



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

DEP Form #: 62-701.900(1), F.A.C.

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

Effective Date: February 15, 2015

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

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

APPLICATION INSTRUCTIONS AND FORMS

Northwest District
160 Governmental Street
Suite 308
Pensacola, FL 32502-5794
850-595-8300

Northeast District
7777 Baymeadows Way West
Suite 100
Jacksonville, FL 32256-7590
904-256-1700

Central District
3319 Maguire Boulevard
Suite 232
Orlando, FL 32803-3767
407-897-4100

Southwest District
13051 North Telecom Pkwy
Temple Terrace, FL 33637
813-470-5700

South District
2295 Victoria Ave, Suite 364
P.O. Box 2549
Fort Myers, FL 33901-3881
239-344-5600

Southeast District
3301 Gun Club Road
MSC 7210-1
West Palm Beach, FL 33406
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 permit application shall be submitted in accordance with the requirements of Rule 62-701.320(5)(a), F.A.C., to the appropriate Department office having jurisdiction over the facility. The appropriate fee in accordance with Rule 62-701.315, FAC, shall be submitted with the application by check made payable to the Department of Environmental Protection (DEP).

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

II. Application Parts Required for Construction and Operation Permits

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

NOTE: Portions of some Parts may not be applicable.

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

III. Application Parts Required for Closure Permits

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

NOTE: Portions of some Parts may not be applicable.

IV. Permit Renewals

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

V. Application Codes

- S - Submitted
- LOCATION - Physical location of information in application
- N/A - Not Applicable
- N/C - No Substantial Change

VI. Listing of Application Parts

- PART A: GENERAL INFORMATION
- PART B: DISPOSAL FACILITY GENERAL INFORMATION
- PART C: PROHIBITIONS
- PART D: SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL
- PART E: LANDFILL PERMIT REQUIREMENTS
- PART F: GENERAL CRITERIA FOR LANDFILLS
- PART G: LANDFILL CONSTRUCTION REQUIREMENTS
- PART H: HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS
- PART I: GEOTECHNICAL INVESTIGATION REQUIREMENTS
- PART J: VERTICAL EXPANSION OF LANDFILLS
- PART K: LANDFILL OPERATION REQUIREMENTS
- PART L: WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS
- PART M: SPECIAL WASTE HANDLING REQUIREMENTS
- PART N: GAS MANAGEMENT SYSTEM REQUIREMENTS
- PART O: LANDFILL CLOSURE REQUIREMENTS
- PART P: OTHER CLOSURE PROCEDURES
- PART Q: LONG-TERM CARE
- PART R: FINANCIAL ASSURANCE
- PART S: CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

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

Please Type or Print

PART A. GENERAL INFORMATION

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

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

NOTE: Waste Processing Facilities should apply on Form 62-701.900(4), FAC;
Yard Trash Disposal Facilities should notify on Form 62-701.900(3), FAC;
Compost Facilities should apply on Form 62-709.901(1), FAC; and
C&D Disposal Facilities should apply on Form 62-701.900(6), FAC

2. Type of application:

- Construction
 Operation
 Construction/Operation
 Closure
 Long-term Care Only

3. Classification of application:

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

4. Facility name: Southeast County Landfill

5. DEP ID number: SWD/29/41193 County: Hillsborough

6. Facility location (main entrance):

15960 County Road 672, Lithia, Florida 33547 (8.8 miles east of US Highway 301 on CR 672)

7. Location coordinates:

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

Latitude: 27 ° 46 ' 26 " Longitude: 82 ° 11 ' 01 " (Phases I-VI)

Datum: NGVD 1929 Coordinate method: WGS 84

Collected by: Sherry A. Grymko, PSM Company/Affiliation: Pickett & Associates, Inc.

8. Applicant name (operating authority): Hillsborough County Public Works Department, Solid Waste Management Division

Mailing address: 332 North Falkenburg Road Tampa FL 33619
Street or P.O. Box City State Zip

Contact person: Kimberly A. Byer Telephone: (813) 612-7718

Title: Director, Solid Waste Management Division
byerk@hillsboroughcounty.org
E-Mail address (if available)

9. Authorized agent/Consultant: Hillsborough County Solid Waste Management Division

Mailing address: 332 North Falkenburg Road., Tampa, FL. 33619
Street or P.O. Box City State Zip

Contact person: Joseph H. O'Neill, PE Telephone: (813) 663-3223

Title: Professional Engineer II
oneillj@HCFLGov.net
E-Mail address (if available)

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:
City of Tampa, Temple Terrace and Unincorporated Hillsborough County

12. Population to be served:
Current: 1,359,826 (2017) Five-Year Projection: 1,575,100 (2021)

13. Date site will be ready to be inspected for completion: N/A

14. Expected life of the facility: 28 years

15. Estimated costs:
Total Construction: \$ N/A Closing Costs: \$ N/A

16. Anticipated construction starting and completion dates:
From: N/A To: N/A

17. Expected volume or weight of waste to be received:
_____ yds³/day 2,000 tons/day _____ gallons/day

PART B. DISPOSAL FACILITY GENERAL INFORMATION

1. Provide brief description of disposal facility design and operations planned under this application:
The Project covered under this application is for the temporary operations and maintenance of a processing, screening and storage of WTE ash. The activities include development of a processing area, screening of WTE ash into different aggregate sizes, and temporary storage of the screened ash aggregates.

2. Facility site supervisor: Mr. Larry Ruiz
Title: Operations Manager Telephone: (813) 671-7707
ruizle@hillsboroughcounty.org
E-Mail address (if available)

3. Disposal area: Total acres: 162.4 Used acres: 162.4 Available acres: 162.4 (Phases I-VI)
34.5 34.5 34.5 (Sections 7, 8 & 9)

4. Weighing scales used: Yes No

5. Security to prevent unauthorized use: Yes No

6. Charge for waste received: _____ \$/yds³ 61.81 _____ \$/ton

7. Surrounding land use, zoning:
 Residential Industrial (Phosphate Mining)
 Agricultural None
 Commercial Other (describe):

8. Types of waste received:
 Household 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 accepted at the compost facility

9. Salvaging permitted: Yes No
10. Attendant: Yes No Trained operator: Yes No
11. Trained spotters: Yes No Number of spotters used: Minimum of 1
12. Site located in: Floodplain Wetlands Other (describe):
Upland, Closed phosphate mine
-
13. Days of operation: Monday through Saturday
14. Hours of operation: 7:30am to 5:30pm
15. Days working face covered: Daily during operations (Class I), Weekly (Class III)
16. Elevation of water table: 123.7 SHGWT ft. Datum Used: NGVD 1929
17. Number of monitoring wells: 12 (Phases I-VI), 8 (Section 7-9)
18. Number of surface monitoring points: 5
19. Gas controls used: Yes No Type controls: Active Passive
- Gas flaring: Yes No Gas recovery: Yes No
20. Landfill unit liner type:
- | | |
|---|--|
| <input type="checkbox"/> Natural soils | <input checked="" type="checkbox"/> Double geomembrane |
| <input type="checkbox"/> Single clay liner | <input type="checkbox"/> Geomembrane & composite |
| <input type="checkbox"/> Single geomembrane | <input checked="" type="checkbox"/> Double composite |
| <input type="checkbox"/> Single composite | <input type="checkbox"/> None |
| <input type="checkbox"/> Slurry wall | <input checked="" type="checkbox"/> Other (describe): |
- Phosphatic clay, 4-18 feet in thickness (Phase I-VI only)
-
21. Leachate collection method:
- | | |
|---|--|
| <input checked="" type="checkbox"/> Collection pipes | <input type="checkbox"/> Double geomembrane |
| <input checked="" type="checkbox"/> Geonets | <input checked="" type="checkbox"/> Gravel layer |
| <input type="checkbox"/> Well points | <input checked="" type="checkbox"/> Interceptor trench |
| <input type="checkbox"/> Perimeter ditch | <input type="checkbox"/> None |
| <input checked="" type="checkbox"/> Other (describe): | |
- Pump station and chipped tire layer
-

22. Leachate storage method:

- Tanks
- Surface impoundments
- Other (describe):

23. Leachate treatment method:

- Oxidation
- Secondary
- Advanced
- Other (describe):
- Chemical treatment
- Settling
- None

On-site biological treatment system.

24. Leachate disposal method:

- Recirculated
- Transported to WWTP
- Injection well
- Evaporation
- Other (describe):
- Pumped to WWTP
- Discharged to surface water/wetland
- Percolation ponds
- Spray irrigation

Storage pond evaporation or spray irrigation on intermediate closed portions of landfill after treatment at the on-site treatment facility.

25. For leachate discharged to surface waters:

Name and Class of receiving water:

Leachate is not discharged to surface waters.

26. Storm Water:

Collected: Yes No

Type of treatment:

Detention/Filtration, Infiltration

Name and Class of receiving water:

A tributary of Long Flat Creek

27. Environmental Resources Permit (ERP) number or status:

ERP Permit #29-0270881-004 (Operation Phase)

National Pollution Discharge Elimination System (NPDES) Permit #FLR05B138

Southwest Florida Water Management District Permit #100330

PART C. PROHIBITIONS (62-701.300, FAC)

LOCATION

- S _____ N/A N/C 1. Provide documentation that each of the siting criteria will be satisfied for the facility; (62-701.300(2), FAC)
- S _____ N/A N/C 2. If the facility qualifies for any of the exemptions contained in Rules 62-701.300(12), (13) and (16) through (18), FAC, then document this qualification(s);
- S _____ N/A N/C 3. Provide documentation that the facility will be in compliance with the burning restrictions; (62-701.300(3), FAC)
- S _____ N/A N/C 4. Provide documentation that the facility will be in compliance with the hazardous waste restrictions; (62-701.300(4), FAC)
- S _____ N/A N/C 5. Provide documentation that the facility will be in compliance with the PCB disposal restrictions; (62-701.300(5), FAC)
- S _____ N/A N/C 6. Provide documentation that the facility will be in compliance with the biomedical waste restrictions; (62-701.300(6), FAC)
- S _____ N/A N/C 7. Provide documentation that the facility will be in compliance with the Class I surface water restrictions; (62-701.300(7), FAC)
- S _____ N/A N/C 8. Provide documentation that the facility will be in compliance with the special waste for landfills restrictions; (62-701.300(8), FAC)
- S _____ N/A N/C 9. Provide documentation that the facility will be in compliance with the liquid restrictions; (62-701.300(10), FAC)
- S _____ N/A N/C 10. Provide documentation that the facility will be in compliance with the used oil and oily waste restrictions; (62-701.300(11), FAC)
- S _____ N/A N/C 11. Provide documentation that the facility will be in compliance with the CCA treated wood restrictions; (62-701.300(14), FAC)
- S _____ N/A N/C 12. Provide documentation that the facility will be in compliance with the dust control restrictions; (62-701.300(15), FAC)

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

LOCATION

- | | | | |
|---------------------------------------|---------------------|--|---|
| S <input checked="" type="checkbox"/> | <u>Eng Rep. D.1</u> | N/A <input type="checkbox"/> N/C <input type="checkbox"/> | 1. A minimum of one completed electronic application form, all supporting data and reports; (62-701.320(5)(a), FAC) |
| S <input checked="" type="checkbox"/> | <u>Eng Rep. D.2</u> | N/A <input type="checkbox"/> N/C <input type="checkbox"/> | 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) |
| S <input checked="" type="checkbox"/> | <u>Eng Rep. D.3</u> | N/A <input type="checkbox"/> N/C <input type="checkbox"/> | 3. A letter of transmittal to the Department; (62-701.320(7)(a), FAC) |
| S <input checked="" type="checkbox"/> | <u>Eng Rep. D.4</u> | N/A <input type="checkbox"/> N/C <input type="checkbox"/> | 4. A completed application form dated and signed by the applicant; (62-701.320(7)(b), FAC) |
| S <input checked="" type="checkbox"/> | <u>Eng Rep. D.5</u> | N/A <input type="checkbox"/> N/C <input type="checkbox"/> | 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) |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 6. An engineering report addressing the requirements of this rule and with the following format: a cover sheet, text printed on 8 ½ 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) |
| S <input checked="" type="checkbox"/> | <u>Eng Rep. D.7</u> | N/A <input type="checkbox"/> N/C <input type="checkbox"/> | 7. Operation Plan and Closure Plan; (62-701.320(7)(e)1, FAC) |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 8. Contingency Plan; (62-701.320(7)(e)2, FAC) |
| S <input checked="" type="checkbox"/> | <u>Eng Rep. D.9</u> | N/A <input type="checkbox"/> N/C <input type="checkbox"/> | 9. Plans or drawings for the solid waste management facilities in appropriate format (including sheet size restrictions, cover sheet, legends, north arrow, horizontal and vertical scales, elevations referenced to NGVD 1929) showing: (62-701.320(7)(f), FAC) |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | a. A regional map or plan with the project location in relation to major roadways and population centers; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | b. A vicinity map or aerial photograph no more than one year old showing the facility site and relevant surface features located within 1000 feet of the facility; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | c. A site plan showing all property boundaries certified by a Florida Licensed Professional Surveyor and Mapper; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | d. Other necessary details to support the engineering report, including referencing elevations to a consistent, nationally recognized datum, and identifying the method used for collecting latitude and longitude data; |

LOCATION

PART D CONTINUED

S _____ N/A N/C

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)

S _____ N/A N/C

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)

S Eng Rep. D.12 N/A N/C

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 the state; (62-701.320(7)(i), FAC)

S _____ N/A N/C

13. Proof of publication in a newspaper of general circulation of notice of application for a permit to construct or substantially modify a solid waste management facility; (62-701.320(8), FAC)

S _____ N/A N/C

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)

S _____ N/A N/C

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

PART E. LANDFILL PERMIT REQUIREMENTS (62-701.330, FAC)

LOCATION

S _____ N/A N/C

1. Regional map or aerial photograph no more than five years old showing all airports that are located within five miles of the proposed landfill; (62-701.330(3)(a), FAC)

S _____ N/A N/C

2. Plot plan with a scale not greater than 200 feet to the inch showing: (62-701.330(3)(b), FAC)

S _____ N/A N/C

a. Dimensions;

S _____ N/A N/C

b. Locations of proposed and existing water quality monitoring wells;

S _____ N/A N/C

c. Locations of soil borings;

S _____ N/A N/C

d. Proposed plan of trenching or disposal areas;

S _____ N/A N/C

e. Cross sections showing original elevations and proposed final contours which shall be included either on the plot plan or on separate sheets;

LOCATION

PART E CONTINUED

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

f. Any previously filled waste disposal areas;

g. Fencing or other measures to restrict access;

3. Topographic maps with a scale not greater than 200 feet to the inch with five foot contour intervals showing: (62-701.330(3)(c), FAC)

a. Proposed fill areas;

b. Borrow areas;

c. Access roads;

d. Grades required for proper drainage;

e. Cross sections of lifts;

f. Special drainage devices if necessary;

g. Fencing;

h. Equipment facilities;

4. A report on the landfill describing the following: (62-701.330(3)(d), 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. Planned active life of the facility, the final design height of the facility, and the maximum height of the facility during its operation;

d. The source and type of cover material used for the landfill;

5. Provide evidence that an approved laboratory shall conduct water quality monitoring for the facility in accordance with Chapter 62-160, FAC; (62-701.330(3)(g), FAC)

6. Provide a statement of how the applicant will demonstrate financial responsibility for the closing and long-term care of the landfill; (62-701.330(3)(h), FAC)

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

LOCATION

- S _____ N/A N/C 1. Describe (and show on a Federal Insurance Administration flood map, if available) how the landfill or solid waste disposal unit shall not be located in the 100 year floodplain where it will restrict the flow of the 100 year flood, reduce the temporary water storage capacity of the floodplain unless compensating storage is provided, or result in a washout of solid waste; (62-701.340(3)(b), FAC)
- S _____ N/A N/C 2. Describe how the minimum horizontal separation between waste deposits in the landfill and the landfill property boundary shall be 100 feet, measured from the toe of the proposed final cover slope; (62-701.340(3)(c), FAC)

PART G. LANDFILL CONSTRUCTION REQUIREMENTS (62-701.400, FAC)

LOCATION

- S _____ N/A N/C 1. Describe how the landfill shall be designed so the solid waste disposal units will be constructed and closed at planned intervals throughout the design period of the landfill, and shall be designed to achieve a minimum factor of safety of 1.5 using peak strength values to prevent failures of side slopes and deep-seated failures; (62-701.400(2), FAC)
- S _____ N/A N/C 2. Landfill liner requirements; (62-701.400(3), FAC)
- S _____ N/A N/C a. General construction requirements; (62-701.400(3)(a), FAC)
- S _____ N/A N/C (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;
- S _____ N/A N/C (2) Document foundation is adequate to prevent liner failure;
- S _____ N/A N/C (3) Constructed so bottom liner will not be adversely impacted by fluctuations of the ground water;
- S _____ N/A N/C (4) Designed to resist hydrostatic uplift if bottom liner located below seasonal high ground water table;
- S _____ N/A N/C (5) Installed to cover all surrounding earth which could come into contact with the waste or leachate;

LOCATION

PART G CONTINUED

- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C

- b. Composite liners; (62-701.400(3)(b), FAC)
 - (1) Upper geomembrane thickness and properties;
 - (2) Design leachate head for primary leachate collection and removal system (LCRS) including leachate recirculation if appropriate;
 - (3) Design thickness in accordance with Table A and number of lifts planned for lower soil component;
- c. Double liners; (62-701.400(3)(c), FAC)
 - (1) Upper and lower geomembrane thickness 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 ≤ 1 inch, head not to exceed thickness of drainage layer);
- d. Standards for geosynthetic components; (62-701.400(3)(d), FAC)
 - (1) Factory and field seam test methods to ensure all geomembrane seams achieve the minimum specifications;
 - (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 a 24-inch-thick protective layer;
 - (5) HDPE geomembranes, if used, meet the specifications in GRI GM13, and LLDPE geomembranes, if used, meet the specifications in GRI GM17;
 - (6) PVC geomembranes, if used, meet the specifications in PGI 1104;

LOCATION

PART G CONTINUED

- | | | | |
|----------------------------------|--|---|--|
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (7) | Interface shear strength testing results of the actual components which will be used in the liner system; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (8) | Transmissivity testing results of geonets if they are used in the liner system; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (9) | Hydraulic conductivity testing results of geosynthetic clay liners if they are used in the liner system; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | e. Geosynthetic specification requirements; (62-701.400(3)(e), FAC) | |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (1) | Definition and qualifications of the designer, manufacturer, installer, QA consultant and laboratory, and QA program; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (2) | Material specifications for geomembranes, geocomposites, geotextiles, geogrids, and geonets; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (3) | Manufacturing and fabrication specifications including geomembrane raw material and roll QA, fabrication personnel qualifications, seaming equipment and procedures, overlaps, trial seams, destructive and non-destructive seam testing, seam testing location, frequency, procedure, sample size, and geomembrane repairs; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (4) | Geomembrane installation specifications including earthwork, conformance testing, geomembrane placement, installation personnel qualifications, field seaming and testing, overlapping and repairs, materials in contact with geomembranes, and procedures for lining system acceptance; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (5) | Geotextile and geogrids specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials and any overlying materials; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (6) | Geonet and geocomposites specifications including handling and placement, conformance testing, stacking and joining, repair, and placement of soil materials and any overlying materials; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (7) | Geosynthetic clay liner specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials and any overlying materials; |

LOCATION

PART G CONTINUED

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

f. Standards for soil liner components; (62-701.400(3)(f), FAC)

- (1) Description of construction procedures including over-excavation and backfilling to preclude structural inconsistencies and procedures for placing and compacting soil components in layers;
- (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, and Atterberg limits including 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;

g. If a Class III landfill is to be constructed with a bottom liner system, provide a description of how the minimum requirements for the liner will be achieved;

LOCATION

PART G CONTINUED

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

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 a method for testing and cleaning clogged pipes or contingent designs for reducing leachate around failed areas;

b. Other LCRS requirements; (62-701.400(4)(b), (c) and (d), 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 accommodate for predicted settlement and still meet minimum slope requirements;
- (4) Demonstration that synthetic drainage material, if used, is equivalent or better than granular material in chemical compatibility, flow under load, and protection of geomembranes liner;
- (5) Schedule provided for routine maintenance of LCRS.

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;

LOCATION

PART G CONTINUED

S _____ N/A N/C

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;

S _____ N/A N/C

e. Describe methods of gas management in accordance with Rule 62-701.530, FAC;

S _____ N/A N/C

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 _____ N/A N/C

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

S _____ N/A N/C

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

S _____ N/A N/C

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

S _____ N/A N/C

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

S _____ N/A N/C

(3) General design requirements;

S _____ N/A N/C

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

S _____ N/A N/C

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

S _____ N/A N/C

(c) Lower geomembrane placed on subbase ≥ 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;

S _____ N/A N/C

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

S _____ N/A N/C

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

S _____ N/A N/C

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

LOCATION

PART G CONTINUED

S _____ N/A N/C

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

S _____ N/A N/C

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

S _____ N/A N/C

b. Above-ground leachate storage tanks; (62-701.400(6)(c), FAC)

S _____ N/A N/C

(1) Describe tank materials of construction and ensure foundation is sufficient to support tank;

S _____ N/A N/C

(2) Describe procedures for cathodic protection for the tank, if needed;

S _____ N/A N/C

(3) Describe exterior painting and interior lining of the tank to protect it from the weather and the leachate stored;

S _____ N/A N/C

(4) Describe secondary containment design to ensure adequate capacity will be provided and compatibility of materials of construction;

S _____ N/A N/C

(5) Describe design to remove and dispose of stormwater from the secondary containment system;

S _____ N/A N/C

(6) Describe an overflow prevention system, such as level sensors, gauges, alarms, and shutoff controls to prevent overflowing;

S _____ N/A N/C

(7) Inspections, corrective action, and reporting requirements;

S _____ N/A N/C

(a) Weekly inspection of overflow prevention system;

S _____ N/A N/C

(b) Weekly inspection of exposed tank exteriors;

S _____ N/A N/C

(c) Inspection of tank interiors when tank is drained, or at least every three years;

S _____ N/A N/C

(d) Procedures for immediate corrective action if failures detected;

S _____ N/A N/C

(e) Inspection reports available for Department review;

S _____ N/A N/C

c. Underground leachate storage tanks; (62-701.400(6)(d), FAC)

LOCATION

PART G CONTINUED

S _____ N/A N/C

(1) Describe materials of construction;

S _____ N/A N/C

(2) A double-walled tank design system to be used with the following requirements:

S _____ N/A N/C

(a) Interstitial space monitoring at least weekly;

S _____ N/A N/C

(b) Corrosion protection provided for primary tank interior and external surface of outer shell;

S _____ N/A N/C

(c) Interior tank coatings compatible with stored leachate;

S _____ N/A N/C

(d) Cathodic protection inspected weekly and repaired as needed;

S _____ N/A N/C

(3) Describe an overflow prevention system, such as level sensors, gauges, alarms, and shutoff controls to prevent overflowing, and provide for weekly inspections;

S _____ N/A N/C

(4) Inspection reports available for Department review;

S _____ N/A N/C

6. Liner systems construction quality assurance (CQA); (62-701.400(7), FAC)

S _____ N/A N/C

a. Provide CQA Plan including:

S _____ N/A N/C

(1) Specifications and construction requirements for liner system;

S _____ N/A N/C

(2) Detailed description of quality control testing procedures and frequencies;

S _____ N/A N/C

(3) Identification of supervising professional engineer;

S _____ N/A N/C

(4) Identify responsibility and authority of all appropriate organizations and key personnel involved in the construction project;

S _____ N/A N/C

(5) State qualifications of CQA professional engineer and support personnel;

LOCATION

PART G CONTINUED

S _____ N/A N/C

(6) Description of CQA reporting forms and documents;

S _____ N/A N/C

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

S _____ N/A N/C

7. Soil liner CQA; (62-701.400(8), FAC)

S _____ N/A N/C

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;

S _____ N/A N/C

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

S _____ N/A N/C

c. Description of field test methods, including rejection criteria and corrective measures to insure proper liner installation;

S _____ N/A N/C

8. For surface water management systems at aboveground disposal units, provide documentation showing the design of any features intended to convey stormwater to a permitted or exempted treatment system; (62-701.400(9), FAC)

S _____ N/A N/C

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

S _____ N/A N/C

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;

S _____ N/A N/C

10. For landfills designed in ground water, provide documentation that the landfill will provide a degree of protection equivalent to landfills designed with bottom liners not in contact with ground water; (62-701.400(11), FAC)

PART H. HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS (62-701.410(2), FAC)

LOCATION

S _____ N/A N/C

1. Submit a hydrogeological investigation and site report including at least the following information:

S _____ N/A N/C

a. Regional and site specific geology and hydrology;

S _____ N/A N/C

b. Direction and rate of ground water and surface water flow including seasonal variations;

LOCATION

- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C

PART H CONTINUED

- 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 site that may be affected by the disposal facility;
- 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 site 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 of the waste storage and disposal areas;

2. Report signed, sealed, and dated by P.E. and/or P.G.

PART I. GEOTECHNICAL INVESTIGATION REQUIREMENTS (62-701.410(3) and (4), FAC)

LOCATION

- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S Eng Rep. I.1.e _____ 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, and lineaments;
 - c. Estimates of average and maximum high water table across the site;
 - d. Evaluation of potential for fault areas and seismic impact zones;
 - e. Foundation analysis including:

LOCATION

PART I CONTINUED

S _____ N/A N/C

(1) Foundation bearing capacity analysis;

S _____ N/A N/C

(2) Total and differential subgrade settlement analysis;

S _____ N/A N/C

(3) Slope stability analysis;

S _____ N/A N/C

f. Evaluation of potential for sinkholes and sinkhole activity at the site that is based upon the investigations required in Rule 62-701.410(3)(f), F.A.C.;

S _____ N/A N/C

g. A geotechnical report providing a description of methods used in the investigation, and includes soil boring logs, laboratory results, analytical calculations, cross sections, interpretations, conclusions, and a description of any engineering measures proposed for the site;

S _____ N/A N/C

2. Report signed, sealed, and dated by P.E. and/or P.G.

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

LOCATION

S _____ N/A N/C

1. Describe how the vertical expansion shall not cause or contribute to any violations of water quality standards or criteria, shall not cause objectionable odors, or adversely affect the closure design of the existing landfill;

S _____ N/A N/C

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;

S _____ N/A N/C

3. Provide foundation and settlement analysis for the vertical expansion;

S _____ N/A N/C

4. Provide total settlement calculations demonstrating that the final elevations of the lining system, gravity drainage, and no other component of the design will be adversely affected;

S _____ N/A N/C

5. Minimum stability factor of safety of 1.5 for the lining system component interface stability and for deep stability;

S _____ N/A N/C

6. Provide documentation to show the surface water management system will not be adversely affected by the vertical expansion;

S _____ N/A N/C

7. Provide gas control designs to prevent accumulation of gas under the new liner for the vertical expansion;

PART K. LANDFILL OPERATION REQUIREMENTS (62-701.500, FAC)

LOCATION

- | | | | | |
|---------------------------------------|--------------|------------------------------|---|---|
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | 1. Provide documentation that the 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) |
| S <input checked="" type="checkbox"/> | Eng Rep. K.2 | N/A <input type="checkbox"/> | N/C <input type="checkbox"/> | 2. Provide a landfill operation plan including procedures for: (62-701.500(2), FAC) |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | a. Designating responsible operating and maintenance personnel; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | b. Emergency preparedness and response, as required in subsection 62-701.320(16), FAC; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | c. Controlling types of waste received at the landfill; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | d. Weighing incoming waste; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | e. Vehicle traffic control and unloading; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | f. Method and sequence of filling waste; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | g. Waste compaction and application of cover; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | h. Operations of gas, leachate, and stormwater controls; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | i. Water quality monitoring; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | j. Maintaining and cleaning the leachate collection system; |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | 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. DEP permit, engineering drawings, water quality records, etc.); (62-701.500(3), FAC) |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | 4. Describe the waste records that will be compiled monthly and provided to the Department annually; (62-701.500(4), FAC) |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | 5. Describe methods of access control; (62-701.500(5), FAC) |
| S <input type="checkbox"/> | _____ | N/A <input type="checkbox"/> | N/C <input checked="" type="checkbox"/> | 6. Describe load checking program to be implemented at the landfill to discourage disposal of unauthorized waste at the landfill; (62-701.500(6), FAC) |

LOCATION

PART K CONTINUED

- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
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- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C
- S _____ N/A N/C

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;
- b. Special considerations for first layer of waste placed above the liner and leachate collection system;
- c. Slopes of cell working face and side grades above land surface, and planned lift depths during operation;
- d. Maximum width of working face;
- e. Description of type of initial cover to be used at the facility that controls:
 - (1) Vector breeding/animal attraction;
 - (2) Fires;
 - (3) Odors;
 - (4) Blowing litter;
 - (5) Moisture infiltration;
- f. Procedures for applying initial cover, including minimum cover frequencies;
- g. Procedures for applying intermediate cover;
- h. Time frames for applying final cover;
- i. Procedures for controlling scavenging and salvaging;
- j. Description of litter policing methods;
- k. Erosion control procedures;

LOCATION

PART K CONTINUED

S _____ N/A N/C

8. Describe operational procedures for leachate management including: (62-701.500(8), FAC)

S _____ N/A N/C

a. Leachate level monitoring;

S Eng Rep. K.8.b N/A N/C

b. Operation and maintenance of leachate collection and removal system, and treatment as required;

S _____ N/A N/C

c. Procedures for managing leachate if it becomes regulated as a hazardous waste;

S _____ N/A N/C

d. Identification of treatment or disposal facilities that may be used for off-site discharge and treatment of leachate;

S _____ N/A N/C

e. Contingency plan for managing leachate during emergencies or equipment problems;

S _____ N/A N/C

f. Procedures for recording quantities of leachate generated in gal/day and including this in the operating record;

S _____ N/A N/C

g. Procedures for comparing precipitation experienced at the landfill with leachate generation rates and including this information in the operating record;

S _____ N/A N/C

h. Procedures for water pressure cleaning or video inspecting leachate collection systems;

S _____ N/A N/C

9. Describe how the landfill receiving degradable wastes shall implement a gas management system meeting the requirements of Rule 62-701.530, FAC; (62-701.500(9), FAC)

S _____ N/A N/C

10. Describe procedures for operating and maintaining the landfill stormwater management system to comply with the requirements of Rule 62-701.400(9), FAC; (62-701.500(10), FAC)

S _____ N/A N/C

11. Equipment and operation feature requirements; (62-701.500(11), FAC)

S _____ N/A N/C

a. Sufficient equipment for excavating, spreading, compacting, and covering waste;

S _____ N/A N/C

b. Reserve equipment or arrangements to obtain additional equipment within 24 hours of breakdown;

S _____ N/A N/C

c. Communications equipment;

LOCATION

PART K CONTINUED

S _____ N/A N/C

d. Dust control methods;

S _____ N/A N/C

e. Fire protection capabilities and procedures for notifying local fire department authorities in emergencies;

S _____ N/A N/C

f. Litter control devices;

S _____ N/A N/C

g. Signs indicating operating authority, traffic flow, hours of operation, and disposal restrictions;

S _____ N/A N/C

12. Provide a description of all-weather access road, inside perimeter road, and other on-site roads necessary for access at the landfill; (62-701.500(12), FAC)

S _____ N/A N/C

13. Additional record keeping and reporting requirements; (62-701.500(13), FAC)

S _____ N/A N/C

a. Records used for developing permit applications and supplemental information maintained for the design period of the landfill;

S _____ N/A N/C

b. Monitoring information, calibration and maintenance records, and copies of reports required by permit maintained for at least 10 years;

S _____ N/A N/C

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;

S _____ N/A N/C

d. Procedures for archiving and retrieving records which are more than five years old;

PART L. WATER QUALITY MONITORING REQUIREMENTS (62-701.510, FAC)

LOCATION

S _____ N/A N/C

1. A water quality monitoring plan shall be submitted describing the proposed ground water and surface water monitoring systems, and shall meet at least the following requirements:

S _____ N/A N/C

a. Based on the information obtained in the hydrogeological investigation and signed, dated, and sealed by the P.G. or P.E. who prepared it; (62-701.510(2)(a), FAC)

LOCATION

PART L CONTINUED

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

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S _____ N/A N/C

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S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

S _____ N/A N/C

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) Properly selected well screen locations;

(7) Monitoring wells constructed to provide representative ground water samples;

(8) Procedures for properly abandoning monitoring wells;

(9) Detailed description of detection sensors, if proposed;

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. Initial and routine sampling frequency and requirements; (62-701.510(5), FAC)

(1) Initial background ground water and surface water sampling and analysis requirements;

LOCATION

PART L CONTINUED

- | | | |
|----------------------------------|--|---|
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (2) Routine monitoring well sampling and analysis requirements; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (3) Routine surface water sampling and analysis requirements; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | f. Describe procedures for implementing evaluation monitoring, prevention measures, and corrective action as required; (62-701.510(6), FAC) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | g. Water quality monitoring report requirements; (62-701.510(8), FAC) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (1) Semi-annual report requirements; (see paragraphs 62-701.510(5)(c) and (d), FAC for sampling frequencies) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (2) Documentation that the water quality data shall be provided to the Department in an electronic format consistent with requirements for importing into Department databases, unless an alternate form of submittal is specified in the permit; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (3) Two and one-half year, or annual, report requirements, or every five years if in long-term care, signed dated, and sealed by P.G. or P.E.; |

PART M. SPECIAL WASTE HANDLING REQUIREMENTS (62-701.520, FAC)

LOCATION

- | | | |
|----------------------------------|--|--|
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 1. Describe procedures for managing motor vehicles; (62-701.520(1), FAC) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 2. Describe procedures for landfilling shredded waste; (62-701.520(2), FAC) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 3. Describe procedures for asbestos waste disposal; (62-701.520(3), FAC) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 4. Describe procedures for disposal or management of contaminated soil; (62-701.520(4), FAC) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 5. Describe procedures for disposal of biological wastes; (62-701.520(5), FAC) |

PART N. GAS MANAGEMENT SYSTEM REQUIREMENTS (62-701.530, FAC)

LOCATION

- | | | |
|----------------------------------|--|---|
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 1. Provide documentation for a gas management system that will: (62-701.530(1), FAC) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | a. Be designed to prevent concentrations of combustible gases from exceeding 25% the LEL in structures and 100% the LEL at the property boundary; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | b. Be designed for site specific conditions; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | c. Be designed to reduce gas pressure in the interior of the landfill; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | d. Be designed to not interfere with the liner, leachate control system, or final cover; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 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) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 3. Provide documentation describing how the gas remediation plan and odor remediation plan will be implemented; (62-701.530(3), FAC) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 4. Landfill gas recovery facilities; (62-701.530(5), FAC) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | a. Provide information required in Rules 62-701.320(7) and 62-701.330(3), FAC; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | b. Provide information required in Rule 62-701.600(4), FAC, where relevant and practical; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | c. Provide estimates of current and expected gas generation rates and description of condensate disposal methods; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | d. Provide description of procedures for condensate sampling, analyzing, and data reporting; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | e. Provide closure plan describing methods to control gas after recovery facility ceases operation, and any other requirements contained in Rule 62-701.400(10), FAC; |

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

LOCATION

- | | | |
|----------------------------------|--|--|
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 1. Closure permit requirements; (62-701.600(2), FAC) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | a. Application submitted to the Department at least 90 days prior to final receipt of wastes; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | b. Closure plan shall include the following: |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (1) Closure design plan; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (2) Closure operation plan; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (3) Plan for long-term care; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (4) A demonstration that proof of financial assurance for long-term care will be provided; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | 2. Closure design plan including the following requirements: (62-701.600(3), FAC) |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | a. Plan sheet showing phases of site closing; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | b. Drawings showing existing topography and proposed final grades; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | c. Provisions to close units when they reach approved design dimensions; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | d. Final elevations before settlement; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | e. Side slope design including benches, terraces, down slope drainage ways, energy dissipaters, and description of expected precipitation effects; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | f. Final cover installation plans including: |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (1) CQA plan for installing and testing final cover; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (2) Schedule for installing final cover after final receipt of waste; |
| S <input type="checkbox"/> _____ | N/A <input type="checkbox"/> N/C <input checked="" type="checkbox"/> | (3) Description of drought resistant species to be used in the vegetative cover; |

LOCATION

PART O CONTINUED

S _____ N/A N/C

(4) Top gradient design to maximize runoff and minimize erosion;

S _____ N/A N/C

(5) Provisions for cover material to be used for final cover maintenance;

S _____ N/A N/C

g. Final cover design requirements;

S _____ N/A N/C

(1) Protective soil layer design;

S _____ N/A N/C

(2) Barrier soil layer design;

S _____ N/A N/C

(3) Erosion control vegetation;

S _____ N/A N/C

(4) Geomembrane barrier layer design;

S _____ N/A N/C

(5) Geosynthetic clay liner design, if used;

S _____ N/A N/C

(6) Stability analysis of the cover system and the disposed waste;

S _____ N/A N/C

h. Proposed method of stormwater control;

S _____ N/A N/C

i. Proposed method of access control;

S _____ N/A N/C

j. Description of the proposed or existing gas management system which complies with Rule 62-701.530, FAC;

S _____ N/A N/C

3. Closure operation plan shall include: (62-701.600(4), FAC)

S _____ N/A N/C

a. Detailed description of actions which will be taken to close the landfill;

S _____ N/A N/C

b. Time schedule for completion of closing and long-term care;

S _____ N/A N/C

c. Describe proposed method for demonstrating financial assurance for long-term care;

S _____ N/A N/C

d. Operation of the water quality monitoring plan required in Rule 62-701.510, FAC;

S _____ N/A N/C

e. Development and implementation of gas management system required in Rule 62-701.530, FAC;

LOCATION

PART O CONTINUED

- S _____ N/A N/C 4. Certification of closure construction completion and final reports including: (62-701.600(6), FAC)
- S _____ N/A N/C a. Survey monuments; (62-701.600(6)(a), FAC)
- S _____ N/A N/C b. Final survey report; (62-701.600(6)(b), FAC)
- S _____ N/A N/C c. Closure construction quality assurance report; (62-701.400(7), FAC)
- S _____ N/A N/C 5. Declaration to the public; (62-701.600(7), FAC)
- S _____ N/A N/C 6. Official date of closing; (62-701.600(8), FAC)
- S _____ N/A N/C 7. Justification for and detailed description of procedures to be followed for temporary closure of the landfill, if desired; (62-701.600(9), FAC)

PART P. OTHER CLOSURE PROCEDURES (62-701.610, FAC)

LOCATION

- S _____ N/A N/C 1. Describe how the requirements for use of closed solid waste disposal areas will be achieved; (62-701.610(1), FAC)
- S _____ N/A N/C 2. Describe how the requirements for relocation of wastes will be achieved; (62-701.610(2), FAC)

PART Q. LONG-TERM CARE (62-701.620, FAC)

LOCATION

- S _____ N/A N/C 1. Maintaining the gas collection and monitoring system; (62-701.620(5), FAC)
- S _____ N/A N/C 2. Stabilization report requirements; (62-701.620(6), FAC)
- S _____ N/A N/C 3. Right of access; (62-701.620(7), FAC)
- S _____ N/A N/C 4. Requirements for replacement of monitoring devices; (62-701.620(8), FAC)
- S _____ N/A N/C 5. Completion of long-term care signed and sealed by professional engineer; (62-701.620(9), FAC)

PART R. FINANCIAL ASSURANCE (62-701.630, FAC)

LOCATION

S _____ N/A N/C

1. Provide cost estimates for closing, long-term care, and corrective action costs estimated by a P.E. for a third party performing the work, on a per unit basis, with the source of estimates indicated; (62-701.630(3) & (7), FAC)

S _____ N/A N/C

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)

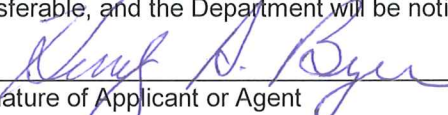
S _____ N/A N/C

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

PART S. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

1. Applicant:

The undersigned applicant or authorized representative of Hillsborough County
Solid Waste Management Division is aware that statements made in this form and attached information
are an application for a Operation Minor 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

Kimberly A. Byer, Director, SWMD

Name and Title (please type)

byerk@hillsboroughcounty.org

E-Mail Address (if available)

332 North Falkenburg Road

Mailing Address

Tampa, FL 33619

City, State, Zip Code

(813) 612-7718


Telephone Number

Date: 08/10/2017

Attach letter of authorization if agent is not a government 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

Joseph H. O'Neill, P.E.

Name and Title (please type)

FL PE#52049

Florida Registration Number (please affix seal)

332 North Falkenburg Road

Mailing Address

Tampa, FL 33619

City, State, Zip Code

oneillj@HCFLGov.net

E-Mail Address (if available)

(813) 663-3223

Telephone Number

Date: 08/10/2017
