



Florida Department of Environmental Protection

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

August 7, 2012

E-Mail

sgrant@wm.com

Ms. Sheree Grant
Vista Landfill, LLC
242 West Keene Road
Apopka, Florida 32703

OCD-SW-12-300

Orange County – SW WACS # 87081
Vista Landfill, Class III
First Request for Additional Information
Permit Application No. SC48-0165969-019

Dear Ms. Grant:

Victor M. Damasceno, Ph.D., P.E., of Geosyntec Consultants, submitted on your behalf, “Solid Waste Permit Application to Construct Phases I and II at the Vista Landfill, Class III Facility.” It was dated July 10, 2012 and received July 12, 2012. We have assigned Permit No. SC48-0165969-019 to the application.

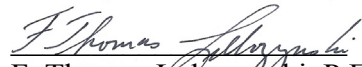
The application is incomplete. Please provide the information listed on the attached sheet promptly. Evaluation of your application will be delayed until all the requested information has been received. In order to ensure the next submittal will be as complete as possible, the Department requests that we have a meeting to discuss the submittal. Please contact Kim Rush to schedule a meeting time and date. She can be reached at kim.rush@dep.state.fl.us or 407-897-4314.

Pursuant to Section 120.60(2), Florida Statutes, the Department may deny an application, if the applicant, after receiving timely notice, fails to correct errors and omissions, or supply additional information within a reasonable period of time. Accordingly, please provide the additional information within 30 days of the date you receive this letter. Submit three copies of the requested information to the Department and reference the above permit application number in your correspondence.

Ms. Grant
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If you have any questions, please contact Kim Rush at (407) 897-4314 or by e-mail at kim.rush@dep.state.fl.us.

Sincerely,



F. Thomas Lubozynski, P.E.
Waste Program Administrator

FTL/kr

Enclosure

cc:

Victor Damasceno, PhD, P.E. – Geosyntec Consultants, vdamasceno@geosyntec.com

Note that all references to “Report” in the following text refer to the document entitled, “Solid Waste Permit Application to Construct Phases I and II at the Vista Landfill, Class III Facility,” with supporting documents prepared by: Victor M. Damasceno, Ph.D., P.E., of Geosyntec Consultants, dated July 10, 2012.

1. Based on the review of the Report, the Department interprets the construction permit application to encompass the following:
 - a. Reduce the total landfill permitted footprint from 102 to 94 acres.
 - b. Options for the bottom liner design for Phases I and II, cells 3 – 8. The bottom liner design and leachate collection system (from top to bottom) will be one of the following options:
 - Option 1:** Geocomposite with one central leachate corridor (This design is the currently permitted liner and leachate collection system.)
 - 2-ft thick liner protective layer
 - Double-sided drainage geocomposite layer
 - 60-mil thick textured HDPE geomembrane
 - 6-inch thick compacted subbase layer
 - Option 2:** Sand Drainage Layer with one central leachate corridor
 - 1-ft thick liner protective layer
 - 8-oz separation geotextile layer
 - 1-ft thick sand drainage layer with a hydraulic conductivity $\geq 1.6 \times 10^{-2}$ cm/s
 - 60-mil thick textured HDPE geomembrane
 - 6-inch thick compacted subbase layer
 - Option 3:** Sand Drainage Layer with one central leachate corridor and two leachate collection galleries per cell
 - 1-ft thick liner protective layer
 - 8-oz separation geotextile layer
 - 1-ft thick sand drainage layer with a hydraulic conductivity $\geq 7.5 \times 10^{-3}$ cm/s
 - 60-mil thick textured HDPE geomembrane
 - 6-inch thick compacted subbase layer
 - Option 4:** Sand Drainage Layer with one central leachate corridor and four leachate collection galleries per cell (that is, two galleries on either side of the central leachate corridor)
 - 1-ft thick liner protective layer
 - 8-oz separation geotextile layer
 - 1-ft thick sand drainage layer with a hydraulic conductivity $\geq 4.5 \times 10^{-3}$ cm/s
 - 60-mil thick textured HDPE geomembrane
 - 6-inch thick compacted subbase layer

Is the Department’s understanding of the construction permit application correct? If yes, provide a separate drawing for each of the above options (the drawings should be similar to

Drawing 6 in the report). The drawings should refer to the corresponding details on drawings 14 and 17. If no, please describe each design and make sure there is a separate drawing for each one.

It is our understanding that the design of the leachate collection galleries width may vary. This was not described in the application. The width of the leachate collection galleries should be presented and discussed at the Department requested meeting.

2. Page 9 of the engineering report, section 3.7.2 Horizontal Separation, states "...the minimum horizontal separation between waste placed in the proposed landfill and the landfill property boundary exceeds the 100-foot setback requirement..." This statement is incorrect. The distance between the eastern property boundary and the edge of cell 4 is less than the required 100-foot setback for which variance SWVA No. 00-02 is in place. Please acknowledge.
3. Page 10 of the engineering report, section 3.8.2 Landfill Liner and Leachate Collection System Description, states "It is noted that Vista Landfill will monitor ground water elevations for future phases of landfill development in an effort to refine the seasonal high ground water elevation contours and thereby potentially re-establish base grade elevations for future cells." Any change in base grade elevations for unconstructed cells will require a permit modification. If the elevations will increase the depth of the waste, a new settlement analyses might be required. This will be a specific condition of the permit.
4. Page 15 of the engineering report, section 7.2 Long-Term Care and Closure Costs, states "The reduction of the landfill footprint results in reduced closure area yielding a reduction of the currently approved closure cost... WMIF recognizes that an updated financial assurance will be required following the construction of Cell 3..." The Department agrees. Please note, Department approval of the cost estimate and the corresponding financial mechanism for future cells must be in place prior to waste acceptance.
5. Appendix D, page 24 section 5.6 Conformance Testing, states "If soils are obtained from off site borrow sources, visual inspection and conformance tests shall be performed at the source location or as the materials arrive at the Vista Landfill, Class III site." Transportation can have a significant affect on the homogeneity of soils and the moisture content. The Department recommends for those soils where particle size distribution or moisture content is a critical component for the functionality of such soils, the conformance tests be conducted both at the source location and again upon delivery to the landfill.
6. Appendix D, page 46 and 47, discusses the surface preparation and placement of GCL over soil. In this project, GCL will be placed over geomembrane. Review sections 7.4 and 7.5 and add/revise as necessary for GCL placement over geomembrane.
7. Appendix D, Appendix A CQA Forms and Log, the CQA Forms and Log were not made part of the submittal. Please submit the forms and log.

8. Drawing 6, Leachate Collection System Plan, depicts a temporary leachate transmission system force main. Provide a plan for how the temporary main will be decommissioned which addresses the following:
- Describe how the temporary main will be drained.
 - Will the temporary main be capped and left in place or cut and removed?
 - When will the temporary main be decommissioned (that is, describe the events or operating conditions that lead up to the time when the main will be decommissioned, not the time frame when this will occur)?

This plan can be either a stand alone document or made part of the drawing notes.

9. Drawing 6, Leachate Collection System Plan, depicts a leachate collection gallery transition into the leachate collection corridor. The leachate collection gallery makes a 90° turn at the toe of the slope and again at the leachate collection corridor. Will these turns impede the cleaning of the leachate collection pipeline? How will the leachate collection pipeline be cleaned beyond these turns? Please note, it is required to have the entire leachate collection system flushed or inspected by video recording for a new cell prior to waste acceptance and a minimum of every 5 years thereafter (Rule 62-701.500(8)(h), F.A.C.).

10. Drawing 14, Liner System Details, depicts the anchor trench detail for the perimeter berm (detail 5) and the anchor trench detail for the intercell berm over flow (detail C). The following are comments and questions regarding the anchor trench design.

- Detail C depicts the geocomposite extending to the edge of the berm. Exposed geocomposite, as depicted on detail C, may be a violation of the site's Title V Air permit since it has the potential to be a landfill gas emission pathway. Please consult with the applicable Air Program to determine compliance with all air regulations. The Solid Waste Program recommends wrapping the end of the geocomposite drainage layer with the underlying geomembrane to eliminate a potential pathway for landfill gas and odors.
- Detail C depicts the geocomposite extending to the edge of the berm and references detail 5; detail 5 depicts the geocomposite extending down into the anchor trench with the geocomposite. Which design is correct?

11. Revise drawing 16 Detail G of Sheet 6 to show the leachate collection pipe coming in to the sump from the right. As the collection pipe enters the sump area, its bottom should be at the same elevation as the bottom of the cell. Also, include a detail of the sump area which shows the burrito drains entering the sump.

12. Drawing 16, Detail F: As the leachate collection pipe goes through the sump area, it continues up the sideslope on the left. (This is the depiction in Detail F for the riser trench.)

- At what point does the leachate collection pipe make the bend to go up the sideslope? As close as possible to the sideslope or before in order to have a gentler radius of curvature?
- If this pipe will be used for video inspection and cleanout, how gentle does the radius of curvature need to be to ensure the cleaning and inspection equipment can get to the end of the cell?

- c. Show the radius of curvature for the leachate collection pipe as it enters the sump area and continues up the side slope. How and at what angle will the leachate pipe transition from horizontal to up the side slope? This should be depicted in a detail.
 - d. At what elevation (how far above the top of the sump area) does the leachate collection pipe change from perforated to solid piping?
13. Drawing 17, Detail 16 Leachate Collection Cleanout Pipe, does this pipe extend up each side of the cell (i.e., cell 3 and 4 on both the north and south sides) as depicted in drawing 6?
14. Drawing 3 depicts the relic sinkhole in the area where cells 1 and 5 join. The groundwater contour lines indicate the flow of groundwater is toward this relic sinkhole. How will the installation of liner for each cell affect the flow of groundwater? How will the groundwater flow pattern change as waste is filled into each cell? Will any change in the groundwater flow affect the construction of the base of each cell?
15. Drawing 14, what is the purpose of the intercell berm overflow? Is it a potential pathway for leachate to escape the lined area?