PERMIT DATA FORM	CHECK IF NEW:
MODX NEW_ RENEWAL_	SITE WAFR # AIR # 5049-0199726-020
SITE/WAFER/FACILITY NAME Oak	Hammack Disposed Face
PROJECT NAME: JED	
DESC:	
TYPE CODE: SUBCODE: Mm	CHECK IF GP EXEMPT NPDES
	CORRECT FEE: 256 -
PROCESSOR: K. Proh	AMOUNT RCV'D: 250
WACS # 89544	AMOUNT REFUND:

RED	YELLOW	GREEN	NO PERMIT REQ

### **HISTORY SHEET**

SITE/WAFR/APPA Hammark Asparal Fac  PROJECT NAME:						
DATE	TIME BEGIN	TIME END	TOTAL TIME	COMMENTS	POSITION TITLE	
ENTERED	·	8-17-11	30		ORS	
			·			
		·				

## Geosyntec Consultants

13101 Telecom Dr., Suite 120 Temple Terrace, Florida 33637 (813) 558-0990 - (813) 558-9726 FAX  To: Mr. F. Thomas Lubozynski, P.E. FDEP Solid & Haz. Waste, Central Dist. 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767 phone: (407) 893-3327  We are sending you:  Tracings  Tracings  Photostats  Photos  Photos					Date 16-Aug-11 Job No. FL1970 Attention Mr. Thomas Lubozynski  Re: Minor Modification Permit Application JED Solid Waste Management Facility  Under separate covers via the following items  Test Results  Documents  AUG 17 2011			
		X Prints X CD ROM		Photos	Sepias/Drawings	DEP Central Dist.		
Co	opies	Date	No.		Description			
	3	16-Aug-11		Minor Modificatio	n Permit Application (bound	hardcopies)		
	1	16-Aug-11			n Permit Application (CD-RC			
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		X For approva	l	Approved as submitted	<u> </u>	for approval		
		For your use	<u> </u>	Approved as noted		for distribution		
		As you requ	ested	Returned for corrections	Return correcte	ed prints		
Rem	arks							
		·····			· <i></i> · · · · · · · · · · · · · · · · · ·			
Сору	y to	Michael Kaise	er, WSI	<del></del>	Signed Victor M. Dan	nasceno, Ph.D., P.E.		

**TRANSMITTAL** 

Fleet Maine, N.A.
South Portland, ME
52-153/112
2301 Eagle Parkway, Suite 200
Fort Worth, TX 76177
Check Date

7/26/2011

Check # 101918453

\*\* Void after 120 days \*\*

\*\* Not valid over \$50,000 without two manual signatures \*\*

Two Hundred Fifty and 00/100----- U

PAY TO THE FLORIDA DEPT OF ENVIRONMENTAL PROTEC

Authorized Signature

BORDER CONTAINS MICROPRINTING

(817) 632-4000

# Geosyntec consultants

13101 Telecom Drive, Suite 120 Tampa, FL 33637 PH 813-558-0990 FAX 813-558-9726 www.geosyntec.com

16 August 2011

Mr. Thomas Lubozynski, P.E. Waste Program Administrator Florida Department of Environmental Protection Central District Office 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767

RECEIVED

AUG 17 2011

DEP Central Dist.

Subject: Minor

Minor Modification Permit Application

FDEP Permit No. SC49-0199726-017

J.E.D. Solid Waste Management Facility (WACS #89544)

Class I – Lateral Expansion Construction

Osceola County, Florida

Dear Mr. Lubozynski:

Geosyntec Consultants (Geosyntec) prepared this minor modification permit application on behalf of Omni Waste of Osceola County, LLC (Omni) for the J.E.D. Solid Waste Management Facility (JED facility) located in St. Cloud, Florida. This minor modification permit application is prepared in accordance with applicable sections of Chapter 62-701 of the Florida Administrative Code (FAC) and the Florida Department of Environmental Protection (FDEP) Form 62-701.900(1) – Application to Construct, Operate, Modify, or Close a Solid Waste Management Facility, completed and included in Attachment 1 of this submittal. This minor modification permit application was also prepared in accordance with discussions held between Waste Services, Inc. (WSI), Geosyntec, and the FDEP during a meeting on 11 July 2011.

A check in the amount of \$250 (in accordance with Rule 62-701.315(4), F.A.C.) and FDEP Form 62-701.900(1) are submitted herein.

#### BACKGROUND

The JED facility is currently operating under construction and operation Permit Nos. SC49-0199726-004 and SO49-0199726-005, respectively, issued by the FDEP in March 2007. The 5-year construction and operation permits expire in January 2012. These permits authorize the construction and operation of Phases 1 through 3, which consists of Cells 1 through 10. To date, Cells 1 through 7 of the JED Facility have been constructed.

In February 2011, Geosyntec submitted a Major Modification Permit Application entitled "Landfill Lateral Expansion – Application for a Major Permit Modification" (2011

Mr. Thomas Lubozynski 16 August 2011 Page 2

Lateral Expansion) to laterally expand the waste landfill footprint to approximately 363 acres while maintaining the current permitted maximum elevation of 330 feet (NGVD). The 2011 Lateral Expansion also included design changes to Phases 4 and beyond, which encompasses Cells 11 through 23.

#### **PURPOSE**

On 15 June 2011, FDEP issued a notice of application completion for Permit Application No. SC49-0199726-017, which incorporates the lateral expansion modifications and Cells 11 through 23. As indicated during the 11 July 2011 meeting, FDEP intends to issue Permit No. SC49-0199726-017 by 20 September 2011 (assuming no comments are received).

At present, Cells 8, 9, and 10 (currently included in construction Permit No. SC49-0199726-004 which expires in January 2012) have not yet been constructed. As such, the purpose of this minor modification application is to request that the construction of Cells 8 through 10 be transferred from Permit No. SC49-0199726-004 and incorporated into construction Permit No. SC49-0199726-017, which will expire in 2017.

#### PERMIT MINOR MODIFICATION APPLICATION

Geosyntec has completed FDEP Form No. 62-701.900(1) – Application to Construct, Operate, Modify, or Close a Solid Waste Management Facility, which is included in Attachment 1 of this submittal. The permit application is duly certified by the applicant and a professional engineer registered in the State of Florida.

Relevant details of Cells 8 through 10 construction including the engineering report, permit drawings, technical specifications, and Construction Quality Assurance Plan are not proposed to change from the approved documents currently on file with FDEP. In addition, the Financial Assurance Deferral cost estimate form (No. 62-701.900(28), F.A.C.), which covered Cells 8 through 23 was submitted to FDEP as part of Response to Request for Additional Information #2 for the 2011 Lateral Expansion in a letter dated 18 May 2011.

Mr. Thomas Lubozynski 16 August 2011 Page 3

#### **CLOSURE**

If you have any questions or need additional information, please do not hesitate to contact either of the undersigned.

Sincerely,

Craig R. Browne, P.E.

**Project Engineer** 

Victor M. Dames

Engineer Florida P.E. No. 2966

STATE OF

ORIDION NONAL ENIN

Attachment:

Copies to: Michael Kaiser, WSI

FL1970\2011 Minor Modification.doc engineers | scientists | innovators **ATTACHMENT 1** 

FDEP Form 62-701.900(1)



### Florida Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 DEP Form #: 62-701.900(1), F.A.C.

Form Title: Application to Construct, Operate, Modify, or Close a Solid Waste Management Facility

Effective Date: January 6, 2010

Incorporated in Rule: 62-701.330(3), F.A.C.

### STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

**APPLICATION INSTRUCTIONS AND FORMS** 

#### INSTRUCTIONS TO APPLY FOR A SOLID WASTE MANAGEMENT FACILITY PERMIT

#### General

Solid Waste Management Facilities shall be permitted pursuant to Section 403.707, Florida Statutes, (FS) and in accordance with Florida Administrative Code (FAC) Chapter 62-701. A minimum of four copies of the application shall be submitted to the Department's District Office having jurisdiction over the facility. The appropriate fee in accordance with Rule 62-701.315, FAC, shall be submitted with the application by check made payable to the Department of Environmental Protection (DEP).

Complete appropriate sections for the type of facility for which application is made. Entries shall be typed or printed in ink. All blanks shall be filled in or marked "not applicable" or "no substantial change". Information provided in support of the application shall be marked "submitted" and the location of this information in the application package indicated. The application shall include all information, drawings, and reports necessary to evaluate the facility. Information required to complete the application is listed on the attached pages of this form.

#### II. Application Parts Required for Construction and Operation Permits

- A. Landfills and Ash Monofills Submit Parts A through S
- B. Asbestos Monofills Submit Parts A,B,C,D,E,F,I,K,M, O through S
- C. Industrial Solid Waste Disposal Facilities Submit Parts A through S

**NOTE:** Portions of some Parts may not be applicable.

**NOTE:** For facilities that have been satisfactorily constructed in accordance with their construction permit, the information required for A, B and C type facilities does not have to be resubmitted for an operation permit if the information has not substantially changed during the construction period. The appropriate portion of the form should be marked "no substantial change".

#### III. Application Parts Required for Closure Permits

- A. Landfills and Ash Monofills Submit Parts A,B,L, N through S
- B. Asbestos Monofills Submit Parts A,B,M, O through S
- C. Industrial Solid Waste Disposal Facilities Submit Parts A,B, L through S

**NOTE:** Portions of some Parts may not be applicable.

#### IV. Permit Renewals

The above information shall be submitted at time of permit renewal in support of the new permit. However, facility information that was submitted to the Department to support the expiring permit, and which is still valid, does not need to be re-submitted for permit renewal. Portions of the application not re-submitted shall be marked "no substantial change" on the application form.

#### V. Application Codes

S - Submitted

LOCATION - Physical location of information in application

N/A - Not Applicable

N/C - No Substantial Change

#### VI. LISTING OF APPLICATION PARTS

PART A: GENERAL INFORMATION

PART B: DISPOSAL FACILITY GENERAL INFORMATION

PART C: PROHIBITIONS

PART D: SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL

PART E: LANDFILL PERMIT REQUIREMENTS

PART F: GENERAL CRITERIA FOR LANDFILLS

PART G: LANDFILL CONSTRUCTION REQUIREMENTS

PART H: HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS

PART I: GEOTECHNICAL INVESTIGATION REQUIREMENTS

PART J: VERTICAL EXPANSION OF LANDFILLS

PART K: LANDFILL OPERATION REQUIREMENTS

PART L: WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS

PART M: SPECIAL WASTE HANDLING REQUIREMENTS

PART N: GAS MANAGEMENT SYSTEM REQUIREMENTS

PART O: LANDFILL CLOSURE REQUIREMENTS

PART P: OTHER CLOSURE PROCEDURES

PART Q: LONG-TERM CARE

PART R: FINANCIAL ASSURANCE

PART S: CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION APPLICATION FOR A PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE A SOLID WASTE MANAGEMENT FACILITY

Please Type or Print

PART	A. GENERAL INFORMATION			
1.	Type of disposal facility (check all tha	t apply):	,	
	☑ Class I Landfill	☐ Ash Monofill		
	☐ Class III Landfill	☐ Asbestos Monofill		
	☐ Industrial Solid Waste			
	☐ Other Describe:			
	<del></del>			
NOTE	: Waste Processing Facilities should a Land Clearing Disposal Facilities sho Compost Facilities should apply on F C&D Disposal Facilities should apply	uld notify on Form 62-701.900(3), FAC; orm 62-701.900(10), FAC; and		
2.	Type of application:			
	☑ Construction			
	□ Operation			
	□ Construction/Operation			
	□ Closure			
	☐ Long-term Care Only			
3.	Classification of application:			
	□ New	□ Substantial Modification		
	□ Renewal	☐ Intermediate Modification		
		☑ Minor Modification		
4.	Facility name: J.E.D. Solid Waste Ma	anagement Facility		
5.	DEP ID number: 89544 (WACS)	County: Osceola		
6.	Facility location (main entrance): 1501 Omni Way, St. Cloud, FL 347	73		
7.	Location coordinates:			
	Section: 11,13,14,17, & 18 Township	ip: <u>28S</u> Range: <u>32E &amp; 33</u>	BE	
	Latitude: 28° 3'	32" Longitude: 8'	1° 5'	<u>46</u> "
	Datum: WGS84 Coo	ordinate Method: DGPS		
	Collected by: Johnston's Surveying	Company/Affiliation: Johnst	on's Surveying	

8.	Applicant name (operating authority): Omni Waste of Os	sceola County, LLC	<u>,</u>
	Mailing address: 1501 Omni Way	St. Cloud	FL 34773
	Street or P.O. Box	City	State Zip
	Contact person: Michael Kaiser	Telephone: (904	_) 673-0446
	Title: Regional Engineer	· · · · · · · · · · · · · · · · · · ·	
		MKaiser@wasteservice	esinc.com
9.	Authorized agent/Consultant: Geosyntec Consultants	E-Mail addre	ss (if available)
	Mailing address: 13101 Telecom Drive, Suite 120	Temple Terrace	FL 33637
	Street or P.O. Box	City	State Zip
	Contact person: Victor M. Damasceno, Ph.D., P.E.	Telephone: (813	) 558-0990
	Title: Engineer		
		vdamasceno@geosynte	ec.com
		E-Mail addres	s (if available)
10.	Landowner (if different than applicant): N/A		
	Mailing address:		
	Street or P.O. Box	City	State Zip
	Contact person:	Telephone: (	_)
11.	Cities, towns and areas to be served: Primarily Osceola, Brevard, Indian River, Okeechobe Pasco, Hillsborough, Hardee, and Highlands Countie streams are available.	e, Orange, Polk, Volusia,	ress (if available) , Sumter, Lake, Seminole, s are served as waste
			<del></del>
12.	Population to be served:	Year	
•		ction: 6,000,000 (appro	ox.)
13.	Date site will be ready to be inspected for completion:	pring 2012 (for Cell 8 co	nstruction)
14.	Expected life of the facility: 23years		
<b>15</b> .	Estimated costs: (Estimated costs correspond to cons closing for the 272.7-acre Cells 8 three	truction and correspondir ough 23 area)	ng
	Total Construction: \$68200000	Closing Costs: \$ <u>2940000</u>	0
16.	Anticipated construction starting and completion dates:		
	From: 10/1/2011	o: <u>10/1/2034</u>	
17.	Expected volume or weight of waste to be received:		
	yds³/day6,000 tons/o	day g	allons/day

#### PART B. DISPOSAL FACILITY GENERAL INFORMATION

existing Permit No. SC49-0199726-	is being submitted to transfer construction of Phase 3 (Cells 8-10) 004 to Permit No. SC49-0199726-017. Permit No. SC49-0199726
covers construction of Cells 11 thro	ugh 23. This permit modification is prepared to incorporate constru
of Cells 8-10 into Permit No. SC49-	0199726-017.
English, eith gunna inner Matt Orr	
Facility site supervisor: Matt Orr	
Title: Site Manager	Telephone: (407 ) 891-3720
	morr@wasteservicesinc.com
	E-Mail address (if available)
Disposal area: Total36	33 acres; Used 89 acres; Available 274
Weighing scales used: ☑ Yes ☐ No	5
Security to prevent unauthorized use	e: ☑ Yes □ No
Charge for waste received:	\$/yds <sup>3</sup> 35_\$/ton
Surrounding land use, zoning:	
□ Residential	□ Industrial
☑ Agricultural	□ None
□ Commercial	☐ Other Describe:
Types of waste received:	
Types of waste received:  ☑ Household	☑ C & D debris
• •	
☑ Household	☑ C & D debris
<ul><li>☑ Household</li><li>☑ Commercial</li></ul>	☑ C & D debris ☑ Shredded/cut tires

☐ Air treatment sludge	☑ Industrial sludge
☐ Agricultural	☑ Domestic sludge
☑ Asbestos Waste tires, auto shredder wast	☑ Other Describe: te, and industrial liquid waste for solidification.
Salvaging permitted: □ Yes ☑ No	
Attendant: ☑ Yes □ No	Trained operator: ☑ Yes ☐ No
Trained spotters: ☑ Yes □ No	Number of spotters used: Minimum of 1 per work face
Site located in: ☑ Floodplain	☑ Wetlands □ Other:
Days of operation: Monday thru Sund	ay
Hours of operation: Mon-Fri: 5am to	4pm, Sat: 6am to 12pm, Sun: 6am to 10am
Days Working Face covered: each w	orking day
Elevation of water table: 79	ft. Datum Used: NGVD 1929
Number of monitoring wells: 63	
Number of surface monitoring points:	2
Gas controls used: ☑ Yes ☐ No	Type controls: ☑ Active ☐ Passive
Gas flaring: ☑ Yes □ No	Gas recovery: ☑ Yes □ No
Landfill unit liner type:	
□ Natural soils	☐ Double geomembrane
	☑ Geomembrane & composite (Cells 5 thru 23)
<u> </u>	
<ul><li>□ Single clay liner</li><li>□ Single geomembrane</li></ul>	☑ Double composite (Cells 1 thru 4)
☐ Single geomembrane	
<ul><li>☐ Single geomembrane</li><li>☐ Single composite</li><li>☐ Slurry wall</li></ul>	☑ Double composite (Cells 1 thru 4)

<b></b>		
Collection pi	ipes	☑ Sand layer
☑ Geonets (ge	eocomposite)	☐ Gravel layer
□ Well points		□ Interceptor trench
☐ Perimeter di	itch	□ None
☐ Other Descr	ribe:	
Leachate stora	age method:	
☐ Tanks ☐ Other Descr	ribe:	☑ Surface impoundments with flexible storage containe
Leachate treat	ment method:	
	ment method:	☐ Chemical treatment
Oxidation     ○	ment method:	
<ul><li>Ó Oxidation</li><li>☐ Secondary</li></ul>	ment method:	<ul><li>□ Chemical treatment</li><li>□ Settling</li><li>□ None</li></ul>
		<ul><li>□ Settling</li><li>□ None</li><li>on in the uncovered Cell 2 of the leachate storage area. Cells 1, 3</li></ul>
<ul><li>☑ Oxidation</li><li>☑ Secondary</li><li>☑ Advanced</li><li>☑ Other</li><li>Oxidation perf</li></ul>	formed through aeratio	<ul><li>□ Settling</li><li>□ None</li><li>on in the uncovered Cell 2 of the leachate storage area. Cells 1, 3</li></ul>
<ul><li>☑ Oxidation</li><li>☑ Secondary</li><li>☑ Advanced</li><li>☑ Other</li><li>Oxidation perf</li></ul>	formed through aeratic with no oxidation acti	<ul><li>□ Settling</li><li>□ None</li><li>on in the uncovered Cell 2 of the leachate storage area. Cells 1, 3,</li></ul>
<ul> <li>☼ Oxidation</li> <li>☐ Secondary</li> <li>☐ Advanced</li> <li>戶 Other</li> <li>Oxidation perf</li> <li>4 are covered</li> </ul>	formed through aeratic with no oxidation acti	<ul><li>□ Settling</li><li>□ None</li><li>on in the uncovered Cell 2 of the leachate storage area. Cells 1, 3,</li></ul>
<ul> <li>☑ Oxidation</li> <li>☑ Secondary</li> <li>☑ Advanced</li> <li>☑ Other</li> <li>Oxidation perfered</li> <li>4 are covered</li> </ul> Leachate disposition	formed through aeratic with no oxidation acti	□ Settling □ None on in the uncovered Cell 2 of the leachate storage area. Cells 1, 3, vity.
<ul> <li>☑ Oxidation</li> <li>☑ Secondary</li> <li>☑ Advanced</li> <li>☑ Other</li> <li>☑ Oxidation perference</li> <li>4 are covered</li> <li>☑ Leachate disposition</li> <li>☑ Recirculated</li> </ul>	formed through aeratic with no oxidation action act	□ Settling □ None  on in the uncovered Cell 2 of the leachate storage area. Cells 1, 3, vity. □ Pumped to WWTP
<ul> <li>☑ Oxidation</li> <li>☑ Secondary</li> <li>☑ Advanced</li> <li>☑ Other</li> <li>☑ Oxidation perf</li> <li>4 are covered</li> <li>☑ Leachate dispose</li> <li>☑ Recirculated</li> <li>☑ Transported</li> </ul>	formed through aeratic with no oxidation acti osal method: d	□ Settling □ None  on in the uncovered Cell 2 of the leachate storage area. Cells 1, 3 vity.  □ Pumped to WWTP □ Discharged to surface water/wetland

-	
01	M-1
Storm V	vater.
Collecte	ed: 🗹 Yes 🗆 No
T	Annahan audi
Dry an	treatment: d wet retention for landfill and dry retention for access road.
Diy un	a wet retention for landing and dry retention for access road.
-	
Name a	and Class of receiving water
Bull Cr	and Class of receiving water: eek, Class III
Environ	mental Resources Permit (ERP) number or status:
	mental Resources Permit (ERP) number or status:
Currer	at ERP Numbers are ERP49-0199752-001-El (Phase 1 Individual). ERP49-0199752-002-El
Currer (Conce	at ERP Numbers are ERP49-0199752-001-EI (Phase 1 Individual), ERP49-0199752-002-EI eptual), ERP-49-0199752-003-EI (Phase 2 Individual), and ERP49-0199752-004-EM (Phase
Currer	at ERP Numbers are ERP49-0199752-001-EI (Phase 1 Individual), ERP49-0199752-002-EI eptual), ERP-49-0199752-003-EI (Phase 2 Individual), and ERP49-0199752-004-EM (Phase
Currer (Conce	at ERP Numbers are ERP49-0199752-001-EI (Phase 1 Individual), ERP49-0199752-002-EI eptual), ERP-49-0199752-003-EI (Phase 2 Individual), and ERP49-0199752-004-EM (Phase

<u>s</u>	LOCATION	<u>N/A</u>	N/C	, and the second
<b> </b>		_ 🗆	<b>7</b>	Provide documentation that each of the siting criteria will be satisfied for
		_ 🗹		the facility; (62-701.300(2), FAC)  2. If the facility qualifies for any of the exemptions contained in Rules 62-701.300(12) through (18), FAC, then document this qualification(s).
		_ 🗆	<b>7</b>	Provide documentation that the facility will be in compliance with the burning restrictions; (62-701.300(3), FAC)
 		_ 🗆	<b>7</b>	4. Provide documentation that the facility will be in compliance with the hazardous waste restrictions; (62-701.300(4), FAC)
		_ 🗆	<b>7</b>	5. Provide documentation that the facility will be in compliance with the PCB disposal restrictions; (62-701.300(5), FAC)
<u> </u>	<u></u>	_ 🗆	<b>√</b>	6. Provide documentation that the facility will be in compliance with the biomedical waste restrictions; (62-701.300(6), FAC)
		_ 🗆	Ø	7. Provide documentation that the facility will be in compliance with the Class I surface water restrictions; (62-701.300(7), FAC)
	<del> </del>	_ 🗆	Ø	8. Provide documentation that the facility will be in compliance with the special waste for landfills restrictions; (62-701.300(8), FAC)
		_ 🗆	Ø	9. Provide documentation that the facility will be in compliance with the liquid restrictions; (62-701.300(10), FAC)
		_ 🗆	Ø	10. Provide documentation that the facility will be in compliance with the used oil and oily waste restrictions; (62-701.300(11), FAC)
PART D.	SOLID WAS	STE MAN	AGEME	NT FACILITY PERMIT REQUIREMENTS, GENERAL (62-701.320, FAC)
<u>s</u>	LOCATION	N/A	N/C	
<b>☑</b> Attac	hed	_ 🗆		Four copies, at minimum, of the completed application form, all supporting data and reports;     (62-701.320(5)(a).FAC)

PART C.

**PROHIBITIONS** (62-701.300, FAC)

<u>s</u>	LOCATION	N/A	N/C	PART D CONTINUED
<b>V</b>	Attached: Letter/Attachment 1			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)
7	Attached Letter			3. A letter of transmittal to the Department; (62-701.320(7)(a),FAC)
<b>/</b>	Attachment 1			4. A completed application form dated and signed by the applicant; (62-701.320(7)(b),FAC)
Ø	Attached Letter			5. Permit fee specified in Rule 62-701.315, FAC in check or money order, payable to the Department; (62-701.320(7)(c),FAC)
				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)
			Ø	7.Operation Plan and Closure Plan; (62-701.320(7)(e)1,FAC)
			Ø	8. Contingency Plan; (62-701.320(7)(e)2,FAC)
			Ø	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 1929) showing; (62-701.320(7)(f),FAC)
			Ø	a. A regional map or plan with the project location in relation to major roadways and population centers;
				b. A vicinity map or aerial photograph no more than 1 year old showing the facility site and relevant surface features located within 1000 feet of the facility;
			Ø	c. A site plan showing all property boundaries certified by a Florida Licensed Professional Surveyor and Mapper; and
			Ø	d. Other necessary details to support the engineering report, including referencing elevations to a consistent, nationally recognized datum and identifying the method used for collecting latitude and longitude data.

<u>s</u>	<u>LOCATION</u>	<u>N/A</u>	N/C	PART D CONTINUED
<u> </u>		_ 🗆	<b>7</b>	10. Documentation that the applicant either owns the property or has legal authority from the property owner to use the site; (62-701.320(7)(g),FAC)
<u> </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 the waste reduction and recycling goals contained in Section 403.706,FS; (62-701.320(7)(h),FAC)
<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)
		_ 🗆	Ø	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; (62-702.320(8),FAC)
<u> </u>	<u></u>	_ 🗆	<b>7</b>	14. Provide a description of how the requirements for airport safety will be achieved including proof of required notices if applicable. If exempt, explain how the exemption applies; (62-701.320(13),FAC)
		_ 🗆	Ø	15. Explain how the operator and spotter training requirements and special criteria will be satisfied for the facility; (62-701.320(15), FAC)
PART	E. LANDFILL	PERMIT F	REQUIRE	EMENTS (62-701.330, FAC)
<u>s</u>	LOCATION	<u>N/A</u>	<u>N/C</u>	
		_ 🗆	Ø	1. Regional map or aerial photograph no more than 5 years old showing all airports that are located within five miles of the proposed landfill; (62-701.330(3)(a),FAC)
<u> </u>		_ 🗆	Ø	2. Plot plan with a scale not greater than 200 feet to the inch showing; (62-701.330(3)(b),FAC)
<b>_</b>		_ 🗆	Ø	a. Dimensions;
<u> </u>		_ 🗆	<b>7</b>	b. Locations of proposed and existing water quality monitoring wells;
<b>_</b>		_ 🗆	V	c. Locations of soil borings;

<u>s</u>	LOCATION	<u>N/A</u>	N/C	PART E CONTINUED
<b>_</b>		_ 🗆	<b>7</b>	d. Proposed plan of trenching or disposal areas;
<u> </u>		. 0	<b>√</b> .	e. Cross sections showing original elevations and proposed final contours which shall be included either on the plot plan or on separate sheets;
		_ 🗆	Ø	f. Any previously filled waste disposal areas;
<u> </u>		_ 🗆	<b>7</b>	g. Fencing or other measures to restrict access.
<u> </u>		_ 🗆	<b></b>	3. Topographic maps with a scale not greater than 200 feet to the inch with 5-foot contour intervals showing; (62-701.330(3)(c),FAC):
		_ 🗆	Ø	a. Proposed fill areas;
		_ 🗆	Ø	b. Borrow areas;
<b>_</b>		_ 🗆	<b>V</b>	c. Access roads;
<u> </u>	<del></del>	_ 🗆	Ø	d. Grades required for proper drainage;
		_ 🗆	Ø	e. Cross sections of lifts;
<u> </u>		<b></b>		f. Special drainage devices if necessary;
<u> </u>			✓	g. Fencing;
<b></b>		_ 🗆	☑	h. Equipment facilities.
<b>_</b>		_ 🗆	$\square$	4. A report on the landfill describing the following; (62-701.330(3)(d),FAC)
		. 🗆	Ø	a. The current and projected population and area to be served by the proposed site;
		. 🗆	Ø	b. The anticipated type, annual quantity, and source of solid waste, expressed in tons;
<b></b>		_ 🗆	V	c. Planned active life of the facility, the final design height of the facility and the maximum height of the facility during its operation;

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<u>s</u>	LOCATION	<u>N/A</u>	N/C	PART E CONTINUED
		_ 🗆	<b>7</b>	d. The source and type of cover material used for the landfill.
		_ 🗆	Ø	5. Provide evidence that an approved laboratory shall conduct water quality monitoring for the facility in accordance with Chapter 62-160,FAC; (62-701.330(3)(g),FAC)
		_ 🗆	Ø	<ol> <li>Provide a statement of how the applicant will demonstrate financial responsibility for the closing and long-term care of the landfill; (62-701.330(3)(h),FAC)</li> </ol>
PART F.	GENERAL (	CRITERIA	FOR LA	ANDFILLS (62-701.340,FAC)
<u>s</u>	LOCATION	<u>N/A</u>	<u>N/C</u>	
· 🗆	<del></del>	_ 0	Ø	1. Describe (and show on a Federal Insurance Administration flood map, if available) how the landfill or solid waste disposal unit shall not be located in the 100-year floodplain where it will restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain unless compensating storage is provided, or result in a washout of solid waste; (62-701.340(3)(b),FAC)
		_ 🗆	<b>7</b>	2. Describe how the minimum horizontal separation between waste deposits in the landfill and the landfill property boundary shall be 100 feet, measured from the toe of the proposed final cover slope; (62-701.340(3)(c),FAC)
PART G.	LANDFILL (	CONSTR	UCTION	REQUIREMENTS (62-701.400,FAC)
<u>s</u>	LOCATION	<u>N/A</u>	N/C	
		_ 🗆	Ø	1. Describe how the landfill shall be designed so that solid waste disposal units will be constructed and closed at planned intervals throughout the design period of the landfill and shall be designed to achieve a minimum factor of safety of 1.5 using peak strength values to prevent failures of side slopes and deep-seated failures; (62-701.400(2),FAC)
<u> </u>		_ 🗆		2. Landfill liner requirements; (62-701.400(3),FAC)
		_ 🗆	Ø	a. General construction requirements; (62-701.400(3)(a),FAC):
<u> </u>		🗆	<b>7</b>	(1) Provide test information and documentation to ensure the liner will be constructed of materials that have appropriate physical, chemical, and mechanical properties to prevent failure;

<u>s</u>	LOCATION	<u>N/A</u>	N/C		PART G CONTINUED
<b>-</b>		_ 🗆	<b>7</b>	(2)	Document foundation is adequate to prevent liner failure;
			Ø	(3)	Constructed so bottom liner will not be adversely impacted by fluctuations of the ground water;
<b>-</b>		_ 🗆	Ø	(4)	Designed to resist hydrostatic uplift if bottom liner located below seasonal high ground water table;
		_ 🗆	Ø	(5)	Installed to cover all surrounding earth which could come into contact with the waste or leachate.
<u> </u>		_ 🗆	<b>7</b>	b. Com	posite liners; (62-701.400(3)(b),FAC)
	·	_ 🗆	<b>V</b>	(1)	Upper geomembrane thickness and properties;
<b>-</b>		_ 🗆	Ø	(2)	Design leachate head for primary LCRS including leachate recirculation if appropriate;
		_ 🗹		. (3)	Design thickness in accordance with Table A and number of lifts planned for lower soil component.
		_ 🗆	<b>7</b>	c. Dou	ble 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;
 •		_ 🗆	Ø	(3)	Lower geomembrane sub-base design;
<u> </u>		_ 🗆	Ø	(4)	Leak detection and secondary leachate collection system minimum design criteria ( $k \ge 10$ cm/sec, head on lower liner $\le 1$ inch, head not to exceed thickness of drainage layer);
		_ 🗆	Ø		ndards for geosynthetic components; (62- 00(3)(d),FAC)

<u>s</u>	<b>LOCATION</b>	<u>N/A</u>	N/C	PART G CONTINUED
			<b>7</b>	(1) Factory and field seam test methods to ensure all geomembrane seams achieve the minimum specifications;
			<b>7</b>	(2) Geomembranes to be used shall pass a continuous spark test by the manufacturer;
			Ø	(3) Design of 24-inch-thick protective layer above upper geomembrane liner;
		_ 🛭	<b>V</b>	(4) Describe operational plans to protect the liner and leachate collection system when placing the first layer of waste above 24-inch-thick protective layer.
<u> </u>		_ 🗆	Ø	(5) HDPE geomembranes, if used, meet the specifications in GRI GM13 and LLDPE geomembranes, if used, meet the specifications in GRI GM17;
		_ 🗹		(6) PVC geomembranes, if used, meet the specifications in PGI 1104;
<b>.</b>		_ 🗆	<b>7</b>	(7) Interface shear strength testing results of the actual components which will be used in the liner system;
		_ 🗆	Ø	(8) Transmissivity testing results of geonets if they are used in the liner system;
<sup>-</sup>	,	_ 🗆	<b>V</b>	(9) Hydraulic conductivity testing results of geosynthetic clay liners if they are used in the liner system;
		_ 🗆	Ø	e. Geosynthetic specification requirements; (62-701.400(3)(e),FAC)
		_ 🛭	Ø	(1) Definition and qualifications of the designer, manufacturer, installer, QA consultant and laboratory, and QA program;
		_ 🗆	✓	(2) Material specifications for geomembranes, geocomposites, geotextiles, geogrids, and geonets;

<u>s</u>	<b>LOCATION</b>	<u>N/A</u>	N/C		PART G CONTINUED
<u> </u>			<b>✓</b>	(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> </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> </u>	,		<b>7</b>	(5)	Geotextile and geogrid specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials and any overlying materials;
<u> </u>			Ø	(6)	Geonet and geocomposite specifications including handling and placement, conformance testing, stacking and joining, repair, and placement of soil materials and any overlying materials;
<u> </u>			Ø	(7)	Geosynthetic clay liner specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil material and any overlying materials;
<b>_</b>			Ø	f. Star	ndards for soil liner components (62-710.400(3)(f),FAC):
<u> </u>			Ø	(1)	Description of construction procedures including overexcavation and backfilling to preclude structural inconsistencies and procedures for placing and compacting soil component in layers;
		<b>V</b>		(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;
o				(3)	Procedures for testing in-situ soils to demonstrate they meet the specifications for soil liners;

<u>s</u>	LOCATION	N/A	N/C		PART (	G CONTINUED
<u> </u>		Ø		(4)	Specif minim	ications for soil component of liner including at a um:
		7			(a)	Allowable particle size distribution, Atterberg limits, shrinkage limit;
<u> </u>		<b>7</b>			(b)	Placement moisture and dry density criteria;
<u> </u>	····	Ø			(c)	Maximum laboratory-determined saturated hydraulic conductivity using simulated leachate;
<u> </u>	<del></del>	<b>V</b>			(d)	Minimum thickness of soil liner;
		Ø			(e)	Lift thickness;
O		Ø			<b>(f)</b>	Surface preparation (scarification);
<u> </u>	<u></u>	Ø			(g)	Type and percentage of clay mineral within the soil component;
		<b>7</b>		(5)	to doc	dures for constructing and using a field test section ument the desired saturated hydraulic conductivity ickness can be achieved in the field.
<u> </u>		<b>7</b>		system	n, provid	landfill is to be constructed with a bottom liner e a description of how the minimum requirements be achieved.
<u> </u>			Ø	3. Leachate co (62-701.400(4)		and removal system (LCRS);
<u> </u>			Ø		primary 0(4)(a),I	and secondary LCRS requirements; (62-FAC)
			Ø	(1)		ructed of materials chemically resistant to the waste achate;
o			Ø	(2)		sufficient mechanical properties to prevent collapse pressure;

<u>s</u>	LOCATION	<u>N/A</u>	N/C	PART G CONTINUED	
			<b>7</b>	(3) Have granular material or synthetic geotextile to preven clogging;	it
			7	(4) Have method for testing and cleaning clogged pipes or contingent designs for rerouting leachate around failed areas;	
			Ø	b. Other LCRS requirements; (62-701.400(4)(b) and (c),FAC)	
			V	<ul><li>(1) Bottom 12 inches having hydraulic conductivity ≥ 1 x 10 cm/sec;</li></ul>	) <sup>-3</sup>
			✓	(2) Total thickness of 24 inches of material chemically resistant to the waste and leachate;	
	<u> </u>		<b>Ø</b>	(3) Bottom slope design to accommodate for predicted settlement and still meet minimum slope requirements;	
				(4) Demonstration that synthetic drainage material, if used, equivalent or better than granular material in chemical compatibility, flow under load and protection of geomembrane liner.	, is
			<b>V</b>	4. Leachate recirculation; (62-701.400(5),FAC)	
			Ø	a. Describe general procedures for recirculating leachate;	
			Ø	b. Describe procedures for controlling leachate runoff and minimizing mixing of leachate runoff with storm water;	
			<b>V</b>	c. Describe procedures for preventing perched water conditions and gas buildup;	;
			<b>7</b>	d. Describe alternate methods for leachate management when cannot be recirculated due to weather or runoff conditions, surfa seeps, wind-blown spray, or elevated levels of leachate head or the liner;	ace
			V	e. Describe methods of gas management in accordance with Ri 62-701.530, FAC;	ule

<u>s</u>	LOCATION	<u>N/A</u>	N/C	P/	ART G CONTINUED
<u> </u>		Ø		and stand cover and	ate irrigation is proposed, describe treatment methods dards for leachate treatment prior to irrigation over final disprovide documentation that irrigation does not esignificantly to leachate generation.
<u> </u>			<b>7</b>	5.Leachate storaç 701.400(6),FAC)	ge tanks and leachate surface impoundments; (62-
<u> </u>	<u> </u>		Z	a. Surfac	e impoundment requirements; (62-701.400(6)(b),FAC)
<u> </u>			<b>7</b>	• •	Documentation that the design of the bottom liner will not be adversely impacted by fluctuations of the ground water;
<u> </u>			<b>7</b>	` '	Designed in segments to allow for inspection and repair as needed without interruption of service;
			Ø	(3)	Seneral design requirements;
<u> </u>			<b>7</b>	(	a) Double liner system consisting of an upper and lower 60-mil minimum thickness geomembrane;
			Ø	(	<ul> <li>b) Leak detection and collection system with hydraulic conductivity ≥ 1 cm/sec;</li> </ul>
<u> </u>			Ø	(	<ul> <li>Lower geomembrane placed on subbase ≥ 6 inches thick with k ≤ 1 × 10<sup>-5</sup> cm/sec or on an approved geosynthetic clay liner with k ≤ 1 × 10<sup>-7</sup> cm/sec;</li> </ul>
			<b>7</b>	(	<ul> <li>Design calculation to predict potential leakage through the upper liner;</li> </ul>
<u> </u>			<b>7</b>	(	e) Daily inspection requirements and notification and corrective action requirements if leakage rates exceed that predicted by design calculations;
<u> </u>			Ø	(4)	Description of procedures to prevent uplift, if applicable;
<u> </u>			<b>7</b>	• •	Design calculations to demonstrate minimum two feet of reeboard will be maintained;
<b>_</b>			7	(6) F	Procedures for controlling vectors and off-site odors.

<u>s</u>	LOCATION	<u>N/A</u>	N/C	PART G CONTINUED
				b. Above-ground leachate storage tanks; (62-701.400(6)(c),FAC)
		. 🗵		(1) Describe tank materials of construction and ensure foundation is sufficient to support tank;
		. 🗹		(2) Describe procedures for cathodic protection if needed for the tank;
		Ø		(3) Describe exterior painting and interior lining of the tank to protect it from the weather and the leachate stored;
		. 🗹		(4) Describe secondary containment design to ensure adequate capacity will be provided and compatibility of materials of construction;
		. 🗹		(5) Describe design to remove and dispose of stormwater from the secondary containment system;
		<b>7</b>		(6) Describe an overfill prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overfilling;
		. 🗆	<b>7</b>	(7) Inspections, corrective action and reporting requirements;
		_ 🗆	<b>7</b>	(a) Overfill prevention system weekly;
		_ 🗆	Ø	(b) Exposed tank exteriors weekly;
<u> </u>			<b>7</b>	(c) Tank interiors when tank is drained or at least every three years;
			Ø	(d) Procedures for immediate corrective action if failures detected;
	,		Ø	(e) Inspection reports available for department review.
<b>,</b>				c. Underground leachate storage tanks; (62-701.400(6)(d),FAC)

<u>s</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	PART G CONTINUED
		Ø		(1) Describe materials of construction;
<u> </u>	<del></del>	Ø		(2) A double-walled tank design system to be used with the following requirements;
		Ø		(a) Interstitial space monitoring at least weekly;
<b>-</b>		Ø		(b) Corrosion protection provided for primary tank interior and external surface of outer shell;
		<b>7</b>		(c) Interior tank coatings compatible with stored leachate;
		<b>V</b>		(d) Cathodic protection inspected weekly and repaired as needed;
<u> </u>	<u></u>	Ø		(3) Describe an overfill prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overfilling and provide for weekly inspections;
		Ø		(4) Inspection reports available for department review.
<u> </u>			Ø	d.Schedule provided for routine maintenance of LCRS; (62-701.400(6)(e),FAC)
			V	6.Liner systems construction quality assurance (CQA); (62-701.400(7),FAC)
□ _			Ø	a. Provide CQA Plan including:
			<b>V</b>	<ol> <li>Specifications and construction requirements for liner system;</li> </ol>
			<b>V</b>	(2) Detailed description of quality control testing procedures and frequencies;
			<b>7</b>	(3) Identification of supervising professional engineer;
			Ø	(4) Identify responsibility and authority of all appropriate organizations and key personnel involved in the construction project:

<u>s</u>	LOCATION	<u>N/A</u>	N/C	PART G CONTINUED
<u> </u>			☑	(5) State qualifications of CQA professional engineer and support personnel;
<u> </u>			<b>7</b>	(6) Description of CQA reporting forms and documents;
<u> </u>			Ø	<ul> <li>b. An independent laboratory experienced in the testing of geosynthetics to perform required testing;</li> </ul>
<u> </u>			Ø	7. Soil Liner CQA (62-701.400(8)FAC)
<u> </u>	·····		<b>7</b>	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>		Ø	b. Description of field test section construction and test methods to be implemented prior to liner installation;
			Ø	c. Description of field test methods including rejection criteria and corrective measures to insure proper liner installation.
O			<b>7</b>	8. Surface water management systems; (62-701.400(9),FAC)
<u> </u>			<b>7</b>	<ul> <li>a. Provide a copy of a Department permit for stormwater control or documentation that no such permit is required;</li> </ul>
<u> </u>			<b>7</b>	b. Design of surface water management system to isolate surface water from waste filled areas and to control stormwater run-off;
<u> </u>			V	c. Details of stormwater control design including retention ponds, detention ponds, and drainage ways;
<u> </u>	· · · · · · · · · · · · · · · · · · ·	. 🗆	Ø	9. Gas control systems; (62-701.400(10),FAC)
			Ø	a. Provide documentation that if the landfill is receiving degradable wastes, it will have a gas control system complying with the requirements of Rule 62-701.530, FAC;
		. 🗹		10. For landfills designed in ground water, provide documentation that the landfill will provide a degree of protection equivalent to landfills designed with bottom liners not in contact with ground water; (62-701.400(11),FAC)

PART H. HYDROGEOLOGICAL INVES				STIGATION REQUIREMENTS (62-701.410(1), FAC)	
<u>s</u>	LOCATION	<u>N/A</u>	N/C		
o			Ø	Submit a hydrogeological investigation and site report including at least the following information:	
<b>-</b>				a. Regional and site specific geology and hydrogeology;	
o			Ø	b. Direction and rate of ground water and surface water flow including seasonal variations;	
<b>-</b>			Ø	c. Background quality of ground water and surface water;	
<b>-</b>			<b>V</b>	d. Any on-site hydraulic connections between aquifers;	
<u> </u>			<b>7</b>	<ul> <li>e. Site stratigraphy and aquifer characteristics for confining layers semi-confining layers, and all aquifers below the landfill site that may be affected by the landfill;</li> </ul>	
<u> </u>			Ø	f. Description of topography, soil types and surface water drainage systems;	
			Ø	g. Inventory of all public and private water wells within a one-mile radius of the landfill including, where available, well top of casing and bottom elevations, name of owner, age and usage of each well, stratigraphic unit screened, well construction technique and static water level;	
o			Ø	h. Identify and locate any existing contaminated areas on the site;	
<b></b>			Ø	i. Include a map showing the locations of all potable wells within	

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500 feet of the waste storage and disposal areas;

2. Report signed, sealed and dated by PE and/or PG.

#### PART I. GEOTECHNICAL INVESTIGATION REQUIREMENTS (62-701.410(2),FAC)

<u>\$</u>	LOCATION	<u>N/A</u>	<u>N/C</u>	
<b>-</b>			<b>7</b>	Submit a geotechnical site investigation report defining the engineering properties of the site including at least the following:
□ _		. 🗆	Ø	<ul> <li>a. Description of subsurface conditions including soil stratigraphy and ground water table conditions;</li> </ul>
		_ 🗆	Ø	b. Investigate for the presence of muck, previously filled areas, soft ground, lineaments and sink holes;
	····	. 🗆	<b>7</b>	c. Estimates of average and maximum high water table across the site;
		_ 🗆	7	d. Foundation analysis including:
□ _		. 🗆	<b>7</b>	(1) Foundation bearing capacity analysis;
□ _		_ 🗆	<b>7</b>	(2) Total and differential subgrade settlement analysis;
□ _		. 🗆	<b>7</b>	(3) Slope stability analysis;
<u> </u>			V	e. Description of methods used in the investigation and includes soil boring logs, laboratory results, analytical calculations, cross sections, interpretations and conclusions;
<u> </u>			<b>7</b>	f. An evaluation of fault areas, seismic impact zones, and unstable areas as described in 40 CFR 258.13, 40 CFR 258.14 and 40 CFR 258.15.
<b></b>		_ 🗆	V	Report signed, sealed and dated by PE and/or PG.

PART J. VERTICAL EXPANSION OF LANDFILL				ANDFILLS (62-701.430,FAC)
<u>s</u>	LOCATION	<u>N/A</u>	N/C	
		Ø		1. Describe how the vertical expansion shall not cause or contribute to leachate leakage from the existing landfill, shall not cause objectionable odors, or adversely affect the closure design of the existing landfill;
<u> </u>		. 🗹		2. Describe how the vertical expansion over unlined landfills will meet the requirements of Rule 62-701.400, FAC with the exceptions of Rule 62-701.430(1)(c),FAC;
<b></b>		. 🗹		3. Provide foundation and settlement analysis for the vertical expansion;
<b></b>		_ Ø		4. Provide total settlement calculations demonstrating that the final elevations of the lining system, that gravity drainage, and that no other component of the design will be adversely affected;
<b></b>				5. Minimum stability safety factor of 1.5 for the lining system component interface stability and deep stability;
<b></b>	<del> </del>	. 🗹		6. Provide documentation to show the surface water management system will not be adversely affected by the vertical expansion;

new liner for the vertical expansion.

7. Provide gas control designs to prevent accumulation of gas under the

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PART	K. LANDFILL O	PERATI	ON REQ	<b>UIREMENTS</b> (62-701.500,FAC)
<u>s</u>	LOCATION	N/A	N/C	
			V	Provide documentation that landfill will have at least one trained operator during operation and at least one trained spotter at each working face; (62-701.500(1),FAC)
			V	2. Provide a landfill operation plan including procedures for: (62-701.500(2), FAC)
]	<u>.</u>		<b>7</b>	a. Designating responsible operating and maintenance personnel
			<b>7</b>	b. Emergency preparedness and response, as required in subsection 62-701.320(16), FAC;
			<b>7</b>	c. Controlling types of waste received at the landfill;
		. 🗆	Ø	d. Weighing incoming waste;
		. 🗆	<b>7</b>	e. Vehicle traffic control and unloading;
			<b>7</b>	f. Method and sequence of filling waste;
			$\Box$	g. Waste compaction and application of cover;
			Ø	h. Operations of gas, leachate, and stormwater controls;
			Ø	i. Water quality monitoring.
			<b>V</b>	j. Maintaining and cleaning the leachate collection system;
		. 🗆	Ø	3. Provide a description of the landfill operation record to be used at the landfill; details as to location of where various operational records will be kept (i.e. FDEP permit, engineering drawings, water quality records, etc.) (62-701.500(3),FAC)
			Ø	4. Describe the waste records that will be compiled monthly and provided to the Department annually; (62-701.500(4),FAC)
			<b>7</b>	5. Describe methods of access control; (62-701.500(5),FAC)

<u>s</u>	LOCATION	<u>N/A</u>	N/C	PART K CONTINUED
<u> </u>				6. Describe load checking program to be implemented at the landfill to discourage disposal of unauthorized wastes at the landfill; (62-701.500(6),FAC)
			Ø	7. Describe procedures for spreading and compacting waste at the landfill that include: (62-701.500(7),FAC)
	_ <del></del>		. 🗹	a. Waste layer thickness and compaction frequencies;
			<b>7</b>	<ul> <li>b. Special considerations for first layer of waste placed above liner and leachate collection system;</li> </ul>
			<b>V</b>	<ul> <li>c. Slopes of cell working face and side grades above land surface, planned lift depths during operation;</li> </ul>
<b>-</b>			$\square$	d. Maximum width of working face;
<u> </u>			Ø	e. Description of type of initial cover to be used at the facility that controls:
			<b>Ø</b>	(1) Vector breeding/animal attraction
			Ø	(2) Fires
			<b>7</b>	(3) Odors
			✓	(4) Blowing litter
□ _			✓	(5) Moisture infiltration
O			Ø	f. Procedures for applying initial cover including minimum cover frequencies;
_ <sub>.</sub> _				g. Procedures for applying intermediate cover;
□ _			7	h. Time frames for applying final cover;
□ _			<b>7</b>	i. Procedures for controlling scavenging and salvaging.

<u>s</u>	LOCATION	<u>N/A</u>	N/C	PART K CONTINUED
<b>_</b>			<b>V</b>	j. Description of litter policing methods;
			Ø	k. Erosion control procedures.
□_			<b>7</b>	8. Describe operational procedures for leachate management including; (62-701.500(8),FAC)
<b>_</b>			<b>√</b>	a. Leachate level monitoring, sampling, analysis and data results submitted to the Department;
<u> </u>			<b>V</b>	b. Operation and maintenance of leachate collection and removal system, and treatment as required;
	, , , , <u>, , , , , , , , , , , , , , , </u>		<b>7</b>	c. Procedures for managing leachate if it becomes regulated as a hazardous waste;
<u> </u>				d. Identification of treatment or disposal facilities that may be used for off-site discharge and treatment of leachate;
			<b>7</b>	e. Contingency plan for managing leachate during emergencies or equipment problems;
	<del>_</del>		<b>7</b>	f. Procedures for recording quantities of leachate generated in gal/day and including this in the operating record;
			Ø	g. Procedures for comparing precipitation experienced at the landfill with leachate generation rates and including this information in the operating record;
			V	h. Procedures for water pressure cleaning or video inspecting leachate collection systems.
<u> </u>			Ø	9. Describe how the landfill receiving degradable wastes shall implement a gas management system meeting the requirements of Rule 62-701.530, FAC; (62-701.500(9),FAC)
□			Ø	10. Describe procedures for operating and maintaining the landfill stormwater management system to comply with the requirements of Rule 62-701.400(9); (62-701.500(10),FAC)

<u>s</u>	LOCATION	<u>N/A</u>	N/C	PART K CONTINUED
			Ø	11. Equipment and operation feature requirements; (62-701.500(11),FAC)
		. 🗆	Ø	a. Sufficient equipment for excavating, spreading, compacting and covering waste;
<b>_</b>		. 🗆	Ø	<ul> <li>b. Reserve equipment or arrangements to obtain additional equipment within 24 hours of breakdown;</li> </ul>
<u> </u>		. 🗆	Ø	c. Communications equipment;
			abla	d. Dust control methods;
<u> </u>			Ø	e. Fire protection capabilities and procedures for notifying local fire department authorities in emergencies;
□ _		_ 🗆	<b>7</b>	f. Litter control devices;
<u> </u>			<b>7</b>	g. Signs indicating operating authority, traffic flow, hours of operation, disposal restrictions.
<u> </u>		_ 🗆	Ø	12. Provide a description of all-weather access road, inside perimeter road and other roads necessary for access which shall be provided at the landfill; (62-701.500(12),FAC)
<u> </u>		_ 🗆	<b>7</b>	13. Additional record keeping and reporting requirements; (62-701.500(13),FAC)
<u> </u>		_ 🗆	Ø	a. Records used for developing permit applications and supplemental information maintained for the design period of the landfill;
<u> </u>		_ 🗆	Ø	<ul> <li>b. Monitoring information, calibration and maintenance records, copies of reports required by permit maintained for at least 10 years;</li> </ul>
<u> </u>		_ 🗆	<b>Ø</b>	c. Maintain annual estimates of the remaining life of constructed landfills and of other permitted areas not yet constructed and submit this estimate annually to the Department;
□ _		_ 🗆	✓	d. Procedures for archiving and retrieving records which are more than five year old.

PART L.	T L. WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS (62-701.510, FAC)					
<u>s</u>	LOCATION	<u>N/A</u>	N/C			
<b></b>		_ 🗆	Ø	describing the pro	nd leachate monitoring plan shall be submitted posed ground water, surface water and leachate as and shall meet at least the following requirements;	
□		_ 🗆	Ø	investigat	on the information obtained in the hydrogeological ion and signed, dated and sealed by the PG or PE who it; (62-701.510(2)(a),FAC)	
<u> </u>		_ 🗆	<b>7</b>		upling and analysis preformed in accordance with 62-160, FAC; (62-701.510(2)(b),FAC)	
		_ 🗆	<b>7</b>	c. Ground	water monitoring requirements; (62-701.510(3),FAC)	
<u> </u>		_ 🗆	☑	` '	Detection wells located downgradient from and within 50 eet of disposal units;	
<b></b>		_ 🗆	<b>7</b>	(2)	Downgradient compliance wells as required;	
<b></b>		_ 🗆	Ø	• •	Background wells screened in all aquifers below the andfill that may be affected by the landfill;	
<u> </u>	····	_ 🗆	Ø	(4) L	ocation information for each monitoring well;	
<u> </u>		_ 🗆	_ <b>\</b>	C fe	Vell spacing no greater than 500 feet apart for lowngradient wells and no greater than 1500 feet apart or upgradient wells unless site specific conditions justify alternate well spacings;	
<b>-</b>		_ 🗆	<b>7</b>	(6) V	Vell screen locations properly selected;	
<b></b>		_ 🗆	Ø		Monitoring wells constructed to provide representative pround water samples;	
<b>—</b>		_ 🗆	7	(8) F	Procedures for properly abandoning monitoring wells;	
<b></b>		_ 🗆	Ø	(9)	Detailed description of detection sensors if proposed.	
		_ 🗆	V	d. Surfac	e water monitoring requirements; (62-701.510(4),FAC)	

<u>s</u>	<u>LOCATION</u>	<u>N/A</u>	N/C	PART L CONTINUED
<u> </u>			Ø	(1) Location of and justification for all proposed surface water monitoring points;
			<b>7</b>	(2) Each monitoring location to be marked and its position determined by a registered Florida land surveyor;
<u> </u>			<b>V</b>	e. Leachate sampling locations proposed; (62-701.510(5),FAC)
<u> </u>			<b>7</b>	f. Initial and routine sampling frequency and requirements; (62-701.510(6),FAC)
			Ø	(1) Initial background ground water and surface water sampling and analysis requirements;
<u> </u>			Ø	(2) Routine leachate sampling and analysis requirements;
			Ø	(3) Routine monitoring well sampling and analysis requirements;
			Ø	(4) Routine surface water sampling and analysis requirements.
<u> </u>		. 🗆	Ø	g. Describe procedures for implementing evaluation monitoring, prevention measures and corrective action as required; (62-701.510(7),FAC)
<u> </u>	·		Ø	h. Water quality monitoring report requirements;(62-701.510(9),FAC)
		. 🗆	Ø	(1) Semi-annual report requirements (see paragraphs 62 701.510(6)(c),(d)and (e) for sampling frequencies);
		. 🗆	☑	(2) Documentation that the water quality data shall be provided to the Department in an electronic format consistent with requirements for importing into Department databases, unless an alternate form of submittal is specified in the permit.
		. 🗆	Ø	(3) Two and one-half year report requirements, or every five years if in long-term care, signed, dated and sealed by PG or PE.

PART M. SPECIAL WA	ASTE HAI	NDLING	<b>REQUIREMENTS</b> (62-701.520, FAC)
<u>S</u> <u>LOCATION</u>	N/A	N/C	
	. 🗆	<b>7</b>	1. Describe procedures for managing motor vehicles; (62-701.520(1),FAC)
		Ø	2. Describe procedures for landfilling shredded waste; (62-701.520(2),FAC)
		<b>7</b>	3. Describe procedures for asbestos waste disposal; (62-701.520(3),FAC)
			4. Describe procedures for disposal or management of contaminated soil; (62-701.520(4), FAC)
	. 🗆	Ø	5. Describe procedures for disposal of biological wastes; (62-701.520(5), FAC)
PART N. GAS MANAG	GEMENT	SYSTEM	M REQUIREMENTS (62-701.530,FAC)
<u>S</u> <u>LOCATION</u>	<u>N/A</u>	N/C	
	. 🗆		1. Provide the design for a gas management system that will (62-701.530(1), FAC):
	. 🗆	<b>7</b>	<ul> <li>a. Be designed to prevent concentrations of combustible gases from exceeding 25% the LEL in structures and 100% the LEL at the property boundary;</li> </ul>
<u> </u>	. 🗆	<b>V</b>	b. Be designed for site-specific conditions;
	. 🗆		c. Be designed to reduce gas pressure in the interior of the landfill;
		<b>7</b>	d. Be designed to not interfere with the liner, leachate control system or final cover.
	. 0	<b>7</b>	2. Provide documentation that will describe locations, construction details and procedures for monitoring gas at ambient monitoring points and with soil monitoring probes; (62-701.530(2), FAC):
	. 🗆	<b>7</b>	3. Provide documentation describing how the gas remediation plan and odor remediation plan will be implemented; (62-701.530(3), FAC):
. 🗆		7	4. Landfill gas recovery facilities; (62-701.530(5), FAC):

S LOCA	TION	<u>N/A</u>	<u>N/C</u>	PART N CONTINUED
<b></b>			<b>7</b>	a. Information required in Rules 62-701.320(7) and 62-701.330(3), FAC supplied;
D	-	✓		b. Information required in Rule 62-701.600(4), FAC supplied where relevant and practical;
D			Ø	c. Estimate of current and expected gas generation rates and description of condensate disposal methods provided;
<b></b>			Ø	d. Description of procedures for condensate sampling, analyzing and data reporting provided;
<u> </u>		<b>7</b>		e. Closure plan provided describing methods to control gas after recovery facility ceases operation and any other requirements contained in Rule 62-701.400(10), FAC;
<u> </u>		7		f. Performance bond provided to cover closure costs if not already included in other landfill closure costs.
PART O. L	ANDFILL FIN	IAL CLC	SURE F	REQUIREMENTS (62-701.600,FAC)
S LOCA	TION	<u>N/A</u>	<u>N/C</u>	
	<u> </u>	V		1. Closure permit requirements; (62-701.600(2),FAC)
		Ø		a. Application submitted to Department at least 90 days prior to final receipt of wastes;
<b>-</b>		<b>7</b>		b. Closure plan shall include the following:
o		<b>7</b>		(1) Closure design plan;
o		<b>7</b>		(2) Closure operation plan;
<b></b>		<b>7</b>		(3) Plan for long-term care;
<u> </u>		✓		(4) A demonstration that proof of financial responsibility for long-term care will be provided.

<u>s</u>	LOCATION	N/A	N/C	PART O CONTINUED
	J			2. Closure design plan including the following requirements: (62-701.600(3),FAC)
	J	. 🗹		a. Plan sheet showing phases of site closing;
	]	. 🗹		<ul> <li>b. Drawings showing existing topography and proposed final grades;</li> </ul>
	J			c. Provisions to close units when they reach approved design dimensions;
	J			d. Final elevations before settlement;
	J	. 🗹		<ul> <li>e. Side slope design including benches, terraces, down slope drainage ways, energy dissipaters and discussion of expected precipitation effects;</li> </ul>
	<u> </u>	_ <b>Ø</b>		f. Final cover installation plans including:
		✓		(1) CQA plan for installing and testing final cover;
[	<b></b> _	_ 🗹		(2) Schedule for installing final cover after final receipt of waste;
	⊐	_ 🗹		(3) Description of drought-resistant species to be used in the vegetative cover;
[	□	_ 🗹		<ul><li>(4) Top gradient design to maximize runoff and minimize erosion;</li></ul>
	<u> </u>	_ 🗹		(5) Provisions for cover material to be used for final cover maintenance.
	<b></b>	_ 🗆	Ø	g. Final cover design requirements:
[	<b></b>	_ 🗆	<b>V</b>	(1) Protective soil layer design;
	<b>]</b>	_ 🗸		(2) Barrier soil layer design;

<u>s</u>	LOCATION	N/A	N/C	PART O CONTINUED
		. 🗆	Ø	(3) Erosion control vegetation;
	<del></del>	. 🗆	V	(4) Geomembrane barrier layer design;
<u> </u>		· 🗹		(5) Geosynthetic clay liner design if used;
		. 🗆	Ø	(6) Stability analysis of the cover system and the disposed waste.
	· · · · · · · · · · · · · · · · · · ·	. 🗆	Ø	h. Proposed method of stormwater control;
<u> </u>		. 🗆	Ø	i. Proposed method of access control;
<u> </u>			<b>V</b>	j. Description of the proposed or existing gas management system which complies with Rule 62-701.530, FAC.
<u> </u>		<b></b>		3. Closure operation plan shall include:(62-701.600(4),FAC)
		. 🗹		a. Detailed description of actions which will be taken to close the landfill;
				b. Time schedule for completion of closing and long-term care;
		Ø		c. Describe proposed method for demonstrating financial assurance for long-term care;
		<u> </u>		d. Operation of the water quality monitoring plan required in Rule 62-701.510, FAC.
		Ø		e. Development and implementation of gas management system required in Rule 62-701.530, FAC.
		<b>/</b>		4. Certification of closure construction completion including: (62-701.600(6),FAC)
		_ 🗹		a. Survey monuments; (62-701.600(6)(a),FAC)
<b>_</b>		_ <b>=</b>		b. Final survey report; (62-701.600(6)(b),FAC)

	<u>s</u>	<u>LOCATION</u>	<u>N/A</u>	N/C	PART O CONTINUED
	o		. ☑		5. Declaration to the public; (62-701.600(7),FAC)
•	o		. 🗹		6. Official date of closing; (62-701.600(8),FAC)
	o				7. Justification for and detailed description of procedures to be followed for temporary closure of the landfill, if desired; (62-701.600(9),FAC)
	PART P.	OTHER CLO	SURE P	ROCEDU	JRES (62-701.610,FAC)
	<u>s</u>	LOCATION	N/A	N/C	
i	<b>-</b>				Describe how the requirements for use of closed solid waste disposal areas will be achieved;(62-701.610(1),FAC)
	o <sub>.</sub>	<del></del>			2. Describe how the requirements for relocation of wastes will be achieved; (62-701.610(2), FAC)
	PART Q.	LONG-TERM	M CARE (	62-701.6	20,FAC)
į	<u>s</u>	LOCATION	<u>N/A</u>	N/C	
	<b>-</b>		_ <b>Ø</b>		Maintaining the gas collection and monitoring system; (62-701.620(5), FAC)
	<b>-</b>		<b></b>		2. Stabilization report requirements; (62-701.620(6),FAC)
)	<b>-</b>		<b></b>		3. Right of access;(62-701.620(7),FAC)
	<b>-</b>		_ <b>Ø</b>		4. Requirements for replacement of monitoring devices; (62-701.620(8),FAC)
}	<b></b>		<u> </u>		5. Completion of long-term care signed and sealed by professional engineer (62-701 620(9), FAC)

PART R.	R. FINANCIAL ASSURANCE (62-701.630,FAC)			
<u>s</u>	LOCATION	<u>N/A</u>	N/C	
<u> </u>			Ø	1. Provide cost estimates for closing, long-term care, and corrective action costs estimated by a PE for a third party performing the work, on a per unit basis, with the source of estimates indicated; (62-701.630(3)&(7), FAC).
<u> </u>			<b>7</b>	2. Describe procedures for providing annual cost adjustments to the Department based on inflation and changes in the closing, long-term care, and corrective action plans; (62-701.630(4)&(8), FAC).
<u> </u>			Ø	3. Describe funding mechanisms for providing proof of financial assurance and include appropriate financial assurance forms; (62-701.630(5),(6),&(9) FAC).
<u> </u>			<b>7</b>	4. Provide documentation and the appropriate forms for delaying submitting proof of financial assurance for solid waste disposal units that qualify; (62-701.630(2)(c), FAC).

## PART S. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

Applicant:	
The undersigned applicant or authorized represent	ative of Omni Waste of Osceola County, LLC (Omni*)
is aware	that statements made in this form and attached
Environmental Protection and certifies that the info of his/her knowledge and belief. Further, the under	a Construction Permit from the Florida Department of rmation in this application is true, correct and complete to the best rsigned agrees to comply with the provisions of Chapter 403, e Department. It is understood that the Permit is not transferable, e or legal transfer of the permitted facility.
Male Kann	1501 Omni Way
Signature of Applicant or Agent	Mailing Address
Mike Kaiser, Regional Engineer	St. Clous, Florida, 34773
Name and Title (please type)	City, State, Zip Code
MKaiser@wasteservivcesinc.com	(904 ) 673-0446
E-Mail address (if available)	Telephone Number
*Omni is a wholly owned subsidiary of Waste Services, Inc. (WSI)	Date: 8 11 (1
	olic Officer if authorized under Sections 403.707 and 403.7075,
by me and found to conform to engineering princip facility, when properly maintained and operated, w	is solid waste management facility have been designed/examined les applicable to such facilities. In my professional judgment, this ill comply with all applicable statutes of the State of Florida and resigned will provide the applicant with a set of instructions of
Organization Soft	13101 Telecom Drive, Siure 120
No 72986	Mailing Address
Victor M. Damasceno, Engineer	Temple Terarace, FL, 33637
Name and Title (please type)	City, State, Zip Code
STATE OF	vdamasceno@geosyntec.com
A CORIO GILL	E-Mail address (if available)
72966 ONAL ENGLISH	(813 ) 558-0990
Florida Registration Number (please affix seal)	Telephone Number
(Picase ann sear)	Date: 8/16/1/

1.

2.



2893 Executive Park Drive, Suite 305, Weston, Florida 33331

January 24, 2011

RE: Omni Waste of Osceola County, LLC

To Whom It May Concern:

This is to confirm that Michael Kaiser is an authorized signatory of Omni Waste of Osceola County, LLC (the "Corporation"), with authority to execute and deliver all documents and instruments required in connection with environmental matters for the Corporation, including without limitation, permit applications, modifications and financial assurances for permits issued to the Corporation.

**Omni Waste of Osceola County, LLC** 

William P. Hulligan

Manager

Waste Services, Inc.

William P. Hulligan

Executive Vice President, U.S. Operations