a final report to the Commission for the specified unit. The final report shall include the information required by the annual report of Provision VI.G.

4. Waste Management of Recovered Groundwater

- a. Recovered ground water from a Detection Monitoring Well with no known contamination may be managed as uncontaminated prior to analysis. Following analysis, if the permittee determines that a Table VI.B.3.c. - Groundwater Detection Monitoring Parameter has an SSI over background value, the recovered groundwater shall be managed as contaminated water.
- b. Recovered ground water with known contamination which exceeds the Table VI.B.3.c. - Groundwater Detection Monitoring Parameters shall be managed as contaminated water.

D. Sampling and Analysis

1. Sampling and Analysis

The permittee shall follow the methods set out in EPA's RCRA Groundwater Monitoring Draft Technical Guidance Document (November 1992) or an alternate method with prior written approval of the Executive Director to collect and preserve samples withdrawn from groundwater monitoring wells. The collected samples shall be managed (i.e., Chain of Custody and handling procedure), analyzed, and statistically evaluated (i.e., QA/QC) in accordance with the current edition of EPA SW-846 and ASTM Standard Test Methods or other equivalent methods with prior written approval of the Executive Director.

- a. All groundwater analyses required by this permit shall be performed using a QA/QC program where all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. All QA/QC program details shall be put in writing and assignments made to qualified personnel. At a minimum, the program shall conform to the QA/QC program details described in the current edition of EPA SW-846 and ASTM Standard Test Methods or other equivalent methods accepted in writing by the Executive Director.
- b. Groundwater analyses required by this permit shall utilize laboratory methods which are capable of measuring concentrations equal to or less

[VI.D.1. Continued]

than established background values.

- c. Wells shall be sampled according to the Sampling and Analysis Plan presented in Attachment VI. of the approved Part B Permit Application, which is incorporated into this permit through Provision I.B. The permittee or the Executive Director shall propose modifications, as necessary, to the Sampling and Analysis Plan in order to achieve the Detection Monitoring Program objectives. Any and all revisions to the plan shall become conditions of this permit at the beginning of the next full quarter after approval by the Executive Director.

2. Sampling and Analysis Frequencies and Parameters

- a. Frequencies of sampling shall be monthly, quarterly, semiannually or yearly, depending on the sampling objective. These periods of time are defined below:
  - (1) "Month" shall be a calendar month;
  - (2) "Quarter" shall be based on divisions of the calendar year (i.e., January through March, April through June, July through September, October through December);
  - (3) "Semiannual" shall be based on divisions of the calendar year (i.e., January through June, July through December) and consist of two consecutive quarters;
  - (4) "Annual" or "Year" shall be four consecutive quarters, beginning with the first quarter. Years shall be designated consecutively, beginning with the "first year", "second year", etc.; and
  - (5) "Calendar year" shall be based on divisions of the calendar (i.e. January through December).
- c. Sampling of wells shall commence during the first complete quarter after issuance of this permit, or during the first quarter of operation if the permit is issued for a new unit. Samples shall be collected during the first thirty (30) days of the specified sampling frequency.
- c. In the first and subsequent years of the Detection Monitoring Program, the wells of Table VI.B.3.b. - Unit Groundwater Detection Monitoring System shall be sampled and analyzed according to the schedule listed in Table VI.B.3.c.-Groundwater Detection Monitoring Parameters.
- c. The observation wells referenced in Provision VI.A.4.a.3. and listed in Table VI.B.3.b. - Unit Groundwater Detection Monitoring System shall be sampled and analyzed according to the Groundwater Sampling and



[VI.D.2 Continued]

Analysis Plan in Volume 7, Attachment 6-8 of the Permit. If sufficient volume is available, the permittee shall determine evidence of an SSI according to Provision VI.D.3.

e. Field determination requirements for wells listed in Table VI.B.3.b. - Unit Groundwater Detection Monitoring System consist of the following measurements or observations which shall be established during each sampling event:

- (1) Water level measurements relative to MSL measured to within 0.01 foot.
- (2) Determination of pH, temperature, Specific Conductivity and Turbidity in nephelometric turbidity units), for each well.
- (3) Descriptions of water sample appearance (clarity, color, etc.) shall be recorded.
- (4) The total depth of each well, which is not equipped with a dedicated pump, shall be measured during each sampling event. The total depth of each well equipped with a dedicated pump shall be measured when pumps are removed for maintenance. At a minimum, the wells with dedicated pumps will be checked for silting every three (3) years. The measured total depth shall be compared to the total depth recorded on the well construction log. Should an analysis of the measured and the recorded total depth reveal that the well is silting in, the permittee shall perform such actions necessary (redevelopment, replacement, etc.) to enable the well to function properly.
- (5) All wells specified in this permit shall be inspected during each sampling event. Repairs or a proposal for replacement for any affected well shall be performed within ninety (90) days of the routine sampling event inspection which identified the problem well.

3. Statistical Procedures for Data Evaluation

a. For each POC Well sampled during each sampling event, the permittee shall determine whether there is evidence of an SSI in the concentrations of each Groundwater Detection Monitoring Parameter of Table VI.B.3.c. - Groundwater Detection Monitoring Parameters when compared to the Background Well groundwater quality data. In determining whether or not an SSI has occurred for a Groundwater Detection Monitoring Parameter of Table VI.B.3.c. - Groundwater Detection Monitoring Parameters, the permittee shall establish if the background values have been exceeded by utilizing the statistical procedures and data evaluation described in the following guidance:

- (1) Statistical Analysis of Groundwater Monitoring Data at RCRA



[VI.D. Continued]

Facilities - Interim Final Guidance, U.S. EPA, April 1989; and

- (2) Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities - Addendum to Interim Final Guidance, U.S. EPA, June 1992.

- b. The procedures that shall be used to determine if an increase has occurred over background values shall be direct comparison to the concentration limits listed in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters for volatile and semivolatile organics, for the following unit identified in Provision VI.A.1.: TCEQ Permit Unit No. 3. To employ the identified evaluation procedure, the permittee is required to collect a minimum of one sample from each unit's Background and POC Wells following the sampling schedule outlined in Provision VI.D.2.d. If a measured value exceeds the concentration limit, the permittee shall promptly resample monitoring well(s) in question, determine the concentration of the parameter(s) for which the exceedence was indicated and compare the results of the re-sampling event to the concentration limit(s). The permittee has determined an SSI has occurred if the re-sample analysis confirms the initial result.

In addition to the statistical evaluation procedures established above, the permittee shall evaluate the analytical data obtained for the metal monitoring parameters listed in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters. This data evaluation shall consist of a Mann Kendall Trend Analysis of each of the metal parameter concentrations in each well over time. If a measured value exceeds the limit of the trend analysis, the permittee shall promptly resample monitoring well(s) in question, determine the concentration of the parameter(s) for which the exceedence was indicated and compare the results of the re-sampling event to the concentration limit(s). The permittee has determined an SSI has occurred if the re-sample analysis confirms the initial result.

- c. If it is determined that the selected statistical procedure is not appropriate to conduct data evaluation for a specified unit, then the permittee shall select an alternate statistical procedure. Prior to using a statistical procedure which is different than the one identified in Provision VI.D.3.b. the permittee shall obtain approval from the Executive Director through a permit amendment or modification as specified in 30 TAC Sections 305.62 and 305.69, respectively.

4. Data Evaluation

- a. Data evaluations shall be completed within sixty (60) days of the sampling date unless QA/QC procedures show that data is unacceptable and re-analysis or resampling must be performed. In such cases, the Executive Director will be notified as soon as it becomes apparent that the sixty (60) day time limit to conduct data evaluation cannot be met.

[VI.D. Continued]

- b. Data evaluation shall determine whether there is evidence of an SSI for Groundwater Detection Monitoring Parameters listed in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters each time groundwater quality is determined at the POC in accordance with 30 TAC Section 335.163(7).

E. Response Requirements for SSI

1. If the permittee has determined an SSI over background values for any of the Groundwater Monitoring Parameters identified in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters in accordance with statistical procedures authorized by Provision VI.D.3. and specified by the permittee, the permittee shall perform the following actions:
  - a. Notify the Executive Director in writing, within seven (7) days. The notification must indicate which Groundwater Detection Monitoring Parameter(s) of Table VI.B.3.c. - Groundwater Detection Monitoring Parameters has exhibited an SSI.
  - b. Immediately sample the ground water in all wells of Table VI.B.3.b. - Unit Groundwater Detection Monitoring System which exhibit an SSI for the specified unit and determine whether constituents of Appendix IX of 40 CFR 264 are present, and if so, in what concentrations.
  - c. For any Appendix IX hazardous constituent found in the analysis pursuant to Provision VI.E.1.b., the permittee may resample for hazardous constituents within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these detected constituents will form the basis for a Compliance Monitoring Program. If the permittee does not resample for the constituents found pursuant to Provision VI.E.1.b., the hazardous constituents found during the initial Appendix IX analysis will form the basis for the Compliance Monitoring Program.
  - d. Upon establishing that a release has occurred from a unit(s), the permittee shall submit to the Executive Director a permit amendment or modification to modify the Detection Monitoring Program and a compliance plan application to initiate a Compliance Monitoring Program and/or a Corrective Action Program for the specified unit(s). The permit and compliance plan applications must be submitted based on the following schedule:
    - (1) If ground water downgradient of the specified unit does not exceed the requirements in 30 TAC Section 335.158 for the proposed groundwater protection standard (GWPS), then within ninety (90) days, the permittee shall submit a permit amendment and a compliance plan application to establish a Compliance Monitoring Program for the specified unit;



[VI.E.1.d. Continued]

- (2) If ground water downgradient of the specified unit exceeds the requirements in 30 TAC Section 335.158 for the proposed GWPS requested in the application for a specified unit, and an Alternate Concentration Limit (ACL) is not being proposed in the application in accordance with 30 TAC Section 335.160(b) to establish the GWPS, then within 180 days, the permittee shall submit a permit amendment or modification and a compliance plan application to establish a Corrective Action Program for the specified unit.
  - (3) If ground water downgradient of the specified unit exceeds the requirements in 30 TAC Section 335.158 for the proposed GWPS requested in the application for a specified unit, and an ACL is being proposed in the application in accordance with 30 TAC Section 335.160(b) to establish the GWPS, then within 180 days, the permittee shall submit a permit amendment or modification and a compliance plan application with an ACL demonstration to establish a Corrective Action Program for the specified unit.
2. If the permittee determines that there is an SSI above (or for pH, a statistically significant variation from) background values for the Groundwater Detection Monitoring Parameters specified in Table VI.B.3.c., the permittee may demonstrate a source other than the RCRA-regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. In such cases, the permittee shall perform the following actions:
  - a. Notify the Executive Director in writing within seven (7) days that the permittee intends to make a demonstration.
  - b. Within ninety (90) days, submit a report to the Executive Director which demonstrates that a source other than a RCRA-regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation.
  - d. Submit to the Executive Director an application for a permit amendment or modification and a compliance plan application to make any appropriate changes to the Detection Monitoring Program at the facility. The applications shall be submitted in accordance with Provision VI.E.1.d.
  - d. Continue to monitor ground water in accordance with the Detection Monitoring Program at the facility.

F. Revised Detection Monitoring Program

If the permittee or the Executive Director determines that the Detection Monitoring Program no longer satisfies the requirements of 30 TAC Section 335.164, the permittee must, within ninety (90) days of either the permittee's determination or Executive



[V.I.F Continued]

Director's notification, submit a permit amendment or modification request to make any appropriate changes to the Detection Monitoring Program which will satisfy the regulations.

G. Annual Detection Monitoring Reporting Requirements

The permittee shall submit an Annual Detection Monitoring Report which shall include the following information determined since the previously submitted report:

1. A statement whether an SSI has occurred over background values in any well during the previous calendar year period and the status of any SSI events.
2. The permittee shall include the results of all monitoring, testing, and analytical work obtained or prepared pursuant to the requirements of this permit, including a summary of background groundwater quality values, groundwater monitoring analyses, statistical calculations, graphs and drawings.
3. The groundwater flow rate and direction in the uppermost aquifer. The groundwater flow rate and direction of ground water flow shall be established using the data collected during the preceding calendar year's sampling events from the monitoring wells of the Detection Monitoring Program. The permittee shall also include in the report all documentation used to determine the groundwater flow rate and direction of ground water flow.
4. A contour map of piezometric water levels in the uppermost aquifer based at a minimum upon concurrent measurement in all monitoring wells. All data or documentation used to establish the contour map should be included in the report.
5. Recommendation for any changes.
6. Any other items requested by the Executive Director.

H. Record Keeping Requirements

1. The permittee shall enter all monitoring, testing, analytical, statistical test computation data in evaluating groundwater monitoring data, and inspection data obtained or prepared pursuant to the requirements of this permit, including graphs and drawings, in the operating record at the facility.
2. The operating record at the facility shall be made available for review by the staff of the Commission upon request.

I. Compliance Scheduling Requirements

The permittee shall complete the installation of all wells required by Table V.I.B.3.b. - Unit Groundwater Detection Monitoring System prior to waste disposal in the corresponding landfill cell(s) as outlined in the Part B Application, Attachment VI, which is incorporated into this permit through permit Provision I.B.

VII. CLOSURE AND POST-CLOSURE REQUIREMENTS

A. Facility Closure

1. The permittee shall follow the closure plan, developed in accordance with 40 CFR Part 264 Subpart G, and contained in the permit application submittals identified in Provision I.B. except as modified by this permit.

In addition, facility closure shall commence:

- a. Upon direction of the TCEQ for violation of the permit, TCEQ Rules, or State Statutes; or
  - b. Upon suspension, cancellation, or revocation of the terms and conditions of this permit concerning the authorization to receive, store, process, or dispose of waste materials; or
  - c. Upon abandonment of the site; or
  - d. Upon direction of the TCEQ for failure to secure and maintain an adequate bond or other financial assurance as required by Provision VII.B.1.
2. Request for Permit Modification or Amendment  
The permittee shall submit a written request for a permit modification or amendment to authorize a change in the approved Closure Plan, in accordance with 40 CFR 264.112 (c). The written request shall include a copy of the amended Closure Plan for approval by the Executive Director.
  3. Time Frames for Modification\Amendment Request Submittal  
The permittee shall submit a written request for a permit modification or amendment in accordance with the time frames in 40 CFR 264.112 (c)(3).
  4. Closure Notice and Certification Requirements
    - a. The permittee shall notify the Executive Director, in writing, at least sixty (60) days prior to the date on which he expects to begin partial or final closure of a surface impoundment, or landfill unit, or final closure of a facility with such a unit; or at least forty-five (45) days prior to the date on which he expects to begin partial or final closure of a facility with processing or storage tanks, container storage, or incinerator units; or at least forty-five (45) days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier. A copy of the notice shall be submitted to the TCEQ Regional Office.
    - b. The permittee shall notify the TCEQ Regional Office at least ten (10) days prior to any closure sampling activity required by the permit in



[VII.A.4.b Continued]

order to afford regional personnel the opportunity to observe these events and collect samples.

5. Unless the Executive Director approves an extension to the closure period, as per the requirements of 40 CFR 264.113(b), the permittee must complete partial and final closure activities within 180 days after receiving the final known volume of hazardous wastes at the hazardous waste management unit or facility.
6. As per the requirements of 40 CFR 264.115, within sixty (60) days of completion of closure of each permitted hazardous waste surface impoundment, or landfill unit, and within sixty (60) days of the completion of final closure, the permittee shall submit to the Executive Director, by registered mail, with a copy to the TCEQ Regional Office, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved Closure Plan and this permit. The certification, which shall be signed by the permittee and by an independent professional engineer licensed in Texas, must be in the form described in Provision II.A.6. A closure certification report shall be submitted with the required certifications which includes a summary of the activities conducted during closure and the results of all analyses performed. The certification report shall contain the information required by Provision II.A.6, and 30 TAC 350.32 (Texas Risk Reduction Program (TRRP) Remedy Standard A) and 30 TAC Section 350.33 (TRRP, Remedy Standard B) and 30 TAC Section 350.95 (Response Action Completion Report (RACR)). Documentation supporting the independent licensed professional engineer's certification shall be furnished to the Executive Director upon request until the Executive Director releases the permittee from the financial assurance requirements for closure under 40 CFR 264.143(i).
7. For each disposal unit closed after permit issuance, the permittee shall submit documentation to demonstrate compliance with 40 CFR 264.116 (relating to survey plat) and 264.119 (relating to post-closure notices). Documentation to demonstrate compliance with survey plat requirements must be submitted to the TCEQ at the time of submission of the certification of closure. Documentation to show compliance with post-closure notices must be submitted to the TCEQ no later than sixty (60) days after certification of closure.
8. Final closure is considered complete when all hazardous waste management units at the facility have been closed in accordance with all applicable closure requirements so that hazardous waste management activities under 40 CFR Part 264 and 265 are no longer conducted at the facility unless subject to the provisions in 40 CFR 262.34.
9. All units, sumps, pumps, piping and any other equipment or ancillary components which have come in contact with hazardous wastes shall either be decontaminated by removing all waste, waste residues, and sludges or be disposed of in a manner authorized at this facility or disposed of at an authorized off-site facility.



[VII.A. Continued]

10. All contaminated equipment/structures and liners (i.e., debris) intended for land disposal shall be treated in a manner which meets or exceeds the treatment standards for hazardous debris contained in 40 CFR 268.45 or removed and managed at an authorized industrial solid waste management facility. All contaminated dikes and soils intended for land disposal shall be treated in a manner which meets or exceeds the treatment standards for hazardous soils contained in 40 CFR 268.49 or removed and managed at an authorized industrial solid waste management facility.
11. All hard-surfaced areas within the hazardous waste management unit areas shall be decontaminated and the wash water generated treated and/or disposed in a manner authorized at this facility or at an authorized off-site facility.
12. Verification of decontamination shall be performed by analyzing wash water, and as necessary, soil samples for the hazardous constituents which have been in contact with the particular item being decontaminated. In addition, the permittee shall perform visual inspections of the equipment/structures for visible evidence of contamination.
13. Unless it can be demonstrated that soil contamination has not occurred, soils shall be sampled and analyzed. Sufficiently detailed analyses of samples representative of soils remaining in non-hard-surfaced areas of the storage and processing facility area shall be performed to verify removal or decontamination of all waste and waste residues.
14. Soil and/or wash-water samples shall be analyzed using laboratory methods specified in Provision II.B.1.b. Equivalent or modified methods must be specified in the Closure Plan and have written approval of the Executive Director prior to use. All data submitted to the TCEQ shall be in a manner consistent with the latest version of the TCEQ QAPP
15. Decontamination shall be deemed complete when no visible evidence of contamination is observed and when the results from verification sampling and analyses indicate wash water concentrations and/or soil concentrations are below the applicable critical Protective Concentration Level (PCL) for Remedy Standard A. If the underlying soils are decontaminated or removed to the PCL for Remedy Standard A, Commercial/Industrial Land use, the permittee shall comply with the institutional controls requirements of 30 TAC Section 350.111 as required.

B. Financial Assurance for Closure

1. The permittee shall provide financial assurance for closure of all existing permitted units covered by this permit in an amount not less than \$54,684,141 (2012 dollars) as shown on Table VII.E.1. - Permitted Unit Closure Cost Summary. Financial assurance shall be secured and maintained in compliance with 30 TAC Chapter 37, Subchapter P; and 335.179. Financial assurance is subject to the following:

[VII.B. Continued]

a. Adjustments to Financial Assurance Amount:

At least sixty (60) days prior to acceptance of waste in proposed permitted units listed in Table VII.E.1. - Permitted Unit Closure Cost Summary, the permittee shall provide the amount of financial assurance required for closure by the amounts listed in Table VII.E.1. and shall submit financial assurance documentation.

b. Annual Inflation Adjustments

Financial assurance for closure, including any adjustments after permit issuance, shall be corrected for inflation according to the methods described by 30 TAC Sections 37.131 and 37.141.

2. The permittee shall submit to the Executive Director, upon request, such information as may be required to determine the adequacy of the financial assurance.
3. The financial assurance for any closure or post-closure care activity required under this permit may be satisfied, in whole or in part, by the maintenance of financial assurance for that activity pursuant to the requirements of other permits and/or licenses issued by the TCEQ, upon demonstration of equivalency to the Executive Director by the Permittee. To demonstrate equivalency of financial assurance between this permit and any other permit or license, the permittee shall submit a written request for a permit modification or amendment to authorize a change in the approved financial assurance, in accordance with 30 TAC Section 305.69.

C. Storage and Processing Unit Closure Requirements

The permittee shall close the storage and processing units identified as TCEQ Permit Unit Nos. 1, 2 and 4 through 15 in accordance with the approved Closure Plans, 40 CFR Part 264, Subpart G, 40 CFR 264.178 (container storage), and the Texas Risk Reduction Program of 30 TAC Chapter 350.

D. Surface Impoundment Closure Requirements

Reserved

E. Landfill Closure and Certification Requirements

The permittee shall close the landfill identified as TCEQ Permit Unit No. 3 in accordance with the approved Closure Plan, 40 CFR Part 264, Subpart G, 40 CFR 264.310, TRRP Remedy Standard of 30 TAC Chapter 350 Subchapter B, 30 TAC Section 335.174, and the following requirements:

1. The permittee shall install the final cover according to the following procedures:
  - a. A minimum 3 foot thick layer of compacted clay meeting the



[VII.E.1.a Continued]

construction, material and compaction specifications of Provision V.G.3.b. This layer shall be sloped upwards from the perimeter of the landfill at greater than 2.0% and less than 5.0% to a crown in the center of each cell.

- b. A continuous layer of 60 mil HDPE geomembrane shall be installed on the compacted clay-rich soil cover and shall be secured in an anchor trench at the perimeter dikes. The installation of the geomembrane shall be in accordance with the applicable requirements of Provision V.G.3.c.
- c. A drainage layer consisting of a minimum 10 oz. geotextile overlying a 200-mil geonet shall be installed over the geomembrane. The geo-textile filter fabric shall be overlain by two feet of clean granular sand exhibiting a hydraulic conductivity of greater than  $1 \times 10^{-2}$  cm/sec.
- d. A layer of compacted redbed clay not less than eighteen (18) inches thick shall be placed over the sand layer. The redbed layer shall be compacted to 95% of standard proctor.
- e. A minimum 3 foot thick intruder barrier composed of caliche rock and fines shall be placed over the redbed clay. The barrier layer shall contain both fines, and caliche gravel from 4 to 12 inches in diameter.
- f. A minimum 4 foot thick evapotranspiration cover shall be installed over the intruder barrier. The evapotranspiration cover shall consist of a 1 foot thick graded gravelly sand overlain by a 2 foot thick native fine material overlain by a 1 foot thick topsoil. The topsoil shall be seeded with a mixture of persistent native grasses to establish a self-sustaining vegetative cover.
- e. For the topsoil layer, thickness determinations at a rate of at least one (1) determination shall be made by appropriate surveying techniques per every 10,000 square feet of topsoil placed.
- f. The permittee shall install a permanent benchmark at each corner of all closed landfill cells at the site within six (6) months after closure.
- g. Within sixty (60) days of certification of closure of the landfill, the permittee shall submit to the Executive Director documentation demonstrating compliance with 40 CFR 264.119, pertaining to deed recordation.
- h. Within sixty (60) days of completion of closure of the landfill unit, the permittee shall submit to the Executive Director a closure certification report, as specified in Provisions VII.A.6 and VII.E., for the cells not previously certified as closed. The final certification report for closure of the landfill unit shall provide any additional information as required in 40 CFR 264 Subpart G and by Provision VII.E., and shall state that the landfill has been closed in accordance with the specifications in the



[VII.E.1.h Continued]

approved closure plan as required by 40 CFR Section 264.115. The closure certification report shall address the technical requirements specified in 30 TAC Section 350.95 for RACR, as applicable.

2. After completion of the final cover for a landfill cell, the permittee shall submit certification of proper construction of the cap in accordance with Provision II.A.6. Each final cover certification shall be accompanied by a certification report which contains the results of all tests performed to verify proper construction. The permittee shall conduct whatever tests, inspections, or measurements are necessary in the judgement of the professional engineer for the engineer to certify that the landfill cap has been constructed in conformance with the design and construction specifications of this permit. The certification report shall, at a minimum, contain the following engineering plans and test results:
  - a. Scaled plan-view and east-west and north-south cross-sections which accurately depict the area boundaries and dimensions of the cover; surrounding natural ground surface elevations; minimum, maximum, and representative elevations of the base on which the interim cover was placed; minimum, maximum, and representative elevations of the upper surface of the interim and final covers; thickness, extent, and materials of component parts of the cover system.
  - b. All observations tests, and analyses required to ensure that the installation has been completed with the terms of this permit and the incorporated design plans.

F. Containment Buildings Closure Requirements

Reserved

G. Facility Post-Closure Care Requirements

For each hazardous waste management unit which is closed as a landfill, the permittee shall conduct post-closure care of the unit for a period of at least thirty (30) years after certification of closure of each respective unit. The post-closure period for each closed unit is specified in Table VII.G - Post-Closure Period. Post-closure care shall be performed in accordance with the Post-Closure Plans referenced in Provision I.B., 40 CFR 264.117, and the following requirements:

1. Maintain all storm water conveyance structures in good functional condition.
2. Maintain the cover on the closed landfill, as applicable, such that the cover promotes drainage, prevents ponding, minimizes surface water infiltration, and minimizes erosion of the cover. Any desiccation cracks, erosion, gullyng, or other damage shall be repaired upon observance.
3. Maintain a self-sustaining vegetative cover on the capped areas by periodic seeding, fertilizing, irrigation, and/or mowing.

[VII.G Continued]

4. Maintain all benchmarks at the facility.
5. Maintain the facility perimeter fence, manned or locked gates, and warning signs in good functional condition.
6. Ensure that all entrances to the facility have manned or locked gates.
7. Ensure that the TCEQ has access to the facility.
8. Prepare and submit the Biennial Report required by Provision II.B.7.
9. Perform all ground-water monitoring and related activities specified in Provision VI.A.1. of the permit.
10. The permittee shall collect and remove pumpable liquids in the leak detection system sumps to minimize the head on the bottom of the liner.
11. All liquids removed from the leak detection systems shall be managed as hazardous waste.
12. The permittee shall maintain a record of the amount of liquids removed from each leak detection system sump at least monthly during the post-closure period.
13. The permittee may record the amount of liquids removed from each leak detection system sump quarterly or semi-annually during the post-closure period, after the final cover is installed, provided that the liquid level in the sump stays below the pump operating level for two (2) consecutive months or quarters, respectively.
14. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the permittee shall return to monthly recording of amounts of liquids removed from each leak detection system sump until the liquid level again stays below the pump operating level for two (2) consecutive months.
15. The permittee shall determine if the action leakage rate has been exceeded by converting the monthly flow rate from the monitoring data obtained under Provision VII.G.12. to an average daily flow rate (gallons per acre per day) for each sump. The permittee shall calculate the average daily flow rate for each sump on a monthly basis during the post-closure care period.
16. If the action leakage rate is exceeded at any time during the post-closure period, the permittee shall perform the following minimum activities:
  - a. Notify the Executive Director in writing of the exceedence within seven (7) days of the determination;
  - b. Submit a preliminary written assessment to the Executive Director within fourteen (14) days of the determination, as to the amount of liquids,

[VII.G.16.b Continued]

likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

- c. Determine to the extent practicable the location, size, and cause of any leak;
  - d. Determine whether any waste should be removed from the unit for inspection, repairs, or controls;
  - e. Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and
  - g. Within thirty (30) days after the notification that the action leakage rate has been exceeded, submit to the Executive Director the results of the evaluations specified in Provisions VII.G.16.c., d., and e., the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the permittee shall submit to the Executive Director a report summarizing the results of any remedial actions taken and actions planned.
17. To make the leak and/or remediation determinations in Provisions VII.G.17.c., d., and f., the permittee shall:
- a. Assess the source of liquids and amounts of liquids by source;
  - b. Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and
  - c. Assess the seriousness of any leaks in terms of potential for escaping into the environment; or
  - d. Document why such assessments are not needed.

18. General Post-Closure Requirements

Request for Permit Modification or Amendment

The permittee shall submit a written request for a permit modification or amendment to authorize a change in the approved Post-Closure Plan(s) in accordance with 40 CFR 264.118 (d)(2). The written request shall include a copy of the amended Post-Closure Plan(s) for approval by the Executive Director.

Time Frames for Modification/Amendment Request

The permittee shall submit a written request for a permit modification or



[VII.G Continued]

amendment in accordance with the time frames in 40 CFR 264.118 (d)(3).

19. Post-Closure Notice and Certification Requirements

No later than sixty (60) days after completion of the established post-closure period for each unit, the owner or operator shall submit to the Executive Director, by registered mail with a copy to the TCEQ Regional Office, a certification that the post-closure period for the unit was performed in accordance with the specifications of the approved Post-Closure Plan and this permit. The certification shall be signed by the permittee and a registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Executive Director upon request until the Executive Director releases the owner or operator from the financial assurance requirements for post-closure under 40 CFR 264.145 (i).

H. Financial Assurance for Post-Closure

1. The permittee shall provide financial assurance for post-closure care of all existing units required by this permit in an amount not less than \$50,713,170 (2007 dollars) as shown on Table VII.E.2. - Permitted Unit Post Closure Cost

Summary. Financial assurance shall be secured and maintained in compliance with 30 TAC Chapter 37, Subchapter P and 30 TAC 335.152.

a. Adjustment to Financial Assurance Amount

At least sixty (60) days prior to management of waste in proposed permitted units listed in Table VII.E.2. - Permitted Unit Post-Closure Cost Summary, the permittee shall increase the amount of financial assurance required for post-closure by the amounts listed in Table VII.E.2. - Permitted Unit Post-Closure Cost Summary and shall submit additional financial assurance documentation.

b. Inflation Factor Correction

During the active life of the facility, financial assurance for post-closure care (including adjustments after permit issuance) shall be corrected for inflation according to the methods described by 30 TAC 37.131 and 37.141.

2. The permittee shall submit to the Executive Director, upon request, such information as may be required to determine the adequacy of the financial assurance.

VIII. LIABILITY REQUIREMENTS

A. Sudden and Nonsudden Accidental Occurrences

1. The permittee shall demonstrate continuous compliance with the requirements of

[VII. Continued]

30 TAC Chapter 37, 30 TAC Section 335.152(a)(6) and Subchapter P to maintain liability coverage for sudden and accidental occurrences of at least \$1 million per occurrence, with an annual aggregate of at least \$2 million, exclusive of legal defense costs.

2. The permittee also shall demonstrate continuous compliance with the 30 TAC Chapter 37, 30 TAC Section 335.152(a)(6) and Subchapter P requirements to have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least \$3 million per occurrence, with an annual aggregate of at least \$6 million, exclusive of legal defense costs.
3. The permittee may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences shall maintain liability coverage in the amount of at least \$4 million per occurrence and \$8 million annual aggregate.

B. Incapacity of Owners or Operators, Guarantors, or Financial Institutions

The permittee shall comply with 30 TAC Section 37.71, regarding bankruptcy, whenever necessary.

IX. CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS

A. Notification of Release From Solid Waste Management Unit  
(Texas Health and Safety Code, Section 361.303)

If a solid waste management unit (SWMU) or area of contamination, or any release of hazardous waste or hazardous constituents that may have occurred from any SWMU and/or Area of Concern (AOC), is discovered subsequent to issuance of this permit, the permittee shall notify the Executive Director in writing within fifteen (15) days of the discovery. Within forty-five (45) days of such discovery, the permittee shall submit an RFA for that unit or release which shall be based on EPA's RCRA Facility Assessment Guidance, October 1986, NTIS PB 87-107769. If the RFA indicates a release or suspected release warrants further investigation, the permittee shall comply with the requirements of Provision IX.B. of this permit.

B. Corrective Action Obligations

The permittee shall conduct corrective action as necessary to protect human health and the environment for all releases of hazardous waste and hazardous constituents from any SWMU. The permittee shall fulfill this obligation by conducting a Corrective Action Program which consists of a RCRA Facility Investigation (RFI) of the unit/area identified. The permittee shall conduct a RFI to determine whether hazardous waste or hazardous constituents listed in Appendix VIII have been released to into the environment. Upon completion of the RFI the permittee shall submit to the TCEQ either



## [IX.B Continued]

a demonstration that no release occurred or an APAR showing the vertical and lateral nature and extent of the release. If it is determined that hazardous waste or hazardous constituents have been or are being released into the environment, then the permittee may be required to implement those activities listed in the RAP to protect human health and the environment. Upon completion of the RAP implementation the permittee must submit to the TCEQ, a Response Action Effectiveness Report (RAER) which details the activity that will be taken to remove, decontaminate and/or control chemicals of concern (COC) which may be present at the facility in excess of critical PCLs in the environmental media. The report shall include actions taken in response to releases to environmental media from waste a management unit(s) before, during, or after closure. Upon Executive Director's review of the Corrective Action Program obligations, the permittee may be required to perform any or all of the following:

1. conduct investigation(s);
2. provide additional information;
3. conduct additional investigation(s);
4. investigate an additional unit(s);
5. proceed to the next task in the Corrective Action Program and/or;
6. submit an application for a new compliance plan or modification to an existing compliance plan to implement corrective measures.

Any additional requirements must be completed within the time frame(s) specified by the Executive Director.

C. Units Requiring Investigation

Reserved

D. Variance from Investigation

The permittee may elect to certify that no hazardous waste or hazardous constituents listed in 40 CFR Part 261, Appendix VIII and/or 40 CFR Part 264, Appendix IX are or were present/managed in a unit listed in Provision IX.C. in lieu of performing the investigation required in Provisions IX.B. and E., provided that confirming data is submitted for the current and past waste(s) managed in the respective unit. The permittee shall submit such information and certification(s) on a unit-by-unit basis in the time frame required in Provision IX.E. for review and approval by the Executive Director of the TCEQ. If the permittee cannot demonstrate and certify that hazardous waste or hazardous constituents are not or were not present in a particular unit, the investigation required in Provisions IX.B. and E. shall be performed for the unit.

E. RCRA Facility Investigation (RFI)

Within sixty (60) days from the date of issuance of this permit the permittee shall submit a schedule for completion of the RFI(s) for the SWMU(s) or AOC listed in Provision IX.C. to the Executive Director for approval. Also, within sixty (60) days of approval of a RFA Report which recommends further investigation of a SWMU(s) or AOC in accordance with Provision IX.A., the permittee shall submit a schedule for completion of the RFI(s) to the Executive Director for approval. The permittee shall initiate the



[IX.E Continued]

investigations in accordance with the approved schedule and shall address all of the items for RFI Workplans and RFI Reports contained in U.S. EPA publication EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994. If the permittee elects to use an alternate investigation approach, Executive Director approval of the workplan will be required prior to initiation of investigation(s). The results of the RFI must be submitted to the Executive Director for approval within the time frame established in the approved schedule either as a demonstration that no release occurred or in the form of an APAR. The APAR must document results of the investigation(s). The report shall be considered complete when the full nature and extent of the contamination, Quality Assurance/Quality Control procedures and Data Quality Objectives are documented to the satisfaction of the Executive Director.

F. Response Action Plan

Upon approval of the activities outlined in the APAR, if it is determined that there has been a release into the environment of hazardous waste or hazardous constituents listed in 40 CFR Part 261, Appendix VIII and/or 40 CFR Part 264 Appendix IX, which appears to be a risk to human health and the environment, then within the time frame(s) specified by the Executive Director following approval of the APAR, the permittee shall submit a RAP. This plan shall evaluate the risk, identify and evaluate corrective measure alternatives and recommend appropriate corrective measure(s) to protect human health and the environment. The RAP shall address all of the applicable items in 30 TAC 350 Subchapter B and Subchapter E and the U.S. EPA publication EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994.

1. Response Action Completion Report (RACR)

The permittee shall submit a RAP within the time frame required by the Executive Director, not to exceed 180 days from the date of approval of the APAR. The RAP shall address all of the items for Corrective Measures Implementation (CMI) Workplans contained in the U.S. EPA publication EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994. If the RAP does not propose a permanent remedy, then a RAP shall be submitted as part of a new compliance plan application or as a modification/amendment application to an existing compliance plan. The RAP shall contain detailed final engineering design and monitoring plans and schedules necessary to implement the selected remedy. Implementation of the corrective measures shall be addressed through a new and/or a modified/amended compliance plan. Upon installation of a corrective action system based upon the approved RAP, the permittee shall submit a RACR. Approval of the RACR places the SWMU in a status of conditional No Further Action, reflecting that the remedy is in place, controls must be maintained, and effectiveness must be monitored. To report the progress of the corrective measures, the permittee shall submit the Post-Response Action Care Report (PRACR) to the TCEQ in accordance with the schedule specified in the compliance plan to show the progress of actions taken.

G. Compliance Plan

Reserved

X. AIR EMISSION STANDARDS

A. Process Vents and Equipment Leaks

1. Emissions from this facility must not cause or contribute to a condition of "air pollution" as defined in Section 382.003 of the Texas Health and Code Ann. or violate Section 382.085 of the Texas Health and Safety Code Ann. If the Executive Director of the TCEQ determines that such a condition or violation occurs, the permittee shall implement additional abatement measures as necessary to control or prevent the condition or violation.
2. Requirements for Subparts AA and BB
  - a. The permittee must comply with the requirements of 30 TAC Section 335.152(a)(17)/40 CFR Part 264 Subpart AA and 30 TAC Section 335.152(a)(18)/40 CFR Part 264 Subpart BB, as applicable.
  - c. The permittee shall include in the Biennial Report, required in Provision II.B.7., a statement that hazardous waste management units or associated ancillary equipment at this facility are not subject to any of the requirements in Provision X.A.2.a., if these requirements are not applicable to any hazardous waste management units or associated ancillary equipment at this facility. If at any time any hazardous waste management units or associated ancillary equipment become subject to the requirements in Provision X.A.2.a., the permittee must immediately comply with these requirements.
3. Requirements for Subpart CC

The permittee must comply with the requirements of 40 CFR Part 264 Subpart CC, as applicable.

XI. COMPLIANCE PLAN

Reserved



**TABLE III.D. - INSPECTION SCHEDULE**

<b><i>Facility Unit(s) and Basic Elements</i></b>	<b><i>Possible Error, Malfunction, or Deterioration</i></b>	<b><i>Frequency of Inspection</i></b>
<b>GENERAL INSPECTION (ACTIVE FACILITY) – SECURITY DEVICES</b>		
Perimeter Fence	<ul style="list-style-type: none"> <li>• Check for breaches and damage</li> </ul>	Monthly
Gates	<ul style="list-style-type: none"> <li>• Check for damage</li> <li>• Check for proper operation</li> <li>• Check for presence and function of locking mechanism</li> </ul>	Weekly
Perimeter Warning Signs	<ul style="list-style-type: none"> <li>• Check for presence and legibility of warning signs</li> </ul>	Monthly
Exterior Lighting	<ul style="list-style-type: none"> <li>• Check for proper function</li> </ul>	Weekly
<b>GENERAL INSPECTION (POST-CLOSURE) – SECURITY DEVICES</b>		
Perimeter Fence	<ul style="list-style-type: none"> <li>• Check for breaches and damage</li> </ul>	Semiannually
Gates	<ul style="list-style-type: none"> <li>• Check for damage</li> <li>• Check for proper operation</li> <li>• Check for presence and function of locking mechanism</li> </ul>	Semiannually
Perimeter Warning Signs	<ul style="list-style-type: none"> <li>• Check for presence and legibility of warning signs</li> </ul>	Semiannually
<b>GENERAL INSPECTION (ACTIVE FACILITY) – ENVIRONMENTAL MONITORING SYSTEMS</b>		
Groundwater Monitoring Wells	<ul style="list-style-type: none"> <li>• Check integrity of pad and subgrade</li> <li>• Check protective casing</li> <li>• Presence of label</li> <li>• Presence/proper function of cap and lock</li> <li>• Evidence of damage or instability</li> <li>• Check well casing</li> <li>• Presence of cap</li> <li>• Evidence of damage or instability</li> </ul>	Semiannually

**TABLE III.D. - INSPECTION SCHEDULE  
(Continued)**

<b><i>Facility Unit(s) and Basic Elements</i></b>	<b><i>Possible Error, Malfunction, or Deterioration</i></b>	<b><i>Frequency of Inspection</i></b>
<b>GENERAL INSPECTION (POST-CLOSURE) – ENVIRONMENTAL MONITORING SYSTEMS</b>		
Groundwater Monitoring Wells	<ul style="list-style-type: none"> <li>• Check integrity of pad and subgrade</li> <li>• Check protective casing</li> <li>• Presence of label</li> <li>• Presence/proper function of cap and lock</li> <li>• Evidence of damage or instability</li> <li>• Check well casing</li> <li>• Presence of cap</li> <li>• Evidence of damage or instability</li> </ul>	Semiannually
<b>GENERAL INSPECTION (ACTIVE FACILITY) – SAFETY AND EMERGENCY EQUIPMENT</b>		
Protective Clothing Designated for Emergency Use	<input type="checkbox"/> Check for adequate supply <input type="checkbox"/> Check accessibility <input type="checkbox"/> Check for deterioration/damage	Monthly or after each use
Breathing Apparatus	<input type="checkbox"/> Check for adequate supply <input type="checkbox"/> Check accessibility <input type="checkbox"/> Check for deterioration/damage <input type="checkbox"/> Check for function	Monthly or after each use
First Aid Kits	<input type="checkbox"/> Check for adequate supply <input type="checkbox"/> Check accessibility	Monthly or after each use
Emergency Showers and Eye Wash Stations	<input type="checkbox"/> Check that units activate and shut off properly <input type="checkbox"/> Check water pressure <input type="checkbox"/> Check accessibility	Monthly
Alarm Systems	<input type="checkbox"/> Check accessibility <input type="checkbox"/> Activate alarm (power/battery failure/function)	Monthly
Internal (2-way radio) and External (phone) Communications Systems	<input type="checkbox"/> Check accessibility <input type="checkbox"/> Check operation	Monthly



**TABLE III.D. - INSPECTION SCHEDULE  
(Continued)**

<b><i>Facility Unit(s) and Basic Elements</i></b>	<b><i>Possible Error, Malfunction, or Deterioration</i></b>	<b><i>Frequency of Inspection</i></b>
Fire Extinguishers	<input type="checkbox"/> Check pressure gauge for full charge indication <input type="checkbox"/> Check inspection tag to ensure annual maintenance by qualified inspection service is up-to-date <input type="checkbox"/> Check seal to ensure that no one has used extinguisher <input type="checkbox"/> Check accessibility	Monthly or after each use
Spill Control Supplies (shovels, brooms, booms, etc.) and Kits	<input type="checkbox"/> Check for adequate supply <input type="checkbox"/> Check accessibility <input type="checkbox"/> Check for deterioration/damage	Monthly or after each use
Absorbent Supply	<input type="checkbox"/> Check for adequate supply	Monthly or after each use
Empty Containers and Canisters	<input type="checkbox"/> Check for adequate supply	Monthly
Other Safety and Emergency Equipment	<input type="checkbox"/> Check for adequate supply <input type="checkbox"/> Check accessibility <input type="checkbox"/> Check for deterioration/damage <input type="checkbox"/> Check proper operation	Monthly
Emergency Information List	<input type="checkbox"/> Check current information <input type="checkbox"/> Check for posting at each phone	Monthly
Facility Warning Signs (No Smoking, Authorized Personnel Only, etc.)	<input type="checkbox"/> Check for presence and legibility	Monthly
<b>RECEIVING AND ADMINISTRATIVE AREA (ACTIVE FACILITY)</b>		
Truck Scales	<input type="checkbox"/> Check for evidence of spills, leaks, or other releases	Daily when in use
Receiving and Demurrage Areas	<input type="checkbox"/> Check for evidence of spills, leaks, or other releases <input type="checkbox"/> Check for secure tarps, lids or other closure devices <input type="checkbox"/> Check for storm water on tarps • Check for transport truck leaks or other damage that could impede area operations (e.g., flat tires)	Daily when in use

**TABLE III.D. - INSPECTION SCHEDULE  
(Continued)**

<b><i>Facility Unit(s) and Basic Elements</i></b>	<b><i>Possible Error, Malfunction, or Deterioration</i></b>	<b><i>Frequency of Inspection</i></b>
<b>STAGING AND DECONTAMINATION BUILDINGS (ACTIVE FACILITY)</b>		
Bulk Container Staging Building and Waste Staging Building	<ul style="list-style-type: none"> <li>• Check for evidence of spills, leaks, or other releases</li> <li>• Check for secure lids or other closure devices</li> <li>• Check for integrity of floor, curbing, and sump</li> <li>• Check for adequacy of aisle space for container inspection and equipment movement</li> <li>• Check for liquids or other materials within containment</li> </ul>	Daily when in use
Decontamination Building	<ul style="list-style-type: none"> <li>• Check for evidence of spills, leaks, or other releases</li> <li>• Check for integrity of floor, curbing, and sump</li> <li>• Check for liquids or other materials within containment</li> </ul>	Daily when in use
<b>FWF CONTACT WATER AND FWF WASTEWATER TREATMENT PLANT TANK SYSTEMS (ACTIVE FACILITY)</b>		
Contact Water Tank Systems (5) WWTP Tank System (8)	<ul style="list-style-type: none"> <li>• Check for evidence of spills, leaks, or other releases</li> <li>• Check for corrosion or other visible deterioration of tank shells</li> <li>• Check liquid level in each tank</li> <li>• Check condition of tank coating or paint</li> </ul>	Once each operating day Once each operating day Once each operating day Once each operating day

**TABLE III.D. - INSPECTION SCHEDULE  
(Continued)**

<b><i>Facility Unit(s) and Basic Elements</i></b>	<b><i>Possible Error, Malfunction, or Deterioration</i></b>	<b><i>Frequency of Inspection</i></b>
Pumps, Piping, Valves and Other Ancillary Components	<ul style="list-style-type: none"><li>• Check for evidence of spills, leaks, or other releases</li><li>• Check that loading/unloading lines are properly capped when not in use</li><li>• Check that valves that would allow direct, gravity drainage of tanks are closed and secured</li><li>• Check for corrosion or other visible deterioration of equipment and evidence of excessive wear</li><li>• Check condition of coatings or paints</li></ul>	Once each operating day Once each operating day Once each operating day  Once each operating day Weekly
Double walled conveyance pipe to surface impoundment	<ul style="list-style-type: none"><li>• Check for evidence of spills, leaks, or other releases</li></ul>	Weekly
Secondary Containment Structure	<ul style="list-style-type: none"><li>• Check for integrity of containment floor, walls, and sump</li><li>• Check for liquids or other materials within containment or sump</li></ul>	Once each operating day Once each operating day



**TABLE III.D. - INSPECTION SCHEDULE  
(Continued)**

<b>LANDFILL INSPECTION (ACTIVE FACILITY)</b>		
Run-On And Run-Off Control Systems	<input type="checkbox"/> Check run-on diversion berms for erosion and ditches for siltation and debris <input type="checkbox"/> Check landfill cells for accumulation of storm water <input type="checkbox"/> Check intercell berms for integrity	Weekly and after storm events
Cover Systems	<input type="checkbox"/> Check interim cover for erosion, deterioration, or dust dispersal <input type="checkbox"/> Check final cover for erosion, deterioration, and condition of vegetative cover	Weekly and after storm events
Wind Dispersal Control	<input type="checkbox"/> Check for evidence of waste or dust dispersal	Weekly
Leachate Collection System	<input type="checkbox"/> Check for presence and level of liquid in risers <input type="checkbox"/> Check condition of risers <input type="checkbox"/> Check pump and level alarm function <input type="checkbox"/> Check integrity of temporary accumulation vessel(s)	At least weekly and after storm events

<b>Facility Unit(s) and Basic Elements</b>	<b>Possible Error, Malfunction, or Deterioration</b>	<b>Frequency of Inspection</b>
Leak Detection System	<input type="checkbox"/> Check for presence and level of liquid in risers <input type="checkbox"/> Check condition of risers <input type="checkbox"/> Check pump function <input type="checkbox"/> Check integrity of temporary accumulation containers	At least weekly
<b>LANDFILL INSPECTION – (POST-CLOSURE)</b>		
Cover Systems	<input type="checkbox"/> Check final cover for erosion, grade and continuity of cobblestones and natural vegetation; check for indications of ponding (pooled water, soft areas, etc.)	Semiannually and after major storm events
Leachate Collection System	<input type="checkbox"/> Check for presence and level of liquid in risers <input type="checkbox"/> Check condition of risers	At least monthly
Leak Detection System	<input type="checkbox"/> Check for presence and level of liquid in risers <input type="checkbox"/> Check condition of risers	In accordance with 40 CFR §264.303(c)(2) <sup>1</sup>

**TABLE III.D. - INSPECTION SCHEDULE  
(Continued)**

<b><i>Facility Unit(s) and Basic Elements</i></b>	<b><i>Possible Error, Malfunction, or Deterioration</i></b>	<b><i>Frequency of Inspection</i></b>
Benchmarks	<input type="checkbox"/> Check for damage  <input type="checkbox"/> Check for validity	Semiannually and during any general inspection  Every 5 years

Initially, the leak detection system will be inspected at least monthly. If the liquid level in the riser stays below the portable, submersible pump operating level for two consecutive months, the inspection frequency will be reduced and inspections will be conducted at least quarterly. If the liquid level in the riser stays below the pump operating level for two consecutive quarters, the inspection frequency will be reduced to at least semiannually. If the pump operating level in a riser is exceeded during a quarterly or semiannual inspection, the inspection frequency of that riser will be increased to at least monthly until the liquid level again stays below the pump operating level for two consecutive months.



**TABLE III.E.3. - EMERGENCY EQUIPMENT**

<i>Equipment</i>	<i>Location</i>	<i>Physical Description</i>	<i>Capabilities</i>
Protective Clothing	Various locations throughout the facility	Personal Protective Equipment appropriate for the conditions	Protection in hazardous environments
Air-Purifying Respirators	Various locations as required throughout the facility	Respirators and equipment for hazardous atmospheres	Respiratory protection in hazardous areas
Supplied Air Respirators	Various locations as required throughout the facility	Respirators with supplied air lines	Respiratory protection in hazardous areas
Self-Contained Breathing Apparatus	Various locations as required throughout the facility	Supplied-air respiratory protection device with air tank	Respiratory protection in hazardous areas
Emergency Shower and Eyewash	Various locations throughout the facility	Water supply station for prompt personal decontamination	Water removal of contaminants
First Aid Kit	Various locations throughout the facility	Supplies for minor injury treatment	Prompt care for minor injuries
2-Way Radios	With personnel throughout the facility	Hand-held, battery-operated radios	Internal communications for emergency situations
Telephone System	Various locations throughout the facility	Fixed and mobile phones	Internal and external communications for emergency situations
Emergency Lighting	Various locations throughout the facility, when needed	Battery generator backup lighting	Illumination in an area during emergency conditions
Plant-Wide Alarm System	Activated in Guard House	Audible Alarm	Audible warning in an emergency
Emergency Water Supply and Fire Hoses	Various operational areas except landfill	Pumped water from on-site supply	Fire suppression, cooling, decontamination
Fire Extinguishers	Various operational areas, office buildings; and other areas	Fire extinguishers appropriate for the combustion source	Fire suppression
Sprinkler systems/Hydrants	In operational buildings as required by NFPA	Fire water delivery	Fire suppression
Spill Control Equipment	Various locations throughout the facility	Shovels, brooms, etc.	Containment and control of released materials
Empty Containers	Various locations throughout the facility	Clean, 55-gallon drums and lids	Containment of released materials and spill cleanup wastes
Absorbent Materials	Various locations as required throughout the facility	Dry absorbent media, spill booms, etc.	Containment and control of spilled materials
Portable Pump	Emergency Response Vehicle	Fuel-powered, portable pump	Liquid and sludge removal
Portable Generator	Emergency Response Trailer	Fuel-powered, portable generator	Back-up power supply



TABLE IV.B. WASTES MANAGED IN PERMITTED UNITS

No.	Waste	EPA Hazardous Waste Numbers <sup>1,2,3</sup>										TCEQ Waste Form Codes and Classification Codes <sup>1</sup>
1	Mixed Waste Generated Off-Site Suitable for Disposal (consists of mixed waste meeting disposal criteria) <sup>2</sup>	D001	D002	D003 <sup>4</sup>	D004	D005	D006	D007	D008	D009	D010	<p>Classification Codes: H, 1, and 2 Form Codes: Lab Packs: (001, 002, 003, 004, 009); Inorganic Solids: (301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 319, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399); Organic Solids: (401, 402, 403, 404, 405, 406, 407, 409, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499)</p>
		D011	D012	D013	D014	D015	D016	D017	D018	D019	D020	
		D021	D022	D023	D024	D025	D026	D027	D028	D029	D030	
		D031	D032	D033	D034	D035	D036	D037	D038	D039	D040	
		D041	D042	D043	F001	F002	F003	F004	F005	F006	F007	
		F008	F009	F010	F011	F012	F019	F024	F025	F028	F032	
		F034	F035	F037	F038	F039	K001	K002	K003	K004	K005	
		K006	K007	K008	K009	K010	K011	K013	K014	K015	K016	
		K017	K018	K019	K020	K021	K022	K023	K024	K025	K026	
		K027	K028	K029	K030	K031	K032	K033	K034	K035	K036	
		K037	K038	K039	K040	K041	K042	K043	K044 <sup>4</sup>	K045 <sup>4</sup>	K046	
		K047 <sup>4</sup>	K048	K049	K050	K051	K052	K060	K061	K062	K069	
		K071	K073	K083	K084	K085	K086	K087	K088	K093	K094	
		K095	K096	K097	K098	K099	K100	K101	K102	K103	K104	
		K105	K106	K107	K108	K109	K110	K111	K112	K113	K114	
		K115	K116	K117	K118	K123	K124	K125	K126	K131	K132	
		K136	K141	K142	K143	K144	K145	K147	K148	K149	K150	
		K151	K156	K157	K158	K159	K161	K169	K170	K171	K172	
		K174	K178	P001	P002	P003	P004	P005	P006	P007	P008	
		P009 <sup>4</sup>	P010	P011	P012	P013	P014	P015	P016	P017	P018	
		P020	P021	P022	P023	P024	P026	P027	P028	P029	P030	
		P031	P033	P034	P036	P037	P038	P039	P040	P041	P042	
		P043	P044	P045	P046	P047	P048	P049	P050	P051	P054	
		P056	P057	P058	P059	P060	P062	P063	P064	P065	P066	
		P067	P068	P069	P070	P071	P072	P073	P074	P075	P076 <sup>5</sup>	
		P077	P078 <sup>5</sup>	P081 <sup>4</sup>	P082	P084	P085	P087	P088	P089	P092	
		P093	P094	P095	P096	P097	P098	P099	P101	P102	P103	
		P104	P105	P106	P108	P109	P110	P111	P112 <sup>4</sup>	P113	P114	
		P115	P116	P118	P119	P120	P121	P122	P123	P127	P128	
		P185	P188	P189	P190	P191	P192	P194	P196	P197	P198	
		P199	P201	P202	P203	P204	P205	U001	U002	U003	U004	
		U005	U006	U007	U008	U009	U010	U011	U012	U014	U015	
		U016	U017	U018	U019	U020	U021	U022	U023	U024	U025	
		U026	U027	U028	U029	U030	U031	U032	U033	U034	U035	
		U036	U037	U038	U039	U041	U042	U043	U044	U045	U046	
		U047	U048	U049	U050	U051	U052	U053	U055	U056	U057	
		U058	U059	U060	U061	U062	U063	U064	U066	U067	U068	
		U069	U070	U071	U072	U073	U074	U075	U076	U077	U078	
		U079	U080	U081	U082	U083	U084	U085	U086	U087	U088	
		U089	U090	U091	U092	U093	U094	U095	U096 <sup>4</sup>	U097	U098	
		U099	U101	U102	U103	U105	U106	U107	U108	U109	U110	
		U111	U112	U113	U114	U115	U116	U117	U118	U119	U120	
		U121	U122	U123	U124	U125	U126	U127	U128	U129	U130	
		U131	U132	U133 <sup>4</sup>	U134	U135	U136	U137	U138	U140	U141	
		U142	U143	U144	U145	U146	U147	U148	U149	U150	U151	
		U152	U153	U154	U155	U156	U157	U158	U159	U160 <sup>4</sup>	U161	
		U162	U163	U164	U165	U166	U167	U168	U169	U170	U171	
		U172	U173	U174	U175	U176	U177	U178	U179	U180	U181	
		U182	U183	U184	U185	U186	U187	U188	U189	U190	U191	
		U192	U193	U194	U196	U197	U200	U201	U202	U203	U204	
		U205	U206	U207	U208	U209	U210	U211	U213	U214	U215	
		U216	U217	U218	U219	U220	U221	U222	U223	U225	U226	
		U227	U228	U234 <sup>4</sup>	U235	U236	U237	U238	U239	U240	U243	
		U244	U246	U247	U248	U249	U271	U277	U278	U279	U280	
		U328	U353	U359	U364	U367	U372	U373	U387	U389	U394	
		U395	U404	U409	U410	U411						

TABLE IV.B. WASTES MANAGED IN PERMITTED UNITS - continued

No.	Waste	EPA Hazardous Waste Numbers <sup>1,2,3</sup>										TCEQ Waste Form Codes and Classification Codes <sup>4</sup>
2	Site-Generated Mixed Waste Suitable for Onsite Disposal (consists of mixed waste meeting disposal criteria) <sup>6</sup>	F010 F037 K008 K019 K029 K039 K049 K083 K097 K107 K117 K142 K157 P001 P011 P022 P034 P045 P058 P069 P081 <sup>4</sup> P095 P106 P118 P189 P202 U007 U018 U028 U038 U049 U060 U071 U081 U091 U102 U113 U123 U133 <sup>4</sup> U144 U154 U164 U174 U184 U194 U207 U218 U234 <sup>4</sup> U247 U359 U409	F001 F011 F038 K009 K020 K030 K040 K050 K084 K098 K108 K118 K143 K158 P002 P012 P023 P036 P046 P059 P070 P082 P096 P108 P119 P190 P203 U008 U019 U029 U039 U049 U061 U072 U082 U092 U103 U114 U124 U134 U145 U155 U165 U175 U185 U196 U208 U219 U235 U248 U364 U410	F002 F012 F039 K010 K021 K031 K041 K051 K085 K099 K109 K123 K144 K159 P003 P013 P024 P037 P048 P060 P071 P084 P097 P109 P120 P191 P204 U009 U020 U030 U041 U050 U062 U073 U083 U093 U105 U115 U125 U135 U146 U156 U166 U176 U186 U197 U209 U220 U236 U249 U367 U411	F003 F019 K001 K011 K022 K032 K042 K052 K086 K100 K110 K124 K145 K161 P004 P014 P026 P038 P049 P062 P072 P085 P098 P110 P121 P192 P205 U010 U021 U031 U042 U052 U063 U074 U084 U094 U106 U116 U126 U136 U147 U157 U167 U177 U187 U200 U221 U237 U271 U372 U411	F004 F024 K002 K013 K023 K033 K043 K060 K087 K101 K111 K125 K147 K169 P005 P015 P027 P039 P049 P063 P073 P087 P099 P111 P122 P194 U001 U011 U022 U032 U043 U053 U064 U075 U085 U095 U107 U117 U127 U137 U148 U158 U168 U178 U188 U201 U222 U238 U277 U373 U411	F005 F025 K003 K014 K024 K034 K044 <sup>4</sup> K061 K088 K102 K112 K126 K148 K170 P006 P016 P028 P040 P050 P064 P074 P088 P101 P112 <sup>4</sup> P123 P196 U002 U012 U023 U033 U044 U055 U066 U076 U086 U096 <sup>4</sup> U108 U118 U128 U138 U149 U159 U169 U179 U189 U202 U223 U239 U278 U387 U411	F006 F028 K004 K015 K025 K035 K045 <sup>4</sup> K062 K093 K103 K113 K131 K149 K171 P007 P017 P029 P041 P051 P065 P075 P089 P102 P113 P127 P197 U003 U014 U024 U034 U045 U056 U067 U077 U087 U097 U109 U119 U129 U139 U150 U160 <sup>4</sup> U170 U180 U190 U203 U224 U240 U279 U389 U411	F007 F032 K005 K016 K026 K036 K046 K069 K094 K104 K114 K132 K150 K172 P008 P018 P030 P042 P054 P066 P076 <sup>5</sup> P092 P103 P114 P128 P198 U004 U015 U025 U035 U046 U057 U068 U078 U088 U098 U110 U120 U130 U141 U151 U161 U171 U181 U191 U204 U225 U243 U280 U394 U411	F008 F034 K006 K017 K027 K037 K047 <sup>4</sup> K071 K095 K105 K115 K136 K151 K174 P009 <sup>4</sup> P020 P031 P043 P056 P067 P077 P093 P104 P115 P185 P199 U005 U016 U026 U036 U047 U058 U069 U079 U089 U099 U111 U121 U131 U142 U152 U162 U172 U182 U192 U205 U226 U244 U328 U395 U404	F009 F035 K007 K018 K028 K038 K048 K073 K096 K106 K116 K141 K156 K178 P010 P021 P033 P044 P057 P068 P078 <sup>5</sup> P094 P105 P116 P188 P201 U006 U017 U027 U037 U048 U059 U070 U080 U090 U101 U112 U122 U132 U143 U153 U163 U173 U183 U193 U206 U217 U228 U246 U353 U404	Classification Codes: H, 1, and 2 Form Codes: Lab Packs: (001, 002, 003, 004, 009); Inorganic Solids: (301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 319, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399); Organic Solids: (401, 402, 403, 404, 405, 406, 407, 409, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499)



TABLE IV.B. WASTES MANAGED IN PERMITTED UNITS - continued

No.	Waste	EPA Hazardous Waste Numbers <sup>1,2,3</sup>										TCEQ Waste Form Codes and Classification Codes <sup>1</sup>
3	Site-Generated Mixed Waste Not Suitable for Onsite Disposal <sup>6</sup>	F010	F001	F002	F003	F004	F005	F006	F007	F008	F009	Classification Codes: H, 1, and 2 Form Codes: Inorganic Liquids: (101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 113, 114, 116, 119) Organic Liquids: (201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 219, 296, 297) Inorganic Sludges: (519, 598) Organic Sludges (608, 609, 698)
		F037	F011	F012	F019	F024	F025	F028	F032	F034	F035	
		K008	F038	F039	K001	K002	K003	K004	K005	K006	K007	
		K019	K009	K010	K011	K013	K014	K015	K016	K017	K018	
		K029	K020	K021	K022	K023	K024	K025	K026	K027	K028	
		K039	K030	K031	K032	K033	K034	K035	K036	K037	K038	
		K049	K040	K041	K042	K043	K044 <sup>4</sup>	K045 <sup>4</sup>	K046	K047 <sup>4</sup>	K048	
		K083	K050	K051	K052	K060	K061	K062	K069	K071	K073	
		K097	K084	K085	K086	K087	K088	K093	K094	K095	K096	
		K107	K098	K099	K100	K101	K102	K103	K104	K105	K106	
		K117	K108	K109	K110	K111	K112	K113	K114	K115	K116	
		K142	K118	K123	K124	K125	K126	K131	K132	K136	K141	
		K157	K143	K144	K145	K147	K148	K149	K150	K151	K156	
		P001	K158	K159	K161	K169	K170	K171	K172	K174	K178	
		P011	P002	P003	P004	P005	P006	P007	P008	P009 <sup>4</sup>	P010	
		P022	P012	P013	P014	P015	P016	P017	P018	P020	P021	
		P034	P023	P024	P026	P027	P028	P029	P030	P031	P033	
		P045	P036	P037	P038	P039	P040	P041	P042	P043	P044	
		P058	P046	P047	P048	P049	P050	P051	P054	P056	P057	
		P069	P059	P060	P062	P063	P064	P065	P066	P067	P068	
		P081 <sup>4</sup>	P070	P071	P072	P073	P074	P075	P076 <sup>5</sup>	P077	P078 <sup>5</sup>	
		P095	P082	P084	P085	P087	P088	P089	P092	P093	P094	
		P106	P096	P097	P098	P099	P101	P102	P103	P104	P105	
		P118	P108	P109	P110	P111	P112 <sup>4</sup>	P113	P114	P115	P116	
		P189	P119	P120	P121	P122	P123	P127	P128	P185	P188	
		P202	P190	P191	P192	P194	P196	P197	P198	P199	P201	
		U007	P203	P204	P205	U001	U002	U003	U004	U005	U006	
		U018	U008	U009	U010	U011	U012	U014	U015	U016	U017	
		U028	U019	U020	U021	U022	U023	U024	U025	U026	U027	
		U038	U029	U030	U031	U032	U033	U034	U035	U036	U037	
		U049	U039	U041	U042	U043	U044	U045	U046	U047	U048	
		U060	U050	U051	U052	U053	U055	U056	U057	U058	U059	
		U071	U061	U062	U063	U064	U066	U067	U068	U069	U070	
		U081	U072	U073	U074	U075	U076	U077	U078	U079	U080	
		U091	U082	U083	U084	U085	U086	U087	U088	U089	U090	
		U102	U092	U093	U094	U095	U096 <sup>4</sup>	U097	U098	U099	U101	
		U113	U103	U105	U106	U107	U108	U109	U110	U111	U112	
		U123	U114	U115	U116	U117	U118	U119	U120	U121	U122	
		U133 <sup>4</sup>	U123	U124	U125	U126	U127	U128	U129	U130	U131	
		U144	U134	U135	U136	U137	U138	U140	U141	U142	U143	
		U154	U145	U146	U147	U148	U149	U150	U151	U152	U153	
		U164	U155	U156	U157	U158	U159	U160 <sup>4</sup>	U161	U162	U163	
		U174	U165	U166	U167	U168	U169	U170	U171	U172	U173	
		U184	U175	U176	U177	U178	U179	U180	U181	U182	U183	
		U194	U185	U186	U187	U188	U189	U190	U191	U192	U193	
		U207	U196	U197	U200	U201	U202	U203	U204	U205	U206	
		U218	U208	U209	U210	U211	U213	U214	U215	U216	U217	
		U234 <sup>4</sup>	U219	U220	U221	U222	U223	U225	U226	U227	U228	
		U247	U235	U236	U237	U238	U239	U240	U243	U244	U246	
		U359	U248	U249	U271	U277	U278	U279	U280	U328	U353	
		U409	U364	U367	U372	U373	U387	U389	U394	U395	U404	
			U410	U411								

TABLE IV.B. WASTES MANAGED IN PERMITTED UNITS - continued

No.	Waste	EPA Hazardous Waste Numbers <sup>1,2,3</sup>										TCEQ Waste Form Codes and Classification Codes <sup>1</sup>
4	Mixed Waste Generated Off-Site Suitable for Macroencapsulation / Disposal (consists of mixed waste that meets disposal criteria upon macroencapsulation)	D001	D002	D003 <sup>4</sup>	D004	D005	D006	D007	D008	D009	D010	<p>Classification Codes: H Form Codes: Lab Packs: (001, 002, 003, 004, 009); Inorganic Solids: (301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 319, 388); Organic Solids: (401, 402, 403, 404, 405, 406, 407, 409, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499).</p>
		D011	D012	D013	D014	D015	D016	D017	D018	D019	D020	
		D021	D022	D023	D024	D025	D026	D027	D028	D029	D030	
		D031	D032	D033	D034	D035	D036	D037	D038	D039	D040	
		D041	D042	D043	F001	F002	F003	F004	F005	F006	F007	
		F008	F009	F010	F011	F012	F019	F024	F025	F028	F032	
		F034	F035	F037	F038	F039	K001	K002	K003	K004	K005	
		K006	K007	K008	K009	K010	K011	K013	K014	K015	K016	
		K017	K018	K019	K020	K021	K022	K023	K024	K025	K026	
		K027	K028	K029	K030	K031	K032	K033	K034	K035	K036	
		K037	K038	K039	K040	K041	K042	K043	K044 <sup>4</sup>	K045 <sup>4</sup>	K046	
		K047 <sup>4</sup>	K048	K049	K050	K051	K052	K060	K061	K062	K069	
		K071	K073	K083	K084	K085	K086	K087	K088	K093	K094	
		K095	K096	K097	K098	K099	K100	K101	K102	K103	K104	
		K105	K106	K107	K108	K109	K110	K111	K112	K113	K114	
		K115	K116	K117	K118	K123	K124	K125	K126	K131	K132	
		K136	K141	K142	K143	K144	K145	K147	K148	K149	K150	
		K151	K156	K157	K158	K159	K161	K169	K170	K171	K172	
		K174	K178	P001	P002	P003	P004	P005	P006	P007	P008	
		P009 <sup>4</sup>	P010	P011	P012	P013	P014	P015	P016	P017	P018	
		P020	P021	P022	P023	P024	P026	P027	P028	P029	P030	
		P031	P033	P034	P036	P037	P038	P039	P040	P041	P042	
		P043	P044	P045	P046	P047	P048	P049	P050	P051	P054	
		P056	P057	P058	P059	P060	P062	P063	P064	P065	P066	
		P067	P068	P069	P070	P071	P072	P073	P074	P075	P076 <sup>5</sup>	
		P077	P078 <sup>5</sup>	P081 <sup>4</sup>	P082	P084	P085	P087	P088	P089	P092	
		P093	P094	P095	P096	P097	P098	P099	P101	P102	P103	
		P104	P105	P106	P108	P109	P110	P111	P112 <sup>4</sup>	P113	P114	
		P115	P116	P118	P119	P120	P121	P122	P123	P127	P128	
		P185	P188	P189	P190	P191	P192	P194	P196	P197	P198	
		P199	P201	P202	P203	P204	P205	U001	U002	U003	U004	
		U005	U006	U007	U008	U009	U010	U011	U012	U014	U015	
		U016	U017	U018	U019	U020	U021	U022	U023	U024	U025	
		U026	U027	U028	U029	U030	U031	U032	U033	U034	U035	
		U036	U037	U038	U039	U041	U042	U043	U044	U045	U046	
		U047	U048	U049	U050	U051	U052	U053	U055	U056	U057	
		U058	U059	U060	U061	U062	U063	U064	U066	U067	U068	
		U069	U070	U071	U072	U073	U074	U075	U076	U077	U078	
		U079	U080	U081	U082	U083	U084	U085	U086	U087	U088	
		U089	U090	U091	U092	U093	U094	U095	U096 <sup>4</sup>	U097	U098	
		U099	U101	U102	U103	U105	U106	U107	U108	U109	U110	
		U111	U112	U113	U114	U115	U116	U117	U118	U119	U120	
		U121	U122	U123	U124	U125	U126	U127	U128	U129	U130	
		U131	U132	U133 <sup>4</sup>	U134	U135	U136	U137	U138	U140	U141	
		U142	U143	U144	U145	U146	U147	U148	U149	U150	U151	
		U152	U153	U154	U155	U156	U157	U158	U159	U160 <sup>4</sup>	U161	
		U162	U163	U164	U165	U166	U167	U168	U169	U170	U171	
		U172	U173	U174	U175	U176	U177	U178	U179	U180	U181	
		U182	U183	U184	U185	U186	U187	U188	U189	U190	U191	
		U192	U193	U194	U196	U197	U200	U201	U202	U203	U204	
		U205	U206	U207	U208	U209	U210	U211	U213	U214	U215	
		U216	U217	U218	U219	U220	U221	U222	U223	U225	U226	
		U227	U228	U234 <sup>4</sup>	U235	U236	U237	U238	U239	U240	U243	
		U244	U246	U247	U248	U249	U271	U277	U278	U279	U280	
		U328	U353	U359	U364	U367	U372	U373	U387	U389	U394	
		U395	U404	U409	U410	U411						

**TABLE IV.B. WASTES MANAGED IN PERMITTED UNITS - continued**

No.	Waste	EPA Hazardous Waste Numbers <sup>1,2,3</sup>										TCEQ Waste Form Codes and Classification Codes <sup>1</sup>
5	Mixed Waste Generated Off-Site Suitable for Macroencapsulation / Disposal (consists of mixed waste that meets disposal criteria upon macroencapsulation)	F001	F002	F003	F004	F005	F006	F007	F008	F009	Classification Codes: H Form Codes: Lab Packs: (001, 002, 003, 004, 009); Inorganic Solids: (301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 319, 388); Organic Solids: (401, 402, 403, 404, 405, 406, 407, 409, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499)	
		F010	F011	F012	F019	F024	F025	F028	F032	F034		F035
		F037	F038	F039	K001	K002	K003	K004	K005	K006		K007
		K008	K009	K010	K011	K013	K014	K015	K016	K017		K018
		K019	K020	K021	K022	K023	K024	K025	K026	K027		K028
		K029	K030	K031	K032	K033	K034	K035	K036	K037		K038
		K039	K040	K041	K042	K043	K044 <sup>4</sup>	K045 <sup>4</sup>	K046	K047 <sup>4</sup>		K048
		K049	K050	K051	K052	K060	K061	K062	K069	K071		K073
		K083	K084	K085	K086	K087	K088	K093	K094	K095		K096
		K097	K098	K099	K100	K101	K102	K103	K104	K105		K106
		K107	K108	K109	K110	K111	K112	K113	K114	K115		K116
		K117	K118	K123	K124	K125	K126	K131	K132	K136		K141
		K142	K143	K144	K145	K147	K148	K149	K150	K151		K156
		K157	K158	K159	K161	K169	K170	K171	K172	K174		K178
		P001	P002	P003	P004	P005	P006	P007	P008	P009 <sup>4</sup>		P010
		P011	P012	P013	P014	P015	P016	P017	P018	P020		P021
		P022	P023	P024	P026	P027	P028	P029	P030	P031		P033
		P034	P036	P037	P038	P039	P040	P041	P042	P043		P044
		P045	P046	P047	P048	P049	P050	P051	P054	P056		P057
		P058	P059	P060	P062	P063	P064	P065	P066	P067		P068
		P069	P070	P071	P072	P073	P074	P075	P076 <sup>5</sup>	P077		P078 <sup>5</sup>
		P081 <sup>4</sup>	P082	P084	P085	P087	P088	P089	P092	P093		P094
		P095	P096	P097	P098	P099	P101	P102	P103	P104		P105
		P106	P108	P109	P110	P111	P112 <sup>4</sup>	P113	P114	P115		P116
		P118	P119	P120	P121	P122	P123	P127	P128	P185		P188
		P189	P190	P191	P192	P194	P196	P197	P198	P199		P201
		P202	P203	P204	P205	U001	U002	U003	U004	U005		U006
		U007	U008	U009	U010	U011	U012	U014	U015	U016		U017
		U018	U019	U020	U021	U022	U023	U024	U025	U026		U027
		U028	U029	U030	U031	U032	U033	U034	U035	U036		U037
		U038	U039	U041	U042	U043	U044	U045	U046	U047		U048
		U049	U050	U051	U052	U053	U055	U056	U057	U058		U059
		U060	U061	U062	U063	U064	U066	U067	U068	U069		U070
		U071	U072	U073	U074	U075	U076	U077	U078	U079		U080
		U081	U082	U083	U084	U085	U086	U087	U088	U089		U090
		U091	U092	U093	U094	U095	U096 <sup>4</sup>	U097	U098	U099		U101
		U102	U103	U105	U106	U107	U108	U109	U110	U111		U112
		U113	U114	U115	U116	U117	U118	U119	U120	U121		U122
		U123	U124	U125	U126	U127	U128	U129	U130	U131		U132
		U133 <sup>4</sup>	U134	U135	U136	U137	U138	U140	U141	U142		U143
		U144	U145	U146	U147	U148	U149	U150	U151	U152		U153
		U154	U155	U156	U157	U158	U159	U160 <sup>4</sup>	U161	U162		U163
		U164	U165	U166	U167	U168	U169	U170	U171	U172		U173
		U174	U175	U176	U177	U178	U179	U180	U181	U182		U183
		U184	U185	U186	U187	U188	U189	U190	U191	U192		U193
		U194	U196	U197	U200	U201	U202	U203	U204	U205		U206
		U207	U208	U209	U210	U211	U213	U214	U215	U216		U217
		U218	U219	U220	U221	U222	U223	U225	U226	U227		U228
		U234 <sup>4</sup>	U235	U236	U237	U238	U239	U240	U243	U244		U246
		U247	U248	U249	U271	U277	U278	U279	U280	U328		U353
		U359	U364	U367	U372	U373	U387	U389	U394	U395		U404
		U409	U410	U411								

<sup>1</sup> Hazardous waste codes, TCEQ Waste Form Codes and TCEQ Classification Codes identified in this table are derived from the codes in existence on January 20, 2005.

<sup>2</sup> Mixed wastes from off-site sources may carry any of the codes listed. Excluding waste that will be treated by WCS via macroencapsulation, the waste will have been treated elsewhere to achieve the applicable treatment standard(s) (or it may meet the standard without treatment) prior to receipt at WCS.



**TABLE IV.B. WASTES MANAGED IN PERMITTED UNITS - continued**

- <sup>3</sup> Wastes that exhibit the characteristic of an ignitable, reactive, and/or corrosive waste are acceptable only if they have been treated to remove such characteristic(s). Excluding waste that will be treated by WCS via macroencapsulation, all applicable underlying hazardous constituents must be treated in accordance with 40 CFR Part 268.40 or meet alternate treatment standards as allowed under 40 CFR Part 268 prior to receipt.
- <sup>4</sup> No wastes that are explosive as defined in 40 CFR §261.23(a)(6), (7), or (8) are acceptable. Wastes bearing the noted waste codes are acceptable if they are not explosive as defined in the cited regulations.
- <sup>5</sup> Waste in a gaseous form will not be accepted unless it is packaged at an absolute pressure that does not exceed 1.5 atm at 20 degrees C.
- <sup>6</sup> On-site generated wastes may carry any of the codes listed, based on the codes associated with the off-site waste from which the on-site waste was generated.

**TABLE IV.C. SAMPLING AND ANALYTICAL METHODS**

<i>Waste No.</i>	<i>Sample Type</i>	<i>Sampling Location</i>	<i>Sampling Method<sup>2</sup></i>	<i>Frequency<sup>1</sup></i>	<i>Parameter<sup>1,2</sup></i>	<i>Test Method<sup>2</sup></i>	<i>Desired Accuracy Level</i>
<b>1</b> LLRW (not a solid waste)	Pre- Shipment Sample	Generator's Site	Scoop, trier, shovel	Once prior to waste stream approval and each time a profile is recertified.	40 CFR Part 261 (D001-D043)	per SW-846	Per SW-846
					Free Liquids – Paint Filter Test	SW-846 9095A	Results match profile (must pass paint filter)
					pH Screen	ASTM D 4980 or equivalent	Std + 1.0 Standard unit (S.U.)
					Water Reactivity	ASTM D 5058C or equivalent	Results match profile
					Flammability Potential	ASTM D 4982 or equivalent	Duplicate samples must have same reaction
					Cyanide Screen	ASTM D 5059 or equivalent	Duplicate samples must have same reaction
					Sulfides Screen	ASTM D 4978 or equivalent	Duplicate samples must have same reaction
					Density	ASTM D 5057 or equivalent	Duplicate samples must have same reaction
					Soil Classification (soil and soil-like wastes only)	ASTM D2488/ AASHTO M145 or equivalent	Soils cannot be classified as Types A-6 or A-7
<b>1</b> LLMW (hazardous)	Pre- shipment Sample	Generator's Site	Scoop, trier, shovel	Once prior to waste stream approval and each time a profile is recertified.	Applicable 40 CFR Part 268 requirements	Per SW-846	Per SW-846
					Free Liquids – Paint Filter Test	SW-846 9095A	Results match profile (must pass paint filter)
					pH Screen	ASTM D 4980 or equivalent	Std + 1.0 Standard unit (S.U.)

<i>Waste No.</i>	<i>Sample Type</i>	<i>Sampling Location</i>	<i>Sampling Method<sup>2</sup></i>	<i>Frequency<sup>1</sup></i>	<i>Parameter<sup>1,2</sup></i>	<i>Test Method<sup>2</sup></i>	<i>Desired Accuracy Level</i>
1 LLMW (hazardous), continued					Water Reactivity	ASTM D 5058C or equivalent	Results match profile
					Flammability Potential	ASTM D 4982 or equivalent	Duplicate samples must have same reaction
					Cyanide Screen	ASTM D 5059 or equivalent	Duplicate samples must have same reaction
					Sulfides Screen	ASTM D 4978 or equivalent	Duplicate samples must have same reaction
					Density	ASTM D 5057 or equivalent	Duplicate samples must have same reaction
					Soil Classification (soil and soil-like wastes only)	ASTM D2488/ AASHTO M145 or equivalent	Soils cannot be classified as Types A-6 or A-7
1 (LLRW and LLMW)	Shipment Verification Sample	Container Staging Building	Scoop, trier, shovel	Grab sample of first 10 containers (minimum) and 10% of containers thereafter for all wastes that are subject to intrusive verification sampling and analysis (see WAP Table 2.1)	Free Liquids – Paint Filter Test	SW-846 9095A	Results match profile
					pH Screen	ASTM D 4980 or equivalent	Std + 1.0 Standard unit (S.U.)
					Water Reactivity	ASTM D 5058C or equivalent	Results match profile
					Flammability Potential	ASTM D 4982 or equivalent	Duplicate samples must have same reaction
					Cyanide Screen	ASTM D 5059 or equivalent	Duplicate samples must have same reaction
					Sulfides Screen	ASTM D 4978 or equivalent	Duplicate samples must have same reaction
					Density	ASTM D 5057 or equivalent	Duplicate samples must have same reaction



<i>Waste No.</i>	<i>Sample Type</i>	<i>Sampling Location</i>	<i>Sampling Method<sup>2</sup></i>	<i>Frequency<sup>1</sup></i>	<i>Parameter<sup>1,2</sup></i>	<i>Test Method<sup>2</sup></i>	<i>Desired Accuracy Level</i>
					Soil Classification (soil and soil-like wastes only)	<u>ASTM D2488/</u> <u>AASHTO</u> <u>M145 or</u> <u>equivalent</u>	Soils cannot be classified as Types A-6 or A-7

<sup>1</sup> See WAP for additional information.

<sup>2</sup> See WAP for additional procedures and methods.

**NOTE:** Waste Nos. 2 and 3 are not shown above because they are on-site generated wastes that are typically characterized by knowledge of the wastes with which they have come into contact; no sampling and analyses are routinely performed on these wastes. However, leachate and other contact water will be treated in a future wastewater treatment plant to be located on-site; sampling and analyses of the treated effluent will be conducted in accordance with applicable license and water quality permit requirements. Waste Nos. 4 and 5 are not shown above because the waste form is not amenable to sampling and the treatment standard of macroencapsulation is a performance based standard.

**TABLE V.B - CONTAINER STORAGE AREAS**

<b>No.*</b>	<b>Container Storage Area</b>	<b>N.O.R. Unit #</b>	<b>Rated Capacity</b>	<b>Dimensions</b>	<b>Containment Volume (including rainfall for unenclosed areas)</b>	<b>Unit will manage Ignitable,<sup>1</sup> Reactive,<sup>1</sup> or Incompatible<sup>2</sup> Waste (state all that apply)</b>
1	FWF Waste Staging Building	03	22,140 cubic feet	60 feet x 152.33 feet (plus sampling room of 23 feet x 25 feet)	No liquid based on WAC (& enclosed building) <sup>3,4</sup>	Incompatible wastes are properly segregated
2	FWF Bulk Container Staging Building	02	35,110 cubic feet	58.33 feet x 450 feet (plus unloading area of 20 feet by 150 feet)	No liquid based on WAC (& enclosed building) <sup>3,4</sup>	Incompatible wastes are properly segregated

<sup>1</sup>Containers managing ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

<sup>2</sup>Incompatible waste must be separated from other waste or materials stored nearby in other containers, piles, open tanks, or surface impoundments by means of a dike, berm, wall, or other device.

\* If the unit is already permitted, use the established "Permit Unit No." If the unit is not yet permitted, the number given here for the unit will become the "Permit Unit No." The numbers should be in an order that will be convenient for the facility operator.

<sup>3</sup>Non-liquid waste based on WAC; however, portable spill containment devices (temporary) are provided as indicated in the Container Storage Unit Engineering Report.

<sup>4</sup>A minimum of 9,749 cubic feet of permanent containment volume is provided for the FWF Bulk Container Staging Building. For the FWF Waste Staging Building, 1,960 cubic feet (minimum) of permanent containment volume is provided. Refer to footnote number 3, above. Note that the raised staging area and the sampling room are not included in the minimum containment calculation for the Container Staging Building.

Table V.C. - Tanks and Tank Systems

Permit Unit No.	Tank	N.O.R. No.	Storage and/or Processing	Waste Nos. <sup>1</sup>	Rated Capacity	Dimensions	Containment Volume (including rainfall for unenclosed areas)	Unit will manage Ignitable, Reactive, or Incompatible Waste (state all that apply)
004	FWF Contact Water Tank 1	004	Storage and Processing	3	500,000 gallons	60'D X 24'H	785,450 gallons	No
005	FWF Contact Water Tank 2	004	Storage and Processing	3	500,000 gallons	60'D X 24'H	785,450 gallons	No
006	FWF Contact Water Tank 3	004	Storage and Processing	3	500,000 gallons	60'D X 24'H	785,450 gallons	No
007	FWF Contact Water Tank 4	006	Storage and Processing	3	500,000 gallons	60'D X 24'H	692,580 gallons	No
008	FWF Contact Water Tank 5	006	Storage and Processing	3	500,000 gallons	60'D X 24'H	692,580 gallons	No
009	FWF WWTP Reaction Tank 1	005	Storage and Processing	3	1,000 gallons	5'D x 7.5'H	7,135 gallons	No
010	FWF WWTP Reaction Tank 2	005	Storage and Processing	3	1,000 gallons	5'D x 7.5'H	7,135 gallons	No
011	FWF WWTP Concentration Tank	005	Storage and Processing	3	1,700 gallons	6'D x 8'H	7,135 gallons	No
012	FWF WWTP Cleaning Tank 1	005	Storage and Processing	3	500 gallons	4'W x 6'L x 3' H	7,135 gallons	No
013	FWF WWTP Cleaning Tank 2	005	Storage and Processing	3	500 gallons	4'W x 6'L x 3' H	7,135 gallons	No



Table V.C. - Tanks and Tank Systems - continued

Permit Unit No.	Tank	N.O.R. No.	Storage and/or Processing	Waste Nos. <sup>1</sup>	Rated Capacity	Dimensions	Containment Volume (including rainfall for unenclosed areas)	Unit will manage Ignitable, Reactive, or Incompatible Waste (state all that apply)
014	FWF WWTP Neutralization Tank	005	Storage and Processing	3	1,500 gallons	6'D x 7.17'H	7,135 gallons	No
015	FWF WWTP Discharge Collection Tank	005	Storage and Processing	3	500 gallons	4'D x 5.52'H	7,135 gallons	No

<sup>1</sup>from Table IV.B, first column

**TABLE V.G.1. - LANDFILLS**

List the landfills covered by this application. List the waste managed in each unit and the rated capacity or size of the unit.

<i>No.*</i>	<i>Landfill</i>	<i>N.O.R. Unit #</i>	<i>Waste No.s<sup>1</sup></i>	<i>Rated Capacity</i>	<i>Dimensions</i>	<i>Distance from lowest liner to groundwater</i>	<i>Action Leakage Rate (if required)<sup>2</sup></i>	<i>Unit will manage Ignitable, Reactive, Incompatible, or F020, F021, F022, F023, F026, and F027 Waste (state all that apply)</i>
01	Federal Waste Facility Landfill	3	1 thru 4	4,000,000 cu. yds.	<b>Non-Canister Disposal Area (lined area):</b> 550 ft (east/west), 1,130 ft (north/south); max. waste thickness: 70 ft. <b>Canister Disposal Area (lined area):</b> 1,280 ft (north/south), 720 ft (north/south), 1,130 ft (east/west); max. waste thickness: 77 ft. <b>Depth from Finished Grade to Bottom of Waste:</b> 105-115 ft.	59 feet	3,310 gpad (landfill floor) and 3,260 gpad (landfill sidewalls) <sup>3</sup>	Incompatible wastes are properly segregated

<sup>1</sup>from Table IV.B, first column

<sup>2</sup>If not required in accordance with 40 CFR 264.302, state "NOT REQUIRED."

\* If the unit is already permitted, use the established "Permit Unit No." If the unit is not yet permitted, the number given here for the unit will become the "Permit Unit No." The numbers should be in an order that will be convenient for the facility operator.

<sup>3</sup> ALR is calculated as documented in Appendix F.2 of Attachment V.G.

**TABLE V.G.3. - LANDFILL LINER SYSTEM**

No. *	Landfill	Primary Liner			Secondary Liner			Clay Liner		
		Material	Permeability (cm/sec)	Thickness	Material	Permeability (cm/sec)	Thickness	Material	Permeability (cm/sec)	Thickness
3	Federal Waste Facility Landfill	HDPE	$2.7 \times 10^{-13}$	60 mil	HDPE	$2.7 \times 10^{-13}$	60 mil	Dockum Red Bed	$\leq 1 \times 10^{-7}$	3 feet

\* This number should match the Permit Unit No. given on Table V.G.1.