

**TYPE V MUNICIPAL SOLID WASTE FACILITY  
TCEQ MSW PERMIT 2069**

**WASTE ACCEPTANCE and ANALYSIS PLAN**

for

**LIQUID ENVIRONMENTAL SOLUTIONS OF TEXAS, LLC**

**Dallas Facility  
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RN103002713**

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**WASTE ACCEPTANCE and ANALYSIS PLAN  
TYPE V PERMIT APPLICATION**

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## **1. INTRODUCTION**

Liquid Environmental Solutions of Texas, LLC (LES) is in the business of processing certain non-hazardous liquid wastes. The LES Dallas Facility processes grease trap/food-related and grit trap waste streams. The facility is designed to separate and process the waste streams received into recyclable components, water suitable for discharge into the sanitary sewer system and solid materials for appropriate disposal. The acceptance and processing of these wastes requires a Type V Municipal Solid Waste (MSW) permit.

The purpose of this major permit amendment is to increase the monthly grease trap/food-related waste permitted capacity from 2.4 million gallons per month to 4.8 million gallons per month. This amendment request is supported by an engineering evaluation of the grease trap treatment facility capacity performed by Brown and Caldwell. A Technical Memorandum describing this evaluation is included as Attachment SDP-1 to the Site Development Plan. LES is also requesting the following amendments to the permit:

- Addition of a second shaker screen to the grease trap treatment process. This additional shaker screen will facilitate the requested grease trap/food-related waste receipts increase.
- Addition of a grinder pump with a capacity up to 350 gpm to facilitate the processing of grease trap and food-related wastes with large solids or high solids content. This improvement is planned for the future and LES proposes to notify the Texas Commission on Environmental Quality (TCEQ) prior to placing a grinder pump in service.
- Removal of special provisions that have historically been associated with this permit. These permit documents have been prepared to address all applicable regulatory requirements.
- Addition of authorization to accept food-related wastes which are Class 2 industrial solid wastes. LES has determined that these wastes, which include solids-laden liquid wastes from food manufacturing facilities, can be effectively processed through the existing LES treatment system.

The original MSW permit application for Permit 2069, currently owned and operated by LES, was submitted on June 1, 1987. Since that time, there have been a total of fourteen revisions to the permit documents which constitute the permit, as indicated in the following Table W-1. The Site Operating Plan (SOP) underwent a major reorganization in the November 27, 2006 revision to comply with extensive new regulatory requirements.

Date	Site Development Plan (SDP)	Site Operating Plan (SOP)	Waste Acceptance and Analysis Plan (WAAP)	Permit Edition
6/1/1987	Original	-	-	Original
3/30/1988	Revision 1	-	-	Revision 1
3/19/1989	Revision 2	-	-	Revision 2
May 1991	-	Original (Old)	-	Revision 3
September 1991	-	Revision 1	-	Revision 4
5/18/1999	Revision 3	-	-	Revision 5
8/24/2003	Revision 4	Revision 2	Original	Revision 6 <sup>A</sup>
2/2/2004	Revision 5	Revision 3	Revision 1	Revision 7
6/25/2004	Revision 6	Revision 4	Revision 2	Revision 8
2/1/2005	Revision 7	Revision 5	-	Revision 9
4/5/2005	Revision 8	Revision 6	-	Revision 10
8/5/2005	Revision 9	Revision 7	-	Revision 11
11/27/2006	-	Original (New)	-	Revision 12
6/8/2007	-	Revision 1	-	Revision 13
5/30/2008	Revision 10	Revision 2	Revision 3	Revision 14

**Notes:**

A. Date for SDP is 8/24/2003, date for SOP and WAAP is 8/25/2003.

**Table W-1: Revision history for MSW Permit No. 2069.**

This permit document submittal represents a major reorganization of the previous permit documents. The documents have been reorganized to better align with the corresponding regulatory requirements. Where applicable, regulatory citations are noted. With the concurrence of the TCEQ, these documents are being submitted as clean copies without markups.

This Waste Acceptance and Analysis Plan (WAAP) addresses regulatory requirements presented in Title 30, Texas Administrative Code (TAC), Chapter 330, Sections 61 and 203. Included as part of this plan are LES policies governing Waste Acceptance and Analysis Procedures (Attachment 1). This Plan and the corresponding attachment provide a comprehensive discussion of the facility management and testing procedures for the wastes that will be processed at the facility. The facility will only accept wastes which are compatible with the production of liquid effluent that can safely be disposed into the City of Dallas sanitary sewer and solids that can be hauled offsite for beneficial reuse or disposal in a municipal solid waste landfill. Discharges to the sanitary sewer shall be in compliance with the facility's pre-treatment permit and applicable federal, state, and local regulations.

**2. SOURCES AND CHARACTERISTICS OF WASTES (330.61 (b), 330.203 (a))**

The LES Dallas Facility accepts three categories of non-hazardous wastes: grease trap wastes, Class 2 Industrial solids (food-related) wastes, and grit trap (and related) wastes. All other types of wastes are prohibited for processing or disposal at the facility. Detailed waste acceptance

procedures are described in Attachment 1. Management controls described in Attachment 1 have been developed to prevent acceptance of unauthorized wastes for processing.

### **Grease Trap and Food-Related Wastes**

LES will accept and process non-hazardous grease trap and Class 2 Industrial food-related wastes from: restaurants, food preparation facilities, other food-related industries and other sources, serviced by its own and independent third-party vacuum trucks. Since the municipal and commercial businesses that transport grease trap waste to LES do not normally generate waste streams that contain any hazardous constituents, it is very unlikely hazardous waste will be contained in this waste. All waste will be documented using an appropriate trip ticket/manifest.

Grease trap waste and food-related wastes are composed of food grease, trash, food particles and/or water. Pollutant concentrations are extremely variable, depending upon, among other factors, the generator, the size of the trap and the frequency with which the trap is pumped. In most cases, the wastes contain floating matter made up primarily of animal and vegetable grease and oil, settled food particles, and wastewater containing large amounts of dissolved and suspended food matter. The wastes are typically characterized by high levels of BOD and TSS (both 5,000 mg/L+) and are acidic, with pH levels generally in the 4.0 to 5.0 range.

### **Grit Trap Wastes**

LES will accept and process non-hazardous grit trap/lint trap waste from car washes, garages, laundries, service stations, repair and maintenance shops, transport firms, car dealerships, and similar generators serviced by its own and independent third-party vacuum trucks. A grit trap is an interceptor in a sewer line designed to trap sand, grit, mud and heavy soils from car washes and other facilities that wash dirt and grime from equipment. All waste will be documented using the trip ticket system as described above for grease traps/food-related wastes. If large quantities of floating petroleum or synthetic petroleum oils are encountered, the oil will be separated and disposed or recycled through a waste oil or used oil recycler or processor. Chemical analysis will be performed to ensure that all new customer waste streams will be acceptable for processing, as described in Attachment 1.

Grit trap waste pollutant concentrations are extremely variable. In most cases, the wastes contain floating matter made up primarily of petroleum and synthetic petroleum grease and oil; settled dirt and sand with wash down products such as matches, cigarettes, spark plugs, grass and sticks; and wastewater containing suspended dirt, detergents, and oil. The wastes are typically characterized by high levels of BOD and TSS (both 5,000 mg/L+) and tend to be neutral to caustic.

**3. WASTE STORAGE AND PROCESSING INFORMATION (330.203 (b))**

LES processes grease trap waste by removing the oil and grease and pre-treating the remaining liquids before discharge to the sanitary sewer system. The complete process is described in detail in the Site Development Plan. With this amendment, LES is requesting an increase in permitted monthly grease trap waste processing from 2.4 million gallons to 4.8 million gallons.

The grit trap waste treatment process is described in the Site Development Plan. LES processes a maximum of 600,000 gallons per month of grit trap waste.

Waste acceptance procedures are described in Attachment 1. Receipt, storage, and processing data for each of these waste types are provided in the following Table W-2. Daily waste receipts assume an average over 30 days per month operation. Received grease trap/food-related wastes and grit trap wastes remain on site on average for two hours prior to processing, but at a maximum are processed within 72 hours of receipt. Generally, wastes are processed immediately after receipt. The maximum amount of combined storage for pre-processed waste at any point in time is 377,800 gallons. This capacity includes the solidification pits, which have a combined capacity of 20,000 gallons and can be used to store either grease trap/food-related or grit trap wastes.

Waste Type:		Grease Trap/Food-Related	Grit Trap
Received Daily (gallons, 30 day average)		160,000	20,000
Max Storage (gallons)		317,300	60,500
Waste On Site (Days)	Max	3	3
	Avg.	0.3	0.3
Waste Processing Time (Days)	Max	3	3
	Avg.	0.3	0.3

**Table W-2: Receipt, Storage, and Processing Data for Wastes at LES**

Treatment of wastes on site yields treated effluent, heavy solids, sludge, and recovered oil and grease. These facility-generated wastes are disposed of as described in Section 7 of the SOP.

#### **4. SAMPLING OF WASTES RECEIVED AND FACILITY EFFLUENT (330.203 (c))**

Analytical testing of wastes received depends upon waste type and is fully described in the Waste Acceptance and Analysis Procedures, included as Attachment 1. Sampling of facility effluent is described in Section 7 of the SOP.

Minimal analytical requirements are specified at 30 TAC 330.203 (c) pertaining to wastes received, sludges disposed at landfills, and facility effluent. Recordkeeping and methods requirements are also stated. These requirements, listed below, are also incorporated into the referenced sections of the facility permit documents:

1. Wastes received will be analyzed annually for benzene, lead, and total petroleum hydrocarbons (TPH) – refer to Attachment 1, Section C-2.
2. Grit trap wastes will be analyzed annually for biochemical oxygen demand, total suspended solids, benzene, TPH, and lead – refer to Attachment 1, Section C-2.
3. Sludges that may be disposed of at a municipal solid waste landfill will be analyzed annually for benzene, lead, and TPH – refer to SOP, Section 7.
4. At a minimum, effluent from the facility will be analyzed annually for TPH, fats, oil and grease, and pH – refer to SOP, Section 7.
5. Records of each analysis will be maintained at the facility for a minimum of three years – refer to SOP, Section 14.
6. All sampling and analysis will be done according to EPA approved methods – refer to Attachment 1, Section E.

**ATTACHMENT 1**

Waste Acceptance and Analysis Procedures