



Florida Department of Environmental Protection

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Mr. Leonard Marion
Volusia County Solid Waste Division
3151 East New York Avenue
DeLand, FL 32724

OCD-SW-010-0489

Volusia County - SW WACS # 27540
Tomoka Farms Road Landfill – Class I
North Cell - Closure
First Request for Additional Information
Modification of Permit No. SF64-0078767-020
Permit Application No. SF64-0078767-027

Dear Mr. Marion:

HDR Engineering Inc. submitted an application titled "Tomoka Farms Road Landfill North Cell Class I Closure Intermediate Modification Permit Application" to modify the existing closure permit for the North Cell Class I landfill at the Tomoka Farms Road Landfill, Volusia County, Florida. It was dated August 25, 2010 and received by the Department on September 14, 2010 (with application fee). The application was signed and sealed by Mark Roberts, P.E. We have assigned Permit No. SF64-0078767-027 to the application. Your application is incomplete. Evaluation of your application will be delayed until all the requested information has been received.

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 numbers in your correspondence. Also, an electronic version of the submittal would be appreciated.

If you have any questions, please contact me at (407) 893-3328 or by e-mail at tom.lubozynski@dep.state.fl.us.

Sincerely,

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

Date: October 14, 2010

FTL/gc/sj

Enclosure

Attachment 1: List of Request for Additional Information Items

cc:

Mark Roberts, P.E., HDR Engineering Inc., - Mark.Roberts@hdrinc.com
Jennifer Stirk, Volusia County Solid Waste Division, jstirk@co.volusia.fl.us

Attachment 1: List of Request for Additional Information Items

Note that all references to “Application” in the following text refer to the document entitled “Tomoka Farms Road Landfill North Cell Class I Closure Intermediate Modification Permit Application”, Prepared by: HDR Engineering Inc., 200 W. Forsyth Street, Suite 800, Jacksonville, FL 32202, dated August 25, 2010.

1. **Cover Letter, Page 2, Paragraph 1:** This paragraph states that the “Modifications to the Long Term Care Plan are incorporated to allow monitoring of the South Cell separately from the North Cell. No revisions were made to the start date of the Long Term Care of the North or South Cells ...” In section 4.0 of the “Class I Closure and Long Term Care Plan” (Appendix B) you clearly indicate the South Cell and North Cell will have the same 30 year long term care period. And, the long-term care period will not start until after all Class I cells have been closed. Please explain what is meant by “to allow monitoring of the South Cell separately from the North Cell.” How does this impact routine operations at the facility? How does this impact the 30-year long-term care period?
2. **Stormwater Management System Permit Requirements:** The Application Form #62-701.900(1), F.A.C. submitted with this application on Page 9 of 39 Item No. 27 states that ERP permit No. ERP64-020632-002EI was issued on June 30, 2003. Does the closure design presented as part of this application require you to modify your ERP Permit? If yes, have you submitted a permit modification application to the Department ERP Program?
3. **Attachment O.2.h:** This section does not provide drainage calculations for stormwater management along the northern sideslopes of the landfill. Section 2.4.8 titled Stormwater Control in Appendix B on Page 5 states that “On the north side, the downdrains discharge directly into the flooded borrow pit that provides detention and treatment of stormwater runoff.” Provide supporting calculations or design basis to support the statement that the borrow pit has adequate capacity to detain and treat the stormwater runoff from the sideslopes of the landfill.
4. **Attachment O.2.h, Sheet 8 of 30, Downdrain Inlet Capacity:**
 - a. This section calculates Factor of Safety (FOS) of 1.1 for “Q 100-yr critical final closure area.” The generally acceptable factor of safety is 1.5 for all engineering calculations. Clarify why FOS of 1.1 should be considered acceptable for Q 100–yr critical final closure area.
 - b. It also appears that the Q 100-yr critical intermediate closure area corrected calculations and the factor of safety calculations using 3 inlets versus 2 inlets is not provided. Submit the missing information.
5. **Attachment O.2.h, Sheet 13 of 30, Southwest, West, Southeast, East, and North Ditch Design:** The landfill drainage area and overland drainage area presented in the table titled Southwest and West Perimeter Ditches is not the same as the information presented in Attachment K, titled Ditch Drainage Basin Areas, Sheet 29 of 30. For example, for DD-13, the table on Sheet 13 of 30 states 6.27 acres and 2.31 acres as the landfill drainage area and overland drainage area respectively. However, on Sheet 29 of 30 this data is shown as 6.13 acres and 2.36 acres. Also, the total acreage for DD-13 is wrong on Sheet 29 of 30. Similarly, there appears to be a discrepancy in the DD-12 and DD-14 data presented on Sheet 13 of 30 and Sheet 29 of 30. Correct the discrepancies and provide the revised sheets.
6. **Attachment O.2.h, Sheet 18 of 30, Estimated Critical Drainage Basins:** Provide supporting calculations or the methodology used in estimating the critical drainage basins for the intermediate top deck terrace area, top deck terrace area, and sideslope terrace area. Additionally, show the drawing scale used and north directional arrow. Similarly show the drawing scales and north direction arrow for Attachments H, K, and L.
7. **Attachment O.2.h, Sheet 22 of 30, Terrace Geometry:** The Terrace Cross Section shows 4” diameter terrace toe drain embedded in 6” FDOT No. 57 Stone. However, design details presented in Appendix A

Sheet No. 00C-08 titled General Details (3 of 3) on Detail No. 1 and 2 shows 6" perforated CPP terrace toe drain embedded in 8" of FDOT No. 57 Stone. Clarify the correct size of toe drain that will be used. Accordingly, submit the corrected drawing sheet and/or revised supporting design calculations.

8. **Engineering Report, Section B, Page B-1, Last Paragraph:** The second sentence states that "The County has been performing post closure care for the South Cell.....as part of the on-going landfill activities." In section 4.0 of the "Class I Closure and Long Term Care Plan" (Appendix B) you clearly indicate the South Cell and North Cell will have the same 30 year long term care period. And, it will not start until after all Class I cells have been closed. The following documents the information about the closure of the South Cell:
 - a. The "Closure Certification Report for Tomoka Farms Road Landfill South Cell" was dated October 10, 2003. The report was approved the Department December 17, 2003 (Letter OCD-SW-03-0397). However, an official closing date has not been established for the South Cell. The 30-year long-term care period has not started for the South Cell.
 - b. The "post closure care for the South Cell" is considered to be part of the routine operation of the facility, that is, "on-going landfill activities." It is not part of the 30-year "long-term care" period.
9. **Engineering Report, Section R.1, Financial Responsibility Requirements:**
 - a. Section R-1 provides an estimate of probable closure cost and long-term care cost per acre. However, no detailed information is provided.
 - i. The cost per acre for closure is reduced from \$220,000 to \$160,000 "based on values provided in the Financial Responsibility Closure & Long-Term Care Estimates FY2009." The document had an inflation adjustment to the previously approved cost estimate. It was not a detailed cost estimate.
 - ii. In accordance with Rule 62-701.630(3), F.A.C., provide a detailed closure and long-term care cost estimate for the entire North Cell signed and sealed by a Professional Engineer licensed in the State of Florida, for a third party performing the work, on a per unit basis, with the source of estimates indicated.
 - b. However, we recommend discussing the reason for submitting an updated cost estimate at this time. Until the closing activities are completed and accepted by the Department, the Financial Responsibility Mechanism has to be funded as if no closing activity has been done at the North Cell. The closing activity cost estimate in Table 1 is higher than the currently approved closure cost estimate of \$10,717,544.26 (DEP letter OCD-SW-10-0461, dated 9/23/2010).
10. **Appendix A, Drawing Sheet No. 00C-03, Final Grading Plan:** This drawing shows an 18" downcomer pipe along the northwest corner. The pipe is being proposed at an angle to the sideslopes instead of being perpendicular to the side slopes of the disposal mound. This design, especially the change in direction of the pipe, raises the concern that the stormwater will not properly drain to the proposed northwest ditch. Submit the revised layout of this downcomer pipe or provide justification that the proposed layout is sufficient to handle the stormwater flow.
11. **Appendix A, Drawing Sheet No. 00C-05, Sections:** The horizontal scale is not shown on this drawing. Submit the corrected drawing.
12. **Appendix A, Drawing Sheet No. 00C-06, General Details (1 of 3):** The height of the boot for the well bore seal is not shown in the Pipe Boot detail. The drawing should show the same layers as the Final Cover system detail. Submit the revised corrected drawing.
13. **Appendix A, Drawing Sheet No. 00C-09, Drainage Details (1 of 5):** Clarify the criteria that will be used in selecting the downdrain type (Double Inlet versus Single Inlet) as shown in Section 1/00C-03 and Section 2/00C-03.

14. **Appendix B, Table of Contents:** Table 1 is listed incorrectly as shown on Page 20. The location of the Table 1 in Appendix B is on Page 13 instead on Page 20. Submit the corrected Table of Contents.
15. **Appendix B, Closure and Long-Term Care Plan, Section 2.4.11, Gas Management Plan, Page 6:** Paragraph 2 of this section states that the LFG collection and control system is installed in the North Cell. Submit a drawing that shows the location of the LFG collection and control system including the locations of all installed gas extraction wells and the locations of the future/proposed gas extraction wells as the filling sequences are continued in the North Cell.
16. **Appendix B, Closure and Long-Term Care Plan, Section 2.5.6, Gas Management System, Page 8:** This section states that the discussion of the gas management system required by Rule 62-701.530, F.A.C., for the North Cell closure is provided in Section 2.3.5 of the Closure and Long Term Care Plan. However, a review of the Closure and Long Term Care plan indicates there is no Section 2.3.5. Provide the missing Section 2.3.5.
17. **Appendix B, Closure and Long-Term Care Plan, Section 3.1, Survey Monuments, Page 9:** The last sentence appears to be incomplete. Submit the corrected text.
18. **Appendix C, North Cell Closure CQA Plan:** This Section contains two templates for the Daily Field Report titled "SCS Engineers Daily Field Report". Clarify which one of these forms will be used during the closure construction.
19. **Appendix C, Section 5.3, Material Evaluation, Page 5-1:** The first paragraph, second sentence states "Construction testing shall be performed during the course of the work to verify material compliance with the project specifications." Clarify where these project specifications are listed. Are these specifications provided in a different submittal to the Department? If yes, provide the reference.

Water Quality and Monitoring Plan Implementation Schedule (MPIS) Related Comments

20. **Engineering Report, Page O-9:** The Water Quality Monitoring Plan Section O.3.d. of the Engineering Report states, "Additional information is provided in Section 2.3.3 and 2.5.5 of the Closure and Long Term Care Plan." The Closure and Long Term Care Plan (Appendix B) did not have a section 2.3.3. The referenced Section 2.5.5. refers back to missing Section 2.3.3. Please clarify.