



September 1, 2017

Ms. Daniela Ortiz de Montellano, Project Manager
Texas Commission on Environmental Quality
Municipal Solid Waste Permit Section (MC-124)
Waste Permits Division
12100 Park 35 Circle, Bldg. F
Austin, Texas 78753

Re: Response to Technical Notice of Deficiency Email, Tracking No. 21762642
Downstream Environmental, LLC - B.R. Perrin Plant - Harris County Texas
Municipal Solid Waste (MSW) Permit No. 2298
Permit Modification - Alternative Buffer Zone
CN600896872 / RN101662617

Dear Ms. Montellano:

On behalf of Downstream Environmental, LLC (Downstream), Daniel B. Stephens & Associates, Inc. (DBS&A) is providing responses to Texas Commission on Environmental Quality (TCEQ) comments in the referenced notice of deficiency (NOD) letter dated August 18, 2017. For clarity purposes, the TCEQ comments are reproduced in italics; DBS&A responses immediately follow each comment. Additionally, revisions to the permit application made in response to the NOD are included with this response.

***TCEQ Item 1:** Part I, Landowner List, page 32; please remove the phrase "500 foot" and replace it with "1/4 mile" to reflect the landowners list requirements in accordance with 30 TAC §330.59(c)(3).*

The title page for the Landowner List, found on page 31, has been revised to say the landowner list reflects a ¼-mile radius. The title of the Attachment 2 Landowner List table on page 32 also specifies the ¼-mile radius.

***TCEQ Item 2:** Part II, Variance #1: Location of Grit Processing Area, page 15; please explain how the proposed alternative buffer zone of 26 feet will afford ready access for emergency vehicles and maintenance in accordance with 30 TAC §330.543(b).*

Part II, page 15, has been revised to include the following text: "A minimum 12-foot access lane for emergency vehicles will be provided and will be located between the grit processing area and the containment wall immediately to the west." This area is indicated on the Facility Site Plan drawing as 'Future concrete and 6" berm'.

***TCEQ Item 3:** Part III, Air Pollution Control and Odor Control, page 12; please explain how the proposed alternative buffer zone of 26 feet will afford equivalent control of odors as the 50 foot buffer zone in accordance with Section Air Pollution Control and Odor Control, page 12, of the approved application.*

Daniel B. Stephens & Associates, Inc.

4030 W. Braker Lane, Suite 325 512-821-2765

Austin, TX 78759 FAX 512-821-2724

Ms. Daniela Ortiz de Montellano
September 1, 2017
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Part II, page 15, and Part III, page 12, have been revised to include the following text: “Grit waste does not contain putrescible odors, but is likely to contain a faint hydrocarbon aroma. In any event, odors within the alternative buffer zone will be controlled by storing the waste in a roll-off box equipped with a waterproof tarp system. In addition, the liquids generated from the grit waste will be discharged through an enclosed oil/water separator and piping.”

***TCEQ Item 4:** Part III, Attachment 13, 30 TAC §330.465, Post-Closure Care Maintenance Requirements; please remove any reference to "management unit" and "landfill" from the text and reinstate "municipal solid waste site" and "MSW site" accordingly. The above referenced facility is permitted as a Type V Grease and Grit Liquid Waste Processing Facility and any reference to "landfill" or "management unit" is not applicable to this facility.*

The Post Closure Plan text found in Part III Attachment 13 has been corrected to refer to a municipal solids waste site or MSW site. References to management unit, unit, and landfill have been removed.

***TCEQ Item 5:** Part III, Facility Site Plan; please revise the Facility Site Plan to show the fence line along the south side of the facility permit boundary. In addition, clearly delineate the property /permit boundary of the facility; and delineate the buffer zone along the facility permit boundary.*

The Facility Site Plan has been revised to show the entire fence line / permit boundary. A line delineating the 50-foot buffer zone has also been added the figure.

***TCEQ Item 6:** Part III, Closure Cost Estimate, page 55; the existing permit authorized a maximum storage capacity of 150,000 gals of processed and unprocessed waste at any point in time. The proposed modification of the closure cost estimate provides a storage capacity of 182,000 gals of liquid waste, 25,000 gals of wash water, and 90 cy of solid waste requiring disposal which is greater than the approved 150,000 gals. The closure cost estimate must include disposal of the maximum inventories of all processed and unprocessed waste stored on-site at any point in time during the life of the facility in accordance with 30 TAC §330.505. Please revise the closure cost estimate accordingly.*

The closure cost estimate has been revised. The liquid waste volume requiring disposal has been lowered from 182,000 to 150,000 gallons. DBS&A assumes that this volume will be disposed before the wash water is generated, so the wash water volume has been left in the closure cost. The solid waste disposal volume of 90 cy has also been left in the estimate. Leaving the wash water and solid waste volumes as separate line items is a conservative approach; removing the items would lower the required financial assurance.

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Should you have any questions or comments, please do not hesitate to contact me at (512) 821-2765.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Thomas Golden". The signature is fluid and cursive, with a large initial "T" and "G".

Thomas Golden, P.E.
Project Engineer

cc: Waste Section Manager, TCEQ Region 12 Office
Mr. Ben Camacho, Director of Permitting and Compliance, SouthWaste Disposal, LLC
Mr. Tim Cox, Market Manager, SouthWaste Disposal, LLC

Part I Form

Part I

PART I

TITLE PAGE - MSW #2298

Project Name:

DOWNSTREAM ENVIRONMENTAL, LLC

B. R. Perrin Plant

3737 Walnut Bend

Houston, Harris County, Texas 77042

Prepared for:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

MUNICIPAL SOLID WASTE DIVISION

NAME OF APPLICANT: **DOWNSTREAM ENVIRONMENTAL, LLC**
3737 Walnut Bend
Houston, TX 77042

PROPERTY OWNER: Downstream Environmental, LLC
16350 Park Ten Place, Suite 215
Houston, TX 77084

CONSULTING ENGINEER: Daniel B. Stephens & Associates, Inc.
4030 West Braker Lane, Suite 325
Austin, Texas 78759

TYPE OF FACILITY: Type V Municipal Solid Waste Processing
Grit, Septage and Grease Trap Treatment Facility

WASTE TO BE ACCEPTED: Grease Trap Waste, Grit Trap Waste and Septage

ORIGINALLY SUBMITTED: April 3, 2002

REVISED AND SUBMITTED: October 17, 2002, April 24, 2002, January 31, 2008, July 14, 2017, and September 1, 2017



PART I

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*Downstream Environmental, LLC.
Revision 5, September 1, 2017*

- (E) Evidence of Competency of Key Personnel
(Letters of Recommendation)

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- (A) The person signing the Application meets the requirements in 305.44. If authority has been delegated, letter of delegation to authorized delegate.
- (B) A "Notice of Appointment" identifying Applicant's Engineer



*Downstream Environmental, LLC.
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PART I

(6) LANDOWNERS LIST

List of landowners within a 1/4-mile radius of the site's boundaries is attached.



*Downstream Environmental, LLC.
Revision 5, September 1, 2017*

Part II

PART II

TITLE PAGE - MSW #2298

Project Name:

DOWNSTREAM ENVIRONMENTAL, LLC

B. R. Perrin Plant

3737 Walnut Bend

Houston, Harris County, Texas 77042

Prepared for:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

MUNICIPAL SOLID WASTE DIVISION

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ENGINEER: Daniel B. Stephens & Associates, Inc.
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ACCEPTED: Grease Trap Waste, Grit Trap Waste and Septage

ORIGINALLY
SUBMITTED: April 3, 2002

REVISED AND
SUBMITTED: October 17, 2002, April 24, 2002, January 31,
2008, July 14, 2017, and September 1, 2017



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- (E) DESCRIPTION OF LOCATED WATER WELLS WITHIN 500 FEET: The properties within 500 feet were at one time on water wells, but those wells have all been closed and abandoned per superfund site management plan. The properties are now on City water.

Attached:

Record of "Located Wells"

Well Map - Contained in Part I - "Maps"

EPA Report - Contained in Part I - "Additional Requirements"

- (F) VARIANCE #1: LOCATION OF GRIT PROCESSING

Downstream is requesting an approval from the Executive Director to memorialize the location of the existing grit dewatering/processing area. Currently, the grit dewatering/processing area is located approximately 26 feet from the east property line, which is within the 50-foot buffer and does not comply with the location restrictions set forth in 30 TAC §330.543 (b)1. However, the east property line shares a border with a shared use path and a tributary to the Brazos Bayou. As such, the closest private property owner with development potential is nearly 200 feet east of the current grit dewatering/processing area.

In addition, a minimum 12-foot access lane will be provided on a new concrete surface to be located between the grit dewatering/processing area and the secondary containment wall immediately to the west. This access lane will provide safe passage for fire-fighting and other emergency vehicles.

Grit waste does not contain putrescible odors, but is likely to contain a faint hydrocarbon aroma. In any event, odors within the alternative buffer zone will be controlled by storing the waste in a roll-off box equipped with a waterproof tarp system. In addition, the liquids generated from the grit waste will be discharged through an enclosed oil/water separator and piping.

Part III

PART III

TITLE PAGE - MSW #2298

Project Name:

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B. R. Perrin Plant

3737 Walnut Bend

Houston, Harris County, Texas 77042

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PART III - §330.54(a)

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PART III - §330.55(a)

SITE DEVELOPMENT PLAN

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[Note: The format of this material follows that given in the regulations, sections 330.55 & 330.59, regardless of whether any particular part does not apply to this proposed facility. If something does not apply, it is simply so stated.]

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PART III - §330.55(a)

LIST OF ATTACHMENTS to the SITE DEVELOPMENT PLAN

[Note: Attachments are numbered with a page number. The designation "N/A" implies that this item has no required Attachment, but instead all parts of it are presented in the body of the text.]

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PART III - §330.55(a)

LIST OF ATTACHMENTS to the SITE DEVELOPMENT PLAN

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13 Post-Closure Plan - (Attached)	49F & 147
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(4) AIR POLLUTION CONTROL AND ODOR CONTROL

- (A) The construction and operation of Type V sites may require a Texas Air Control Board Permit. However, in the case of this Applicant, a Texas Air Control Board Permit is not required.
- (B) The facility has been designed to prevent nuisance odors from leaving the property boundary. The area of the facility with the greatest potential to generate odor is the receiving tank, into which the waste is unloaded from the trucks and solids are separated. To control odors, the receiving tank is covered. The tanks are immediately evacuated into the separation area. The roll-off box handling the sludge materials is also covered. The roll-off box will be in a building that has a roof and has no open sides. Within the roof area of the building will be odor control equipment. The odor control equipment as well as the ventilation will provide air exchanges approximately every six minutes. Air discharges from the building will be routed through an odor control system. The odor control system will be operated at all times that waste unloading operations are occurring or during waste processing .. operations.

Maintenance and cleaning of odor control equipment shall be performed on a contract basis as recommended by the manufacturer to maintain equipment efficiency.

Additionally, to control the generation of odors, the roll-off box will remain covered when not in use.

A sufficient volume of a suitable biological deodorant, HTH or lime will be retained on-site at all times to treat any accidental spills of untreated waste material.

Odors will be controlled by a combination of 50 foot buffer zones, a proprietary fast new process, a building with odor control and tanks that are covered and vented into the building. All areas of the process that have the potential to generate odor shall be controlled by the odor control system. The facility will be designed and built to prevent nuisance odors from leaving the property boundary. Additionally, the Odor Control System designed for the waste receiving area will comply with all applicable requirements contained in 30

TAC §330.71(f)(5) and other applicable Texas Natural Resource Conservation Commission regulations.

The grit processing/dewatering area is located within the 50-foot buffer zone. Grit waste contains a faint hydrocarbon aroma, but not any putrescible odors. Odors within the alterative buffer zone will be controlled by storing the waste in a roll-off box equipped with a waterproof tarp system. Liquids generated from the grit waste will be discharged through an enclosed oil/water separator and piping.

This Applicant's innovative wastewater process will use proprietary technology that reduces odors by 90%. The remaining odors will be eliminated by 50 foot buffer zones, a building and an odor control system.

Municipal solid waste processing facilities are subject to Texas Natural Resource Conservation Commission Office of Air Quality jurisdiction concerning air pollution control. As such, the processing facility will be designed to minimize the production of odor and those odors that are produced will be captured and treated. Residual odors will be eliminated by state of the art odor control. The main source of odor at the facility will be the inlet structure that receives the raw material for initial separation of the solids and the oil and grease that is skimmed off initially from the raw material. All other water materials taken into the system will be quickly treated. The treatment process is oxidizing the pollutants so that the water will not have an odor problem. To assist in controlling odors, the roll-off boxes, grit basin and oil skimming will be inside a building enclosed on all sides and an exhaust hood will be in-place and operating at all times that the waste unloading operations are occurring. Outdoor tanks will be covered, sealed and vented back into the building. Additionally, the exhaust hood shall be in operation at all times that waste material is being stored. Exhaust from the ventilation system will be duct through an odor control system. Odors will not pass the facility's property line.

30 TAC 330.71(e)(6)(T) Air Quality Permit - Permit by Rule. The proposed facility utilizes a combination of heat sources: electric and natural gas. The proposed gas fired water heater is rated at 7.0 mm btu/hr and is covered by the following Permit by Rule: 30 TAC §106.183(g)(2), 30 TAC §106.183(g)(2)(A), 30 TAC §106.183(g)(4), 30 TAC §116.150(c)(2).

Revised 09/01/17

PART III
POST-CLOSURE PLAN
Attachment 13

§330.463 Post-Closure Care Maintenance Requirements.

(a) Post-closure care maintenance requirements for The B.R. Perrin Plant.

(1) For a minimum of the first five years after professional engineer certification of the completion of closure as accepted by the executive director, the owner or operator shall retain the right of entry to and maintain all rights-of-way of a closed MSW site in order to conduct periodic inspections of the closed site. The owner or operator shall correct, as needed, erosion of cover material, lack of vegetative growth, leachate or methane migration, and subsidence or ponding of water on the site. If any of these problems occur after the end of the five-year post-closure period or persist for longer than the first five years of post-closure care, the owner or operator shall be responsible for their correction until the executive director determines that all problems have been adequately resolved. The executive director may reduce the post-closure period for MSW sites if all wastes and waste residues have been removed during closure.

(2) Any monitoring programs (ground water monitoring, resistivity surveys, methane monitoring, etc.) in effect during the life of the MSW site shall be continued during the post-closure care period.

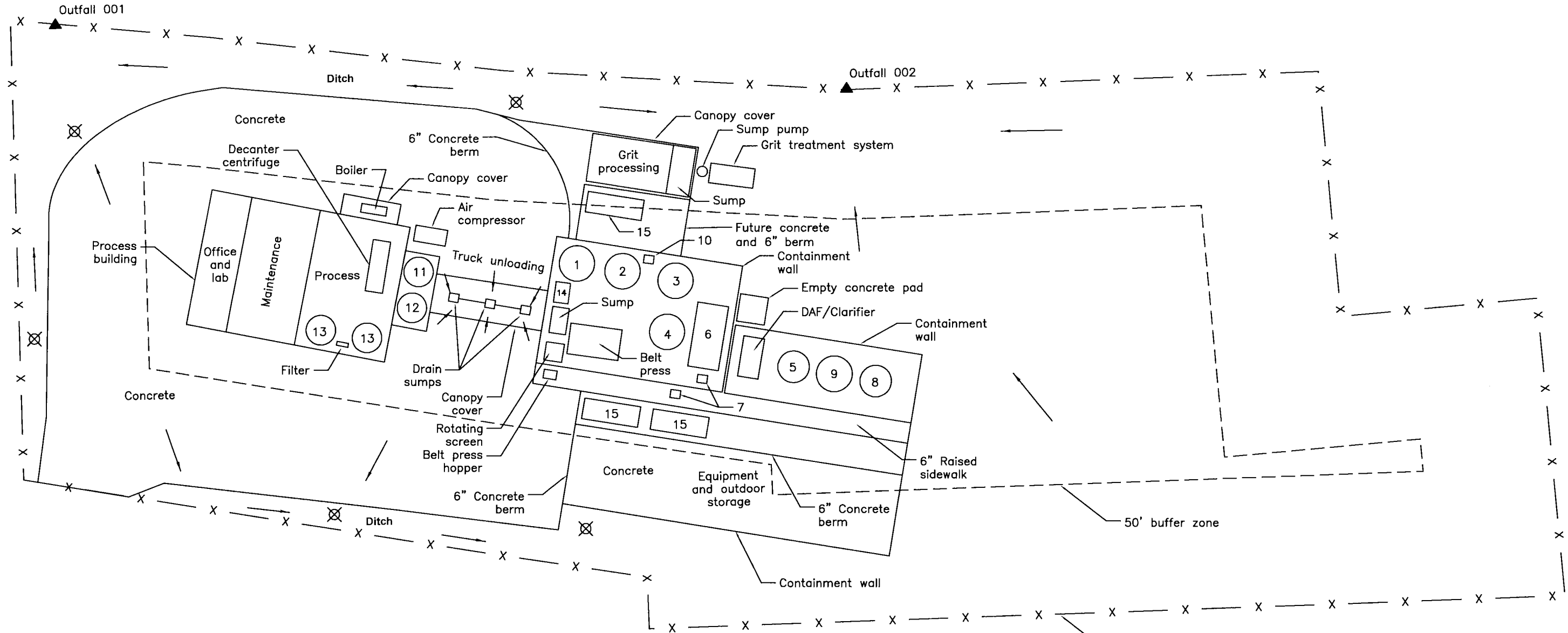
(3) If there is evidence of a release from a MSW site, the executive director may require an investigation into the nature and extent of the release and an assessment of measures necessary to correct an impact to groundwater.

§330.465 Completion of Post-Closure Care and Maintenance

(a) Following completion of the post-closure care maintenance period for each municipal solid waste site, the owner or operator shall submit to the executive director for review and approval a certification, signed by an independent licensed professional engineer, verifying that post-closure care has been completed in accordance with the approved post-closure plan. The submittal to the executive director shall include all applicable documentation necessary for the certification of completion of post-closure care.

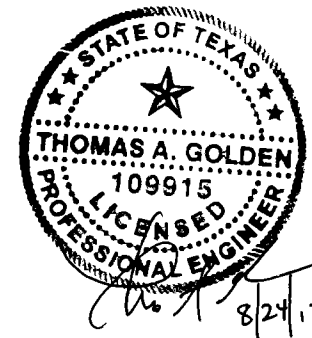
(b) Upon completion of the post-closure care period for the MSW site, the owner and operator shall also submit to the executive director a request for voluntary revocation of the facility permit.

I:\s6a0q\Projects\TX16.0165_SouthWaste_Downstream\CAD\SW_Downstream_Site Plan.dwg



- Explanation
- ▲ Outfall location
 - Direction of stormwater flow
 - x — Fence
 - ⊗ Light pole

SUMMARY OF ON-SITE TANK STORAGE				
NUMBER	ITEM	QUANTITY	CAPACITY	TOTAL
1	RECEIVING TANK	1	21,000	21,000
2	RECEIVING TANK	1	21,000	21,000
3	RECEIVING/MIX TANK	1	21,000	21,000
4	MIX TANK	1	21,000	21,000
5	RECYCLED WATER TANK	1	14,000	14,000
6	MIX TANK (HORIZONTAL)	1	21,000	21,000
7	FILTER BOX	2	500	1,000
8	EQUALIZATION TANK	1	17,000	17,000
9	EQUALIZATION TANK	1	18,000	18,000
10	LIME TANK	1	1,000	1,000
11	BROWN FINISH TANK	1	9,000	9,000
12	YELLOW FINISH TANK	1	9,000	9,000
13	YELLOW GREASE PROCESSING	2	3,500	7,000
14	POLYMER TANKS	2	500	1,000
15	ROLL-OFF CONTAINER	3	30 CY	90 CY
TOTAL:				182,000



NOT FOR CONSTRUCTION
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF PERMITTING UNDER THE
 AUTHORITY OF THOMAS A. GOLDEN P.E. TEXAS NO: 109915 ON DATE: 08/24/2017
 IT IS NOT TO BE USED FOR CONSTRUCTION OR BIDDING PURPOSES.

CLOSURE COST SUMMARY
SOUTHWASTE DISPOSAL, LLC DOWNSTREAM FACILITY

CLOSURE COST SUMMARY	
FACILITY CLOSURE (INCLUDING TANKS, BUILDINGS, MISC EQUIPMENT)	\$66,393
ADMINISTRATIVE COSTS	\$21,328
SUBTOTAL CLOSURE COST	\$87,721
Contingency (10%)	\$8,772
TOTAL CLOSURE COST	\$96,493
Required Financial Security	\$96,493

Assumptions

- 1) The facility is in compliance with the conditions of the permit at the time of closure.
- 2) Final closure work will be completed by independent contractors. No equipment from the facility will be used.
- 3) Surface tanks will be washed out, disinfected, and hauled away for disposal/recycle.
- 4) The processing building will be washed out and disinfected, but not demolished.
- 5) This closure cost estimate accounts for all materials on-site, including the maximum inventories of processed and unprocessed waste.

CLOSURE COST ESTIMATE
SOUTHWASTE DISPOSAL, LLC DOWNSTREAM FACILITY

Item / Material	Units	Quantity	Unit Price	Subtotal	REFERENCES
FACILITY CLOSURE (INCLUDING TANKS, BUILDINGS, MISC EQUIPMENT)					
Site closure work supervision (3rd party consultant)	DY	15	\$1,200	\$18,000	Based on engineer's field consultant rate
Wash out, disinfect, and haul tanks for disposal/recycle	EA	12	\$1,320	\$15,840	RS Means 02 65 10.30 0863/1029
Collection, transportation, and disposal of liquid waste and wash water	GAL	175,000	\$0.06	\$10,500	Professional opinion
Transportation and disposal of solid waste in roll-off containers	CY	90	\$19.60	\$1,764	RS Means 02 41 16.17 4250
Sedimentation fencing	LF	1,400	\$1.60	\$2,240	RS Means 31 25 14.16 1000
Wash out, disinfect existing processing building	SF	3,750	\$1.50	\$5,625	RS Means 04 01 30.20 2040
Wash out, disinfect, remove, dispose/salvage miscellaneous on-site equipment	LS	1	\$5,000	\$5,000	Professional opinion
Site security - light towers and existing fencing	DY	20	\$371	\$7,424	RS Means 01 54 33 3500
SUBTOTAL				\$66,393	
ADMINISTRATIVE COSTS					
Site survey	AC	2.3	\$2,473	\$5,687	RS Means 02 21 13.09
Preparation of engineering plans, bid documents, and closure notification	LS	1	\$5,311	\$5,311	RS Means 01 11 31.30 0900
Closure sampling (soil)	LS	1	\$5,000	\$5,000	Professional opinion
Closure certificate	LS	1	\$5,000	\$5,000	Professional opinion
Facility closure sign	SF	12	\$27.50	\$330	RS Means 01 58 13.50 0020
SUBTOTAL				\$21,328	
TOTAL				\$87,721	

RS Means - RS Means Heavy Construction Cost Data, 30th edition, 2016

Liquid waste volume requiring disposal: 150,000 gallons
Wash water requiring disposal: 25,000 gallons
Process tanks, ranging in size from 6,000 to 32,000 gallons that will require disposal: 12
Gross site area: 2.3 acres

Notes: CY Cubic yard
DY Day
EA Each
GAL Gallon
LS Lump sum
MSF Thousand square feet
RND TRP Round trip
SF Square feet