



# Department of Environmental Protection

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

## Tomoka Class I LF

Facility name

## Permit App. SC-029 RAI #1 Response

Type of meeting

## October 25, 2012

Date

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October 23, 2012

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

**RE: Volusia County – SW WACS 27540  
Tomoka Farms Road Landfill - North Cell, Phase II, Class I Disposal Area  
Second Request for Additional Information (RAI) Response  
Permit Application No. SF64-0078767-029**

Dear Mr. Lubozynski:

Thank you for your review of response to the first RAI received regarding Tomoka Farms Road Landfill North Cell Phase II Class I Construction Permit Renewal Application for the Tomoka Farms Road Landfill in Volusia County, Florida. The following information is provided in response to the Florida Department of Environmental Protection's (FDEP's or Department's) Second RAI letter dated October 5, 2012. Information is provided in the order requested in the referenced correspondence. In each case, the Department's request is stated in *italics* with the response immediately following in **bold**.

Comment 1:

*Your "Response to First Request for Additional Information," (Report) clarified that the pipe trench aggregate covered in woven geotextile will protrude 1 foot above the protective layer. However, the Report identified additional changes when it stated, "...the type of pipe and the pipe diameter for the leachate system has also changed from the previous design. There are some other minor design changes in comparison to what was presented yet the major components have been captured." In order for the Department to be able to assess whether the proposed changes will meet the requirements of Chapter 62-701, F.A.C., more information is necessary. Provide a complete description of the changes made from the previous design including the new type of pipe and pipe diameter change.*

**Response:** As per the comment, a complete description of the changes made from the previous design is listed below:

- a. **Materials type for the leachate collection pipe (8"), leachate detection pipe (4"), leachate collection riser (24"), and leachate detection riser have been changed from CPE ADS-N12 to HDPE SDR-11.**
- b. **Leachate detection riser size has been changed from 12" to 18".**
- c. **Leachate collection trench geometry has been changed from 3'-2" rectangular trench to trapezoidal trench of same depth but with a 3' base and 1:1 side slope.**
- d. **Gravel/aggregate pack in the leachate collection trench has been extended from top of the trench to 1' above the 2' sand drainage layer.**
- e. **Leachate collection sump geometry has been revised from the original footprint dimensions of 20'-6" by 14' to the following dimensions: 26' by 24'.**

- f. The 12” CPE ADS-N12 manifold in the leachate collection sump has been removed in the current design.
- g. Gravel/aggregate pack in the leachate collection sump has been extended from the top of the sump to 1’ above the 2’ sand drainage layer.
- h. The riser pipes and the cleanout pipes now extend from the side slope to the leachate monitoring station that includes a contained concrete paved area to accommodate monitoring equipment in addition to the riser and cleanout pipes. No such option was provided in the previous design.

Comment 2:

*The Report refers to a “fluff layer.” It also states “trained spotters” will observe waste placement during the initial lift. More information is necessary for both aspects of the reply.*

- a. Rule 62-701.400(3)(d)4, F.A.C., requires the first layer of waste placed on the protective layer above the liner and leachate collection system be a minimum of four feet in compacted thickness, and consist of select wastes containing no large, rigid objects that may damage the liner or leachate collection system.
  - i. Does the County intend to use a layer of “fluff” as the entire first lift (four feet in compacted thickness) instead of select waste?
  - ii. What type of fluff will be disposed? Is it auto shredder fluff or some other type of fluff?

**Response:** Please note that the term “fluff layer” was a mischaracterization of the accurate term to be used. The first layer, which will be installed over the trench, will be at least 4’ of compacted selected wastes per the requirements of Rule 62-701.400(3)(d)(4). To protect the geotextile wrap, a 1’ sand layer will be installed over the geotextile as indicated in Figure 1, included as Attachment A.

- b. The Report states, “Volusia County will have trained spotters observing waste placement during this initial lift which should minimize any damage to the pipe trench. Any damages to the geotextile or sand drainage layer will be repaired.”
  - i. By “trained spotter” do you mean a spotter who has received typical spotter training? If the “trained spotter” will not receive any additional training, how is this more protective than normal operations? Or, a spotter who has received specialized training regarding what to watch for as the waste is placed along and near the trench? If so, who will provide that training?

**Response:** As indicated in the previous response, a 1’ sand layer will be installed on top of the geotextile wrap. Therefore, top surface will be sand throughout, and no geotextile will be exposed at the time of waste placement. To monitor any damage to the sand layer, only visual monitoring is required. Therefore, no special training will be provided to the monitor who will observe sand layer for any damages at or near the trench.

- ii. Since damage to the geotextile could happen quickly, the Department thinks the spotter will need to be nearby on the ground whenever waste is placed within 5 feet of the trench. Do you agree?

**Response:** Please note that the first layer of waste placed on the sand layer will be a 4’ of compacted selected wastes containing no large, rigid objects that may damage the wrapping geotextile or liner or leachate collection system. Also, on top

of the geotextile wrap, a 1' sand layer will be installed as additional factor of safety for the geotextile wrap. We do not expect geotextile to be damaged quickly because of the reasons mentioned above, and therefore we do not anticipate that close monitoring of trench is required. However, the County will have a monitor on the ground to observe the sand layer for any damages at or near the trench to ensure that the department's concern regarding comment 2(d) are addressed.

- iii. *Who will do the repairing of the geotextile or aggregate drainage trench? Who will do the Quality Assurance to verify the repair meets the design requirements? How will damage and repairs be documented?*

**Response:** We do not expect any damages to the geotextile or aggregate drainage trench as indicated in the previous response. Although not anticipated, any damages to the leachate collection trench will be repaired by a qualified contractor per the technical specifications submitted as part of the Construction Permit Application for East Cell Expansion (dated April 3, 2002).

- c. *Please provide a new section to the Operation Plan that discusses these points. This new section, when approved, would become part of the Operation Plan for the facility.*

**Response:** We anticipate that the department's concern regarding safety of the leachate collection trench are addressed above and no special requirements are necessary at this time.

- d. *Based on the Report, the Department intends to require a spotter on the ground to verify the first layer of waste does not damage the leachate corridor protrusion (trench).*

**Response:** As indicated in the previous responses, leachate collection trench is not expected to be damaged quickly, and therefore we do not anticipate that close monitoring of trench is required. However, the County will still have a monitor to observe sand layer for any damages at or near the trench to address department's concern regarding trench safety.

**Comment 5:**

*The Report included an aerial photograph of the facility titled "Specific Purpose Survey." Under the left portion of the aerial photograph is another title for the drawing: "Location of Gas Monitoring Wells." All of the locations being monitored for landfill gas migration are labeled. Your answer is complete.*

*While researching our records for information about the gas monitoring plan, we considered whether the gas monitoring plan needs to be updated. Our concerns and questions will be addressed outside of the application review process for this permit. We list them just for information at this time.*

- a. *A document "Landfill Gas Monitoring Program," dated May 22, 2001, was submitted to the Department. A February 6, 2003 letter modified the May 2001 gas monitoring plan by eliminating MW-6 from quarterly monitoring and including two methane detectors inside the maintenance building. MW-6 had been detecting methane gas. Since it was outside the building,*

*the detections were not exceedances but they did cause concern. Monitoring inside the building was more appropriate. That is when two methane detectors were installed in the building.*

- b. The drawing for the May 22, 2001 monitoring plan shows the household hazardous waste collection center southeast of the Class III landfill. It is now located north of the Class III landfill and east of North cell (Class I Phase II) landfill.*
- c. During the permitting process for applications SC64-0078767-014 & SO64-0078767-015, SCS Engineers submitted an RAI response dated August 20, 2002. The submittal had a revised Section H.9 Landfill Gas Control Systems. In section H.9.a concerning lateral migration of landfill gas, it stated:  
    *"When waste has been placed in the eastern portion of the East Class I cell, the eastern perimeter ditch will no longer be needed to be kept pumped out for dewatering. At that time, the County will begin monitoring for landfill gas migration between the eastern end of the cell and the buildings at the recycling facility and the household hazardous waste facility"**
- d. Rule 62-701.530(2)(a), F.A.C. requires ambient monitoring points in on-site structures that can be impacted by combustible gases from the landfill. Is there a reason why the structures west and east of Phase II (for example, sludge processing facility, recovered materials storage facility, HHW, etc) should not be included in the monitoring plan?*
- e. Rule 62-701.530(2)(b), F.A.C. requires soil monitoring probes along each property boundary. The survey titled "Location of Gas Monitoring Wells" does not show any soil monitoring probes on the north or east sides of the Class I and Class III disposal areas. The May 22, 2001 monitoring plan explained the reasons probes were not installed. Are the reasons still valid?*

**Response: Comments are acknowledged.**

If you have any questions or require additional information, please contact me at (904) 598-8900.

Sincerely,

Carlo Lebron, PE  
Project Manager  
PE No. 60815

cc: Mr. Leonard Marion, Volusia County  
Mr. Junos Reed, Volusia County

Attachments:

A Figure 1

**Attachment A**

**Figure 1**

