

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

APPLICATION FOR PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE
A SOLID WASTE MANAGEMENT FACILITY

WACS #
41193

4029C30075

Please Type or Print

A. GENERAL INFORMATION

1. Type of facility:

Disposal

- | | | | |
|--------------------|-------------------------------------|------------------------|--------------------------|
| Class I Landfill | <input checked="" type="checkbox"/> | Ash Monofill | <input type="checkbox"/> |
| Class II Landfill | <input type="checkbox"/> | Asbestos Monofill | <input type="checkbox"/> |
| Class III Landfill | <input type="checkbox"/> | Industrial Solid Waste | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | | |

Volume Reduction

- | | | | |
|--------------------|--------------------------|------------------------|--------------------------|
| Incinerator | <input type="checkbox"/> | Pulverizer/Shredder | <input type="checkbox"/> |
| Composting | <input type="checkbox"/> | Compactor/Baling Plant | <input type="checkbox"/> |
| Materials Recovery | <input type="checkbox"/> | Energy Recovery | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | | |

2. Type of application:

- | | | | |
|----------------------|-------------------------------------|------------------------|--------------------------|
| Construction (Other) | <input checked="" type="checkbox"/> | Construction/Operation | <input type="checkbox"/> |
| Operation | <input type="checkbox"/> | Closure | <input type="checkbox"/> |

3. Classification of application:

- | | | | |
|---------|-------------------------------------|--------------------------|-------------------------------------|
| New | <input type="checkbox"/> | Substantial Modification | <input type="checkbox"/> |
| Renewal | <input checked="" type="checkbox"/> | Minor Modification | <input checked="" type="checkbox"/> |

4. Facility name: Southeast County Landfill

5. DEP ID number: SO29-256427 County: Hillsborough

6. Facility location (main entrance): 8.8 miles east of U.S. Highway 301 on County Road 672

7. Location coordinates:

Section: 13, 14, 15, 18, 19, 22, 23, 24 Township: 31S Range: 21E, 22E

UTMs: Zone N/A km E _____ km N _____

Latitude: 27° 46' 25" Longitude: 82° 11' 15"

Applicant name (operating authority): Hillsborough County Solid Waste Management Department

Mailing address: P.O. Box 1110 Tampa FL 33601
Street or P.O. Box City State Zip

Contact person: Daryl H. Smith Telephone: (813) 272-5680

Title: Director, Solid Waste Management Department

9. Authorized agent/Consultant: SCS Engineers

Mailing address: 3012 U.S. Highway 301 North, Suite 700, Tampa, FL 33619
Street or P.O. Box City State Zip

Contact person: Robert B. Gardner, P.E., DEE Telephone: (813) 621-0080

Title: Vice President

10. Landowner (if different than applicant): _____

Mailing address: _____
Street or P.O. Box City State Zip

Contact person: _____ Telephone: () _____

11. Cities, towns and areas to be served: Tampa, Temple Terrace, Plant City, Hillsborough County

12. Population to be served:

Current: 939,670 Five-Year Projection: 995,000

13. Volume of solid waste to be received: 2,200 yds³/day tons/day gallons/day

14. Date site will be ready to be inspected for completion: FDEP to be notified

15. Estimated life of facility: 27 years

16. Estimated costs:

Total Construction: \$ 220,000 Closing Costs: \$ N/A

17. Anticipated construction starting and completion dates:

From: FDEP to be notified To: FDEP to be notified

DISPOSAL FACILITY GENERAL INFORMATION

1. Provide brief description of disposal facility design and operations planned by this application:

See Section A, Proposed Modifications

2. Facility site supervisor: Meredith Matthews

Title: Senior Engineering Technician

Telephone: (813) 671-7707

3. Disposal area: Total ± 162.4 acres; Used ± 162.4 acres; Available ± 162.4 acres

4. Weighing scales used: Yes No

5. Security to prevent unauthorized use: Yes No

6. Charge for waste received: _____ \$/yds³ \$34.06 per ton

7. Surrounding land use, zoning:

Residential	<input checked="" type="checkbox"/>	Industrial	<input type="checkbox"/>
Agricultural	<input checked="" type="checkbox"/>	None	<input type="checkbox"/>
Commercial	<input type="checkbox"/>	Other	<input type="checkbox"/>

9. Types of waste received:

Residential	<input checked="" type="checkbox"/>	C & D debris	<input checked="" type="checkbox"/>
Commercial	<input checked="" type="checkbox"/>	Shredded/cut tires	<input checked="" type="checkbox"/>
Incinerator/WTE ash	<input checked="" type="checkbox"/>	Yard trash	<input type="checkbox"/>
Treated biohazardous	<input type="checkbox"/>	Septic tank	<input type="checkbox"/>
Water treatment sludge	<input checked="" type="checkbox"/>	Industrial	<input checked="" type="checkbox"/>
Air treatment sludge	<input checked="" type="checkbox"/>	Industrial sludge	<input checked="" type="checkbox"/>
Agricultural	<input checked="" type="checkbox"/>	Domestic sludge	<input type="checkbox"/>
Asbestos	<input checked="" type="checkbox"/>		
Other	<input type="checkbox"/>		

9. Salvaging permitted: Yes No

10. Attendant: Yes N/A No Trained operator: Yes No

11. Spotters: Yes N/A No Number of spotters used: 1 minimum

12. Site located in: Floodplain Wetlands Other Upland; closed phosphate mine

13. Property recorded as a Disposal Site in County Land Records: Yes [] No [X]

14. Days of operation: 6 days per week

15. Hours of operation: 7:30 a.m. to 5:30 p.m., Monday through Saturday

16. Days Working Face covered: 6 days per week

17. Elevation of water table: 110-124 Ft. NGVD

18. Number of monitoring wells: 11

19. Number of surface monitoring points: 4

20. Gas controls used: Yes [] No [X] Type controls: Active [] Passive []
 Gas flaring: Yes [] No [X] Gas recovery: Yes [] No [X]

21. Leachate control method - liner type:

Natural soils	[]	Double geomembrane	[]
Single clay liner	[]	Geomembrane & composite	[]
Single geomembrane	[]	Double composite	[]
Single composite	[]	None	[]
Slurry wall	[]		
Other	[X]	<u>4' to 18' thick, phosphatic clay layer</u>	

22. Leachate collection method:

Collection pipes	[X]	Sand layer	[X]
Geonets	[]	Gravel layer	[]
Well points	[X]	Interceptor trench	[]
Perimeter ditch	[]	None	[]
Other	[X]	<u>Pump station, chipped tire and gravel drainage trenches</u>	

23. Leachate storage method:

Tanks	[X]	Surface impoundments (effluent)	[X]
Other	[]		

24. Leachate treatment method:

Oxidation	[]	Chemical treatment	[]
Secondary	[]	Settling	[]
Advanced	[]	None	[]
Other	[X]	<u>Activated carbon, nitrification/denitrification</u>	
		<u>treatment plant</u>	

5. Leachate disposal method:

- | | | | |
|---------------------|-------------------------------------|-------------------------------|--------------------------|
| Recirculated | <input type="checkbox"/> | Pumped to WWTP | <input type="checkbox"/> |
| Transported to WWTP | <input checked="" type="checkbox"/> | Discharged to surface water | <input type="checkbox"/> |
| Injection well | <input type="checkbox"/> | Evaporation (i.e.: Perc Pond) | <input type="checkbox"/> |
| Other | <input checked="" type="checkbox"/> | <u>Spray Irrigation</u> | |

26. For leachate discharged to surface waters:

Name and Class of receiving water: Leachate is not discharged to surface waters

27. Storm Water:

Collected: Yes No Type of treatment: Detention/Filtration

Name and Class of receiving water: Long, Flat Creek, Class III

28. Management and Storage of Surface Waters (MSSW) Permit number or status: _____

Southwest Florida Water Management District Permit No. 100330

National Pollution Discharge Elimination System Multi-Sector Group Permit No. FLR05B138

SOLID WASTE MANAGEMENT FACILITY PERMIT GENERAL REQUIREMENTS (62-701.320, FAC)

S	LOCATION	N/A	N/C	
<u>X</u>	<u>Section D</u>	_____	_____	1. Six copies, at minimum, of the completed application form, all supporting data and reports; (62-701.320(5) (a), FAC)
<u>X</u>	<u>Section D</u>	_____	_____	2. Engineering and/or professional certification (signature, date and seal) provided on the applications and all engineering plans, reports and supporting information for the application; (62-701.320(6), FAC)
<u>X</u>	<u>Section D</u>	_____	_____	3. A letter of transmittal to the Department; (62-701.320(7) (a), FAC)
<u>X</u>	<u>Section D</u>	_____	_____	4. A completed application form dated and signed by the applicant; (62-701.320(7) (b), FAC)
<u>X</u>	<u>Section D</u>	_____	_____	5. Permit fee specified in Rule 62-4.050, FAC and Rule 62-701.320(5) (c), FAC in check or money order, payable to the Department; (62-701.320(7) (c), FAC)
<u>X</u>	<u>Section D</u>	_____	_____	6. An engineering report addressing the requirements of this rule and with the following format: a cover sheet, text printed on 8 1/2 inch by 11 inch consecutively numbered pages, a table of contents or index, the body of the report and all appendices including an operation plan, contingency plan, illustrative charts and graphs, records or logs of tests and investigations, engineering calculations; (62-701.320(7) (d), FAC)
<u>X</u>	<u>Section D</u>	_____	_____	7. Operation Plan; (62-701.320(7) (e)1, FAC)
_____	_____	_____	<u>X</u>	8. Contingency Plan; (62-701.320(7) (e)2, FAC)
_____	_____	_____	_____	9. Plans or drawings for the solid waste management facilities in appropriate format (including sheet size restrictions, cover sheet, legends, north arrow, horizontal and vertical scales, elevations referenced to NGVD showing; (62-701.320(7) (f), FAC)
_____	_____	_____	<u>X</u>	a. A regional map or plan with the project location;
_____	_____	_____	<u>X</u>	b. A vicinity map or aerial photograph no more than 1 year old;
_____	_____	_____	<u>X</u>	c. A site plan showing all property boundaries certified by a registered Florida land surveyor;

- | | | | | |
|---------------|------------------|---------------|---------------|--|
| <u> </u> | <u> </u> | <u> </u> | <u> X </u> | d. Other necessary details to support the engineering report. |
| <u> </u> | <u> </u> | <u> </u> | <u> X </u> | 10. Proof of property ownership or a copy of appropriate agreements between the facility operator and property owner authorizing use of property; (62-701.320(7) (g), FAC) |
| <u> </u> | <u> </u> | <u> </u> | <u> X </u> | 11. For facilities owned or operated by a county, provide a description of how, if any, the facilities covered in this application will contribute to the county's achievement of recycling goals contained in Section 403.706, FS; (62-701.320(7) (h), FAC) |
| <u> X </u> | <u>Section D</u> | <u> </u> | <u> </u> | 12. Provide a history and description of any enforcement actions taken by the Department against the applicant for violations of applicable statutes, rules, orders, or permit conditions relating to the operation of any solid waste management facility in this state; (62-701.320(7) (i), FAC) |
| <u> X </u> | <u>Section D</u> | <u> </u> | <u> </u> | 13. Proof of publication in a newspaper of general circulation of notice of application for a permit to construct or substantially modify a solid waste management facility; (62-701.320(8), FAC) |
| <u> </u> | <u> </u> | <u> X </u> | <u> </u> | 14. Provide a description of how the requirements for airport safety will be achieved including proof of required notices if applicable; (62-701.320(12), FAC) |

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>
_____	_____	_____	<u>X</u>
_____	_____	_____	<u>X</u>
_____	_____	_____	<u>X</u>
_____	_____	_____	<u>X</u>
<u>X</u>	<u>Section G</u>	_____	_____
_____	_____	<u>X</u>	_____
_____	_____	<u>X</u>	_____
<u>X</u>	<u>Section G</u>	_____	_____
<u>X</u>	<u>Section G</u>	_____	_____

- c. Double liners; (62-701.400(3) (c), FAC)
 - (1) Upper and lower geomembrane thicknesses and properties;
 - (2) Design leachate head for primary LCRS to limit the head to one foot above the liner;
 - (3) Lower geomembrane sub-base design;
 - (4) Leak detection and secondary leachate collection system minimum design criteria (k ≥ 1 cm/sec, head on lower liner # 1 inch, head not to exceed thickness of drainage layer);
- d. Standards for geomembranes; (62-701.400(3) (d), FAC)
 - (1) Field seam test methods to ensure all field seams are at least 90 percent of the yield strength for the lining material;
 - (2) Design of 24-inch-thick protective layer above upper geomembrane liner;
 - (3) Describe operational plans to protect the liner and leachate collection system when placing the first layer of waste above 24-inch-thick protective layer.
- e. Geosynthetic specification requirements; (62-701.400(3) (e), FAC)
 - (1) Definition and qualifications of the designer, manufacturer, installer, QA consultant and laboratory, and QA program;
 - (2) Material specifications for geomembranes, geotextiles, geogrids, and geonets;

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
<u>X</u>	<u>Section G</u>	_____	_____	(3) Manufacturing and fabrication specifications including geomembrane raw material and roll QA, fabrication personnel qualifications, seaming equipment and procedures, overlaps, trial seams, destructive and nondestructive seam testing, seam testing location, frequency, procedure, sample size and geomembrane repairs;
<u>X</u>	<u>Section G</u>	_____	_____	(4) Geomembrane installation specifications including earthwork, conformance testing, geomembrane placement, installation personnel qualifications, field seaming and testing, overlapping and repairs, materials in contact with geomembrane and procedures for lining system acceptance;
<u>X</u>	<u>Section G</u>	_____	_____	(5) Geotextile and geogrid specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials;
<u>X</u>	<u>Section G</u>	_____	_____	(6) Geonet specifications including handling and placement, conformance testing, stacking and joining, repair, and placement of soil materials;
				f. Standards for soil components; (62-701.400(3) (f), FAC)
			<u>X</u>	(1) Description of construction procedures including overexcavation and backfilling to preclude structural inconsistencies and procedures for placing and compacting soil component in layers;
			<u>X</u>	(2) Demonstration of compatibility of the soil component with actual or simulated leachate in accordance with EPA Test Method 9100 or an equivalent test method;
<u>X</u>	<u>Section G</u>	_____	_____	(3) Procedures for testing in-situ soils to demonstrate they meet the specifications for soil liners;

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>
		<u>X</u>	
		<u>X</u>	
		<u>X</u>	
		<u>X</u>	
		<u>X</u>	
		<u>X</u>	
		<u>X</u>	
		<u>X</u>	

- (4) Specifications for soil component of liner including at a minimum:
 - (a) Allowable particle size distribution, Atterberg limits, shrinkage limit;
 - (b) Placement moisture and dry density criteria;
 - (c) Maximum laboratory-determined saturated hydraulic conductivity using simulated leachate;
 - (d) Minimum thickness of soil liner;
 - (e) Lift thickness;
 - (f) Surface preparation (scarification);
 - (g) Type and percentage of clay mineral within the soil component;
- (5) Procedures for constructing and using a field test section to document the desired saturated hydraulic conductivity and thickness can be achieved in the field.

3. Leachate collection and removal system (LCRS); (62-701.400(4), FAC)

a. The primary and secondary LCRS requirements; (62-701.400(4) (a), FAC)

<u>X</u>	<u>Section G</u>		
		<u>X</u>	
		<u>X</u>	
		<u>X</u>	

- (1) Constructed of materials chemically resistant to the waste and leachate;
- (2) Have sufficient mechanical properties to prevent collapse under pressure;
- (3) Have granular material or synthetic geotextile to prevent clogging;
- (4) Have method for testing and cleaning clogged pipes or contingent designs for rerouting leachate around failed areas;

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>
			5. Leachate storage tanks and leachate surface impoundments; (62-701.400(6), FAC)
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> a. Surface impoundment requirements; (62-701.400(6) (b), FAC)
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> (1) Documentation that the design of the bottom liner will not be adversely impacted by fluctuations of the ground water;
<u> </u>	<u> </u>	<u>X</u>	<u> </u> (2) Designed in segments to allow for inspection and repair as needed without interruption of service;
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> (3) General design requirements;
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> (a) Double liner system consisting of an upper and lower 60-mil minimum thickness geomembrane;
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> (b) Leak detection and collection system with hydraulic conductivity ≤ 1 cm/sec;
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> (c) Lower geomembrane placed on subbase 6 inches thick with $k \text{ min } 1 \times 10^{-5}$ cm/sec;
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> (d) Design calculation to predict potential leakage through the upper liner;
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> (e) Daily inspection requirements and notification and corrective action requirements if leakage rates exceed that predicted by design calculations;
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> (4) Description of procedures to prevent uplift, if applicable;
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> (5) Design calculations to demonstrate minimum two feet of freeboard will be maintained;
<u> </u>	<u> </u>	<u> </u>	<u>X</u> (6) Procedures for controlling vectors and off-site odors.

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
		X		(a) Interstitial space monitoring at least weekly;
		X		(b) Corrosion protection provided for primary tank interior and external surface of outer shell;
		X		(c) Interior tank coatings compatible with stored leachate;
		X		(d) Cathodic protection inspected weekly and repaired as needed;
		X		(3) Describe an overflow prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overflowing and provide for weekly inspections;
		X		(4) Inspection reports available for department review.
		X		d. Schedule provided for routine maintenance of LCRS; (62-701.400(6) (e), FAC)
				6. Liner systems construction quality assurance (CQA); (62-701.400(7), FAC)
X	Section G			a. Provide CQA Plan including;
X	Section G			(1) Specifications and construction requirements for liner system;
X	Section G			(2) Detailed description of quality control testing procedures and frequencies;
X	Section G			(3) Identification of supervising professional engineer;
X	Section G			(4) Identify responsibility and authority of all appropriate organizations and key personnel involved in the construction project;
X	Section G			(5) State qualifications of CQA professional engineer and support personnel;
X	Section G			(6) Description of CQA reporting forms and documents;

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> b. An independent laboratory experienced in the testing of geosynthetics to perform required testing;
			7. Soil Liner CQA (62-701.400(8) FAC)
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> a. Documentation that an adequate borrow source has been located with test results or description of the field exploration and laboratory testing program to define a suitable borrow source;
<u> </u>	<u> </u>	<u>X</u>	<u> </u> b. Description of field test section construction and test methods to be implemented prior to liner installation;
<u>X</u>	<u>Section G</u>	<u> </u>	<u> </u> c. Description of field test methods including rejection criteria and corrective measures to insure proper liner installation.
			8. Surface water management systems; (62-701.400(9), FAC)
<u> </u>	<u> </u>	<u> </u>	<u>X</u> a. Design of surface water management system to isolate surface water from waste filled areas and to control stormwater run-off;
<u> </u>	<u> </u>	<u> </u>	<u>X</u> b. Details of stormwater control design including retention ponds, detention ponds, and drainage ways;
			9. Gas control systems; (62-701.400(10), FAC)
<u> </u>	<u> </u>	<u> </u>	<u>X</u> a. Design details for gas control system including collection pipes and vents, and passive venting or vacuum extraction details;
<u> </u>	<u> </u>	<u> </u>	<u>X</u> b. Documentation that the gas control system will not impact the liner or leachate control system;
<u> </u>	<u> </u>	<u> </u>	<u>X</u> c. Proposed methods of odor control including flaring designs in accordance with Chapter 62-210, FAC;
<u> </u>	<u> </u>	<u> </u>	<u>X</u> d. Description of a routine gas monitoring program to ensure gas control system is operating properly including:
<u> </u>	<u> </u>	<u> </u>	<u>X</u> (1) Location of monitoring points;

T. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

A. Applicant

The undersigned applicant or authorized representative of Hillsborough County is aware that statements made in this form and attached information are an application for a Construction (other) Permit from the Florida Department of Environmental Protection and certifies that the information in this application is true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.


Signature of Applicant or Agent


Daryl H. Smith, Director
Name and Title

Date: 1/4/01

Attach a letter of authorization if agent is not a governmental official, owner, or corporate officer.

B. Professional Engineer Registered in Florida or Public Officer as required in Section 403.707 and 403.707(5), Florida Statutes.

This is to certify that the engineering features of this solid waste management facility have been designed/examined by me and found to conform to engineering principals applicable to such facilities. In my professional judgement, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and operation of the facility.


Signature
Robert B. Gardner, P.E., DEE,
Vice President
Name and Title (please type)

SCS Engineers, 3012 U.S. Highway 301 North, Suite 700
Mailing Address

Tampa, Florida 33619
City, State, Zip Code

39233
Florida Registration Number
(please affix seal)

(813) 621-0080
Telephone Number

Date: December 8, 2000