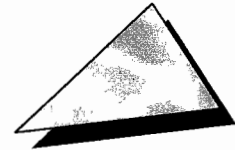


Raymond J. Chewning, P.E.  
11205 3rd Street East  
Treasure Island, FL 33706  
770.364.1804  
[rchewning1@tampabay.rr.com](mailto:rchewning1@tampabay.rr.com)



.....>

June 17, 2009

George Cheryan  
Central District Office  
Solid Waste Section  
3319 Maguire Blvd, Suite 232  
Orlando, Florida 32803-3767  
phone: 407 893-3328  
fax: 407 893-3124

RECEIVED

JUN 18 2009

DEP Central Dist.

RE: Yard Waste Processing Area  
Vista Landfill, Class III - SO48-0165969-013  
Waste Management Inc. of Florida  
242 W. Keene Road  
Apopka, Orange County, Florida 32703

On behalf of Waste Management Inc. of Florida (WMIF), we respectfully submit a request to add Yard Waste Processing as part of the operations at the Vista Landfill. Please find four copies of this request which includes an application (62-701.900(1)), updated Operations Plan and a revised Figure 3 which shows the location of the proposed Yard Waste Processing Area. Updated personnel listing as well as updated personnel training records have also been included. The Operation Plan for the facility has been updated to include a new Section 13 which specifically addresses the handling and processing of yard waste materials at the facility. No other changes to the Operations Plan have been made. Should you have any questions or require clarification related to this permit, please contact me at 770-364-1804 or e-mail me at [rchewning1@tampabay.rr.com](mailto:rchewning1@tampabay.rr.com).

Respectfully

Raymond J. Chewning, P.E.

cc: Irv Slike, WMIF  
Sheree Grant, WMIF

G. DePRADINE



Florida Department of Environmental Protection  
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, FL 32399-2400

DEP Form # 62-701.900(1)
Form Title <u>Solid Waste Management Facility Permit</u>
Effective Date <u>05-27-01</u>
DEP Application No. _____ (Filed by DEP)

RECEIVED

JUN 18 2009

DEP. Central Dist.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

APPLICATION INSTRUCTIONS AND FORMS

Northwest District  
160 Governmental Center  
Pensacola, FL 32501-5794  
850-595-8360

Northeast District  
7825 Baymeadows Way, Ste. B200  
Jacksonville, FL 32256-7590  
904-448-4300

Central District  
3319 Maguire Blvd., Ste. 232  
Orlando, FL 32803-3767  
407-894-7555

Southwest District  
3804 Coconut Palm Dr.  
Tampa, FL 33619  
813-744-6100

South District  
2295 Victoria Ave., Ste. 364  
Fort Myers, FL 33901-3881  
941-332-6975

Southeast District  
400 North Congress Ave.  
West Palm Beach, FL 33401  
561-681-6600

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

### I. 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,B, D through T
- B. Asbestos Monofills - Submit parts A,B,D,E,F,G,J,L,N, P through S, and T
- C. Industrial Solid Waste Facilities - Submit parts A,B, D through T
- D. Non-Disposal Facilities - Submit parts A,C,D,E,J,N,S and T

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,C and D 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,M, O through T
- B. Asbestos Monofills - Submit parts A,B,N, P through T
- C. Industrial Solid Waste Facilities - Submit parts A,B, M through T
- D. Non-Disposal Facilities - Submit parts A,C,N,S and T

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:	NON-DISPOSAL FACILITY GENERAL INFORMATION
PART D:	PROHIBITIONS
PART E:	SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL
PART F:	LANDFILL PERMIT REQUIREMENTS
PART G:	GENERAL CRITERIA FOR LANDFILLS
PART H:	LANDFILL CONSTRUCTION REQUIREMENTS
PART I:	HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS
PART J:	GEOTECHNICAL INVESTIGATION REQUIREMENTS
PART K:	VERTICAL EXPANSION OF LANDFILLS
PART L:	LANDFILL OPERATION REQUIREMENTS
PART M:	WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS
PART N:	SPECIAL WASTE HANDLING REQUIREMENTS
PART O:	GAS MANAGEMENT SYSTEM REQUIREMENTS
PART P:	LANDFILL CLOSURE REQUIREMENTS
PART Q:	CLOSURE PROCEDURES
PART R:	LONG TERM CARE REQUIREMENTS
PART S:	FINANCIAL RESPONSIBILITY REQUIREMENTS
PART T:	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

**A. GENERAL INFORMATION**

1. Type of facility (check all that apply):

- ☒ Disposal  
    ☐ Class I Landfill                      ☐ Ash Monofill  
    ☐ Class II Landfill                     ☐ Asbestos Monofill  
    ☒ Class III Landfill                   ☐ Industrial Solid Waste  
    ☐ Other Describe: \_\_\_\_\_
- ☐ Non-Disposal  
    ☐ Incinerator For Non-biomedical Waste  
    ☐ Waste to Energy Without Power Plant Certification  
    ☐ Other Describe: \_\_\_\_\_

**NOTE:** Waste Processing Facilities should apply on Form 62-701.900(4), FAC;  
Land Clearing Disposal Facilities should notify on Form 62-701.900(3), FAC;  
Compost Facilities should apply on Form 62-701.900(10), FAC; and  
C&D Disposal Facilities should apply on Form 62-701.900(6), FAC

2. Type of application:

- ☐ Construction  
☐ Operation  
☒ Construction/Operation  
☐ Closure

3. Classification of application:

- ☐ New    ☐ Substantial Modification  
☐ Renewal                                         ☐ Intermediate Modification  
   ☒ Minor Modification

4. Facility name: Vista Landfill, Class III S048-0165969-013

5. DEP ID number: WACS 87081 County: Orange

6. Facility location (main entrance): 242 W. Keene Road, Apopka, FL 32703

7. Location coordinates:

Section: 28 Township: 21 S Range: 28 E

Latitude: 28 ° 38 ' 24.5 " Longitude: 81 ° 30 ' 41.7 "

8. Applicant name (operating authority): Vista Landfill, LLC  
Mailing address: 242 W. Keene Road, Apopka, FL 32703  
Street or P.O. Box City State Zip  
Contact person: Irv Slike Telephone: ( )  
Title: District Manager  
E-Mail address (if available): islike@wm.com
9. Authorized agent/Consultant: Raymond J. Chewning, P.E.  
Mailing address: 11205 3rd Street East, Treasure Island, FL 33706  
Street or P.O. Box City State Zip  
Contact person: Raymond J. Chewning Telephone: (770) 364-1804  
Title: Consultant  
E-Mail address (if available): rchewning1@tampabay.rr.com
10. Landowner(if different than applicant): Same as Applicant  
Mailing address: \_\_\_\_\_  
Street or P.O. Box City State Zip  
Contact person: \_\_\_\_\_ Telephone: ( )  
E-Mail address (if available): \_\_\_\_\_
11. Cities, towns and areas to be served: Northwest Orange County & Metro Orlando
12. Population to be served:  
Current: ± 100,000 Five-Year Projection: ± 100,000
13. Date site will be ready to be inspected for completion: N/A
14. Expected life of the facility: ± 17 years
15. Estimated costs:  
Total Construction: \$ N/A Closing Costs: \$ N/A
16. Anticipated construction starting and completion dates:  
From: July 1, 2009 To: July 31, 2009
17. Expected volume or weight of waste to be received:  
\_\_\_\_\_ yds<sup>3</sup>/day 2,500 tons/day \_\_\_\_\_ gallons/day

B. DISPOSAL FACILITY GENERAL INFORMATION

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

Vista Landfill, is currently permitted and operating as a lined Class III Facility. This minor modification request is to include a Yard Waste Processing Area to the facility which will provide for the receiving, processing, temporary storage and beneficial reuse of yard waste.

2. Facility site supervisor: Irvin Slike  
Title: District Manager Telephone: ( 407 ) 886-2920  
islike@wm.com  
E-Mail address (if available)

3. Disposal area: Total 102 acres; Used 0 acres; Available 102 acres.

4. Weighing scales used: ☒ Yes ☐ No

5. Security to prevent unauthorized use: ☒ Yes ☐ No

6. Charge for waste received: N/A \$/yds<sup>3</sup> N/A \$/ton

7. Surrounding land use, zoning:

☒ Residential ☐ Industrial  
☒ Agricultural ☐ None  
☐ Commercial ☒ Other Describe: Industrial & Park

8. Types of waste received:

☐ Residential ☒ C & D debris  
☐ Commercial ☐ Shredded/cut tires  
☐ Incinerator/WTE ash ☐ Yard trash  
☐ Treated biomedical ☐ Septic tank  
☐ Water treatment sludge ☐ Industrial  
☐ Air treatment sludge ☐ Industrial sludge  
☐ Agricultural ☐ Domestic sludge  
☐ Asbestos  
☒ Other Describe: Yard Waste

9. Salvaging permitted: ☐ Yes ☒ No

10. Attendant: ☒ Yes ☐ No Trained operator: ☒ Yes ☐ No

11. Spotters: Yes ☒ No ☐ Number of spotters used: \_\_\_\_\_

12. Site located in: ☐ Floodplain ☐ Wetlands ☒ Other Uplands Only

13. Property recorded as a Disposal Site in County Land Records: ☒ Yes ☐ No
14. Days of operation: Monday - Saturday
15. Hours of operation: 7 a.m. - 6 p.m., M-F / 7 a.m.- 12 noon Sat.
16. Days Working Face covered: Weekly
17. Elevation of water table: 55-90 Ft. (NGVD 1929)
18. Number of monitoring wells: 30 total
19. Number of surface monitoring points: N/A
20. Gas controls used: ☒ Yes ☐ No Type controls: ☐ Active ☒ Passive  
Gas flaring: ☒ Yes ☐ No Gas recovery: ☐ Yes ☒ No
21. Landfill unit liner type:
- |  |  |
|--|--|
| <input type="checkbox"/> Natural soils                 | <input type="checkbox"/> Double geomembrane      |
| <input type="checkbox"/> Single clay liner             | <input type="checkbox"/> Geomembrane & composite |
| <input checked="" type="checkbox"/> Single geomembrane | <input type="checkbox"/> Double composite        |
| <input type="checkbox"/> Single composite              | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Slurry wall                   |  |
| <input type="checkbox"/> Other Describe: _____         |  |
22. Leachate collection method:
- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Collection pipes | <input checked="" type="checkbox"/> Sand layer |
| <input checked="" type="checkbox"/> Geonets          | <input type="checkbox"/> Gravel layer          |
| <input type="checkbox"/> Well points                 | <input type="checkbox"/> Interceptor trench    |
| <input type="checkbox"/> Perimeter ditch             | <input type="checkbox"/> None                  |
| <input type="checkbox"/> Other Describe: _____       |  |
23. Leachate storage method:
- ☒ Tanks
- ☐ Surface impoundments
- ☐ Other Describe: \_\_\_\_\_
24. Leachate treatment method:
- |  |   |
|--|---|
| <input type="checkbox"/> Oxidation       | <input type="checkbox"/> Chemical treatment |
| <input type="checkbox"/> Secondary       | <input type="checkbox"/> Settling           |
| <input type="checkbox"/> Advanced        |   |
| <input checked="" type="checkbox"/> None |   |
| <input type="checkbox"/> Other _____     |   |



25. Leachate disposal method:

- |  |  |
|--|--|
| <input type="checkbox"/> Recirculated        | <input checked="" type="checkbox"/> Pumped to WWTP   |
| <input type="checkbox"/> Transported to WWTP | <input type="checkbox"/> Discharged to surface water |
| <input type="checkbox"/> Injection well      | <input type="checkbox"/> Percolation ponds           |
| <input type="checkbox"/> Evaporation         |  |
| <input type="checkbox"/> Other               |  |

26. For leachate discharged to surface waters:

Name and Class of receiving water: \_\_\_\_\_ N/A

27. Storm Water:

Collected: ☒ Yes ☐ No

Type of treatment: \_\_\_\_\_ N/A

Name and Class of receiving water: \_\_\_\_\_ N/A

28. Environmental Resources Permit (ERP) number or status: \_\_\_\_\_

ERP 48-0111044-005-EM (ISSUED AUGUST 2005)

C. NON-DISPOSAL FACILITY GENERAL INFORMATION

1. Provide brief description of the non-disposal facility design and operations planned under this application:

Not Applicable

2. Facility site supervisor: \_\_\_\_\_

Title: \_\_\_\_\_ Telephone: (\_\_\_\_) \_\_\_\_\_

\_\_\_\_\_ E-Mail address (if available)

3. Site area: Facility \_\_\_\_\_ acres; Property \_\_\_\_\_ acres

4. Security to prevent unauthorized use: ☐ Yes ☐ No

5. Site located in: ☐ Floodplain ☐ Wetlands ☐ Other \_\_\_\_\_

6. Days of operation: \_\_\_\_\_

7. Hours of operation: \_\_\_\_\_

8. Number of operating staff: \_\_\_\_\_

9. Expected useful life: \_\_\_\_\_ Years

10. Weighing scales used: ☐ Yes ☐ No

11. Normal processing rate: \_\_\_\_\_ yd<sup>3</sup>/day \_\_\_\_\_ tons/day \_\_\_\_\_ gal/day

12. Maximum processing rate: \_\_\_\_\_ yd<sup>3</sup>/day \_\_\_\_\_ tons/day \_\_\_\_\_ gal/day

13. Charge for waste received: \_\_\_\_\_

14. Storm Water Collected: ☐ Yes ☐ No

Type of treatment: \_\_\_\_\_

Name and Class of receiving water: \_\_\_\_\_

15. Environmental Resources Permit (ERP) number or status: \_\_\_\_\_

16. Final residue produced:

\_\_\_\_\_ % of normal processing rate \_\_\_\_\_ % of maximum processing rate

\_\_\_\_\_ Tons/day \_\_\_\_\_ Tons/day

Disposed of at:

Facility name: \_\_\_\_\_ County: \_\_\_\_\_

17. Estimated operating costs: \$ \_\_\_\_\_  
Total cost/ton: \$ \_\_\_\_\_ Net cost/ton: \$ \_\_\_\_\_
18. Provide a site plan, at a scale not greater than 200 feet to the inch, which shows the facility location and identifies the proposed waste and final residue storage areas, total acreage of the site, and any other features which are relevant to the prohibitions or location restrictions in Rule 62-701.300, FAC, such as water bodies or wetlands on or within 200 feet of the site, and potable water wells on or within 500 feet of the site.
19. Provide a description of how the waste and final residue will be managed to not be expected to cause violations of the Department's ground water, surface water or air standards or criteria
20. Provide an estimate of the maximum amount of waste and final residue that will be store on-site.
21. Provide a detailed description of the technology use at the facility and the functions of all processing equipment that will be utilized. The descriptions shall explain the flow of waste and residue through all the proposed unit operations and shall include: (1) regular facility operations as they are expected to occur; (2) procedures for start up operations, and scheduled and unscheduled shut down operations; (3) potential safety hazards and control methods, including fire detection and control; (4) a description of any expected air emissions and wastewater discharges from the facility which may be potential pollution sources; (5) a description and usage rate of any chemical or biological additives that will be used in the process; and (6) process flow diagrams for the facility operations.
22. Provide a description of the loading, unloading and processing areas.
23. Provide a description of the leachate control system that will be used to prevent discharge of leachate to the environment and mixing of leachate with stormwater. Note: Ground water monitoring may be required for the facility depending on the method of leachate control used.
24. Provide an operation plan for the facility which includes: (1) a description of general facility operations, the number of personnel responsible for the operations including their respective job descriptions, and the types of equipment that will be used at the facility; (2) procedures to ensure any unauthorized wastes received at the site will be properly managed; (3) a contingency plan to cover operation interruptions and emergencies such as fires, explosions, or natural disasters; (4) procedures to ensure operational records needed for the facility will be adequately prepared and maintained; and (5) procedures to ensure that the wastes and final residue will be managed to not be expected to cause pollution.
25. Provide a closure plan that describes the procedures that will be implemented when the facility closes including: (1) estimated time to complete closure; (2) procedures for removing and properly managing or disposing of all wastes and final residues; (3) notification of the Department upon ceasing operations and completion of final closure.

D. PROHIBITIONS (62-701.300, FAC)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
—	—	—	✓	1. 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 (16), FAC, then document this qualification(s).
—	—	—	✓	3. Provide documentation that the facility will be in compliance with the burning restrictions; (62-701.300(3), FAC)
—	—	—	✓	4. Provide documentation that the facility will be in compliance with the hazardous waste restrictions; (62-701.300(4), FAC)
—	—	—	✓	5. Provide documentation that the facility will be in compliance with the PCB disposal restrictions; (62-701.300(5), FAC)
—	—	—	✓	6. Provide documentation that the facility will be in compliance with the biomedical waste restrictions; (62-701.300(6), FAC)
—	—	—	✓	7. Provide documentation that the facility will be in compliance with the Class I surface water restrictions; (62-701.300(7), FAC)
—	—	—	✓	8. Provide documentation that the facility will be in compliance with the special waste for landfills restrictions; (62-701.300(8), FAC)
—	—	—	✓	9. Provide documentation that the facility will be in compliance with the special waste for waste-to-energy facilities restrictions; (62-701.300(9), FAC)
—	—	—	✓	10. Provide documentation that the facility will be in compliance with the liquid restrictions; (62-701.300(10), FAC)
—	—	—	✓	11. Provide documentation that the facility will be in compliance with the used oil restrictions; (62-701.300(11), FAC)

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

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
✓	<del>ATTACHED</del>	—	—	1. Four copies, at minimum, of the completed application form, all supporting data and reports; (62-701.320(5)(a), FAC)
✓	—	—	—	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)
✓	<del>ATTACHED</del>	—	—	3. A letter of transmittal to the Department; (62-701.320(7)(a), FAC)
✓	—	—	—	4. A completed application form dated and signed by the applicant; (62-701.320(7)(b), FAC)
✓	—	—	—	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)
✓	<del>ATTACHED</del>	—	—	7. Operation Plan and Closure Plan; (62-701.320(7)(e)1, FAC)
—	—	—	✓	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 1929) showing; (62-702.320(7)(f), FAC)
—	—	—	✓	a. A regional map or plan with the project location;
—	—	—	✓	b. A vicinity map or aerial photograph no more than 1 year old;
—	—	—	✓	c. A site plan showing all property boundaries certified by a registered Florida land surveyor;

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

PART E CONTINUED

_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	✓	_____
_____	_____	_____	✓
_____	_____	_____	✓

d. Other necessary details to support the engineering report.

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)
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)
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)
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)
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)
15. Explain how the operator training requirements will be satisfied for the facility; (62-701.320(15), FAC)

F. LANDFILL PERMIT REQUIREMENTS (62-701.330, FAC)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
—	—	—	✓	1. Vicinity map or aerial photograph no more than 1 year old and of appropriate scale showing land use and local zoning within one mile of the landfill and of sufficient scale to show all homes or other structures, water bodies, and roads other significant features of the vicinity. All significant features shall be labeled; (62-701.330(3)(a), FAC)
—	—	—	✓	2. Vicinity map or aerial photograph no more than 1 year old showing all airports that are located within five miles of the proposed landfill; (62-701.330(3)(b), FAC)
—	—	—	✓	3. Plot plan with a scale not greater than 200 feet to the inch showing; (62-701.330(3)(c), FAC)
—	—	—	✓	a. Dimensions;
—	—	—	✓	b. Locations of proposed and existing water quality monitoring wells;
—	—	—	✓	c. Locations of soil borings;
—	—	—	✓	d. Proposed plan of trenching or disposal areas;
—	—	—	✓	e. Cross sections showing original elevations and proposed final contours which shall be included either on the plot plan or on separate sheets;
—	—	—	✓	f. Any previously filled waste disposal areas;
—	—	—	✓	g. Fencing or other measures to restrict access.
—	—	—	✓	4. Topographic maps with a scale not greater than 200 feet to the inch with 5-foot contour intervals showing; (62-701.330(3)(d), FAC):
—	—	—	✓	a. Proposed fill areas;
—	—	—	✓	b. Borrow areas;
—	—	—	✓	c. Access roads;
—	—	—	✓	d. Grades required for proper drainage;
—	—	—	✓	e. Cross sections of lifts;

S      LOCATION      N/A      N/C

PART F CONTINUED

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- f. Special drainage devices if necessary;  
g. Fencing;  
h. Equipment facilities.

5. A report on the landfill describing the following;  
(62-701.330(3)(e),FAC)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- a. The current and projected population and area to be served by the proposed site;  
b. The anticipated type, annual quantity, and source of solid waste, expressed in tons;  
c. The anticipated facility life;  
d. The source and type of cover material used for the landfill.

6. 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)(h),FAC)

7. 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)(i),FAC)

G. GENERAL CRITERIA FOR LANDFILLS (62-701.340,FAC)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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(4)(b),FAC)  
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(4)(c),FAC)  
3. Describe what methods shall be taken to screen the landfill from public view where such screening can practically be provided; (62-701.340(4)(d),FAC)



H. LANDFILL CONSTRUCTION REQUIREMENTS (62-701.400,FAC)

S      LOCATION      N/A      N/C

\_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      ✓

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; (62-701.400(2),FAC)

2. Landfill liner requirements; (62-701.400(3),FAC)

a. General construction requirements; (62-701.400(3)(a),FAC):

\_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      ✓

(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;

\_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      ✓

(2) Document foundation is adequate to prevent liner failure;

\_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      ✓

(3) Constructed so bottom liner will not be adversely impacted by fluctuations of the ground water;

\_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      ✓

(4) Designed to resist hydrostatic uplift if bottom liner located below seasonal high ground water table;

\_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      ✓

(5) Installed to cover all surrounding earth which could come into contact with the waste or leachate.

b. Composite liners; (62-701.400(3)(b),FAC)

\_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      ✓

(1) Upper geomembrane thickness and properties;

\_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      ✓

(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.

S	LOCATION	N/A	N/C
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_____	_____	✓	_____
_____	_____	✓	_____
_____	_____	✓	_____
_____	_____	✓	_____

_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓

# PART H CONTINUED

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 ( $k \geq 10$  cm/sec, head on lower liner  $\leq 1$  inch, head not to exceed thickness of drainage layer);

d. Standards for geosynthetic components; (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) Geomembranes to be used shall pass a continuous spark test by the manufacturer;
- (3) Design of 24-inch-thick protective layer above upper geomembrane liner;
- (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.
- (5) HDPE geomembranes, if used, meet the specifications in GRI GM13;
- (6) PVC geomembranes, if used, meet the specifications in PGI 1197;
- (7) Interface shear strength testing results of the actual components which will be used in the liner system;
- (8) Transmissivity testing results of geonets if they are used in the liner system;
- (9) Hydraulic conductivity testing results of geosynthetic clay liners if they are used in the liner system;

S	LOCATION	N/A	N/C
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PART H CONTINUED

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, geocomposites, geotextiles, geogrids, and geonets;
- (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;
- (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;
- (5) Geotextile and geogrid specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials and any overlying materials;
- (6) Geonet and geocomposite specifications including handling and placement, conformance testing, stacking and joining, repair, and placement of soil materials and any overlying materials;
- (7) Geosynthetic clay liner specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil material and any overlying materials;

f. Standards for soil components  
(62-710.400 (3) (f), FAC):

- (1) Description of construction procedures including overexcavation and backfilling to preclude structural inconsistencies and procedures for placing and compacting soil component in layers;

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓

#### PART H CONTINUED

- (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;
- (3) Procedures for testing in-situ soils to demonstrate they meet the specifications for soil liners;
- (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)

_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓

- (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>
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# PART H CONTINUED

b. Primary LCRS requirements;  
(62-701.400(4)(b), FAC)

- (1) Bottom 12 inches having hydraulic conductivity  $\geq 1 \times 10^{-3}$  cm/sec;
- (2) Total thickness of 24 inches of material chemically resistant to the waste and leachate;
- (3) Bottom slope design to accomodate for predicted settlement;
- (4) Demonstration that synthetic drainage material, if used, is equivalent or better than granular material in chemical compatibility, flow under load and protection of geomembrane liner.

4. Leachate recirculation; (62-701.400(5), FAC)

- a. Describe general procedures for recirculating leachate;
- b. Describe procedures for controlling leachate runoff and minimizing mixing of leachate runoff with storm water;
- c. Describe procedures for preventing perched water conditions and gas buildup;
- d. Describe alternate methods for leachate management when it cannot be recirculated due to weather or runoff conditions, surface seeps, wind-blown spray, or elevated levels of leachate head on the liner;
- e. Describe methods of gas management in accordance with Rule 62-701.530, FAC;
- f. If leachate irrigation is proposed, describe treatment methods and standards for leachate treatment prior to irrigation over final cover and provide documentation that irrigation does not contribute significantly to leachate generation.

S      LOCATION      N/A    N/C

PART H CONTINUED

5.      Leachate storage tanks and leachate surface  
impoundments; (62-701.400(6), FAC)

a.      Surface impoundment requirements;  
(62-701.400(6)(b), FAC)

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(1)      Documentation that the design of the  
bottom liner will not be adversely  
impacted by fluctuations of the ground  
water;

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\_\_\_\_\_

(2)      Designed in segments to allow for  
inspection and repair as needed without  
interruption of service;

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\_\_\_\_\_  
\_\_\_\_\_  
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(3)      General design requirements;

(a)      Double liner system consisting of an  
upper and lower 60-mil minimum  
thickness geomembrane;

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(b)      Leak detection and collection system  
with hydraulic conductivity  $\geq 1$   
cm/sec;

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(c)      Lower geomembrane placed on subbase  
 $\geq 6$  inches thick with  $k \leq 1 \times 10^{-5}$   
cm/sec or on an approved  
geosynthetic clay liner with  
 $k \leq 1 \times 10^{-7}$  cm/sec;

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(d)      Design calculation to predict  
potential leakage through the upper  
liner;

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(e)      Daily inspection requirements and  
notification and corrective action  
requirements if leakage rates exceed  
that predicted by design  
calculations;

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(4)      Description of procedures to prevent  
uplift, if applicable;

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\_\_\_\_\_  
\_\_\_\_\_

(5)      Design calculations to demonstrate minimum  
two feet of freeboard will be maintained;

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(6)      Procedures for controlling disease vectors  
and off-site odors.

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\_\_\_\_\_







S      LOCATION      N/A      N/C

PART H CONTINUED

\_\_\_\_      \_\_\_\_\_      \_\_\_\_      ✓

- b. An independent laboratory experienced in the testing of geosynthetics to perform required testing;

7. Soil Liner CQA (62-701.400(8)FAC)

\_\_\_\_      \_\_\_\_\_      \_\_\_\_      ✓

- 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;

\_\_\_\_      \_\_\_\_\_      \_\_\_\_      ✓

- b. Description of field test section construction and test methods to be implemented prior to liner installation;

\_\_\_\_      \_\_\_\_\_      \_\_\_\_      ✓

- 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)

\_\_\_\_      \_\_\_\_\_      \_\_\_\_      ✓

- a. Provide a copy of a Department permit for stormwater control or documentation that no such permit is required;

\_\_\_\_      \_\_\_\_\_      \_\_\_\_      ✓

- b. Design of surface water management system to isolate surface water from waste filled areas and to control stormwater run-off;

\_\_\_\_      \_\_\_\_\_      \_\_\_\_      ✓

- c. Details of stormwater control design including retention ponds, detention ponds, and drainage ways;

9. Gas control systems; (62-701.400(10),FAC)

\_\_\_\_      \_\_\_\_\_      \_\_\_\_      ✓

- 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)

I. HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS (62-701.410(1), FAC)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
			✓	1. Submit a hydrogeological investigation and site report including at least the following information:
—	—	—	—	a. Regional and site specific geology and hydrogeology;
—	—	—	✓	b. Direction and rate of ground water and surface water flow including seasonal variations;
—	—	—	✓	c. Background quality of ground water and surface water;
—	—	—	✓	d. Any on-site hydraulic connections between aquifers;
—	—	—	✓	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;
—	—	—	✓	f. Description of topography, soil types and surface water drainage systems;
—	—	—	✓	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;
—	—	—	✓	h. Identify and locate any existing contaminated areas on the site;
—	—	—	✓	i. Include a map showing the locations of all potable wells within 500 feet, and all community water supply wells within 1000 feet, of the waste storage and disposal areas;
—	—	—	✓	2. Report signed, sealed and dated by PE or PG.

J. GEOTECHNICAL INVESTIGATION REQUIREMENTS (62-701.410(2),FAC)

S LOCATION N/A N/C

- |   |   |   |   |  |
|---|---|---|---|--|
|   |   |   | ✓ | 1. Submit a geotechnical site investigation report defining the engineering properties of the site including at least the following:   |
| — | — | — | — | a. Description of subsurface conditions including soil stratigraphy and ground water table conditions;   |
| — | — | — | ✓ | b. Investigate for the presence of muck, previously filled areas, soft ground, lineaments and sink holes;  |
| — | — | — | ✓ | c. Estimates of average and maximum high water table across the site;  |
| — | — | — | ✓ | d. Foundation analysis including:  |
| — | — | — | — | (1) Foundation bearing capacity analysis;  |
| — | — | — | ✓ | (2) Total and differential subgrade settlement analysis;   |
| — | — | — | ✓ | (3) Slope stability analysis;  |
| — | — | — | ✓ | e. Description of methods used in the investigation and includes soil boring logs, laboratory results, analytical calculations, cross sections, interpretations and conclusions; |
| — | — | — | ✓ | 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.  |
| — | — | — | ✓ | 2. Report signed, sealed and dated by PE or PG.  |

K. VERTICAL EXPANSION OF LANDFILLS (62-701.430, FAC)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
—	—	—	✓	1. Describe how the vertical expansion shall not cause or contribute to leachate leakage from the existing landfill or adversely affect the closure design of the existing landfill;
—	—	—	✓	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;
—	—	—	✓	3. Provide foundation and settlement analysis for the vertical expansion;
—	—	—	✓	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;
—	—	—	✓	5. Minimum stability safety factor of 1.5 for the lining system component interface stability and deep stability;
—	—	—	✓	6. Provide documentation to show the surface water management system will not be adversely affected by the vertical expansion;
—	—	—	✓	7. Provide gas control designs to prevent accumulation of gas under the new liner for the vertical expansion.

L. LANDFILL OPERATION REQUIREMENTS (62-701.500,FAC)

✓	<del>ATTACHED</del>	1.	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)
	ATTAINED	2.	Provide a landfill operation plan including procedures for: (62-701.500(2), FAC)
		a.	Designating responsible operating and maintenance personnel;
		b.	Contingency operations for emergencies;
		c.	Controlling types of waste received at the landfill;
		d.	Weighing incoming waste;
		e.	Vehicle traffic control and unloading;
		f.	Method and sequence of filling waste;
		g.	Waste compaction and application of cover;
		h.	Operations of gas, leachate, and stormwater controls;
		i.	Water quality monitoring.
		j.	Maintaining and cleaning the leachate collection system;
		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)
		4.	Describe the waste records that will be compiled monthly and provided to the Department quarterly; (62-701.500(4),FAC)
		5.	Describe methods of access control; (62-701.500(5),FAC)
		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)
		7.	Describe procedures for spreading and compacting waste at the landfill that include: (62-701.500(7),FAC)
		a.	Waste layer thickness and compaction frequencies;





<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>
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PART L CONTINUED

_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓

- a. Records used for developing permit applications and supplemental information maintained for the design period of the landfill;
- b. Monitoring information, calibration and maintenance records, copies of reports required by permit maintained for at least 10 years;
- 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.



M. WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS (62-701.510, FAC)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
—	—	—	✓	1. Water quality and leachate monitoring plan shall be submitted describing the proposed ground water, surface water and leachate monitoring systems and shall meet at least the following requirements;
—	—	—	✓	a. Based on the information obtained in the hydrogeological investigation and signed, dated and sealed by the PG or PE who prepared it; (62-701.510(2)(a), FAC)
—	—	—	✓	b. All sampling and analysis performed in accordance with Chapter 62-160, FAC; (62-701.510(2)(b), FAC)
—	—	—	✓	c. Ground water monitoring requirements; (62-701.510(3), FAC)
—	—	—	✓	(1) Detection wells located downgradient from and within 50 feet of disposal units;
—	—	—	✓	(2) Downgradient compliance wells as required;
—	—	—	✓	(3) Background wells screened in all aquifers below the landfill that may be affected by the landfill;
—	—	—	✓	(4) Location information for each monitoring well;
—	—	—	✓	(5) Well spacing no greater than 500 feet apart for downgradient wells and no greater than 1500 feet apart for upgradient wells unless site specific conditions justify alternate well spacings;
—	—	—	✓	(6) Well screen locations properly selected;
—	—	—	✓	(7) Procedures for properly abandoning monitoring wells;
—	—	—	✓	(8) Detailed description of detection sensors if proposed.

PART M CONTINUED

- d. Surface water monitoring requirements;  
(62-701.510(4), FAC)
  - (1) Location of and justification for all proposed surface water monitoring points;
  - (2) Each monitoring location to be marked and its position determined by a registered Florida land surveyor;
- e. Leachate sampling locations proposed;  
(62-701.510(5), FAC)
- f. Initial and routine sampling frequency and requirements; (62-701.510(6), FAC)
  - (1) Initial background ground water and surface water sampling and analysis requirements;
  - (2) Routine leachate sampling and analysis requirements;
  - (3) Routine monitoring well sampling and analysis requirements;
  - (4) Routine surface water sampling and analysis requirements.
- g. Describe procedures for implementing evaluation monitoring, prevention measures and corrective action as required; (62-701.510(7), FAC)
- h. Water quality monitoring report requirements;  
(62-701.510(9), FAC)
  - (1) Semi-annual report requirements;
  - (2) Bi-annual report requirements signed, dated and sealed by PG or PE.

**N. SPECIAL WASTE HANDLING REQUIREMENTS (62-701.520, FAC)**

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
—	—	—	✓	1. Describe procedures for managing motor vehicles; (62-701.520(1), FAC)
—	—	—	✓	2. Describe procedures for landfilling shredded waste; (62-701.520(2), FAC)
—	—	—	✓	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)
—	—	—	✓	5. Describe procedures for disposal of biological wastes; (62-701.520(5), FAC)

**O. GAS MANAGEMENT SYSTEM REQUIREMENTS (62-701.530, FAC)**

—	—	—	✓	1. Provide the design for a gas management systems that will (62-701.530(1), FAC):
—	—	—	✓	a. Be designed to prevent concentrations of combustible gases from exceeding 25% the LEL in structures and 100% the LEL at the property boundary;
—	—	—	✓	b. Be designed for site-specific conditions;
—	—	—	✓	c. Be designed to reduce gas pressure in the interior of the landfill;
—	—	—	✓	d. Be designed to not interfere with the liner, leachate control system or final cover.
—	—	—	✓	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):
—	—	—	✓	3. Provide documentation describing how the gas remediation plan and odor remediation plan will be implemented; (62-701.530(3), FAC):
—	—	—	✓	4. Landfill gas recovery facilities; (62-701.530(5), FAC):
—	—	—	✓	a. Information required in Rules 62-701.320(7) and 62-701.330(3), FAC supplied;
—	—	—	✓	b. Information required in Rule 62-701.600(4), FAC supplied where relevant and practical;
—	—	—	✓	c. Estimate of current and expected gas generation rates and description of condensate disposal methods provided;
<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	<b>PART O CONTINUED</b>
—	—	—	✓	d. Description of procedures for condensate sampling, analyzing and data reporting provided;

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ ✓

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;

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\_\_\_\_\_  
\_\_\_\_\_ ✓

f. Performance bond provided to cover closure costs if not already included in other landfill closure costs.

P. LANDFILL FINAL CLOSURE REQUIREMENTS (62-701.600, FAC)

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\_\_\_\_\_ ✓

1. Closure schedule requirements; (62-701.600(2), FAC)

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\_\_\_\_\_ ✓

a. Documentation that a written notice including a schedule for closure will be provided to the Department at least one year prior to final receipt of wastes;

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\_\_\_\_\_ ✓

b. Notice to user requirements within 120 days of final receipt of wastes;

c. Notice to public requirements within 10 days of final receipt of wastes.

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\_\_\_\_\_ ✓

2. Closure permit general requirements; (62-701.600(3), FAC)

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\_\_\_\_\_ ✓

a. Application submitted to Department at least 90 days prior to final receipt of wastes;

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\_\_\_\_\_ ✓

b. Closure plan shall include the following:

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(1) Closure report;

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\_\_\_\_\_  
\_\_\_\_\_ ✓

(2) Closure design plan;

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\_\_\_\_\_  
\_\_\_\_\_ ✓

(3) Closure operation plan;

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\_\_\_\_\_  
\_\_\_\_\_ ✓

(4) Closure procedures;

(5) Plan for long term care;

(6) A demonstration that proof of financial responsibility for long term care will be provided.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ ✓

3. Closure report requirements; (62-701.600(4), FAC)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ ✓

a. General information requirements;

(1) Identification of landfill;



<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	PART P CONTINUED
—	—	—	✓	(2) Schedule for installing final cover after final receipt of waste;
—	—	—	✓	(3) Description of drought-resistant species to be used in the vegetative cover;
—	—	—	✓	(4) Top gradient design to maximize runoff and minimize erosion;
—	—	—	✓	(5) Provisions for cover material to be used for final cover maintenance.
—	—	—	✓	g. Final cover design requirements:
—	—	—	✓	(1) Protective soil layer design;
—	—	—	✓	(2) Barrier soil layer design;
—	—	—	✓	(3) Erosion control vegetation;
—	—	—	✓	(4) Geomembrane barrier layer design;
—	—	—	✓	(5) Geosynthetic clay liner design if used;
—	—	—	✓	(6) Stability analysis of the cover system and the disposed waste.
—	—	—	✓	h. Proposed method of stormwater control;
—	—	—	✓	i. Proposed method of access control;
—	—	—	✓	j. Description of proposed final use of the closed landfill, if any;
—	—	—	✓	k. Description of the proposed or existing gas management system which complies with Rule 62-701.530, FAC.
—	—	—	✓	5. Closure operation plan shall include: (62-701.600(6), 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;
—	—	—	✓	c. Describe proposed method for demonstrating financial responsibility;
—	—	—	✓	d. Indicate any additional equipment and personnel needed to complete closure.

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>
_____	_____	_____	_____✓
_____	_____	_____	_____✓
_____	_____	_____	_____✓

PART P CONTINUED

- e. Development and implementation of the water quality monitoring plan required in Rule 62-701.510, FAC.
- f. Development and implementation of gas management system required in Rule 62-701.530, FAC.
- 6. Justification for and detailed description of procedures to be followed for temporary closure of the landfill, if desired; (62-701.600(7),FAC)

Q. CLOSURE PROCEDURES (62-701.610, FAC)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
—	—	—	✓	1. Survey monuments; (62-701.610(2), FAC)
—	—	—	✓	2. Final survey report; (62-701.610(3), FAC)
—	—	—	✓	3. Certification of closure construction completion; (62-701.610(4), FAC)
—	—	—	✓	4. Declaration to the public; (62-701.610(5), FAC)
—	—	—	✓	5. Official date of closing; (62-701.610(6), FAC)
—	—	—	✓	6. Use of closed landfill areas; (62-701.610(7), FAC)
—	—	—	✓	7. Relocation of wastes; (62-701.610(8), FAC)

R. LONG TERM CARE REQUIREMENTS (62-701.620, FAC)

—	—	—	✓	1. Maintaining the gas collection and monitoring system; (62-701.620(5), FAC)
—	—	—	✓	2. Right of property access requirements; (62-701.620(6), FAC)
—	—	—	✓	3. Successors of interest requirements; (62-701.620(7), FAC)
—	—	—	✓	4. Requirements for replacement of monitoring devices; (62-701.620(9), FAC)
—	—	—	✓	5. Completion of long term care signed and sealed by professional engineer (62-701.620(10), FAC).

S. FINANCIAL RESPONSIBILITY REQUIREMENTS (62-701.630, FAC)

—	—	—	✓	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).
—	—	—	✓	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).
—	—	—	✓	3. Describe funding mechanisms for providing proof of financial assurance and include appropriate financial assurance forms; (62-701.630(5), (6), &(9), FAC).



T. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

1. Applicant:

The undersigned applicant or authorized representative of WASTE MANAGEMENT Inc. of Florida is aware that statements made in this form and attached

information are an application for a SOLID WASTE MODIFICATION 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/her 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

DAVID MCCONNELL - VP  
Name and Title (please type)

DMCCONNELL@WM.COM  
E-Mail address (if available)

6501 GRANLAND Rd  
Mailing Address

JACKSONVILLE, FL 32258  
City, State, Zip Code

904-370-1945  
Telephone Number

Date: 6/18/09

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

2. Professional Engineer registered in Florida (or Public Officer if authorized under Sections 403.707 and 403.7075, 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 principles applicable to such facilities. In my professional judgment, 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

RAYMOND J. CHEUNING  
Name and Title (please type)

63782  
Florida Registration Number  
(Please affix seal)

6/18/09

11205 3RD St E  
Mailing Address

TREASURE ISLAND, FL 33706  
City, State, Zip Code

RCHOUNING@TAMPABAY.PR.COM  
E-Mail address (if available)

770-364-1804  
Telephone Number

Date: 6/18/09

*Prepared for:*



**Vista Landfill, L.L.C.**

242 West Keene Road

Apopka, FL 32703

## **OPERATION PLAN**

**VISTA LANDFILL, CLASS III**

**Apopka, Florida**

*Prepared by:*

**Geosyntec<sup>®</sup>**  
consultants

14055 Riveredge Drive, Suite 300

Tampa, FL 33637

Project No. FL1229

June 2009

A circular professional engineer seal for the State of Florida. The seal contains the text 'STATE OF FLORIDA' around the top and 'PROFESSIONAL ENGINEER' around the bottom. In the center, the name 'Juan D. Quiroz' is written in a cursive script, followed by 'Ph.D., P.E.' in a sans-serif font. Below the seal, the text 'Florida Registration No. 65275' is printed. At the bottom, the date 'Date: 16 June 2009' is handwritten in cursive.

Juan D. Quiroz, Ph.D., P.E.  
Florida Registration No. 65275  
Date: 16 June 2009

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## **1. INTRODUCTION**

### **1.1 Purpose and Scope of the Operation Plan**

The Operation Plan provides a detailed description of the daily operations of the Vista Landfill, Class III facility, including contingency operations for emergencies. This Operation Plan complies with the requirements of Chapter 62-701, Florida Administrative Code (FAC) and Chapter 66, City of Apopka Code of Ordinances (a.k.a. Solid Waste Management Ordinance – SWMO).

### **1.2 Facility Location**

Vista Landfill, Class III facility is located in the City of Apopka. The general site location is shown in Figure 1. The site is within Section 21, Township 21 South, Range 28 East in Orange County, Florida. The main entrance of the facility is located at latitude 28°38'24.5"N, longitude 81°80'41.7"W. The currently permitted footprint of the facility is shown in Figure 2.

## **2. FACILITIES AND PERSONNEL**

### **2.1 Designation of Responsible Persons**

In accordance with Rule 62-701.500(1), FAC, the facility has at least one trained operator at the facility during periods of waste acceptance (operation) during operation and at least one trained spotter at each working face. Note that if the trained operator is at the working face, he/she can also function as a trained spotter.

The District Manager for Vista Landfill, L.L.C. (Vista Landfill) and the Operations Supervisor/Site Manager for the Vista Landfill, Class III facility has responsibility of overall management and operation of the Vista Landfill, Class III facility. The District Manager has the authority to obtain the necessary personnel to operate the site and provide for their training and orientation. The District Manager ascertains the facility's need for equipment, has the authority to replace existing equipment or obtain new equipment, and is responsible for administering the provisions of the site operation plan.

The Compliance and Construction Engineer is responsible for facility compliance, as well as assisting with operational issues, groundwater, leachate and facility gas sampling, submittal of monitoring reports, surveying of disposal area limits, and facility planning.

The day-to-day operations of the site are directed by the Operations Supervisor/Site Manager who is responsible for site personnel attendance and performance. As such, he/she routinely directs the daily activities of the operations manager, scale-house attendant, facility operators and spotters, and other support personnel.

Vista Landfill, Class III facility is currently staffed approximately as follows:

- 1 – District Manager
- 1 – Compliance and Construction Engineer
- 1 – Site Manager/Operations Supervisor – Trained Operator and Trained Spotter
- 2 – Scale house Operators – Trained Spotters
- 3 – Trained Operators
- 3 – Trained Spotters
- 2 - Laborers

A list of personnel is attached as Attachment A.

### **2.1.1 Employee Training**

A trained operator shall be on duty whenever the facility is operating and at least one trained spotter shall be on duty at all times that waste is received at the site to inspect the incoming waste. The operator(s) and spotter(s) of the Class III disposal area at Vista Landfill, Class III facility are trained in accordance with the requirements of Rule 62-701.320(15), FAC. Further, trained personnel are aware of, have access to, and will substantially comply with at all times, this operations plan. The operators shall be properly trained to operate the facility and the spotters shall be trained to identify and properly manage any hazardous or prohibited materials that are inadvertently received at the Class III disposal facility. Any trained operator at Vista Landfill, Class III facility shall complete 24 hours of initial training, and shall pass an examination as part of that training. Within three years after passing the examination, and every three years thereafter, operators shall complete an additional 16 hours of continued training. A trained spotter at Vista Landfill, Class III facility shall complete 8 hours of initial training. Within three years after attending the initial training, and every three years thereafter, spotters shall complete an additional 4 hours of continued training. The training of the operator and spotter is performed through those courses offered to the public through TREEO training at the University of Florida and other approved sources (see [www.treeo.ufl.edu](http://www.treeo.ufl.edu)).

Vista Landfill, Class III facility will not employ a person to perform, nor may any person perform the duties of an operator or spotter at Vista Landfill, Class III facility unless that person is a trained operator or trained spotter, or an interim operator or interim spotter.

A trained operator shall be on duty whenever the facility is operating and at least one trained spotter shall be on duty at all times that waste is received at the site to inspect the incoming waste. An interim operator may perform the duties of an operator or spotter, but only under the supervision of a trained onsite operator. An interim spotter may perform the duties of a spotter, but only under the supervision of a trained onsite operator or trained onsite spotter.

An interim operator is a person who has not completed the required 24-hour initial training course, but has, in the opinion of Vista Landfill, Class III facility Operations Supervisor/Site Manager, shown competency as an operator through a combination of work experience, education and/or training and who has at least one year of experience at Vista Landfill, Class III facility or other similar facility. The determination to grant interim operator status may be made at the time of hiring, based on information provided in the resume or application. Alternatively, the Operations Supervisor/Site Manager may grant interim operator status following work observations.



An interim spotter is a person who has not completed the required 8-hour initial training course, but has, in the opinion of Vista Landfill, Class III facility Operations Supervisor/Site Manager, shown competency as a spotter through a combination of work experience, education and/or training. The determination to grant interim spotter status may be made at the time of hiring, based on information provided in the resume or application. Alternatively, the Operations Supervisor/Site Manager may grant interim spotter status following work observations.

Interim status for operators and spotters is not intended to exceed six months, provided that TREEO or other approved training is available during this period.

### **2.1.2 Training Records**

The training records are kept at the facility at all times and are available for inspection by Florida Department of Environmental Protection (FDEP), upon request. A list of trained personnel is attached as Attachment A.

## **2.2 Onsite Structures**

On-site structures include an administration building, scale house, and maintenance buildings/facilities used for equipment repair. The scale house is located near the entrance to the facility along the north property boundary.

### **2.2.1 Communications**

Communication equipment at Vista Landfill, Class III facility consists of telephone service for outside communications and cellular phones or radios for communications between ground personnel and equipment personnel.

### 3. ENTRANCE PROCEDURES

#### 3.1 Control of Incoming Waste

In accordance with Rules 62-701.200(14) and 62-701.300(8)(c), FAC, only Class III waste, defined as *construction and demolition debris, processed tires, asbestos, carpet, cardboard, paper, glass, plastic, furniture other than appliances, or other materials approved by the Department that are not expected to produce leachate which poses a threat to public health or the environment*, is knowingly accepted for disposal at Vista Landfill, a lined Class III facility. Vista Landfill understands that yard trash cannot be disposed in a lined Class III landfill unless the current solid waste management rules of Chapter 62-701, F.A.C. are revised to allow such disposal.

Vista Landfill, Class III facility does not knowingly dispose of hazardous waste, putrescible waste, liquid wastes, brown goods (small appliances, electronic goods, cathode ray tubes, etc...), or any other non-Class III waste material. Unacceptable loads are rejected as described in Section 4.2. Once Class III waste has been accepted and unloaded, if any unacceptable waste is found, spotter(s) will proceed to remove unacceptable wastes to a temporary staging area for placement at the end of the working day into containers destined for other facilities properly permitted to receive such wastes. If the generator or transporter of any unacceptable waste can be identified, they may be requested to remove the unacceptable material from the landfill.

Although State and City requirements do not currently prohibit the disposal of CCA treated wood at Class III Landfills, Vista Landfill is committed to being proactive. Spotters are encouraged to identify and remove CCA treated wood, for disposal at a lined facility, to reduce the quantity of CCA treated wood being disposed at Vista Landfill, Class III facility.

#### 3.2 Hours and Days of Operation

Typical hours for acceptance of waste are:

Monday through Friday	7:00 am to 6:00 pm
Saturday	8:00 am to 12:00 pm

The actual hours of operation are posted at the main entrance to the facility. The facility is closed on Sundays and designated holidays. Access by all vehicles shall be via a single secured site entrance. The entrance allows for safe and orderly traffic flow into and out of the facility. Public access and receipt of waste occurs only when an attendant is on duty.

### **3.3     Weighing of Incoming Waste**

All solid waste accepted at the facility is weighed. Tare weights of the trucks will be determined as the emptied vehicle leaves the site. Tare weights for waste haulers that regularly visit the site are recorded so that they do not need to be weighed each time they leave the site unless specifically required by contract or to meet facility needs. Invoices are based on the weight of waste disposed.

## **4. TRAFFIC CONTROL AND UNLOADING**

### **4.1 Facility Access Control and Security**

Traffic into and out of the site is controlled by the use of a single public entry, a complete perimeter 6-ft. chain link fence with a locking gate, and an attendant present during operating hours. There is a sign at the site entrance with an emergency contact name and phone number. Gates at all roadway points are kept locked outside of normal working hours. All refuse traffic is required to pass by the scale house to gain entry to active portions of the landfill. Public access and receipt of wastes occur only when an attendant is on duty. Additionally, signs indicating “no trespassing” are installed on the perimeter fencing and at each fence corner.

Once vehicles delivering wastes have been weighed, they follow signs posted along the access road(s) to the currently active areas of the facility. Trucks then proceed to and deposit trash at the appropriate working face. Signs and Scale house personnel direct small public vehicles to unload their loads in the appropriate disposal area.

The landfill access road and other on-site roads are maintained to allow access to monitoring devices and stormwater controls and for landfill inspections and fire fighting.

#### **4.1.1 Access to and Unloading at the Active Face**

Waste haulers are directed from the controlled entrance point to the working face by use of signage and facility personnel directing drivers when and where to enter, unload, and leave. A spotter or interim spotter directs traffic to the proper waste unloading location at the active face. Operator/spotter perform load spotting as the waste is deposited and additional spotting as the waste is spread and compacted.

A spotter is stationed at each working face at all times when the landfill receives waste in order to screen for any unauthorized materials. The equipment operator may serve as the spotter.

The operator then spreads the waste and performs additional spotting during each pass while compacting the waste.

#### **4.2 Signs, Traffic Flow**

Signs are utilized to inform the public of important information concerning Vista Landfill, Class III facility. Signs are placed near the entrance of the landfill to provide information concerning name of operating authority, traffic flow, operating hours, and restrictions or conditions of disposal.

Traffic control and safety requirement signs are located at and near the entrance and throughout the facility as required.

#### **4.3 Random Load Checking Program**

To monitor the waste received at Vista Landfill, Class III facility, a load-checking program to detect and discourage attempts to dispose of unauthorized wastes at the facility is implemented. The load-checking program consists of the following minimum requirements specified in Section 66-177(1)(k), SWMO and Rule 62-701.500(6)(a), FAC., and is described below. The Facility Operations Manager implements the program.

1. Landfill personnel examine at least three random loads of solid waste delivered to the landfill each week. The waste collection vehicle drivers selected by the inspector are directed to discharge their loads at a designated location within the landfill. A detailed inspection of the discharged material is then made for any unauthorized wastes.
2. If unauthorized wastes are found, Vista Landfill will contact the generator, hauler, or other party responsible for shipping the waste to the landfill to determine the identity of the waste sources.

#### **4.4 Recording Random Inspection Results**

Information and observations from each random inspection are recorded in writing and retained at the site for at least three years. The recorded information includes, at a minimum, the following information:

1. Date and time of the inspection.
2. Names of the hauling firm and the driver of the vehicle.
3. Vehicle license plate number.
4. Source of waste, as stated by the driver.
5. Observations made by the inspector during the detailed inspection.

The written record is signed by the inspector.

#### **4.5     Management of Hazardous Wastes**

If any regulated hazardous wastes are identified by random load-checking, or are otherwise discovered to be improperly deposited at the landfill, the operator will promptly notify the following parties:

1. Florida Department of Environmental Protection: 407-894-7555 / 407-893-3328.
2. Other agencies, as required.
3. The person responsible for shipping the wastes to the landfill.
4. The generator of the wastes, if known.

The area where the wastes are deposited will be immediately restricted from public access. If the generator or hauler cannot be identified, the District Manager (DM) or Operations Supervisor (OS) will assure the cleanup, transportation, and disposal of the waste at a permitted hazardous waste management facility. Subsequent shipments from sources found or suspected to be previously responsible for shipping regulated hazardous waste will be subject to precautionary measures prior to the facility accepting wastes.

#### **4.6     Management of Special Wastes**

Asbestos-containing materials, non-friable and friable, are accepted and disposed at Vista only under specific conditions. The asbestos waste generator/hauler must notify the DM or OS prior to transporting the asbestos waste. The asbestos is disposed of in designated and recorded areas. The asbestos is then carefully covered in a manner so that neither equipment nor personnel come in contact with the waste.

## **5. WASTE RECORDS**

The Scale Attendant records, in tons per day, the amount of solid waste received at the site. Waste reports will be compiled monthly, and copies will be provided to the City of Apopka and FDEP quarterly.

Quarterly Waste Quantity Reports are submitted to:

Tom Lubozynski, P.E.  
Solid Waste Section  
Florida DEP  
3319 Maguire Blvd., Suite 232  
Orlando, FL 32803

R. J. "Jay" Davoll, P.E.  
Community Development Dept.  
City of Apopka  
120 E. Main St., 2<sup>nd</sup> Floor  
Apopka, FL 32704

or via electronic mail to

[Tom.Lubozynski@dep.state.fl.us](mailto:Tom.Lubozynski@dep.state.fl.us)

[jdavoll@apopka.net](mailto:jdavoll@apopka.net)

or via facsimile to

(407) 893-3124

(407) 703-1791

## **6. METHOD AND SEQUENCE OF FILLING WASTE**

### **6.1 Basic Operations**

Generally, waste placement and ongoing operations are screened from view as practical. Solid waste is placed into cells to construct horizontal lifts. The solid waste will continue to be placed in layers and compacted using landfill equipment. Lift depth may vary depending on specific conditions, daily volume of waste, width of working face, and good safety practices. The compacted waste will continue to be graded with slopes not to exceed 3H:1V. Access roads have maximum slopes of 10% in order to readily allow vehicular access to the working face even during inclement weather conditions. The working face is maintained to minimize the amount of exposed waste and initial cover necessary at the end of the week.

The landfill development sequence is illustrated on the Permit Drawings and is shown in Figure 3. Waste disposal activities will continue until the final grade elevations have been reached. The final grades are also illustrated on the permitted plans.

#### **6.1.1 Filling Procedures**

The refuse cell is the basic building block of a landfill. It is composed of several compacted layers of waste and enclosed by cover material. Basic instructions for constructing the refuse cell are outlined below.

#### **6.1.2 Working Face**

The working face is the portion of the uncompleted cell on which additional waste is spread and compacted. The working face is kept as small as practical to minimize equipment movement, cover material requirements, and the area of exposed waste, thus reducing blowing litter, vector problems, and operation costs. The optimal daily working face width varies depending on the number of vehicles bringing waste to the site. The working face is kept wide enough to prevent a large backlog of trucks.

In order to facilitate proper dumping and waste placement operations, multiple working faces may be required to accommodate commercial non-tipper trailers, commercial tipper trailers, other commercial vehicles, and non-commercial vehicles.

The Operations Supervisor/Site Manager has the discretion to utilize multiple working faces on an as-needed basis, depending on site conditions. If separate working faces are used, a spotter or operator/spotter will be present at each.



### **6.1.3 Dumping**

When top dumping, the waste is dumped as near to the edge of the active working face as safe operations permit. For safety reasons, a minimum 8 to 10 ft separation is maintained between the waste trucks and the landfill equipment.

When bottom dumping, the waste is dumped near the toe of the working face and pushed up the slope. Truck separation, as discussed above, is maintained.

### **6.1.4 Pushing, Spreading and Compacting**

Proper cell construction involves pushing, spreading, and compacting. These functions are accomplished with a bulldozer and/or a compactor. Solid waste at Vista Landfill, Class III facility is spread in layers approximately three feet thick and compacted using suitable heavy equipment. Bulky materials that are not easily compacted are worked into other materials as much as practical.

### **6.1.5 Cover**

#### **6.1.5.1 Initial Cover**

The initial cover will be applied and maintained in accordance with Section 66-177(1)t, SWMO, and Rule 62-701.500(7)(e)(2) FAC. A 6-inch thick initial cover is placed on top of the waste at the end of each week's operation in order to mitigate blowing litter and aid in control of odors. An alternative weekly cover in the form of geosynthetic material, tarpaulin, or other approved materials such as 50:50 mix of soil: mulch may be applied to the active face at the conclusion of each working week.

#### **6.1.5.2 Intermediate Cover**

Intermediate cover, consisting of 12 inches of soil, shall be applied and maintained within 7 days of cell completion if additional waste will not be deposited within 180 days of cell completion. In accordance with Rule 62-701.500(7)(f), all or part of the intermediate cover may be removed before placing additional waste or installing the final cover.

#### 6.1.5.3 Final Cover

Areas of the landfill which have been filled to design dimensions shall receive final cover within 180-days after attaining final elevation or in accordance with the closure plan for the landfill. The final cover will be constructed in accordance with Section 66-177(1)t, SWMO and Rule 62-701.600(5)(g) FAC. The barrier layer to be installed will either be a geosynthetic clay liner (GCL) or 40-mil linear low-density polyethylene (LLDPE). The barrier layer will be installed over a 6-inch, minimum, soil layer, and overlain by 18-inches of cover protective soil, and 6-inches of compost or topsoil capable of sustaining a good stand of grass. A geocomposite drainage layer will be placed above all or parts of the barrier layer, depending on the specific barrier layer selected at the time of closure.

### 6.2 Scavenging

Uncontrolled and unauthorized scavenging is not allowed at this facility. However, controlled removal by landfill personnel of recovered material recycling may be permitted.

### 6.3 Storm Water Control during Waste Filling

During waste placement activities, storm water collected within a landfill cell with waste fill elevations below natural grade is treated as leachate and managed through the leachate collection system for the landfill. Once waste fill elevations are above natural grade and intermediate cover is in-place, storm water run-off is diverted to the storm water perimeter ditch for the landfill. Accumulated storm water within an inactive landfill cell that does not come in contact with waste is pumped to the storm water management system (e.g., storm water perimeter ditch or storm water ponds) for the landfill.

## 7. EQUIPMENT

### 7.1 Heavy Equipment and Support Equipment - Number, Type, Use

Based on the available range of handling capacities and the initial projected waste receipts, the allocation of heavy equipment presented in Table 1 is sufficient to handle the wastes received at the facility. The primary functions of heavy facility equipment are spreading and compacting solid waste, and excavating, hauling, and spreading cover material. Equipment similarities allow different equipment to perform the same function as necessary. For example, when a compactor breaks down, a bulldozer can perform the compacting operation.

Support equipment is present at the site most of the time, but some may be off-site, temporarily out of service, or rented for a specific occasion. An on-site water truck is normally positioned close to the working face for fire protection. This water truck is also equipped with spray bars for dust control. A utility mower is fitted with attachments for mowing grassed areas. A backhoe/loader is available to assist in maintaining drainage courses and ditches, and for other site maintenance duties.

Equipment makes, models, and quantities listed on Table 1 are subject to change as facility needs or requirements change.

**Table 1 – Equipment Inventory.**

Equipment Description	Use
Cat 950G	Loader
Cat D8R	Dozer
Cat D6R	Dozer
Cat 826G	Compactor
Volvo 710A	Grader
Cat 420D	Backhoe
Ford F450	Service truck
Volvo A30D	Dump truck
Kubota M7030 SUDT	Tractor
Street Sweeper	Entrance road cleaning

Equipment Description	Use
Ford 1998	3000 Gallon water truck
Cat VC60D	Forklift
Kubota F2100	Mower

## 7.2 Back-Up Equipment

The equipment selection guide indicated in Table 1 is adequate even if one of the pieces of equipment is temporarily out of service. If a piece of equipment is out of service for an extended period or if additional equipment is required on a temporary basis, this equipment is available for rental nearby and can normally be available at the site within 24 hours.

## 7.3 Equipment Care

Routine preventive maintenance minimizes equipment downtime and increases equipment service life. Preventive maintenance varies with each piece of equipment. Therefore, the appropriate operation and maintenance (owner's) manual should be consulted. However, three applicable maintenance activities implemented at the site are:

- A routine inspection program;
- Routine Lubrication
- Maintenance records upkeep.

## 7.4 Notification in Case of Equipment Failure

If there is an equipment failure that will disrupt normal operations for more than 24 hours, the Central District office of FDEP must be notified:

Tom Lubozynski, P.E.  
email: [Tom.Lubozynski@dep.state.fl.us](mailto:Tom.Lubozynski@dep.state.fl.us)  
phone: (407) 894-7555 / (407) 893-3328  
facsimile: (407) 893-3124  
address: Florida Department of Environmental Protection  
3319 Maguire Blvd., Suite 232  
Orlando, FL 32803

## **8. ENVIRONMENTAL AND OPERATIONAL CONTROLS**

### **8.1 Stormwater Control**

Stormwater management within the active portion of the landfill is achieved by grading all working face areas so that stormwater will be diverted into a ditch at the landfill base channel or directly into the stormwater basin(s). This facility has no off site discharge of stormwater.

### **8.2 Dust Control**

Dust is controlled in landfilling areas at Vista Landfill, Class III facility by water truck and by establishing vegetative cover on areas within final and intermediate cover. Entrance roads are paved to a point beyond the scale house to minimize dust and sediment from being tracked onto the highway.

### **8.3 Vector Control**

Vector control consists of maintaining a clean site, waste screening, constructing sufficient initial and intermediate cover, and minimizing ponded water in areas of landfill cover. Proper compaction of wastes eliminates many of the breeding areas used by these pests during the work week. Proper implementation of the drainage design inhibits ponding on the site.

### **8.4 Noise Control**

Operational measures, such as construction of temporary berms, may be used to reduce noise generated at the site. Noise will be minimized to the best practical extent; however, some noises will continue to be present such as back-up alarms and other measures which are required by the Occupational Health and Safety Administration (OSHA) for safety.

### **8.5 Litter Control**

A litter control policy is employed to minimize litter from leaving the working face of the landfill. Portable fences may be used, where necessary, to control blowing litter in the active landfilling areas. The litter that escapes the portable fences, or the inbound vehicles, and blows to other areas of the property is picked up on a daily basis.

Litter is policed in the immediate proximity of the landfill, as necessary, to control any problems which may arise from debris blowing from trucks traveling along West Keene Road to the landfill. Vista Landfill, Class III facility employees observe West Keene Road daily, and often several times each working day. The litter along West Keene Road is picked up at least weekly, from Clarcona Road to the facility entrance, or more often if necessary, as evaluated by employee observation. Vista Landfill understands that Vista Landfill, Class III facility is part of a community, and that litter policing is part of being a good neighbor within that community.

### **8.6 Fire Control**

Fire protection procedures include maintaining soil stockpiles in the vicinity of the working face. The cover used in the landfill operation provides an effective firewall.

Should a fire occur at the landfill, the application of soil will be used to cut off the flow of oxygen into the burning areas. The local fire department will be contacted to assist site personnel and equipment. Appropriate fire extinguishers are carried on the equipment at all times and can be used to control any small equipment fire that may occur.

Greater detail for dealing with fires is given in Section 9.1 of this plan.

### **8.7 Gas Control**

Vista accepts, and will continue to accept, only Class III materials which generate low levels of methane gas in comparison to generation rates at Class I landfills. The gas monitoring system will consist of 25 permanent gas monitoring probe locations in total build-out, as shown on the site plan presented in Figure 4. The gas probes are monitored on a quarterly basis for explosive gas content. Additionally, on-site structures are monitored quarterly.

Action must be taken whenever the measured methane concentration in soil monitoring probes exceeds the Lower Exposure Limit (LEL) for combustible gases at or beyond the landfill property boundary or exceeds 25% of the LEL in onsite structures. If the results of monitoring show that combustible gas levels exceed these concentrations, either the Site

Engineer or the Compliance Manager will:

1. immediately take all necessary steps to ensure protection of human health and notify the Department;
2. submit a gas remediation plan to the Department within 7 days of the exceedence;

3. complete remediation within 60 days of exceedence, unless otherwise approved by the Department.

Quarterly methane monitoring reports, using the form in Attachment B, are reviewed by the Site Engineer or Compliance Manager and submitted to the Department at the following address:

Tom Lubozynski, P.E.  
Solid Waste Section  
Florida Department of Environmental Protection  
3319 Maguire Blvd., Suite 232  
Orlando, FL 32803

or via electronic mail: [Tom.Lubozynski@dep.state.fl.us](mailto:Tom.Lubozynski@dep.state.fl.us) or facsimile: (407) 893-3124.

In the event that a permanent gas probe is not available for sampling, a "bar hole" is created in the vicinity of the damaged or missing probe by hammering a 3-foot long by ½-inch diameter metal "bar" into the ground the full length of the bar (i.e., three feet), and removing it, thus creating a "hole." Methane concentration is measured in this bar hole by inserting the instrument probe into the void and aspirating sample gas through the meter for 20-30 pumps on the aspirator bulb. If methane is encountered, aspiration continues until a steady-state reading is obtained, typically within 20 pumps and always within 30 pumps. If no methane is encountered, aspiration is concluded after 30 pumps and "0%" is recorded.

Every attempt is made to replace a damaged or missing gas probe within a reasonable time frame, typically before the next quarterly sampling event. Site conditions such as construction may make this time frame impractical to achieve, however. Vista Landfill uses drilling vendors to replace permanent gas probes. One such vendor is listed below; however, other vendors may be used.

The Colinas Group  
509 North Virginia Avenue  
Winter Park, FL 32789  
(407) 622-8176



## **8.8 Odor Control and Monitoring**

Class III waste materials do represent a potential for the generation of odorous gasses. Most commonly, the odors are derived from the anaerobic decomposition of gypsum wallboard, which forms hydrogen sulfide (H<sub>2</sub>S) gas. The following sections address Vista Landfill, Class III facility's routine control, monitoring, and response procedures for odors caused by H<sub>2</sub>S.

### **8.8.1 Landfill Design and Operation**

The primary lines of defense against odor generation are design and operation. The Class III landfill has been designed with base grades that remain above the seasonal high water table and with final grades that help shed stormwater runoff. This design helps to minimize the potential for saturating the waste, which could subsequently lead to odor generation. Operations at Vista Landfill, Class III facility ensure that waste is compacted and graded to remain consistent with the intent of the design. Attention to waste placement, compaction, grading, covering and surveying will help maintain this record. Any poorly drained or ponded areas on top of the waste should be regraded in a timely manner.

### **8.8.2 Weather**

Another important factor that affects odor generation and transport is weather. Understanding seasonal and daily weather patterns can assist the understanding of what may be happening to transport odors once they are generated. Radiation inversions have been identified as an atmospheric condition that can trap odors near the ground, preventing dispersion. These inversions are caused when air near the ground surface is cooled more rapidly than the air above it. So, they are strongest just before daylight and during periods of clear skies and light winds.

The Operations Supervisor/Site Manager or Compliance Engineer record weather data from the on-site weather station on the Odor Survey Form (Attachment C). These daily weather logs are maintained on site and are available for review by FDEP and the City of Apopka upon request.

### **8.8.3 Odor Surveying**

At least once daily, Vista Landfill, Class III facility personnel patrol the property to detect and document odors. Attachment C provides a log for the odor patrol. The log includes information such as odor descriptors and locations. Additionally, staff should perform the

patrol as early as possible in the day to document what will likely be the worst-case weather conditions for odors. If a moderate or strong odor is detected near the property line, staff may proceed off site in an effort to document the lateral extent (or off site source) of the odor. Vista Landfill, Class III facility personnel will not enter onto private property for odor studies without the consent of the property owner.

Odor surveying may also be supplemented by use of a hydrogen sulfide meter to quantify hydrogen sulfide concentrations (see section 8.8.4 for discussion of H<sub>2</sub>S meter use).

#### **8.8.4 Odor Complaints**

Attachments D and E provide a mechanism to log and track odor complaint calls received by Vista Landfill, Class III facility at its main telephone number: 407-886-2920. Complaints are logged and compared to Vista Landfill, Class III facility's own odor observations and daily odor log. The Vista Landfill, Class III facility Operations Supervisor/Site Manager or Compliance Engineer will acknowledge complaints within one business day and address them within three business days.

Vista Landfill, Class III facility continues to endeavor to be an environmentally conscientious neighbor and take appropriate responses to odor complaints. The initial response is to cover waste. Any eroded cover will be addressed first, followed by the minimization of working face (as much as practical) by the application of initial cover. Other responses include dispersal of granular deodorizer or monitoring and recording H<sub>2</sub>S concentrations around the perimeter of the landfill or at offsite locations using a hydrogen sulfide meter. The Operations Supervisor/Site Manager or Compliance Engineer will determine an appropriate response to any given complaint.

Several levels of analysis are used to determine an appropriate response to a complaint. The first level of analysis is the comparison of complaints to weather data. An analysis of the wind strength and direction during the time of the odor problem may help verify or refute that Vista Landfill, Class III facility is causing odors. Other patterns may be identified to help explain the cause of the odors. For example, odors may be noticed following rain events, or during periods of low pressure. Data gathered during the daily odor monitoring is also evaluated. Data from monitoring and recording H<sub>2</sub>S concentrations around the perimeter of the landfill or at offsite locations using a hydrogen sulfide meter may also be evaluated.

Vista Landfill may conduct monitoring and recording of H<sub>2</sub>S concentrations around the perimeter of the landfill or at offsite locations using a borrowed or rented hydrogen sulfide

meter. Hydrogen sulfide meters, such as the Jerome 631-X or other similar meter, are available from the Waste Management Southern Group office located in Atlanta, GA, (770) 805-4130, or a meter may be borrowed or rented from the following companies:

SCS Engineers  
3012 U.S. Hwy 301 N., Suite 700  
Tampa, FL 33619  
Tel: 813-621-0080

Grove Scientific & Engineering  
6140 Edgewater Drive, Suite F  
Orlando, FL 32810  
Tel: 407-298-2282

Alternatively, Vista Landfill may employ the services of a qualified professional to monitor and record H<sub>2</sub>S concentrations around the perimeter of the landfill or at offsite locations.

## **8.9 Water Quality Monitoring**

Groundwater and leachate are monitored in accordance with the requirements of FDEP and City of Apopka Operating Permits and Standard Operating Procedures (SOPs), as applicable. Extensive water quality monitoring is conducted at Vista Landfill, Class III facility on an annual (for leachate) and semi-annual (for groundwater) basis. The water quality monitoring locations are shown on the Permit Drawings. The Water Quality Monitoring Plan for the Vista Landfill, Class III facility provides detailed sampling and collection procedures in accordance with Rule 62-701.510, FAC.

Surface water monitoring is not required for the Vista Landfill, Class III facility in accordance with the current solid waste permit for the site.

## **8.10 Erosion Control**

The landfill is inspected daily using the form in Attachment C. Corrective action to repair areas of erosion where waste is exposed or which cause malfunction of the storm water management system will be implemented within three days of occurrence. If the erosion cannot be corrected within seven days of occurrence the landfill operator will notify FDEP with a proposed correction schedule.

### **8.11 Leachate Containment and Control**

Vista Landfill, Class III facility is equipped with a geomembrane liner system. Any liquid entering the landfill that may have contacted waste is collected in a Leachate Control System (LCS). The LCS drains collected liquid to the cell sump. Leachate in the sump is pumped to an auxiliary leachate storage facility with approximately 160,000 gallons of capacity and conveyed to a municipal sanitary sewer line located on West Keene Road for off-site treatment and disposal at the City of Apopka Waste Water Treatment Plant (WWTP) or an alternative WWTP. Quantities of leachate collected by the LCS are recorded in gallons per day at each cell and maintained as part of the landfill operating record.

## 9. CONTINGENCY OPERATIONS

Contingency operations include emergencies such as fire, natural disasters, and equipment failure. Waste will not normally be delivered to the site during emergency conditions; however, the following procedures will be initiated at the onset of a major event that may cause an emergency.

### Emergency Coordinators

Primary:	Sheree Henninger and Irv Slike, District Managers	407-886-2920
Secondary:	Mike Donaldson, Operations Supervisor/Site Manager	321-229-6393

### 9.1 Fire Control Plan

On-site fire protection facilities consist of soil stockpiles in the vicinity of the working face. The initial cover used in the landfill operation provides an effective firewall. Instructions on fire fighting procedures are routinely provided for site personnel. Should fire occur at Vista Landfill, Class III facility, the application of additional cover will be used to cut off the flow of oxygen into the burning area. The local fire department will be contacted to assist Vista Landfill, Class III facility personnel and equipment, if necessary. Appropriate fire extinguishers are carried on the equipment at all times.

#### 9.1.1 When Fire Occurs

The following procedures are followed in the event of a fire at the facility:

1. Extinguish small fires with fire extinguisher or smother with soil - do not remain near large fires or explosive materials;
2. Determine location, extent, type, and, if possible, cause of fire or explosion;
3. Notify on-site personnel and implement safety and fire control procedures;
4. If the fire cannot be immediately controlled, the following steps should be taken:
  - a) Notify facility emergency coordinator
  - b) Notify City of Apopka Fire Department (911, or 407-703-1756). Clearly state:
    - Location of facility
    - Location of fire or explosion in facility
    - Extent of fire or explosion

- Type of fire or explosion
  - Actions now being taken
  - Injuries
- c) Notify rescue squad, if necessary
- d) Notify health care facility, if necessary
5. Notify Florida Department of Environmental Protection within 24 hours via phone (407-894-7555 / 407-893-3328), e-mail (Tom.Lubozynski@dep.state.fl.us) or fax (407-893-3124). A letter must be submitted to FDEP within five days describing how the fire began, what was done to extinguish it and what will be done to prevent future fires.

### **9.1.2 "Hot Load" Procedures**

In the unlikely event that a "hot load" is not identified before entrance into the facility, the following procedures are implemented:

- The truck carrying the "hot load" is directed to dump the load in the landfill but away from the working face;
- The load is placed on top of intermediate cover which provides sufficient protection from the "hot load" and the underlying waste;
- Soil is then spread over the load to smother the "hot load"; and
- The "hot load" is monitored until there is no evidence of smoldering or high temperatures.

At the end of the day, or at a time when the waste has been well extinguished and cooled, the load is worked into the waste placement working face. The designated area for extinguishing the "hot loads" varies depending on the location of the working face, but is always away from the working face.

### **9.1.3 Fire Extinguishers**

Fire extinguishers are installed in the following locations:

- Onsite buildings
- Heavy equipment.

## **9.2 Hurricane Preparedness**

The following is a general guideline that is to be followed before, during and after any hurricane. Due to the nature of these storms, there may be some deviation from this guide. A Hurricane Planning Manual has been included in Attachment F, which provides key procedures regarding landfill facility shutdown in the days prior to landfall of any storm.

The Emergency Coordinator will oversee all preparations for the incoming storm and remain aware of any pending situation by monitoring weather reports. Other Landfill personnel will report to the Emergency Coordinator as follows:

Landfill Alternate Emergency Coordinator  
Shop Mechanic/Next Senior Operator  
Office Senior Clerk

Adequate cover material soil will be stockpiled. All ditches will be checked and cleaned for adequate flow. All lightweight signs and equipment will be collected and stored in a secure area.

Vista Landfill also has prepared a Hurricane Preparation and Planning Emergency Supplier Response Resource Notebook to be used as a tool to aid Market Area Hurricane Response Managers in their efforts to obtain, manage, and maintain open supply lines for needed goods, materials, and services as part of their hurricane preparation and recovery plan(s). This notebook is available for review by FDEP and the City of Apopka upon request.

## **10. LANDFILL FINAL CLOSURE**

A separate Closure Plan will be prepared for Vista Landfill, Class III facility at the time of closure. This closure plan will contain a closure report, closure design, closure operation plan, closure procedures, and discussions on long-term care and financial assurance.

### **10.1 Final Cover System**

As shown in the Permit Drawings, the final cover system consists of a geomembrane barrier, a two-foot soil layer, and vegetative cover. The grades of the final cover system are 3H:1V on the side slopes.

### **10.2 Erosion Minimization on Closed Areas**

Erosion of the final cover system is minimized by the establishment of vegetative cover as well as the installation of final cover swales, downchutes, and other surface water management systems. The swales intercept sheet flow from the final cover system and direct the water via downchutes to perimeter storm water ponds.

A vegetative cover is placed on the final cover slopes of the landfill to minimize erosion and reduce soil loss from the surface of the final cover system. Any substantial erosion damage or vegetative stress will be repaired before significant erosion has a chance to develop. Ruts or rills which are six (6) inches or greater in depth are considered substantial.

Corrective action to repair areas of erosion will be implemented within three (3) days of occurrence, weather permitting. If the erosion cannot be corrected within seven (7) days of occurrence the landfill operator will notify FDEP with a proposed correction schedule.

### **10.3 Inspections of Closed Area**

The final cover system will be inspected quarterly using the form in Attachment C. The inspection will include observations for erosion, vegetative stress, obvious differential settlement, and ponding of water. The surface water control structures will be inspected and cleaned if they become obstructed.



## **11. FINANCIAL RESPONSIBILITY**

Proof of financial responsibility is prepared in accordance with FDEP requirements. The final closure cost estimates will be updated annually between January 1 and March 1 by the Site Engineer and/or the Compliance Manager and sent for review and approval to:

Tom Lubozynski, P.E.  
Florida Department of Environmental Protection  
3319 Maguire Blvd., Suite 232  
Orlando, FL 32803

Upon receipt of approval of the updated estimate, a revised mechanism in the form of a bond, insurance certificate, or other acceptable financial assurance mechanism to demonstrate financial responsibility will be provided by Vista Landfill.

The revised mechanism is sent to:

Frank Hornbrook  
Florida Department of Environmental Protection  
2600 Blair Stone Road, MS 4565  
Tallahassee, FL 32399

with a copy to:

City of Apopka:  
R. Jay Duvall, P.E., City Engineer  
City of Apopka  
120 East Main Street - 2nd Floor  
Apopka, Florida 32703

## 12. OPERATING RECORD

In accordance with Rule 62-701.500(3), FAC, an operating record shall be maintained at the site including all records, reports, analytical results and notification required by Chapter 62-701, FAC, as well as the training verifications required by Chapter 62-701, FAC. This record is kept at the facility and is available for inspection by the FDEP and the City of Apopka.

As part of the operating record, waste records are maintained in accordance with Rule 62-701.500(4), FAC. These waste records indicate the amount of each type of waste received each day. Waste reports, summarizing the waste records, are compiled monthly and copies are provided to FDEP quarterly. The waste records are kept at the facility and are available for inspection by the FDEP and the City of Apopka.

The operating record also includes the information and observations resulting from each random inspection of a waste load conducted as part of the load-checking program in accordance with Rule 62-701.500(6), FAC.

In addition, to satisfy the requirements of Rule 62-701.500(3), FAC, the operating record also includes the following:

- Records of all information used to develop or support the permit applications and any supplemental information required
- Records of all monthly information, including calibration and maintenance records, and water quality records
- An annual estimate of the remaining life and capacity in cubic yards of the existing, constructed facility and remaining life and capacity of other permitted areas not yet constructed (this estimate is reported annually to FDEP).

The operating records are maintained at the facility throughout the design life of the facility.

### **13. OPERATIONS OF THE YARD WASTE PROCESSING AREA**

#### **13.1 Overview**

Vista Landfill, Class III will include the operation of a yard trash processing facility (i.e., yard waste mulching). The yard trash processing will be performed in the Yard Waste Area defined in the landfill phasing plan (see Figure 3). The yard waste received at Vista Landfill, Class III will be unloaded in the Yard Waste Processing Area. The yard waste will be ground up in a tub grinder and continuously shipped off-site for further processing or used by landfill operations for erosion control. The remainder of this section provides a detailed description of the daily operations of the yard waste mulching area in accordance with the general requirements of Rule 62-709.320 of the FAC.

#### **13.2 Description of the Yard Waste Mulching**

##### **13.2.1 Description of Waste**

The yard waste will be collected from landscapers, tree service companies, clearing contractors, as well as yard waste materials collected under curbside collection programs. Also included are clean lumber and pallets. Painted and treated lumber is specifically excluded.

##### **13.2.2 Storage Capacity**

The yard waste processing area is approximately 135 ft by 130 ft which includes an area for tipping (off-loading), processing, and storage. Vista Landfill, Class III will continuously remove the processed yard waste from the site in a first in – first out basis. At a maximum, any yard trash received at the facility shall be removed within 6 months. No more than 3,000 tons (approximately 12,000 yd<sup>3</sup>) will be allowed to be stored at the facility at the end of any month.

#### **13.3 Effective Barrier**

The yard waste mulching area is located within Vista Landfill, Class III. Access to Vista Landfill by all vehicles shall be via a single secured site entrance. The entrance will allow for safe and orderly traffic flow into and out of the facility. Signs will be posted at the site entrance indicating the name of the facility, name of the operating authority, hours and days of operation. Once vehicles delivering wastes have been weighed or measured, they

will follow signs posted along the access road(s). Traffic control and safety requirement signs will be located at and near the entrance to the facility as required.

#### **13.4 Dust Control Methods**

Dust control at Vista Landfill, Class III and the Yard Waste Processing Area will be performed with the use of a water truck. The water truck is listed in Section 7.1 as standard equipment designated for operation of the Vista Landfill, Class III. The access roads and other areas utilized for the handling, processing and storage of yard waste will be watered on an as needed basis to control dust.

#### **13.5 Fire Protection**

Fire control at Vista Landfill, Class III is addressed in Part 8.6 of this Operation Plan. In addition, the water truck that will be used for dust control is also equipped with a pump and hose to assist with fire control. Activities involving an open flame shall not be allowed in the vicinity of this operation and in no case closer than 50 feet to any stored or processed yard waste. The area would be designated as smoke free and processing equipment would be fitted with mufflers and appropriate spark arrester.

On-site fire protection facilities consist of soil stockpiles in the vicinity of the yard waste processing area. The initial cover used in the landfill operation provides an effective firewall. Instructions on fire fighting procedures are routinely provided for site personnel. Should fire occur at Vista Landfill, Class III facility, the application of soil cover will be used to cut off the flow of oxygen into the burning area. The local fire department will be contacted to assist Vista Landfill, Class III facility personnel and equipment, if necessary. Appropriate fire extinguishers are carried on the equipment at all times.

The Yard Waste Processing Area is no larger than an area that is 135 ft by 130 ft. An all weather access road will be located around the perimeter of the Yard Waste Processing Area. A minimum of 50 foot distance shall be maintained around any stored yard waste materials (processed or unprocessed) to allow access by motorized firefighting equipment.

#### **13.6 Odor and Vector Control**

The Yard Waste Processing Area will be operated to control odors and vectors. The yard waste processing area is located outside; therefore, any odors that are generated should quickly dissipate. Since only yard waste will be accepted and no putrescible waste will be allowed, the operations should not attract vectors as well.

### **13.7 Yard Trash Removal**

All yard waste received at the Yard Waste Processing Area will be removed within six months, or within the period required to receive 3000 tons or 12,000 yd<sup>3</sup>, whichever is the greatest. Logs with a diameter of 6 inches or greater will be separated and stored apart from the other materials. The logs may be stored for up to 12 months prior to removal.

The Yard Waste Processing Area will accept only yard trash and bags used to collect yard trash. Any other materials discovered within the yard trash shall be placed in containers and removed in accordance with this Operation Plan. All putrescible materials will be removed and disposed of at an FDEP approved Class I waste disposal facility within 48 hours. Additionally, if any of the following materials are discovered, they will be immediately containerized and removed from the facility:

- Treated or untreated biomedical waste;
- Hazardous waste;
- Any materials containing a polychlorinated biphenyl (PCB) at a concentration of 50 parts per million or greater.

### **13.8 Registration**

The yard waste mulching area is permitted as part of Vista Landfill, Class III. Therefore, in accordance with Rule 62-709.320(1)(c), FAC, Vista Landfill, Class III does not need to register the yard waste mulching area with FDEP.

### **13.9 Record Keeping and Reporting**

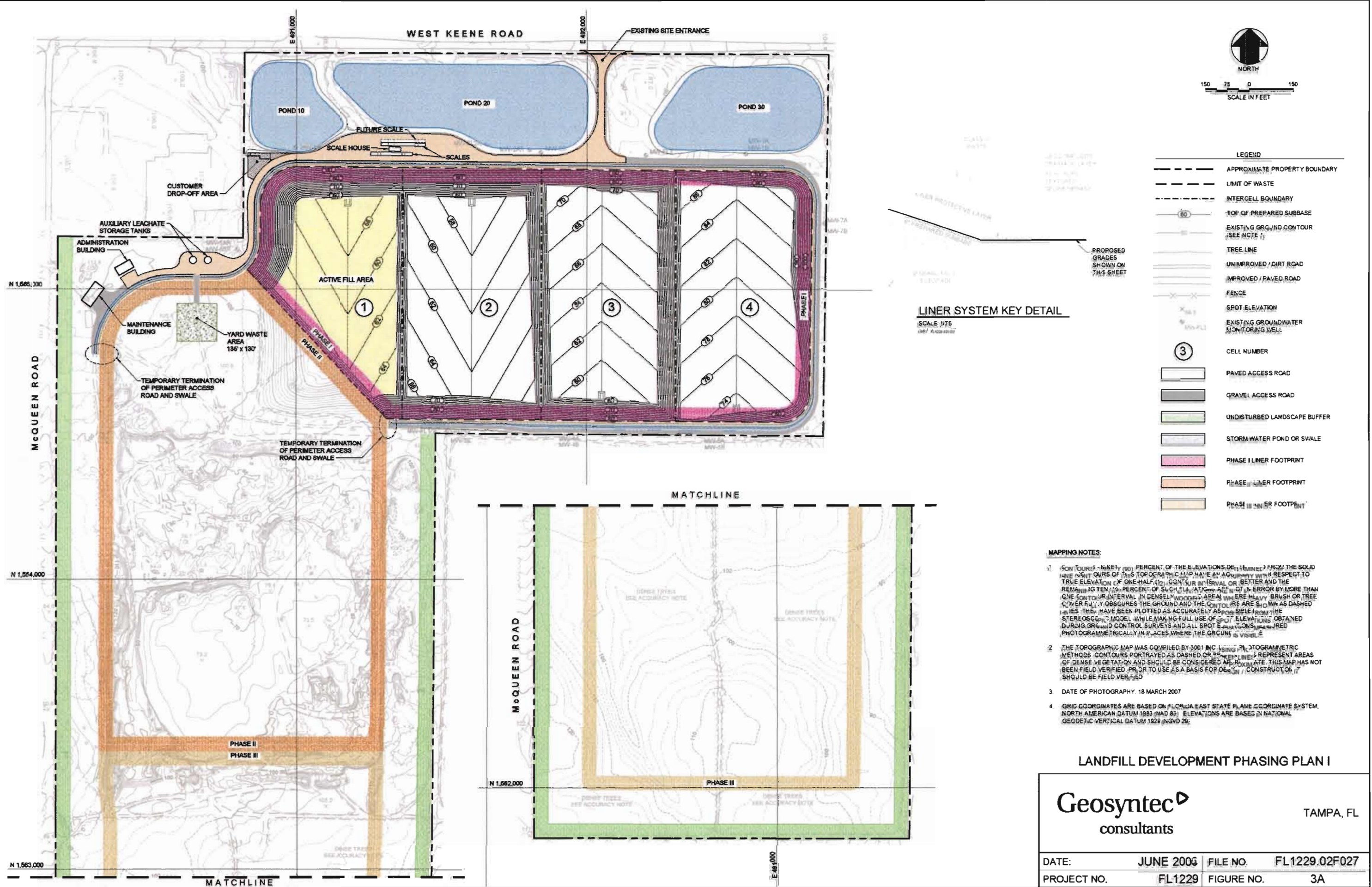
Vista Landfill, Class III will keep monthly records of the incoming and outgoing yard waste material for a period of three years. The records will be maintained on-site. The same units (i.e., either yardage or tonnage) will be used to record the incoming and outgoing material.

Vista Landfill, Class III will submit an annual report that will summarize the monthly records, based on the preceding calendar year. The annual report will be submitted to FDEP using Form 62-709.320(7)(b). The initial annual report for the existing facility will also include a current site inventory of materials.

## FIGURES



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## ATTACHMENT A



## VISTA CLASS III LANDFILL FACILITY PERSONNEL LISTING

<b>Name</b>	<b>Position</b>	<b>Certification</b>
Irvin Slike	District Manager	SWANA Certified Landfill Manager
Sheree Grant	District Engineer	
Michael Donaldson	Operations Supervisor	FDEP Operator/Spotter
Alvin Donaldson	Operator	FDEP Operator
Dana Allison	Operator	FDEP Operator
Jason Hall	Operator	FDEP Operator
Patricia Staley	Operator	
Anibel Sanchez	Operator	FDEP Operator
Deborah Managold	Spotter	
Leslie Holmes, Jr.	Operator	
Diana Chenault	Spotter	FDEP Spotter



## SWANA CERTIFIED PROFESSIONAL

This is to certify that

***Irvin Slike***

has met the Solid Waste Association of North America's eligibility requirements  
and passed a comprehensive examination. Therefore SWANA hereby  
designates Irvin Slike as a:

**Certified Landfill Manager**

As of 10/22/2008 until 10/22/2011

Certification No. 27565

John A. Skinner  
Executive Director and CEO

## Florida DEP Solid Waste Management Facility Operator Courses

Donaldson, Michael A  
Waste Management @ Pine Ridge Landfill  
255 W Keene Rd  
Apopka, FL 32703

Phone: 4078862920  
Fax: 4078898043

Track: <b>Class I, II, III Landfill Operator 08/13/2003 - 08/12/2012</b>				
Status: <b>Current</b>				
Period: <b>Prior Courses</b>				
<i>No courses taken</i>				
Period: <b>08/13/2003 - 08/12/2006 - (Initial Period)</b>				
Course #	Course Name	Provider	Completion Date	Hours
195	24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites)	Kohl Consulting, Inc.	08/13/2003	Initial
229	Landfill Compaction Training School-8 hours	Caterpilla & Ringhaver Equipment	11/08/2005	8
203	8-Hour Initial Training Course for Spotters at Class I, II, III Facilities, Waste Processing Facilities and C&D Facilities	Kohl Consulting, Inc.	03/28/2006	8
Total:				16
Period: <b>08/13/2006 - 08/12/2009</b>				
Course #	Course Name	Provider	Completion Date	Hours
476	Improving Landfill Operations	Kohl Consulting, Inc.	03/10/2008	4
73	Wet Weather Operations	Kohl Consulting, Inc.	03/10/2008	4
111	Landfill Operations and Waste Screening for Class I, II, III Sites	Kohl Consulting, Inc.	03/11/2008	8
Total:				16

- Continuing Education (CE) Minimum 3 Year Requirement: I,II,III/C&D-16 hours TS/MRF-8 hours Spotter-4 hours.
- Expired: If you have exceeded the 3 year training period without achieving the minimum continuing education, you must start over by taking an approved initial course and pass exam.
- Initial hours are not counted toward continuing education.
- An Initial course can be taken as a continuing education course only if it was not taken as the operator's or spotter's initial training. No CE credit will be given for the same course taken within the same 3-year period.
- If you have any questions, please contact [djenkins@treeo.ufl.edu](mailto:djenkins@treeo.ufl.edu) or [mkeilhauer@treeo.ufl.edu](mailto:mkeilhauer@treeo.ufl.edu) or call 352.392.9570 extensions 227 or 230.

## Florida DEP Solid Waste Management Facility Operator Courses

Donaldson, Alvin W  
 Waste Management @ Pine Ridge Landfill  
 5400 Rex Rd  
 Winter Garden, FL 34787

Phone: 4078770701  
 Fax: 4078776182

<b>Track: Class I, II, III Landfill Operator 05/06/2004 - 05/05/2010</b>				
<b>Status: Current</b>				
<b>Period: Prior Courses</b>				
<b>Course #</b>	<b>Course Name</b>	<b>Provider</b>	<b>Completion Date</b>	<b>Hours</b>
21	Solid Waste Landfill Operator's Short School	Solid Waste Association of North America (SWANA - Florida Chapter)	11/21/1997	20
138	Solid Waste Facility Operations for Landfill Operators	Kohl Consulting, Inc.	05/10/2000	20
<b>Total: Prior</b>				
<b>Period: 05/06/2004 - 05/05/2007 - (Initial Period)</b>				
<b>Course #</b>	<b>Course Name</b>	<b>Provider</b>	<b>Completion Date</b>	<b>Hours</b>
195	24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites)	Kohl Consulting, Inc.	05/06/2004	Initial
196	16-Hour Initial Training Course for Transfer Station Operators	Kohl Consulting, Inc.	05/06/2004	10
229	Landfill Compaction Training School-8 hours	Caterpilla & Ringhaver Equipment	11/08/2005	8
<b>Total: 18</b>				
<b>Period: 05/06/2007 - 05/05/2010</b>				
<b>No courses taken</b>				

- Continuing Education (CE) Minimum 3 Year Requirement: I,II,III/C&D-16 hours TS/MRF-8 hours Spotter-4 hours.
- Expired: If you have exceeded the 3 year training period without achieving the minimum continuing education, you must start over by taking an approved initial course and pass exam.
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## Florida DEP Solid Waste Management Facility Operator Courses

Allison, Dana  
 Equipment Operator  
 Waste Management @ Orlando  
 P O BOX 568245  
 ORLANDO, FL 328568245

Phone: 4074268252  
 Fax: 4074260345

<b>Track: Class I, II, III Landfill Operator 05/06/2004 - 05/05/2010</b>				
<b>Status: Current</b>				
<b>Period: Prior Courses</b>				
<b>Course #</b>	<b>Course Name</b>	<b>Provider</b>	<b>Completion Date</b>	<b>Hours</b>
21	Solid Waste Landfill Operator's Short School	Solid Waste Association of North America (SWANA - Florida Chapter)	11/15/1996	20
160	SWANA-Manager of Landfill Operations (MOLO) Course and Exam	Solid Waste Association of North America (SWANA - Florida Chapter)	02/09/2001	30
170	Health & Safety Issues for Solid Waste Management Facilities	Kohl Consulting, Inc.	03/21/2003	8
				<b>Total: Prior</b>
<b>Period: 05/06/2004 - 05/05/2007 - (Initial Period)</b>				
<b>Course #</b>	<b>Course Name</b>	<b>Provider</b>	<b>Completion Date</b>	<b>Hours</b>
195	24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites)	Kohl Consulting, Inc.	05/06/2004	Initial
196	16-Hour Initial Training Course for Transfer Station Operators	Kohl Consulting, Inc.	05/06/2004	10
229	Landfill Compaction Training School-8 hours	Caterpilla & Ringhaver Equipment	11/08/2005	8
				<b>Total: 18</b>
<b>Period: 05/06/2007 - 05/05/2010</b>				
<b>No courses taken</b>				

- Continuing Education (CE) Minimum 3 Year Requirement: I,II,III/C&D-16 hours TS/MRF-8 hours Spotter-4 hours.
- Expired: If you have exceeded the 3 year training period without achieving the minimum continuing education, you must start over by taking an approved initial course and pass exam.
- Initial hours are not counted toward continuing education.
- An Initial course can be taken as a continuing education course only if it was not taken as the operator's or spotter's initial training. No CE credit will be given for the same course taken within the same 3-year period.
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## Florida DEP Solid Waste Management Facility Operator Courses

Hall, Jason  
 Waste Management @ Orlando  
 4986 LB McLeod Rd  
 Orlando, FL 32811

Phone: 4078712530  
 Fax: 4078398400

<b>Track: Class I, II, III Landfill Operator 03/30/2006 - 03/29/2012</b>				
<b>Status: Current</b>				
<b>Period: Prior Courses</b>				
<b>Course #</b>	<b>Course Name</b>	<b>Provider</b>	<b>Completion Date</b>	<b>Hours</b>
203	8-Hour Initial Training Course for Spotters at Class I, II, III Facilities, Waste Processing Facilities and C&D Facilities	Kohl Consulting, Inc.	05/04/2004	8
				<b>Total: Prior</b>
<b>Period: 03/30/2006 - 03/29/2009 - (Initial Period)</b>				
<b>Course #</b>	<b>Course Name</b>	<b>Provider</b>	<b>Completion Date</b>	<b>Hours</b>
195	24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites)	Kohl Consulting, Inc.	03/30/2006	Initial
476	Improving Landfill Operations	Kohl Consulting, Inc.	03/10/2008	4
73	Wet Weather Operations	Kohl Consulting, Inc.	03/11/2008	4
111	Landfill Operations and Waste Screening for Class I, II, III Sites	Kohl Consulting, Inc.	03/11/2008	8
				<b>Total: 16</b>
<b>Period: 03/30/2009 - 03/29/2012</b>				
<i>No courses taken</i>				

- Continuing Education (CE) Minimum 3 Year Requirement: I,II,III/C&D-16 hours TS/MRF-8 hours Spotter-4 hours.
- Expired: If you have exceeded the 3 year training period without achieving the minimum continuing education, you must start over by taking an approved initial course and pass exam.
- Initial hours are not counted toward continuing education.
- An Initial course can be taken as a continuing education course only if it was not taken as the operator's or spotter's initial training. No CE credit will be given for the same course taken within the same 3-year period.
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## Florida DEP Solid Waste Management Facility Operator Courses

Sanchez, Anibal  
Waste Management @ KEENE  
255 W Keene Rd  
Apopka, FL 32703

Phone: 407 886-2920  
Fax: 407 889-0843

Track: <b>Class I, II, III Landfill Operator 03/30/2006 - 03/29/2012</b>				
Status: <b>Current</b>				
Period: <b>Prior Courses</b>				
<i>No courses taken</i>				
Period: <b>03/30/2006 - 03/29/2009 - (Initial Period)</b>				
Course #	Course Name	Provider	Completion Date	Hours
195	24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites)	Kohl Consulting, Inc.	03/30/2006	Initial
476	Improving Landfill Operations	Kohl Consulting, Inc.	03/10/2008	4
73	Wet Weather Operations	Kohl Consulting, Inc.	03/11/2008	4
111	Landfill Operations and Waste Screening for Class I, II, III Sites	Kohl Consulting, Inc.	03/11/2008	8
Total:				16
Period: <b>03/30/2009 - 03/29/2012</b>				
<i>No courses taken</i>				

- Continuing Education (CE) Minimum 3 Year Requirement: I,II,III/C&D-16 hours TS/MRF-8 hours Spotter-4 hours.
- Expired: If you have exceeded the 3 year training period without achieving the minimum continuing education, you must start over by taking an approved initial course and pass exam.
- Initial hours are not counted toward continuing education.
- An Initial course can be taken as a continuing education course only if it was not taken as the operator's or spotter's initial training. No CE credit will be given for the same course taken within the same 3-year period.
- If you have any questions, please contact [djenkins@treeo.ufl.edu](mailto:djenkins@treeo.ufl.edu) or [mkeilhauer@treeo.ufl.edu](mailto:mkeilhauer@treeo.ufl.edu) or call 352.392.9570 extensions 227 or 230.

## Florida DEP Solid Waste Management Facility Operator Courses

Chenault, Diane Flowers  
 Waste Management - Keene Road  
 255 Keene Rd  
 Apopka, FL 32703

Phone: 4078862920  
 Fax: 4078898043

<b>Track: Class I, II, III Landfill Operator 10/27/2007 - 10/26/2010</b>				
<b>Status: Current</b>				
<b>Period: Prior Courses</b>				
<b>Course #</b>	<b>Course Name</b>	<b>Provider</b>	<b>Completion Date</b>	<b>Hours</b>
203	8-Hour Initial Training Course for Spotters at Class I, II, III Facilities, Waste Processing Facilities and C&D Facilities	Kohl Consulting, Inc.	05/09/2006	8
				Total: Prior
<b>Period: 10/27/2007 - 10/26/2010 - (Initial Period)</b>				
<b>Course #</b>	<b>Course Name</b>	<b>Provider</b>	<b>Completion Date</b>	<b>Hours</b>
195	24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites)	Kohl Consulting, Inc.	10/27/2007	Initial
				Total: 0

- Continuing Education (CE) Minimum 3 Year Requirement: I,II,III/C&D-16 hours TS/MRF-8 hours Spotter-4 hours.
- Expired: If you have exceeded the 3 year training period without achieving the minimum continuing education, you must start over by taking an approved initial course and pass exam.
- Initial hours are not counted toward continuing education.
- An Initial course can be taken as a continuing education course only if it was not taken as the operator's or spotter's initial training. No CE credit will be given for the same course taken within the same 3-year period.
- If you have any questions, please contact [djenkins@treeo.ufl.edu](mailto:djenkins@treeo.ufl.edu) or [mkeilhauer@treeo.ufl.edu](mailto:mkeilhauer@treeo.ufl.edu) or call 352.392.9570 extensions 227 or 230.