

Original Application – June 1, 1987

Major Document Reorganization – August 24, 2009

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

APPLICATION PART II

for

LIQUID ENVIRONMENTAL SOLUTIONS OF TEXAS, LLC

**Dallas Facility
11115 Goodnight Lane
Dallas, Texas 75229**

**CN601540404
RN103002713**

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**TBPE Reg. #F-2139
August 24, 2009**

Part II
TYPE V PERMIT APPLICATION
Table of Contents

1.	Introduction.....	1
2.	Waste Acceptance Plan (330.61 (b)).....	2
3.	General Location Map (330.61 (c)).....	2
4.	Facility Layout Map (330.61 (d)).....	3
5.	General Topographic Map (330. 61 (e)).....	3
6.	Aerial Photograph (330. 61 (f)).....	3
7.	Land-Use Map (330.61 (g)).....	3
8.	Impact on Surrounding Area (330.61 (h)).....	3
9.	Transportation (330.61 (i)).....	5
10.	General Geology and Soils Statement (330.61 (j)).....	5
11.	Groundwater and Surface Water (330.61 (k)).....	6
12.	Abandoned Oil and Water Wells (330.61 (l)).....	7
13.	Floodplains and Wetlands (330.61 (m)).....	7
14.	Endangered or Threatened Species (330.61 (n)).....	7
15.	Texas Historical Commission Review (330.61 (o)).....	8
16.	Council of Governments and Local Government Review Request (330.61 (p)).....	8

Tables

II-1 Revision History for MSW Permit No. 2069

Attachments

- II-1 Waste Acceptance and Analysis Plan**
- II-2 Facility Map Layout**
- II-3 Topographic Map**
- II-4 Aerial Photograph**
- II-5 Land Use Map**
- II-6 Required Correspondence**

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 wastes 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 II-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 ^A
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 II-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.

Regulatory requirements for Part II of the MSW permit application are presented in Title 30, Texas Administrative Code (TAC), Chapter 330, Section 61.

2. WASTE ACCEPTANCE PLAN (330.61 (b))

The requirements for the waste acceptance plan are addressed in the Waste Acceptance and Analysis Plan, Attachment II-1.

3. GENERAL LOCATION MAP (330.61 (c))

A general location map is provided as Attachment I-1 to Part I of the application. Because of the fixed scale specified for the General Location Map and the amount of detail shown, many of the features listed in 330.61 (c) are included in other maps as indicated below:

- Water wells (330.61 (c) (2)) are indicated on the topographic map (Attachment II-3);

- Structures and inhabitable buildings (330.61 (c) (3)) are indicated on the topographic map (Attachment II-3);
- Ponds and lakes (330.61 (c) (4)) are indicated on the topographic map (Attachment II-3);
- Schools, licensed day-care facilities, churches, hospitals, cemeteries, and residential, commercial, and recreational areas (also 330.61 (c) (4)) are indicated on the land use map (Attachment II-5);
- Drainage, pipeline, and utility easements (330.61 (c) (10)) are indicated on the Facility Layout Maps (Attachment II-2);
- Facility access control features (330.61 (c) (11)) are indicated on the Facility Layout Maps (Attachment II-2); and
- Archaeological sites, historical sites, and sites with exceptional aesthetic qualities (330.61 (c) (12)) are indicated on the topographic map (Attachment II-3).

The roads used to access the facility are paved and are typically either concrete or asphalt.

4. FACILITY LAYOUT MAP (330.61 (d))

A facility layout map is provided in Attachment II-2. Features required by 330.61 (d) (1) through (8) are indicated. 330.61 (d) (9) does not apply to this facility.

5. GENERAL TOPOGRAPHIC MAP (330. 61 (e))

A general topographic map is provided in Attachment II-3.

6. AERIAL PHOTOGRAPH (330. 61 (f))

In accordance with 330.61 (f) (3), an aerial image of the area with a scale of 1 inch = 2,000 feet is provided in Attachment II-4. The photograph shows at least a one-mile radius around the property boundary, which is indicated.

7. LAND-USE MAP (330.61 (g))

A land-use map complying with the subject requirements is provided in Attachment II-5.

8. IMPACT ON SURROUNDING AREA (330.61 (h))

(a) Zoning. An easement owned by Oncor Electric Utility Company LLC transverse the southeast corner of the property. The centerline of the easement is located outside the property. The easement is 62.50 feet on both sides. The easement includes a small portion of the Offload Area, as shown on the map. No facility processing activities occur in the easement located on the site.

The Facility was permitted on October 31, 1988 by the Texas Department of Health and prior to the 50-foot buffer requirement around municipal solid waste facilities. The TCEQ regulations require a minimum separating distance of fifty (50) feet to be

maintained between the solid waste processing area and the boundaries of the site. The Facility is on a 1-acre site that measures approximately 200 feet wide by 210 feet deep. A lease agreement has been executed which provides a 50-foot buffer along the south and western boundaries of the facility.

(b) Character of Surrounding Land. The site is surrounded by other commercial or industrial property including concrete batch plants, warehouses and storage yards, and an entertainment complex.

The zoning around the facility is industrial. The property to the south is a small parcel located between the LES Facility and a creek. Due to the size and location of the property it is unlikely it will be developed. The property remains undeveloped with various trees and vegetation. The property to the west is being leased by a concrete recycler. The buffer zone property to the south and west is owned by the same company.

(c) Growth Trends. The site is located within the city limits of the City of Dallas in Dallas County. According to the North Central Texas Council of Governments (NCTCOG), the population of the City of Dallas is expected to grow at a rate of 3 to 6% over five year increments through 2030. 2000 U.S. Census data interpreted by NCTCOG showed slow growth inside Loop 635 with a negative trend concentrated in the southeastern portion within the loop. Within the loop, the central, eastern, and northwestern sections are growing the most rapidly. Population in the immediate area of the site has shown a negative trend.

(d) Proximity. The approximate number of residences and businesses within one mile of the site and approximate distances to significant land usages follows:

Number of businesses:	637 (DCAD 2009)
Number of residences:	334 (DCAD 2009)
Nearest:	
Residence	3500 ft. northwest on Royal Ln. (DCAD 2009)
Business	75 ft. east across Goodnight Ln (Zero Gravity) (DCAD 2009)
School	4100 ft. northwest on Royal Ln (Tom Field Elementary) (DCAD 2009)
Medical Facility	None located within 1 mile (DCAD 2009)
Church	3600 ft east on Shady Ln (Dallas Samil Presbyterian Church) (DCAD 2009)
Recreational Facility	75 ft. east across Goodnight Ln (Zero Gravity) (DCAD 2009)
Cemetery	4500 ft southeast (Forest Lawn Cemetery) (THC 2009)
Historic/Archaeological Site	None located within 1 mile (THC 2009)

(e) **Wells.** There are no known wells located within 500 feet of the site (TWDB 2008).

9. TRANSPORTATION (330.61 (i))

(a) **Road availability and adequacy.** The facility is located on Goodnight Lane, a city-maintained two lane paved roadway. Vehicles transporting wastes enter and exit the facility through the access gate and are restricted to either the Offload Area or the process building as shown on the facility map in Attachment II-2. Vehicles typically access the facility off I-35E by exiting onto Walnut Hill Lane and turning north onto Goodnight Lane.

(b) **Vehicular volumes on access roads.** According to TxDOT (2004), traffic along Goodnight Lane between Joe Field Road and Walnut Hill Ln peaked at 4,440 vehicles per day in 2004.

(c) **Projected facility-related traffic.** Traffic volume from the current operation of the facility typically averages 25-35 facility-related trucks per day. Traffic volume is anticipated to increase to 60-70 facility-related trucks per day within two years of amending the permit to increase the monthly grease trap/food-related waste receipts.

(d) **Coordination of proposed public roadway improvements.** Since the anticipated increase in traffic due to the proposed capacity amendment is minimal, there have been no proposed roadway improvements.

Impact on airports are not applicable to this Type V facility.

10. GENERAL GEOLOGY AND SOILS STATEMENT (330.61 (j))

According to the Dallas Sheet of the Geologic Atlas of Texas published by the Bureau of Economic Geology, the surface geology of the site area is dominated by Quaternary fluvial terrace deposits (Qt) of the Pleistocene Period. The deposits consist of contiguous terraces of gravel, sand, silt, and clay.

The *Soil Survey of Dallas County, Texas*, published by the United States Department of Agriculture, Natural Resources Conservation Service (Issued February 1980), characterizes the site soils as the Siliwa-Silstid-Bastsil association. The Siliwa-Silstid-Bastsil association is described as nearly level to sloping loamy sandy soils that are deep and on stream terraces. The Siliwa-Silstid-Bastsil association is comprised largely of Siliwa, Silstid, and Bastsil soils, and the remainder are minor soils. The site is located in an area comprised of approximately 82% Bastil-Urban land complex and 18% Siliwa fine sandy loam.

The Bastil-Urban complex typically consists of well drained, moderately permeable soils with 0 to 2% slopes. The surface layer is medium acidic, brown, fine sandy loam that is about 8 inches thick. The next layer, to a depth of 34 inches, is medium acidic sandy clay

loam ranging from yellowish-red to red in hue. The next layer extending to a depth of 68 inches is mottled dark red, yellowish-red, and light gray sandy clay loam.

The Siliwa soils are described as a well drained, moderately permeable fine sandy loam with 3 to 8% slopes. The surface down to a depth of 43 inches consists of intermingled layers of neutral to strongly acidic, fine sandy and sandy clay loam that range in color from grayish-brown to red to yellowish-red. The next layer, to a depth of 80 inches, is strongly acidic, reddish-yellow, loamy fine sand.

Data for fault areas, seismic impact zones, and unstable areas are not applicable to this Type V facility.

11. GROUNDWATER AND SURFACE WATER (330.61 (k))

According to the Texas Water Development Board (Report 345, Aquifers of Texas (November 1995) and the Texas Water Plan, Water for Texas 2007), the Trinity Aquifer (the Trinity Group) is the principal aquifer for the Dallas area. The Trinity Group is the combination of several individual aquifers (in descending order, Paluxy, Glen Rose, Twin Mountain-Travis Peak, all overlain by a terrace alluvial aquifer) which cover all or parts of 55 counties from the Red River in North Texas to the Hill Country of South-Central Texas. The group of Cretaceous Age formations consists of limestones, sands, clays, gravels, and conglomerates that gently dip toward the southeast with an average saturated thickness of freshwater ranging from 600 feet to 1,900 feet. The concentration of dissolved solids, sulfate, and chloride tends to increase with depth to the aquifer rendering the water usable but hard. Primary usage has been for municipal supply and irrigation.

According to the United States Geological Survey (HA 730-E), the Trinity Aquifer is recharged by precipitation in the outcrop area (west of the Dallas area) and seepage from surface water bodies. The mechanisms for aquifer discharge are evapotranspiration, upward migration to shallower saturated zones, discharge to springs, and well pumping. Extensive pumping in the Dallas area and water level declines (due to increasing population over the years) have resulted in the use of surface water supplies and ultimately the abandonment of supply wells. Dallas County is not a part of a confirmed or pending groundwater conservation district. However, of the Texas aquifers, the Trinity Aquifer has the largest water level declines in the state. Furthermore, Dallas County has the largest current and projected future water needs in its region (Texas Regional Water Planning Area-Region C).

Dallas County, located in the Trinity River Basin, is drained by the Trinity River and its tributaries. Reservoirs collecting water from the streams of the basin are currently the major source of municipal and recreation water in the area. Dallas Water Utilities (DWU) serves the City of Dallas and surrounding cities. DWU obtains its drinking water from surface water stored in five lakes/reservoirs: Lewisville (located 16.4 miles NNW of the site), Grapevine (located 12.9 miles NW of the site), Ray Hubbard (located 22.3 miles ESE of the site), Tawakoni (53.6 miles east), and Ray Roberts (38 miles to the NNW). Two additional lakes are maintained for future supply. For purposes of preservation, the city operates under

a Long Range Water Supply Plan designed to meet water supply needs through the year 2050 (www.dallascityhall.com).

The nearest public supply well to the site (TWDB well #3301805) is located over 3 miles to the west on N. MacArthur Blvd. The well is screened from 1040 to 1155 feet below surface to encounter viable groundwater. The city's surface water resources will not be encountered at distances nearer than 12.9 miles. Additionally, the site has been constructed such that all surface runoff associated with industrial activity will be contained within the stormwater/spill containment area onsite. Surface water runoff and process waters therefore do not pose a likely threat to groundwater and surface water in the area.

Surface runoff from the facility flows into an unnamed creek located approximately 0.1 mile south of the facility. This creek flows approximately 2 miles southwest to the Elm Fork Trinity River Below Lewisville Lake in Segment 0822 in the Trinity River Basin.

As described in Section 10 of the Site Development Plan, stormwater associated with industrial activity is contained and routed to the treatment facility for pretreatment and discharge to the City of Dallas sanitary sewer system. The facility does maintain permit coverage under the TPDES multi-sector storm water general permit (Permit Number TXR05Y417) to comply with the Clean Water Act in the unlikely event of a discharge of stormwater associated with industrial activity.

12. ABANDONED OIL AND WATER WELLS (330.61 (l))

LES has not encountered any abandoned oil and water wells either before or during construction or during subsequent operations.

13. FLOODPLAINS AND WETLANDS (330.61 (m))

The property is not located within a 100-year floodplain, as indicated in the Federal Emergency Management Agency Flood Insurance Rate Map Number 48113C0170J, revised August 23, 2001. The facility is not located on or adjacent to any wetlands.

14. ENDANGERED OR THREATENED SPECIES (330.61 (n))

An evaluation of the impact of the site and of the amendments requested on endangered or threatened species was performed for this permit submittal. Copies of correspondence sent to The Texas Parks and Wildlife Department and the United States Fish and Wildlife Service are provided in Attachment II-6. According to the Fish and Wildlife Service, the following threatened (T), endangered (E), and delisted (DL) species have been documented or are known to occur in Dallas County:

- Bald eagle (*Haliaeetus leucocephalus*) – DL;
- Black-capped vireo (*Vireo atricapilla*) – E;
- Golden-checked warbler (*Dendroica chrysoparia*) – E;
- Interior least tern (*Sternula antillarum*) – E;

- Piping plover (*Charadrius melodus*) – T; and
- Whooping crane (*Grus Americana*) – E.

Habitat for these species does not occur on the site; therefore, no federally listed threatened or endangered species should be present at the site. Because the requested amendments do not involve any new construction of undeveloped areas, this application is not expected to negatively impact any of these species.

Similarly, correspondence by the Texas Parks and Wildlife Department indicates “minimal impacts to fish and wildlife resources,” including rare, threatened, and endangered species.

15. TEXAS HISTORICAL COMMISSION REVIEW (330.61 (o))

A copy of correspondence sent to the Texas Historical Commission is provided in Attachment II-6.

16. COUNCIL OF GOVERNMENTS AND LOCAL GOVERNMENT REVIEW REQUEST (330.61 (p))

A copy of correspondence sent to the North Central Texas Council of Governments is provided in Attachment II-6. This correspondence included Parts I and II of the application just prior to submittal to the TCEQ.

ATTACHMENTS

ATTACHMENT II-1

Waste Acceptance and Analysis Plan

ATTACHMENT II-2

Facility Layout Map

ATTACHMENT II-3

Topographic Map

ATTACHMENT II-4

Aerial Photograph

ATTACHMENT II-5

Land Use Map

ATTACHMENT II-6

Required Correspondence