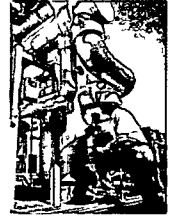
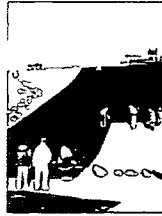
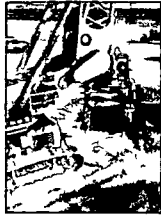


FILE
COPY

SCS ENGINEERS

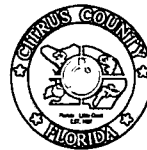


APPLICATION FOR SOLID WASTE CONSTRUCTION PERMIT Minor Modification

CITRUS COUNTY CENTRAL LANDFILL CITRUS COUNTY, FLORIDA

Prepared for:

Citrus County Board of
County Commissioners



P.O. Box 340
Lecanto, Florida 34460

Prepared by:

SCS ENGINEERS
4041 Park Oaks Blvd., Suite 100
Tampa, Florida 33610
(813) 621-0080
Fax: (813) 623-6757

Florida Board of Professional Engineers
Certification No. 00004892

July 7, 2011
File No. 09210021.01

Offices Nationwide
www.scsengineers.com

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
JUL 07 2011
SOUTHWEST DISTRICT
TAMPA

SCS ENGINEERS

July 7, 2011
File No 09210021 01

Mr Steve Morgan, P E
Florida Department of Environmental Protection
Southwest District
13051 N Telecom Parkway
Temple Terrace, FL 33637

Dept. Of Environmental Protection

JUL 07 2011

Southwest District

Subject Application for Construction-Minor Modification Permit for
Installation of additional below-grade header
Central Landfill, Citrus County, Florida

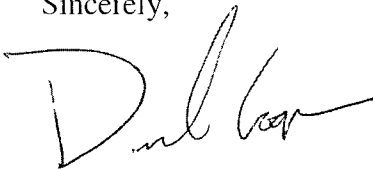
Dear Mr Morgan

SCS Engineers (SCS) is submitting this application on behalf of Citrus County Board of County Commissioners for a minor modification construction permit to install an additional below-grade header to enhance the existing landfill gas collection and control system (GCCS) at Citrus County's Central Landfill

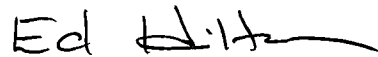
Enclosed are four copies of the application for your use. Each copy has been signed by a responsible official and signed and sealed by a Florida Professional Engineer. A check in the amount of \$250 payable to the Florida Department of Environmental Protection is also included.

Please do not hesitate to call should you have any questions or require additional information.

Sincerely,



Daniel R. Cooper, P E
Project Manager
SCS ENGINEERS



C. Ed Hilton, P E
Project Director
SCS ENGINEERS

DRC/CEH ael

cc Casey Stephens, Citrus County

Enclosures



**APPLICATION FOR SOLID WASTE CONSTRUCTION PERMIT
MINOR MODIFICATION TO
LANDFILL GAS COLLECTION AND CONTROL SYSTEM
CITRUS COUNTY CENTRAL LANDFILL
CITRUS COUNTY, FLORIDA**

Prepared for:

Citrus County
Board of County Commissioners
P.O. Box 340
Lecanto, Florida 34460

Dept. Of Environmental Protection

JUL 07 2011

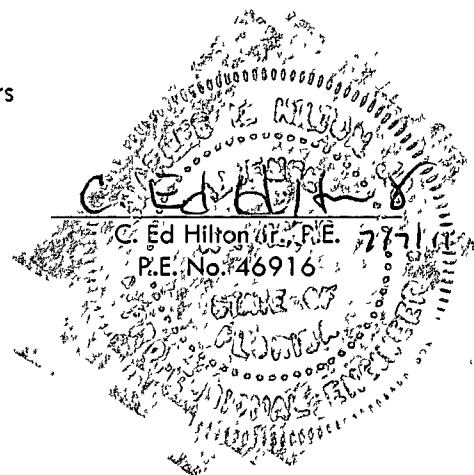
Southwest District

Prepared by:

SCS Engineers
4041 Park Oaks Blvd., Suite 100
Tampa, Florida 33610
(813) 621-0080
Fax. (813) 623-6757

Florida Board of Professional Engineers
Certification No. 00004892

July 7, 2011
File No. 09210021.01





Florida Department of Environmental Protection

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

[Reset Form](#)[Print Form](#)

DEP Form # 62 701 900(1) F A C

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

Effective Date January 6 2010

Incorporated in Rule 62-701 330(3) F A C

Dept. Of Environmental Protection

JUL 07 2011

Southwest District

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 Center
Pensacola, FL 32502-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste B200
Jacksonville, FL 32256-7590
904-807-3300

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

Southwest District
13051 N Telecom Pkwy
Temple Terrace FL 33637
813-632-7600

South District
2295 Victoria Ave Ste 364
Fort Myers, FL 33901-3881
239 332-6975

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 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

Dept Of Environmental Protection

JUL 07 2011

Southwest District

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)

- ☒ Class I Landfill ☐ Ash Monofill
☐ Class III Landfill ☐ Asbestos Monofill

☐ Industrial Solid Waste

☒ Other Describe

Yard Waste Mulching and Consumer Good Recycling

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
☐ Long-term Care Only

3 Classification of application

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

4 Facility name Citrus County Central Landfill

5 DEP ID number SWD/09/39859 County Citrus

6 Facility location (main entrance)

State Road 44 between Lecanto and Inverness, Florida

7 Location coordinates

Section 1 Township 19S Range 18E

Latitude 28 ° 51 ' 0 " Longitude 82 ° 26 ' 12 "

Datum NGVD '29* Coordinate Method Photogrammetric

Collected by Kucera South Company/Affiliation Kucera South

*Horizontal Coordinates reflect north American datum of 1983 (NSRS 2007), and are based on national geodetic survey control stations "Citrus 13" and "Citrus 14 "

8 Applicant name (operating authority) Citrus County Board of County Commissioners
Mailing address P O Box 340 Lecanto FL 34460
Street or P O Box City State Zip
Contact person Mr T Casey Stephens Telephone (352) 527-7670
Title Solid Waste Management Division Director
E-Mail address (if available) casey stephens@bocc citrus fl us

9 Authorized agent/Consultant SCS Engineers
Mailing address 4041 Park Oaks Blvd, Suite 100 Tampa FL 33610
Street or P O Box City State Zip
Contact person C Ed Hilton Jr , P E Telephone (813) 621-0080
Title Project Director
E-Mail address (if available) ehilton@scsengineers com

10 Landowner (if different than applicant) Citrus County BOCC
Mailing address 110 N Apopka Ave , Inverness, FL 34450
Street or P O Box City State Zip
Contact person John Thrumston Telephone (352) 341-6560
E-Mail address (if available)

11 Cities, towns and areas to be served
Citrus County, including, but not limited to towns of Inverness, Lecanto, & Crystal River

12 Population to be served
Current 141,236 Five-Year Projection 153,300

13 Date site will be ready to be inspected for completion September 2011

14 Expected life of the facility 11 years

15 Estimated costs

Total Construction \$ 25,000 Closing Costs \$ 0

16 Anticipated construction starting and completion dates

From August 2011 To August 2011

17 Expected volume or weight of waste to be received

 yds³/day 350 tons/day gallons/day

Dept Of Environmental Protection

JUL 07 2011

Southwest District

PART B DISPOSAL FACILITY GENERAL INFORMATION

1 Provide brief description of disposal facility design and operations planned under this application
This application is for a construction- other- minor modification permit for the installation of a below-grade header to Phase 2 of the existing landfill gas collection and control system (GCCS) at the Citrus County Central Landfill. The installation of this header will enhance the existing collection system by closing the loop on the system

2 Facility site supervisor Mr. T. Casey Stephens
Title Director Telephone (352) 527-7670
casey.stephens@bocc.citrus.fl.us
E-Mail address (if available)

3 Disposal area Total 32 acres, Used 25.8* acres, Available 6.2** acres

4 Weighing scales used ☒ Yes ☐ No

5 Security to prevent unauthorized use ☒ Yes ☐ No

6 Charge for waste received _____ \$/yds³ 30 \$/ton

7 Surrounding land use, zoning

- | | |
|--|--|
| <input type="checkbox"/> Residential | <input checked="" type="checkbox"/> Industrial |
| <input type="checkbox"/> Agricultural | <input type="checkbox"/> None |
| <input checked="" type="checkbox"/> Commercial | <input checked="" type="checkbox"/> Other Describe |
| <u>Conservation</u> | |

8 Types of waste received

- | | |
|---|--|
| <input checked="" type="checkbox"/> Household | <input checked="" type="checkbox"/> C & D debris |
| <input checked="" type="checkbox"/> Commercial | <input type="checkbox"/> Shredded/cut tires |
| <input type="checkbox"/> Incinerator/WTE ash | <input checked="" type="checkbox"/> Yard trash |
| <input type="checkbox"/> Treated biomedical | <input type="checkbox"/> Septic tank |
| <input type="checkbox"/> Water treatment sludge | <input checked="" type="checkbox"/> Industrial |

*Existing Phase 1 / 1A and 2 disposal areas

**Phase 3 disposal area

Dept. Of Environmental Protection

JUL 07 2011

Southwest District

- ☐ Air treatment sludge
☐ Agricultural
☒ Asbestos
☐ Industrial sludge
☒ Domestic sludge
☐ Other Describe

9 Salvaging permitted ☐ Yes ☒ No

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

11 Trained spotters ☒ Yes ☐ No Number of spotters used 1

12 Site located in ☐ Floodplain ☐ Wetlands ☒ Other
Upland

13 Days of operation Monday - Saturday

14 Hours of operation Monday - Friday 6 30 am-5 00 pm Holidays and Saturdays 6 30 am - 3 00 pm

15 Days Working Face covered Monday - Saturday

16 Elevation of water table 7 ft Datum Used NGVD

17 Number of monitoring wells 14

18 Number of surface monitoring points 0

19 Gas controls used ☒ Yes ☐ No Type controls ☒ Active ☐ Passive

Gas flaring ☒ Yes ☐ No Gas recovery ☐ Yes ☒ No

20 Landfill unit liner type

- ☐ Natural soils
☐ Single clay liner
☐ Single geomembrane
☐ Single composite
☐ Slurry wall
☒ Double geomembrane
☐ Geomembrane & composite
☐ Double composite
☐ None
☐ Other Describe

21 Leachate collection method

- | | |
|--|---|
| <input checked="" type="checkbox"/> Collection pipes | <input 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 | |

22 Leachate storage method

- | | |
|---|---|
| <input checked="" type="checkbox"/> Tanks | <input type="checkbox"/> Surface impoundments |
| <input type="checkbox"/> Other Describe | |

23 Leachate treatment method

- | | |
|--|--|
| <input type="checkbox"/> Oxidation | <input checked="" type="checkbox"/> Chemical treatment |
| <input type="checkbox"/> Secondary | <input type="checkbox"/> Settling |
| <input checked="" type="checkbox"/> Advanced | <input type="checkbox"/> None |
| <input type="checkbox"/> Other | |

24 Leachate disposal method

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

25 For leachate discharged to surface waters

Name and Class of receiving water

Leachate is not discharged into surface waters

26 Storm Water

Collected ☒ Yes ☐ No

Type of treatment

Dry Retention / Percolation

Name and Class of receiving water

None

27 Environmental Resources Permit (ERP) number or status

Water Management District #402023 02 An Environmental Resource Permit was submitted in August 2008

PART C PROHIBITIONS (62-701 300, FAC)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 1 Provide documentation that each of the siting criteria will be satisfied for the facility, (62-701 300(2), FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 2 If the facility qualifies for any of the exemptions contained in Rules 62-701 300(12) through (18), FAC, then document this qualification(s)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 3 Provide documentation that the facility will be in compliance with the burning restrictions, (62-701 300(3), FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 4 Provide documentation that the facility will be in compliance with the hazardous waste restrictions, (62-701 300(4), FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 5 Provide documentation that the facility will be in compliance with the PCB disposal restrictions, (62-701 300(5), FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 6 Provide documentation that the facility will be in compliance with the biomedical waste restrictions, (62-701 300(6), FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 7 Provide documentation that the facility will be in compliance with the Class I surface water restrictions, (62-701 300(7), FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 8 Provide documentation that the facility will be in compliance with the special waste for landfills restrictions, (62-701 300(8), FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 9 Provide documentation that the facility will be in compliance with the liquid restrictions, (62-701 300(10), FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 10 Provide documentation that the facility will be in compliance with the used oil and oily waste restrictions, (62-701 300(11), FAC)

PART D SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL (62-701 320, FAC)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>
<input checked="" type="checkbox"/>	Section D 1 _____	<input type="checkbox"/>	<input type="checkbox"/> 1 Four copies, at minimum, of the completed application form, all supporting data and reports, (62-701 320(5)(a),FAC)

- | | | | | |
|-------------------------------------|-------------|--------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | Section D 2 | <input type="checkbox"/> | <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) |
| <input checked="" type="checkbox"/> | Section D 3 | <input type="checkbox"/> | <input type="checkbox"/> | 3 A letter of transmittal to the Department, (62-701 320(7)(a),FAC) |
| <input checked="" type="checkbox"/> | Section D 4 | <input type="checkbox"/> | <input type="checkbox"/> | 4 A completed application form dated and signed by the applicant, (62-701 320(7)(b),FAC) |
| <input checked="" type="checkbox"/> | Section D 5 | <input type="checkbox"/> | <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) |
| <input checked="" type="checkbox"/> | Section D 6 | <input type="checkbox"/> | <input type="checkbox"/> | 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) |
| <input type="checkbox"/> | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 7 Operation Plan and Closure Plan, (62-701 320(7)(e)1,FAC) |
| <input type="checkbox"/> | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8 Contingency Plan, (62-701 320(7)(e)2,FAC) |
| <input type="checkbox"/> | | <input type="checkbox"/> | <input checked="" 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) |
| <input type="checkbox"/> | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | a A regional map or plan with the project location in relation to major roadways and population centers, |
| <input type="checkbox"/> | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | b A vicinity map or aerial photograph no more than 1 year old showing the facility site and relevant surface features located within 1000 feet of the facility, |
| <input type="checkbox"/> | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | c A site plan showing all property boundaries certified by a Florida Licensed Professional Surveyor and Mapper, and |
| <input checked="" type="checkbox"/> | Section D 9 | <input type="checkbox"/> | <input 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 |

S LOCATION N/A N/C

PART D CONTINUED

- | | | | | |
|--------------------------|-------|-------------------------------------|-------------------------------------|--|
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 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) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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) |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 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) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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)

S LOCATION N/A N/C

- | | | | | |
|--------------------------|-------|-------------------------------------|--------------------------|---|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 Regional map or aerial photograph no more than 5 years old showing all airports that are located within five miles of the proposed landfill, (62-701 330(3)(a),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2 Plot plan with a scale not greater than 200 feet to the inch showing, (62-701 330(3)(b),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a Dimensions, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Locations of proposed and existing water quality monitoring wells, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | c Locations of soil borings, |

S LOCATION N/A N/C

PART E CONTINUED

- | | | | | |
|--------------------------|-------|-------------------------------------|--------------------------|---|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | d Proposed plan of trenching or disposal areas, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | e Cross sections showing original elevations and proposed final contours which shall be included either on the plot plan or on separate sheets, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | f Any previously filled waste disposal areas, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | g Fencing or other measures to restrict access |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3 Topographic maps with a scale not greater than 200 feet to the inch with 5-foot contour intervals showing, (62-701 330(3)(c),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a Proposed fill areas, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Borrow areas, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | c Access roads, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | d Grades required for proper drainage, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | e Cross sections of lifts, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | f Special drainage devices if necessary, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | g Fencing, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | h Equipment facilities |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4 A report on the landfill describing the following, (62-701 330(3)(d),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a The current and projected population and area to be served by the proposed site, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b The anticipated type, annual quantity, and source of solid waste, expressed in tons, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | c Planned active life of the facility, the final design height of the facility and the maximum height of the facility during its operation, |

S LOCATION N/A N/C

PART E CONTINUED

- | | | | | |
|--------------------------|-------|-------------------------------------|-------------------------------------|--|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | d The source and type of cover material used for the landfill |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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) |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 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)

S LOCATION N/A N/C

- | | | | | |
|--------------------------|-------|-------------------------------------|--------------------------|---|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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)

S LOCATION N/A N/C

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|--------------------------|-------|-------------------------------------|--------------------------|--|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 Describe how the landfill shall be designed so that solid waste disposal units will be constructed and closed at planned intervals throughout the design period of the landfill and shall be designed to achieve a minimum factor of safety of 1.5 using peak strength values to prevent failures of side slopes and deep-seated failures, (62-701 400(2),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2 Landfill liner requirements, (62-701 400(3),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a General construction requirements, (62-701 400(3)(a),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (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 LOCATION N/A N/C

PART G CONTINUED

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|--------------------------|-------|-------------------------------------|--------------------------|---|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Document foundation is adequate to prevent liner failure, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Constructed so bottom liner will not be adversely impacted by fluctuations of the ground water, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (4) Designed to resist hydrostatic uplift if bottom liner located below seasonal high ground water table, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (5) Installed to cover all surrounding earth which could come into contact with the waste or leachate |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Composite liners, (62-701 400(3)(b),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Upper geomembrane thickness and properties, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Design leachate head for primary LCRS including leachate recirculation if appropriate, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Design thickness in accordance with Table A and number of lifts planned for lower soil component |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | c Double liners, (62-701 400(3)(c),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Upper and lower geomembrane thicknesses and properties, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Design leachate head for primary LCRS to limit the head to one foot above the liner, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Lower geomembrane sub-base design, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (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), |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | d Standards for geosynthetic components, (62-701 400(3)(d),FAC) |

S LOCATION N/A N/C

PART G CONTINUED

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|--------------------------|-------|-------------------------------------|--------------------------|---|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Factory and field seam test methods to ensure all geomembrane seams achieve the minimum specifications, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Geomembranes to be used shall pass a continuous spark test by the manufacturer, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Design of 24-inch-thick protective layer above upper geomembrane liner, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (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 |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (5) HDPE geomembranes, if used, meet the specifications in GRI GM13 and LLDPE geomembranes, if used, meet the specifications in GRI GM17, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (6) PVC geomembranes, if used, meet the specifications in PGI 1104, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (7) Interface shear strength testing results of the actual components which will be used in the liner system, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (8) Transmissivity testing results of geonets if they are used in the liner system, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (9) Hydraulic conductivity testing results of geosynthetic clay liners if they are used in the liner system, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | e Geosynthetic specification requirements, (62-701 400(3)(e),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Definition and qualifications of the designer, manufacturer, installer, QA consultant and laboratory, and QA program, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Material specifications for geomembranes, geocomposites, geotextiles, geogrids, and geonets, |

S LOCATION N/A N/C

PART G CONTINUED

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|--------------------------|-------|-------------------------------------|--------------------------|--|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input 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 nondestructive seam testing, seam testing location, frequency, procedure, sample size and geomembrane repairs, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input 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 geomembrane and procedures for lining system acceptance, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (5) Geotextile and geogrid specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials and any overlying materials, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (6) Geonet and geocomposite specifications including handling and placement, conformance testing, stacking and joining, repair, and placement of soil materials and any overlying materials, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (7) Geosynthetic clay liner specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil material and any overlying materials, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | f Standards for soil liner components (62-710 400(3)(f),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Description of construction procedures including overexcavation and backfilling to preclude structural inconsistencies and procedures for placing and compacting soil component in layers, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (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, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Procedures for testing in-situ soils to demonstrate they meet the specifications for soil liners, |

S LOCATION N/A N/C

PART G CONTINUED

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|--------------------------|-------|-------------------------------------|--------------------------|--|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (4) Specifications for soil component of liner including at a minimum |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (a) Allowable particle size distribution, Atterberg limits, shrinkage limit, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (b) Placement moisture and dry density criteria, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (c) Maximum laboratory-determined saturated hydraulic conductivity using simulated leachate, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (d) Minimum thickness of soil liner, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (e) Lift thickness, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (f) Surface preparation (scarification), |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (g) Type and percentage of clay mineral within the soil component, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (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 |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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 |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3 Leachate collection and removal system (LCRS), (62-701 400(4),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a The primary and secondary LCRS requirements, (62-701 400(4)(a),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Constructed of materials chemically resistant to the waste and leachate, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Have sufficient mechanical properties to prevent collapse under pressure, |

S LOCATION N/A N/C

PART G CONTINUED

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|--------------------------|-------|-------------------------------------|--------------------------|---|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Have granular material or synthetic geotextile to prevent clogging, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (4) Have method for testing and cleaning clogged pipes or contingent designs for rerouting leachate around failed areas, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Other LCRS requirements, (62-701 400(4)(b) and (c),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Bottom 12 inches having hydraulic conductivity $\geq 1 \times 10^{-3}$ cm/sec, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Total thickness of 24 inches of material chemically resistant to the waste and leachate, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Bottom slope design to accommodate for predicted settlement and still meet minimum slope requirements, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (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 |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4 Leachate recirculation, (62-701 400(5),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a Describe general procedures for recirculating leachate, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Describe procedures for controlling leachate runoff and minimizing mixing of leachate runoff with storm water, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | c Describe procedures for preventing perched water conditions and gas buildup, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | e Describe methods of gas management in accordance with Rule 62-701 530, FAC, |

S LOCATION N/A N/C

PART G CONTINUED

☐ _____ ☒ ☐

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

☐ _____ ☒ ☐

5 Leachate storage tanks and leachate surface impoundments, (62-701 400(6),FAC)

☐ _____ ☒ ☐

a Surface impoundment requirements, (62-701 400(6)(b),FAC)

☐ _____ ☒ ☐

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

☐ _____ ☒ ☐

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

☐ _____ ☒ ☐

(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 ≥ 1 cm/sec,

☐ _____ ☒ ☐

(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,

☐ _____ ☒ ☐

(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,

☐ _____ ☒ ☐

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

☐ _____ ☒ ☐

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

S LOCATION N/A N/C

PART G CONTINUED

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|--------------------------|-------|-------------------------------------|--------------------------|--|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Above-ground leachate storage tanks, (62-701 400(6)(c),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Describe tank materials of construction and ensure foundation is sufficient to support tank, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Describe procedures for cathodic protection if needed for the tank, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Describe exterior painting and interior lining of the tank to protect it from the weather and the leachate stored, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (4) Describe secondary containment design to ensure adequate capacity will be provided and compatibility of materials of construction, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (5) Describe design to remove and dispose of stormwater from the secondary containment system, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (6) Describe an overfill prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overfilling, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (7) Inspections, corrective action and reporting requirements, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (a) Overfill prevention system weekly, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (b) Exposed tank exteriors weekly, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (c) Tank interiors when tank is drained or at least every three years, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (d) Procedures for immediate corrective action if failures detected, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (e) Inspection reports available for department review |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | c Underground leachate storage tanks, (62-701 400(6)(d),FAC) |

S LOCATION N/A N/C

PART G CONTINUED

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|--------------------------|-------|-------------------------------------|--------------------------|--|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Describe materials of construction, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) A double-walled tank design system to be used with the following requirements, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (a) Interstitial space monitoring at least weekly, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (b) Corrosion protection provided for primary tank interior and external surface of outer shell, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (c) Interior tank coatings compatible with stored leachate, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (d) Cathodic protection inspected weekly and repaired as needed, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Describe an overfill prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overfilling and provide for weekly inspections, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (4) Inspection reports available for department review |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | d Schedule provided for routine maintenance of LCRS, (62-701 400(6)(e),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 6 Liner systems construction quality assurance (CQA), (62-701 400(7),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a Provide CQA Plan including |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Specifications and construction requirements for liner system, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Detailed description of quality control testing procedures and frequencies, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Identification of supervising professional engineer, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (4) Identify responsibility and authority of all appropriate organizations and key personnel involved in the construction project, |

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LOCATIONN/AN/C

PART G CONTINUED

☐ _____ ☒ ☐ (5) State qualifications of CQA professional engineer and support personnel,

☐ _____ ☒ ☐ (6) Description of CQA reporting forms and documents,

☐ _____ ☒ ☐ 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)

PART H HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS (62-701 410(1), FAC)

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

PART I GEOTECHNICAL INVESTIGATION REQUIREMENTS (62-701 410(2),FAC)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 1 Submit a geotechnical site investigation report defining the engineering properties of the site including at least the following
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> a Description of subsurface conditions including soil stratigraphy and ground water table conditions,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> b Investigate for the presence of muck, previously filled areas, soft ground, lineaments and sink holes,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> c Estimates of average and maximum high water table across the site,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> d Foundation analysis including
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> (1) Foundation bearing capacity analysis,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> (2) Total and differential subgrade settlement analysis,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> (3) Slope stability analysis,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> e Description of methods used in the investigation and includes soil boring logs, laboratory results, analytical calculations, cross sections, interpretations and conclusions,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 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
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 2 Report signed, sealed and dated by PE and/or PG

PART J VERTICAL EXPANSION OF LANDFILLS (62-701 430,FAC)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 1 Describe how the vertical expansion shall not cause or contribute to leachate leakage from the existing landfill, shall not cause objectionable odors, or adversely affect the closure design of the existing landfill,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 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,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 3 Provide foundation and settlement analysis for the vertical expansion,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 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,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 5 Minimum stability safety factor of 1.5 for the lining system component interface stability and deep stability,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 6 Provide documentation to show the surface water management system will not be adversely affected by the vertical expansion,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 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)

S	LOCATION	N/A	N/C
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 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)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 2 Provide a landfill operation plan including procedures for (62-701 500(2), FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> a Designating responsible operating and maintenance personnel,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> b Emergency preparedness and response, as required in subsection 62-701 320(16), FAC,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> c Controlling types of waste received at the landfill,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> d Weighing incoming waste,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> e Vehicle traffic control and unloading,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> f Method and sequence of filling waste,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> g Waste compaction and application of cover,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> h Operations of gas, leachate, and stormwater controls,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> i Water quality monitoring
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> j Maintaining and cleaning the leachate collection system,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input 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 FDEP permit, engineering drawings, water quality records, etc) (62-701 500(3),FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 4 Describe the waste records that will be compiled monthly and provided to the Department annually, (62-701 500(4),FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/> 5 Describe methods of access control, (62-701 500(5),FAC)

S LOCATION N/A N/C

PART K CONTINUED

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|--------------------------|-------|-------------------------------------|--------------------------|---|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 7 Describe procedures for spreading and compacting waste at the landfill that include (62-701 500(7),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a Waste layer thickness and compaction frequencies, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Special considerations for first layer of waste placed above liner and leachate collection system, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | c Slopes of cell working face and side grades above land surface, planned lift depths during operation, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | d Maximum width of working face, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | e Description of type of initial cover to be used at the facility that controls |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Vector breeding/animal attraction |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Fires |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Odors |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (4) Blowing litter |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (5) Moisture infiltration |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | f Procedures for applying initial cover including minimum cover frequencies, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | g Procedures for applying intermediate cover, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | h Time frames for applying final cover, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | i Procedures for controlling scavenging and salvaging |

S LOCATION N/A N/C

PART K CONTINUED

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|-------------------------------------|-------------|-------------------------------------|-------------------------------------|--|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | j Description of litter policing methods, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | k Erosion control procedures |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 8 Describe operational procedures for leachate management including, (62-701 500(8),FAC) |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | a Leachate level monitoring, sampling, analysis and data results submitted to the Department, |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | b Operation and maintenance of leachate collection and removal system, and treatment as required, |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | c Procedures for managing leachate if it becomes regulated as a hazardous waste, |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | d Identification of treatment or disposal facilities that may be used for off-site discharge and treatment of leachate, |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | e Contingency plan for managing leachate during emergencies or equipment problems, |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | f Procedures for recording quantities of leachate generated in gal/day and including this in the operating record, |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | g Procedures for comparing precipitation experienced at the landfill with leachate generation rates and including this information in the operating record, |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | h Procedures for water pressure cleaning or video inspecting leachate collection systems |
| <input checked="" type="checkbox"/> | Section K 9 | <input type="checkbox"/> | <input type="checkbox"/> | 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) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 10 Describe procedures for operating and maintaining the landfill stormwater management system to comply with the requirements of Rule 62-701 400(9), (62-701 500(10),FAC) |

S LOCATION N/A N/C

PART K CONTINUED

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|--------------------------|-------|-------------------------------------|--------------------------|--|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 11 Equipment and operation feature requirements, (62-701 500(11),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a Sufficient equipment for excavating, spreading, compacting and covering waste, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Reserve equipment or arrangements to obtain additional equipment within 24 hours of breakdown, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | c Communications equipment, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | d Dust control methods, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | e Fire protection capabilities and procedures for notifying local fire department authorities in emergencies, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | f Litter control devices, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | g Signs indicating operating authority, traffic flow, hours of operation, disposal restrictions |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 12 Provide a description of all-weather access road, inside perimeter road and other roads necessary for access which shall be provided at the landfill, (62-701 500(12),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 13 Additional record keeping and reporting requirements, (62-701 500(13),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a Records used for developing permit applications and supplemental information maintained for the design period of the landfill, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Monitoring information, calibration and maintenance records, copies of reports required by permit maintained for at least 10 years, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | d Procedures for archiving and retrieving records which are more than five year old |

PART L WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS (62-701 510, FAC)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	b All sampling and analysis performed in accordance with Chapter 62-160, FAC, (62-701 510(2)(b),FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	c Ground water monitoring requirements, (62-701 510(3),FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(1) Detection wells located downgradient from and within 50 feet of disposal units,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(2) Downgradient compliance wells as required,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(3) Background wells screened in all aquifers below the landfill that may be affected by the landfill,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(4) Location information for each monitoring well,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(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,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(6) Well screen locations properly selected,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(7) Monitoring wells constructed to provide representative ground water samples,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(8) Procedures for properly abandoning monitoring wells,
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(9) Detailed description of detection sensors if proposed
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	d Surface water monitoring requirements, (62-701 510(4),FAC)

S LOCATION N/A N/C

PART L CONTINUED

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|--------------------------|-------|-------------------------------------|--------------------------|--|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Location of and justification for all proposed surface water monitoring points, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Each monitoring location to be marked and its position determined by a registered Florida land surveyor, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | e Leachate sampling locations proposed, (62-701 510(5),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | f Initial and routine sampling frequency and requirements, (62-701 510(6),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Initial background ground water and surface water sampling and analysis requirements, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Routine leachate sampling and analysis requirements, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Routine monitoring well sampling and analysis requirements, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (4) Routine surface water sampling and analysis requirements |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | g Describe procedures for implementing evaluation monitoring, prevention measures and corrective action as required, (62-701 510(7),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | h Water quality monitoring report requirements,(62-701 510(9),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Semi-annual report requirements (see paragraphs 62 701 510(6)(c),(d)and (e) for sampling frequencies), |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input 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 |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Two and one-half year report requirements, or every five years if in long-term care, signed, dated and sealed by PG or PE |

PART M SPECIAL WASTE HANDLING REQUIREMENTS (62-701 520, FAC)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1 Describe procedures for managing motor vehicles, (62-701 520(1),FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2 Describe procedures for landfilling shredded waste, (62-701 520(2),FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 Describe procedures for asbestos waste disposal, (62-701 520(3),FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4 Describe procedures for disposal or management of contaminated soil, (62-701 520(4), FAC)
<input type="checkbox"/>	_____	<input checked="" type="checkbox"/>	<input 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)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
<input checked="" type="checkbox"/>	Section N 1 _____	<input type="checkbox"/>	<input type="checkbox"/>	1 Provide the design for a gas management system that will (62-701 530(1), FAC)
<input checked="" type="checkbox"/>	Section N 1 a _____	<input type="checkbox"/>	<input 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,
<input checked="" type="checkbox"/>	Section N 1 b _____	<input type="checkbox"/>	<input type="checkbox"/>	b Be designed for site-specific conditions,
<input type="checkbox"/>	_____	<input type="checkbox"/>	<input checked="" type="checkbox"/>	c Be designed to reduce gas pressure in the interior of the landfill,
<input checked="" type="checkbox"/>	Section N 1 d _____	<input type="checkbox"/>	<input type="checkbox"/>	d Be designed to not interfere with the liner, leachate control system or final cover
<input type="checkbox"/>	_____	<input type="checkbox"/>	<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)
<input type="checkbox"/>	_____	<input type="checkbox"/>	<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)
<input type="checkbox"/>	_____	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4 Landfill gas recovery facilities, (62-701 530(5), FAC)

S LOCATION N/A N/C

PART N CONTINUED

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|--------------------------|-------|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | a Information required in Rules 62-701 320(7) and 62-701 330(3), FAC supplied, |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | b Information required in Rule 62-701 600(4), FAC supplied where relevant and practical, |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | c Estimate of current and expected gas generation rates and description of condensate disposal methods provided, |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | d Description of procedures for condensate sampling, analyzing and data reporting provided, |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 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, |
| <input type="checkbox"/> | _____ | <input type="checkbox"/> | <input checked="" type="checkbox"/> | f Performance bond provided to cover closure costs if not already included in other landfill closure costs |

PART O LANDFILL FINAL CLOSURE REQUIREMENTS (62-701 600,FAC)

S LOCATION N/A N/C

- | | | | | |
|--------------------------|-------|-------------------------------------|--------------------------|--|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1 Closure permit requirements, (62-701 600(2),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a Application submitted to Department at least 90 days prior to final receipt of wastes, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Closure plan shall include the following |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Closure design plan, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Closure operation plan, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Plan for long-term care, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (4) A demonstration that proof of financial responsibility for long-term care will be provided |

S

LOCATION

N/A

N/C

PART O CONTINUED

- | | | | | |
|--------------------------|-------|-------------------------------------|--------------------------|---|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 2 Closure design plan including the following requirements (62-701 600(3),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a Plan sheet showing phases of site closing, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Drawings showing existing topography and proposed final grades, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | c Provisions to close units when they reach approved design dimensions, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | d Final elevations before settlement, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | e Side slope design including benches, terraces, down slope drainage ways, energy dissipaters and discussion of expected precipitation effects, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | f Final cover installation plans including |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) CQA plan for installing and testing final cover, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Schedule for installing final cover after final receipt of waste, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Description of drought-resistant species to be used in the vegetative cover, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (4) Top gradient design to maximize runoff and minimize erosion, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (5) Provisions for cover material to be used for final cover maintenance |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | g Final cover design requirements |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (1) Protective soil layer design, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (2) Barrier soil layer design, |

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LOCATION

N/A

N/C

PART O CONTINUED

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|--------------------------|-------|-------------------------------------|--------------------------|--|
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (3) Erosion control vegetation, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (4) Geomembrane barrier layer design, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (5) Geosynthetic clay liner design if used, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (6) Stability analysis of the cover system and the disposed waste |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | h Proposed method of stormwater control, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | i Proposed method of access control, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | j Description of the proposed or existing gas management system which complies with Rule 62-701 530, FAC |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3 Closure operation plan shall include (62-701 600(4),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a Detailed description of actions which will be taken to close the landfill, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Time schedule for completion of closing and long-term care, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | c Describe proposed method for demonstrating financial assurance for long-term care, |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | d Operation of the water quality monitoring plan required in Rule 62-701 510, FAC |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | e Development and implementation of gas management system required in Rule 62-701 530, FAC |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4 Certification of closure construction completion including (62-701 600(6),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | a Survey monuments, (62-701 600(6)(a),FAC) |
| <input type="checkbox"/> | _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | b Final survey report, (62-701 600(6)(b),FAC) |

S **LOCATION** **N/A** **N/C** **PART O CONTINUED**

☐ _____ ☒ ☐ 5 Declaration to the public, (62-701 600(7),FAC)

☐ _____ ☒ ☐ 6 Official date of closing, (62-701 600(8),FAC)

☐ _____ ☒ ☐ 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)

S **LOCATION** **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)

☐ _____ ☒ ☐ 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)

S **LOCATION** **N/A** **N/C**

☒ Section Q 1 _____ ☐ ☐ 1 Maintaining the gas collection and monitoring system, (62-701 620(5), FAC)

☐ _____ ☒ ☐ 2 Stabilization report requirements, (62-701 620(6),FAC)

☐ _____ ☒ ☐ 3 Right of access,(62-701 620(7),FAC)

☐ _____ ☒ ☐ 4 Requirements for replacement of monitoring devices, (62-701 620(8),FAC)

☐ _____ ☒ ☐ 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)

<u>S</u>	<u>LOCATION</u>	<u>N/A</u>	<u>N/C</u>	
<input checked="" type="checkbox"/>	Section R 1	<input type="checkbox"/>	<input type="checkbox"/>	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)
<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	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)
<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	3 Describe funding mechanisms for providing proof of financial assurance and include appropriate financial assurance forms, (62-701 630(5),(6),&(9), FAC)
<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	4 Provide documentation and the appropriate forms for delaying submitting proof of financial assurance for solid waste disposal units that qualify, (62-701 630(2)(c), FAC)

1

The undersigned applicant or authorized representative of Citrus County Board of County Commissioners

information are an application for a Construction - Other - Minor 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.

P O Box 340

T Casey Stephens, Director, SW Mgmt
Name and Title (please type)

Lecanto, FL 34460

City, State, Zip Code

casey stephens@bocc citrus fl us
E-Mail address (if available)

(352) 527-7671

Telephone Number

Date 07/06/2011

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.

SCS Engineers, 4041 Park Oaks Blvd , Suite

Mailing Address

Charles E. Miller, Jr., E, Project Director
Name and Title (please type)

Tampa, FL 33610

City, State, Zip Code

ehilton@scsengineers.com

E-Mail address (if available)

46916

(813)621-0080

Telephone Number

Florida Registration Number
(please affix seal)

Date 07/02/11

Table of Contents

Section	Page
Transmittal Letter	
DEP Form 62-701.900(1)	
A General Information	A-1
A.1 Landfill Description	A-1
A.2 Site Location	A-1
A.3 Scope of Application	A-1
B Disposal Facility General Information	B-1
C Prohibitions	C-1
D General Requirements	D-1
D.1 Application Form and Supporting Documents	D-1
D.2 Engineering Certification	D-1
D.3 Transmittal Letter	D-1
D.4 Application Forms	D-1
D.5 Permit Fee	D-1
D.6 Engineering Report	D-1
D.7 Operation Plan and Closure Plan	D-2
D.8 Contingency Plan	D-2
D.9 Drawings	D-2
D.10 Proof of Ownership	D-2
D.11 Recycling Goals	D-2
D.12 Enforcement History	D-2
D.13 Proof of Publication	D-2
D.14 Airport Safety	D-2
D.15 Operator Training	D-2
E Landfill Permit Requirements	E-1
E.1 Through E.5	E-1
E.6 Financial Assurance Estimate	E-1
F General Criteria for Landfills	F-1
G Landfill Construction Requirements	G-1
H Hydrogeological Investigation Requirements	H-1
I Geotechnical Investigation Requirements	I-1
J Vertical Expansion of Landfills	J-1
K Landfill Operations Requirements	K-1
K.1 Through K.7	K-1
K.8 Leachate Management	K-1

CONTENTS (Continued)

Section	Page
K.9 Gas Monitoring Program	K-1
K.9.A Design Requirements	K-1
K.9.B Monitoring Requirements	K-1
K.10 Through K.13	K-2
L Water Quality and Leachate Monitoring Requirements	L-1
M Special Waste Handling Requirements	M-1
N Landfill Gas Management System Requirements	N-1
N.1 Landfill Gas Management System	N-1
N.1.A Gas Migration Control	N-1
N.1.B Site-Specific Design Conditions	N-1
N.1.C Reducing Gas Pressure	N-1
N.1.D Liner, Leachate Control System or Final Cover Non-Interference	N-1
N.2 Gas Monitoring Program	N-2
N.3 Gas and Odor Remediation Plan Implementation	N-2
N.4 Landfill Gas Recovery Facilities	N-2
O Landfill Closure Requirements	O-1
P Closure Procedures	P-1
Q Long-Term Care Requirements	Q-1
Q.1 Gas System Maintenance	Q-1
Q.2 Through Q.5	Q-1
R Financial Assurance	R-1
R.1 Cost Estimates for Closure Cost and Long-Term Care	R-1
R.2 Through R.4	R-1

ATTACHMENTS

Attachment D-1 Gas Collection and Control System Construction Drawings

SECTION A

GENERAL INFORMATION

This construction permit application was prepared by SCS Engineers (SCS) on behalf of the Citrus County Board of County Commissioners (County) for the minor modification to the landfill gas collection and control system (GCCS) at the Citrus County Central Landfill. This report is divided into sections following the format of the Florida Department of Environmental Protection (FDEP) permit application form 62-701 900(1).

A.1 LANDFILL DESCRIPTION

The County's permitted Class I landfill (Phase 1 and 1A, Phase 2, and Phase 3), currently occupies approximately 32 acres.

The Citrus County Central landfill is owned and operated by the Citrus County Board of County Commissioners (BOCC) under FDEP as a Class I landfill and has the following active permits:

- Class I Landfill FDEP Operations Permit Number 21375-008-SO/01
- Initial Title V Air Permit FDEP Permit 0170366-003-AV
- Solid Waste Construction Permit FDEP Permit 21375-017-SC/08 (Being Modified)
- Stormwater Management Facilities Southwest Florida Water Management District Permit Number 402023 02
- Environmental Resource Permit FDEP Pending Permit 09-0291076-001

A.2 SITE LOCATION

The Citrus County Central Landfill is located on S R 44, 3 miles east of Lecanto, Citrus County, Florida. The site property lies within Section 1, Township 19 South, and Range 18 East in Citrus County, Florida. The main entrance of the Citrus County Central Landfill facility is located at latitude $28^{\circ}51'20''$ N, longitude $82^{\circ}26'22''$ W with the location of the proposed GCCS at approximately latitude $28^{\circ}51'00''$ N, longitude $82^{\circ}26'12''$ W.

A.3 SCOPE OF APPLICATION

This construction permit application encompasses the addition of a section of 8" header/lateral connecting the existing self-draining condensate trap CT-1 to the existing condensate sump CS-1 of the GCCS in Class I Cells (Phases 1/1A and 2). The proposed GCCS will include the installation of the header/lateral and tie-ins to the existing GCCS features.

SECTION B

DISPOSAL FACILITY GENERAL INFORMATION

The proposed minor modification will include the installation of a header/lateral that will connect the existing condensate trap CT-1 to the existing condensate sump CS-1 to increase vacuum to EW-7 and provide a more desirable closed loop vacuum network

The LFG management system at the site currently consists of passive vents installed in the old closed 60-acre landfill, which serves to minimize the potential for off-site migration of LFG. The GCCS for the lined Class I landfill is a voluntary active LFG collection and control system that has been installed to proactively reduce methane emissions to the atmosphere. This system, which is not required by Federal New Source Performance Standards (NSPS), operates under negative pressure.

As shown on the drawings in Attachment D-1, the proposed minor modification to the GCCS for Phase 2 will entail the following:

- Installation of below-grade header between CT-1 and CS-1.
- Tie-in to the existing condensate sump CS-1
- Tie-in to the existing self-draining condensate trap CT-1

SECTION C

PROHIBITIONS

Not applicable

SECTION D

GENERAL REQUIREMENTS

D.1 APPLICATION FORM AND SUPPORTING DOCUMENTS

In accordance with Rule 62-701 320(5)(a), F A C , four copies of the completed State of Florida Department of Environmental Protection Application for a Permit to Construct, Operate, Modify or Close a Solid Waste Management Facility Application Form 62-701 900(1), which is attached at the beginning of this permit application report, including all supporting data are included as part of this Construction Permit Application.

D.2 ENGINEERING CERTIFICATION

Part S of the Application for a Permit to Construct, Operate, Modify or Close a Solid Waste Management Facility Application Form 62-701 900(1) has been signed and sealed by C Ed Hilton Jr , P E., a registered Professional Engineer in the State of Florida (License No 46916) together with all other applicable engineering plans, reports and supporting information for the application herein as required by Rule 62-701 320(6), F A C.

D.3 TRANSMITTAL LETTER

A transmittal letter is included at the front of this application as required by Rule 62-701 320(7)(a), F A.C

D.4 APPLICATION FORMS

The Application for a Permit to Construct, Operate, Modify or Close a Solid Waste Management Facility Application Form 62-701 900(1) is included in this submittal as required by Rule 62-701 320(7)(b), F A C

D.5 PERMIT FEE

A check in the amount of \$250 payable to FDEP is being submitted with this application This is the amount required for a "Construction-Minor Modification" Permit Application

D.6 ENGINEERING REPORT

This document with supporting Figures, Tables, and Attachments meets the requirements of an Engineering Report as required by Rule 62-701 320(7)(d), F A C

D.7 OPERATION PLAN AND CLOSURE PLAN

No changes are proposed for the facility's Operation Plan

D.8 CONTINGENCY PLAN

No changes are proposed for the facility's contingency plan

D.9 DRAWINGS

There have been no changes to the property boundaries since the last permit renewal and therefore a site plan signed and sealed by a Florida Licensed Professional Land Surveyor is not being submitted with this application

Copies of the design drawings (site plans and details) are located in Attachment D-1 of this submittal

D.10 PROOF OF OWNERSHIP

There has been no change in ownership of the property since the last operation permit renewal application

D.11 RECYCLING GOALS

This item is not applicable.

D.12 ENFORCEMENT HISTORY

There has been no change to this Section

D.13 PROOF OF PUBLICATION

This section is not applicable for a minor permit modification

D.14 AIRPORT SAFETY

This item is not applicable

D.15 OPERATOR TRAINING

This item is not applicable

ATTACHMENT D-1

GAS COLLECTION AND CONTROL SYSTEM
CONSTRUCTION DRAWINGS

SECTION E

LANDFILL PERMIT REQUIREMENTS

E.1 THROUGH E.5

Not applicable

E.6 FINANCIAL ASSURANCE ESTIMATE

No change The addition of pipe is minimal compared to the overall costs of Closure- Post Closure Therefore, there is no proposed change to the current financial assurance estimate

SECTION F

GENERAL CRITERIA FOR LANDFILLS

Not applicable

SECTION G

LANDFILL CONSTRUCTION REQUIREMENTS

Not applicable

SECTION H

HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS

Not applicable

SECTION I

GEOTECHNICAL INVESTIGATION REQUIREMENTS

Not applicable

SECTION J

VERTICAL EXPANSION OF LANDFILLS

Not applicable

SECTION K

LANDFILL OPERATIONS REQUIREMENTS

K.1 THROUGH K.7

Not applicable.

K.8 LEACHATE MANAGEMENT

There are no changes to leachate management

K.9 GAS MONITORING PROGRAM

The existing GCCS is designed to meet the requirements specified in Rule 62-701 530, F A C
Installation of additional lateral/header is being proposed to make the existing GCCS a closed-loop system

K.9.a Design Requirements

The proposed installation of the lateral/header is designed to supply increased vacuum to extraction well EW-7

The proposed addition to the GCCS of Phase 2 includes the following features:

- Tie-ins will be made to the existing self-draining condensate trap CT-1 and condensate sump CS-1
- A new section of below grade header/lateral will be installed. All piping will be HDPE SDR 17

K.9.a.1 Gas Monitoring Probes

Gas monitoring is performed in accordance with Rule 62-701 530, F A C The existing gas monitoring probes and monitoring points are located in strategic areas throughout the facility to properly monitor for gas migration There are no changes to the locations of the gas monitoring probes and monitoring points

K.9.b Monitoring Requirements

K.9.b.1 NSPS Requirements

The proposed GCCS is not required by any state or federal regulation, and therefore the system will not be subject to any regulatory required monitoring Based on the results of the most recent New Source Performance Standards (NSPS) Tier 2 test and non-methane organic compound

(NMOC) emission rate report, a landfill gas collection and control system (GCCS) will not be required at the site until at least 2017. This is because the 2011 Tier 2 report shows NMOC emissions through 2016 are below 50 megagrams (Mg) per year.

K.9.b.2 Perimeter Monitoring Probes

Monitoring of gas probes along the property boundary will continue to be conducted. Monitoring of gas concentrations in gas monitoring probes will be performed to detect possible subsurface migration of LFG. The regulatory limit for methane at the property boundary is 100 percent of the lower explosive limit (LEL) for combustible gases and 25 percent of the LEL in structures.

There are no changes to the locations of the gas monitoring probes.

K.9.b.3 Closure Requirements

Waste disposal activities are on-going at the site. At landfill closure, the closure plan will address any integration of the GCCS with the intended end use, which has not yet been determined.

K.10 THROUGH K.13

Not applicable

SECTION L

WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS

Not applicable

SECTION M

SPECIAL WASTE HANDLING REQUIREMENTS

Not applicable

SECTION N

LANDFILL GAS MANAGEMENT SYSTEM REQUIREMENTS

N.1 LANDFILL GAS MANAGEMENT SYSTEM

The LFG management system at the site currently consists of passive vents in the old closed 60-acre landfill, which serves to minimize the potential for off-site migration of LFG. The GCCS for the Class I landfill is a voluntary active LFG collection and control system that was installed to proactively reduce methane emissions to the atmosphere. This system is not required by the Federal New Source Performance Standards (NSPS).

N.1.a Gas Migration Control

The GCCS in the lined Class I landfill reduces the potential for subsurface LFG migration and odors. The system generates greenhouse gas (GHG) emission reduction credits, also known as verified emissions reductions (VERs).

The proposed addition of the header/lateral in Phase 2 of the GCCS is designed to increase vacuum to extraction well EW-1 and to complete the required connection to create a closed-loop system, which provides vacuum to all collection points from two sides instead of one. This type of system design allows for redundancy of vacuum should the system experience a blockage or maintenance issue.

N.1.b Site-Specific Design Conditions

The proposed addition to the GCCS will include the installation of a header/lateral system and tie-ins to the condensate trap CT-1 and condensate sump CS-1.

The system of headers and laterals connecting to CT-1 and CS-1 was designed using standard industry practices and materials. High density polyethylene (HDPE) SDR 17 pipe is specified for the header/lateral lines. The pipe will be buried a minimum of 2 feet below ground surface at all times. There are no changes to any of the previously provided calculations that are a part of the current construction permit.

N.1.c Reducing Gas Pressure

No change from existing permit.

N.1.d Liner, Leachate Control System or Final Cover Non-Interference

The proposed lateral/header will not interfere with the bottom liner and leachate collection system.

N.2 GAS MONITORING PROGRAM

No changes to the LFG migration monitoring plan are being proposed with this application

N.3 GAS AND ODOR REMEDIATION PLAN IMPLEMENTATION

No changes to the landfill gas remediation and odor remediation plans are being proposed with this application

N.4 LANDFILL GAS RECOVERY FACILITIES

The proposed header/lateral will route collected LFG to the candlestick flare where the gas will be combusted and will not affect the basic operation of the landfill gas recovery facility
Therefore there is no change to this section

SECTION O

LANDFILL CLOSURE REQUIREMENTS

The proposed additional header pipe will not affect the closure requirements, therefore this section is not applicable

SECTION P

CLOSURE PROCEDURES

Not applicable

SECTION Q

LONG-TERM CARE REQUIREMENTS

Q.1 GAS SYSTEM MAINTENANCE

The gas collection and monitoring system will continue to be maintained and operated to minimize odors and prevent off site migration and the proposed additional header will not affect the system maintenance, therefore there is no change to this section

Q.2 THROUGH Q.5

Not applicable

SECTION R

FINANCIAL ASSURANCE

R.1 COST ESTIMATES FOR CLOSURE COST AND LONG-TERM CARE

The long-term care cost of the GCCS will not be impacted by the addition of the proposed header/lateral. The closure cost construction estimates associated with the GCCS have not been included at this time as the system is a voluntary system and does not need to be constructed.

R.2 THROUGH R.4

No change

ORACLE



Distribution Object		PAYMENT(S)						
Payment ID	CL Area	Code/Description	Payment Amount	Reference#	Appl.	Fund	Grant	Status
1101014	SWD	002245 SOLID WASTE-OPE	250.00		PA	PETF		COMPLETE

COMMIT FREQUENTLY 250.00 Payment Total

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ORACLE



SITE PERMIT														
Site Name		CITRUS CO CENTRAL SLF (LF1)					Site #		0021375					
County		CITRUS	Comments		N	RPAs		N	# Cases	0				
Project														
Permit #			Project #		020	Received		07/14/2011	CRA #	372587				
Permit Office		SWD				Agency Action		Pending						
Project Name		CITRUS CENTRAL GCCS MOD			Desc									
Type/Sub/Des		SO	MM	MINOR MODIFICATION			WACS/ME ID		39859	OGC				
Logged		07/15/2011		Issued			Expires			Application Action	MODIFICATION			
Fee		250.00		Fee Recd		250.00		Delete			COE #		Override	NONE
Related Party														
Role		APPLICANT			Begin		07/15/2011		End					
Name		STEPHENS, CASEY			Company		CITRUS COUNTY DIVISION OF SOLID WASTE MANAGE							
Address		P O BOX 340												
City		LECANTO			State		FL	Zip		34460	Country		USA	
Phone		352-527-7670			Fax		352-527-7672			Email		casey.stephens@bocccitrus.fl.us		
Processors														
Processor		MORGAN S			Active		07/15/2011		Inactive			Events		

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**Southwest District
Permitting Application**

New Site

Site Name:		
Site ID:	WACS ID#:	
County:		
Type/Subcode:		
Fee submitted:	() correct	() incorrect
Total Fee Required \$ _____ Need \$ _____ Refund \$ _____		

Existing Site

Site ID: 21375 - 02D		
Project Name: CITRUS CENTRAL GCCS MOD	WACS ID#: 39859	
Type/Subcode: SO/MM	New / <u>Modification</u> / Renewal	
Fee submitted: 25000	<input checked="" type="checkbox"/> correct	() incorrect
Total Fee Required \$ _____ Need \$ _____ Refund \$ _____		

Applicant Information

Name: CASEY STEPHENS	
Role: APPLICANT	
Company: CITRUS COUNTY	
Address:	
City: ON-FILE	Zip Code:
Phone:	

Fee verified by: S. McRae

Application Assigned To: S. McRae Date: 7/15/11

SCS ENGINEERS

July 14, 2011
File No 09210021 01

Mr Steve Morgan, P E
Florida Department of Environmental Protection
Southwest District
13051 N Telecom Parkway
Temple Terrace, FL 33637

Subject Check for Application for Construction-Minor Modification Permit for
Installation of additional below-grade header
Central Landfill, Citrus County, Florida

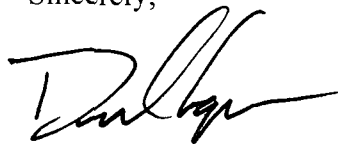
Dear Mr Morgan

SCS Engineers (SCS) is submitting the attached check in the amount of \$250 00 on behalf of Citrus County Board of County Commissioners for a minor modification construction permit to install an additional below-grade header to enhance the existing landfill gas collection and control system (GCCS) at Citrus County's Central Landfill


The application and all supporting documentation for the application were previously submitted on July 7, 2011

Please do not hesitate to call should you have any questions or require additional information

Sincerely,



Daniel R Cooper, P E
Project Manager
SCS ENGINEERS



C Ed Hilton, P E
Project Director
SCS ENGINEERS

DRC/CEH ael

cc Casey Stephens, Citrus County

Enclosures



Maps

Scanned

Separately