

SCS ENGINEERS

December 6, 2011
File No. 09199033.21

Mr. Steven G. Morgan
Florida Department of Environmental Protection
Southwest District Office
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FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

DEC 09 2011

SOUTHWEST DISTRICT
TAMPA

Subject: Response to Request for Additional Information No. 1
Certification of Construction - Phase I Closure
Hardee County Class I Landfill
Permit No. 38414-012-SF/01, Hardee County
WACS No. SWD/25/40612

Dear Mr. Morgan:

On behalf of the Hardee County Board of County Commissioners (BOCC), SCS Engineers (SCS) submits the following responses to your Request for Additional Information (RAI) No. 1 from a letter dated September 23, 2011 directed to Ms. Teresa Carver, Director Hardee County Solid Waste Department regarding the previously submitted Certification of Construction of the Phase I Closure and supporting documents dated May 31, 2011 and received by the Department on June 3, 2011. For ease of review, each Florida Department of Environmental Protection (FDEP) comment is reiterated in bold type followed by our response in normal print.

CERTIFICATION OF CONSTRUCTION COMPLETION REPORT

1. **Please provide the following additional information and revisions to this Construction Completion Report. Please provide replacement pages with revisions noted (deletions may be struckthrough [~~struckthrough~~] and additions may be underlined [underlined] or a similar method may be used) and each page numbered with the document title and date of revision.**

Response: SCS has provided revised submittals, or replacement pages to the submittals, using a strikethrough (~~strikethrough~~), underline (underline) or shaded (~~shaded~~) format to facilitate the review process. SCS has included the revision date as part of the footer for all revised submittals, or replacement pages to the submittals, and has provided four copies of all the revised and additional materials.

A list of the submitted documents in response to RAI No. 1 has been provided at the end of this letter.

SECTION 3 - CONSTRUCTION OBSERVATION

Attachment 3-1 - SCS Daily Field Reports

1. **Day 14 - 10/18/10:** This daily report discusses completing the tie-in to MH-6 via manhole cover, as a result of the discrepancy in the reported manhole cover elevation (See Day 10 report). A comparison of the as-built tie-in elevations reported on Sheet 3 of 5 of the Peavey & Associates (Peavey) survey drawings to the rim elevation reported on Sheet 10 of 24 of the SCS Record Drawings appear to indicate that tie-elevations are above the rim elevations at both MH-5 and MH-6. Please verify whether the tie-in at MH-5 is also via the manhole cover. Please provide an as-built drawing of this alternate "Vent Trench Tie-in to Manhole Detail" on Sheet 19 of 24 of the record drawings or another plan sheet, as appropriate.

Response: As opposed to excavating next to existing manholes MH-5 and MH-6 in order to core a hole into the side of the manholes to tie-in the landfill gas (LFG) lines, a hole was cored into the top of these manholes. The LFG lines were then tied-into the holes cored into the top of the manholes as opposed to the sides. The concrete cap as indicated on Sheet 19 of 24 of the SCS Record Drawings was then poured over the top of the manholes which encased the LFG line tie-in to the top of the manholes. The as-built tie-in elevations reported on Sheet 3 of 5 of the Peavey & Associates (Peavey) survey drawings were the elevations of the top of the concrete cap (which the LFG lines penetrated through and into the holes cored into the top of the existing manhole) that were poured on top of the existing manholes. MH-5 rim elevation was indicated as EL 86.47 and MH-6 rim elevation was indicated as EL 86.44 on Sheet 10 of 24 of the SCS Record Drawings. The as-built tie-in elevations reported on Sheet 3 of 5 of the Peavey survey drawings were identified as EL 86.85 and EL 87.84, respectively. The difference in the tie-in elevation for MH-5 from EL 86.85 to the rim elevation of EL 86.47 (0.38 feet or about 5-inches) was the thickness of the concrete cap that was poured on top of the manhole which the LFG line penetrated through.

Two photos identifying the LFG line tie-in to the top of MH-5 as opposed to the side, which were previously provided in the original Certification Report submittal, have been included in the responses to this RAI for ease of reference. Please refer to Attachment A for photos identifying the LFG line tie-in to existing manhole MH-5 and the concrete cap poured over the manhole. From the picture you can estimate that the thickness of the concrete cap that was ready to be placed on top of the rim of the existing manhole was about 5-inches (from the top of the manhole to the elbow in the LFG line) as stated above in the tie-in difference from EL 86.85 to EL 86.47. Sheet 19 of 24 of the SCS Record Drawings has been revised to indicate the LFG line tie-in to MH-5 through the concrete cap poured on top of the manhole as opposed to the side. Please refer to Attachment B for revised Hardee County Landfill Phase I Closure Construction Record Drawings.

MH-6 rim elevation was indicated as EL 86.44 on Sheet 10 of 24 of the SCS Record Drawings. The as-built tie-in elevation reported on Sheet 3 of 5 of the Peavey survey

drawings was identified as EL 87.84. The difference in the tie-in elevation for MH-6 from EL 87.84 to the rim elevation of EL 86.44 (1.4 feet or about 17-inches) was the thickness of the concrete cap that was poured on top of the manhole which the LFG line penetrated through. Sheet 19 of 24 of the SCS Record Drawings has been revised to indicate the LFG line tie-in to MH-6 through the concrete cap poured on top of the manhole as opposed to the side. Please refer to Attachment B for revised Hardee County Landfill Phase I Closure Construction Record Drawings.

The tie-in location of the LFG line into the side of MH-7 was performed as indicated on SCS Record Drawing Sheet 19 of 24 with the exception of the tie-in elevation. The LFG line tie-in into this manhole was conducted at EL 81.53 as opposed to the proposed EL 80.

2. **Day 154 - 3/7/11: This daily report discusses the installation of a "pump station for cell groundwater." This construction does not appear to be part of the proposed Phase I Closure and does not appear to be discussed in the certification report or shown on the record drawings. Please verify and explain this construction activity.**

Response: The pump station for cell groundwater indicated on this daily report was for the groundwater pump station installed in the previous Phase II Section I landfill expansion construction completed per FDEP Permit Number 38414-008-SC/01. When the Phase II Section I landfill expansion was constructed the pumps and control panel for the groundwater pump station placed in the southeast corner of the Phase II Section I cell were not installed at that time. Through correspondence with FDEP it was determined to install the pumps and control panel for the groundwater pump station at a later date when a better understanding of the anticipated groundwater flow was determined. While the Phase I closure project was underway it was determined by the County to install the pumps and control panel for the groundwater pump station at that time while a contractor was onsite.

SECTION 5 - GEOMEMBRANE INSTALLATION REPORT

Attachment 5-1 - As-Built Panel Layout Drawing

3. **Please revise the panel layout drawing, as appropriate, to address the comments provided below regarding the geomembrane repair logs and destructive test logs. Please identify each repair by its repair number on the revised panel layout drawing.**

Response: SCS has revised the as-built panel layout drawing to address the comments provided by the Department regarding the geomembrane repair logs and destructive test logs. Please refer to Attachment C for the revised As-Built Panel Layout Drawing.

Attachment 5-6 - SCS Geomembrane Repair Logs

4. **Based on the description of the repair locations on the repair logs, the following**

repairs do not appear to be shown on the panel layout drawings or may not be shown at the location described on the logs: R34, R68, R96, R97, R103, R112, R117, R120, R122, R145, R149, R152, R161, R169, R174, R194, R201, R202, R230, R231, R249, R250, R251, R257, R259, R269, R278, R280, R292, R320, R333, and R362. Please verify and revise the panel layout drawing and/or the location descriptions on the repair logs, as appropriate, to address these apparent inconsistencies.

Response: SCS has revised the As-Built Panel Layout Drawing to address the repair locations as described in the SCS Geomembrane Repair Logs for the following repairs as requested by the Department. Please refer to Attachment C for the revised As-Built Panel Layout Drawing. In addition, if indicated in the SCS response below, the SCS Geomembrane Repair Log was revised if required to address the repair location. Please refer to Attachment D for the revised SCS Geomembrane Repair Logs.

- R34 - P13/TI, 5' West of P12/P13. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R68 - P42/P43, 71' West of P42/P43/P44. The SCS Geomembrane Repair Log has been revised to indicate R68 - P42/P44, 11' West of P42/P43/P44. Also, the repair location has been added to the revised As-Built Panel Layout Drawing.
- R96 - P10/P12, 103' North of L4. The SCS Geomembrane Repair Log has been revised to indicate R96 - L10/L12, 103' North of L4. Also, the repair location has been added to the revised As-Built Panel Layout Drawing.
- R97 - L10/L12, 88' to 93' North of L4. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R103 - P25/P26/L23/L25. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R112 - P29/P30, AT to 53' North. The SCS Geomembrane Repair Log has been revised to indicate R112 - P29/P32, AT to 53' North. The repair location was previously indicated on the As-Built Panel Layout Drawing; therefore, the Drawing is correct and has not been revised for R112.
- R117 - L3/L4/L12. The SCS Geomembrane Repair Log has been revised to indicate R117 - L3/L4/L10/L11. The repair location was previously indicated on the As-Built Panel Layout Drawing; therefore, the Drawing is correct and has not been revised for R117.
- R120 - P10/P11/TI. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R122 - L6/TI chute, 10' Southeast P5/P6/TI. The SCS Geomembrane Repair Log has been revised to indicate R122 - L6/TI chute, 10' Southeast L5/L6/TI chute. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R145 - P66/P67, 57' West of P65/P66. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R149 - P69/P70, 162' East of P70/P71. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R152 - P62/P63, 5' North of P61. The repair location has been added to the revised As-Built Panel Layout Drawing.

- R161 - P88/P89, 175' East of AT. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R169 - P83/P84 @ T1 to 40 mil. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R174 - P62/P63, 20' North of P61. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R194 - P1/P2 @ gas vent. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R201 - P56/P57, 106' East of P57/P58. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R202 - P57/P59, 134' East of P57/P58. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R230 - P87/L30/L31. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R231 - P86/L31/L32. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R249 - P19/L49/L51. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R250 - L20/L21, 90' East of L12/L13/L20/L21. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R251 - P18/P16/L56. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R257 - L59/L60/L61. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R259 - L60/L61/L62. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R269 - L50/L51, 14' West of L50/L51/L54/L55. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R278 - L50/L55/L56. The SCS Geomembrane Repair Log has been revised to indicate R278 - L51/L55/L56. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R280 - L56/L58, 28' West of AT. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R292 - L51/L56/ext. The repair location has been added to the revised As-Built Panel Layout Drawing.
- R320 - L92/L93, 5' West of L91/L92/L93. The Geomembrane Repair Number R320 associated with Destructive Test DT68 was previously indicated on the As-Built Panel Layout Drawing incorrectly. The destructive test location and repair location has been corrected on the revised As-Built Panel Layout Drawing.
- R333 - L82/L84, 10' East of P78. The SCS Geomembrane Repair Log has been revised to indicate R333 - L82/L84, 10' East of P79. The Geomembrane Repair Number R333 associated with Destructive Test DT65 was previously not indicated on the As-Built Panel Layout Drawing. The destructive test location and repair location has been added on the revised As-Built Panel Layout Drawing.

- R362 - L80, 10' North, 144' West of AT. The repair location has been added to the revised As-Built Panel Layout Drawing.

5. The repairs associated with Destructive Tests D22, D46, and D47 do not appear to be identified in this log. Please verify and revise this log accordingly.

Response: Geomembrane Repair Number R122 was associated with Destructive Test DT22 which was repaired on December 2, 2010. This repair was inadvertently left off of the SCS Geomembrane Repair Log (previously provided in Attachment 5-6 SCS Geomembrane Repair Logs). Page 8 of the SCS Geomembrane Repair Log has been revised to indicate Geomembrane Repair Number R122 of Destructive Test DT22 was conducted on December 2, 2010. Please refer to Attachment D for the revised SCS Geomembrane Repair Log.

Geomembrane Repair Number R187 was associated with Destructive Test DT46 which was repaired on December 3, 2010. This repair was inadvertently left off of the SCS Geomembrane Repair Log (previously provided in Attachment 5-6 SCS Geomembrane Repair Logs). Page 12 of the SCS Geomembrane Repair Log has been revised to indicate Geomembrane Repair Number R187 of Destructive Test DT46 was conducted on December 3, 2010 by capping the entire seam for a distance of 125 feet which included Destructive Test DT46. Please refer to Attachment D for the revised SCS Geomembrane Repair Log.

Geomembrane Repair Number R188 was associated with Destructive Test DT47 which was repaired on December 3, 2010. This repair was inadvertently left off of the SCS Geomembrane Repair Log (previously provided in Attachment 5-6 SCS Geomembrane Repair Logs). Page 12 of the SCS Geomembrane Repair Log has been revised to indicate Geomembrane Repair Number R188 of Destructive Test DT47 was conducted on December 3, 2010 by capping the entire seam from for a distance of 125 feet which included Destructive Test DT47. Please refer to Attachment D for the revised SCS Geomembrane Repair Log.

Attachment 5-8 - SCS Destructive Test Logs

6. DT7: Destructive Test DT7 is identified as being on Seam P8/P9 in this log and on the 60 mil destructive test results table in Attachment 5-10. However DT7 is shown on Seam P8/P10 on the Panel Layout Drawing and DT7 and associated Repair R35 are identified to be on Seam P8/P10 in the Repair Logs. Please verify these inconsistencies and revise the appropriate logs and the panel layout drawings.

Response: Destructive Test DT7 was identified on the SCS Destructive Test Log (previously provided in Attachment 5-8 SCS Destructive Test Logs) as taken on seam P8/P9 nr (near) P9/P10 incorrectly. Destructive Test DT7 has been revised on the SCS Destructive Test Log to indicate the Seam ID for DT7 as P8/P10. Please refer to Attachment E for the revised SCS Destructive Test Log.

Destructive Test DT7 was taken on seam P8/P10 as correctly indicated on the SCS Geomembrane Repair Log (previously provided in Attachment 5-6 SCS Geomembrane Repair Logs) for associated Geomembrane Repair Number R35 and has not been revised.

Destructive Test DT7 has been revised on the 60 mil destructive test results table (previously provided in Attachment 5-10 TRI 60 mil Destructive Seam Test Results) as taken on Seam P8/P10 (as opposed to P8/P9 as previously indicated). Please refer to Attachment F for the revised TRI 60 mil Destructive Seam Test Results table.

Please refer to Attachment C for the revised As-Built Panel Layout Drawing which indicates the location for Destructive Test DT7 taken on Seam P8/P10.

7. **DT10: Destructive Test DT10 is identified as being on Seam "P13/TI nr P13/P14" in this log and on Seam P13/TI on the 60 mil destructive test results table in Attachment 5-10. However DT10 is shown on Seam P12/TI on the Panel Layout Drawing and DT10 and associated Repair R37 are identified to be on Seam "P13/TI 5'W of P12/P13" in the Repair Logs. Please verify these inconsistencies and revise the appropriate logs and the panel layout drawing.**

Response: Destructive Test DT10 was taken on Seam P13/TI nr P13/P14 as indicated on the SCS Destructive Test Log (previously provided in Attachment 5-8 SCS Destructive Test Logs) correctly and has not been revised.

Destructive Test DT10 was shown correctly on the 60 mil destructive test results table (previously provided in Attachment 5-10 TRI 60 mil Destructive Seam Test Results) as taken on Seam P13/TI and has not been revised.

The Geomembrane Repair Number R34 associated with Destructive Test DT10 (not R37 as identified by the Departments question) as indicated on the SCS Geomembrane Repair Log (previously provided in Attachment 5-6 SCS Geomembrane Repair Logs) on Seam P13/TI 5' W of P12/P13 was identified correctly and has not been revised.

Destructive Test DT10 was previously indicated on the As-Built Panel Layout Drawing incorrectly. Please refer to Attachment C for a revised As-Built Panel Layout Drawing which indicates the location for Destructive Test DT10 taken on Seam P13/TI nr P13/P14.

8. **DT24: Destructive Test DT24 is identified as being on Seam L5/L6 in this log. However, DT24 is identified on Seam L6/L7 on the 40 mil destructive test results table in Attachment 5-9; is shown on Seam L6/L7 on the Panel Layout Drawing; and DT24 and associated Repair R93 are identified to be on Seam L6/L7 in the Repair Logs. Please verify these inconsistencies and revise the appropriate logs and the panel layout drawing.**

Response: Destructive Test DT24 was taken on Seam L6/L7 as opposed to L5/L6 as indicated on the SCS Destructive Test Log (previously provided in Attachment 5-8 SCS

Destructive Test Logs). The SCS Destructive Test Log for Destructive Test DT24 has been revised to be taken on Seam L6/L7 as opposed to L5/L6. Please refer to Attachment E for the revised SCS Destructive Test Log.

Destructive Test DT24 is shown correctly on the 40 mil destructive test results table (previously provided in Attachment 5-9 TRI 40 mil Destructive Seam Test Results) as taken on Seam L6/L7 and has not been revised.

The Geomembrane Repair Number R93 associated with Destructive Test DT24 as indicated on page 6 of the SCS Geomembrane Repair Log has been revised to indicate the location of the repair as L6/L7, 20' North of TI (as opposed to the previously indicated L6/L7, 42' North of TI). Please refer to Attachment D for the revised Geomembrane Repair Log.

The location of Destructive Test DT24 provided on the As-Built Panel Layout Drawing was identified correctly and has not been revised.

9. **DT29: Destructive Test DT29 does not appear to be shown on Seam P62/P63 on the Panel Layout Drawing, as identified in this log, the Repair Logs associated with Repair R153, and the 60 mil destructive test results table in Attachment 5-10. Please verify and revise the panel layout drawing, as appropriate.**

Response: Destructive Test DT29 was taken on Seam P62/P63 approximately 5 feet north of P61 as indicated on the SCS Destructive Test Logs (previously provided in Attachment 5-8 SCS Destructive Test Logs) was identified correctly and has not been revised.

The Geomembrane Repair Number R152 associated with Destructive Test DT29 (not R153 as indicated by the Departments question) as indicated on the SCS Geomembrane Repair Log (previously provided in Attachment 5-6 SCS Geomembrane Repair Logs) was identified correctly and has not been revised.

Destructive Test DT29 is shown correctly on the 60 mil destructive test results table (previously provided in Attachment 5-10 TRI 60 mil Destructive Seam Test Results) as taken on Seam P62/P63 and has not been revised.

Destructive Test DT29 has been added to the As-Built Panel Layout Drawing. Please refer to Attachment C for the revised As-Built Panel Layout Drawing which indicates the location for Destructive Test DT29 taken on Seam P62/P63.

10. **DT32: Destructive Test DT32 is identified as being on Seam P67/P69 in this log and on the 60 mil destructive test results table in Attachment 5-10. However DT32 is shown on Seam P69/P70 on the Panel Layout Drawing and DT32 and associated Repair R203 is identified to be on Seam P69/P70 in the Repair Logs. Please verify these inconsistencies and revise the appropriate logs and the panel layout drawing.**

Response: Destructive Test DT32 was taken on Seam P67/P69 as indicated on the SCS Destructive Test Logs (previously provided in Attachment 5-8 SCS Destructive Test Logs) was identified correctly and has not been revised.

Destructive Test DT32 is shown correctly on the 60 mil destructive test results table (previously provided in Attachment 5-10 TRI 60 mil Destructive Seam Test Results) as taken on Seam P67/P69 and has not been revised.

The Geomembrane Repair Number R203 associated with Destructive Test DT32 as indicated on page 13 of the SCS Geomembrane Repair Log (previously provided in Attachment 5-6 SCS Geomembrane Repair Logs) has been revised to indicate the location of the repair as P67/P69, 160' East of P67/P68/P69 (as opposed to the previously indicated P69/P70, 37' E of P70/P71). Please refer to Attachment D for the revised SCS Geomembrane Repair Log.

Destructive Test DT32 was previously indicated on the As-Built Panel Layout Drawing incorrectly. Please refer to Attachment C for the revised As-Built Panel Layout Drawing which indicates the location for Destructive Test DT32 taken on Seam P67/P69.

11. **DT46: Destructive Test DT46 does not appear to be shown on Seam P65/P67 on the Panel Layout Drawing, as identified this log and the 60 mil destructive test results table in Attachment 5-10. Please verify and revise the panel layout drawing, as appropriate.**

Response: Destructive Test DT46 was taken on Seam P65/P67 as indicated on the SCS Destructive Test Logs (previously provided in Attachment 5-8 SCS Destructive Test Logs) was identified correctly and has not been revised.

Destructive Test DT46 is shown correctly on the 60 mil destructive test results table (previously provided in Attachment 5-10 TRI 60 mil Destructive Seam Test Results) as taken on Seam P65/P67 and has not been revised.

Destructive Test DT46 has been added to the As-Built Panel Layout Drawing. Please refer to Attachment C for the revised As-Built Panel Layout Drawing which indicates the location for Destructive Test DT46 taken on Seam P65/P67.

12. **DT48: Destructive Test DT48 is identified as being on Seam L50/L51 in this log, in the Repair logs associated with Repair R269, and on the 40 mil destructive test results table in Attachment 5-9. However, DT48 is shown on Seam L48/L50 on the Panel Layout Drawing. Please verify this inconsistency and revise the appropriate logs and the panel layout drawing.**

Response: Destructive Test DT48 was taken on Seam L50/L51 as indicated on the SCS Destructive Test Logs (previously provided in Attachment 5-8 SCS Destructive Test Logs) was identified correctly and has not been revised.

The Geomembrane Repair Number R269 associated with Destructive Test DT48 as indicated on the SCS Geomembrane Repair Log (previously provided in Attachment 5-6 SCS Geomembrane Repair Logs) was identified correctly and has not been revised.

Destructive Test DT48 is shown correctly on the 40 mil destructive test results table (previously provided in Attachment 5-9 TRI 40 mil Destructive Seam Test Results) and has not been revised.

Destructive Test DT48 was previously indicated on the As-Built Panel Layout Drawing incorrectly. Please refer to Attachment C for the revised As-Built Panel Layout Drawing which indicates the location for Destructive Test DT48 taken on Seam L50/L51.

13. **DT65: Destructive Test DT65 does not appear to be shown on Seam L82/L84 on the Panel Layout Drawing, as identified in this log, the Repair Logs associated with Repair R333, and the 40 mil destructive test results table in Attachment 5-9. Please verify and revise the panel layout drawing, as appropriate.**

Response: Destructive Test DT65 was taken on Seam L82/L84 as indicated on the SCS Destructive Test Logs (previously provided in Attachment 5-8 SCS Destructive Test Logs) was identified correctly and has not been revised.

The Geomembrane Repair Number R333 associated with Destructive Test DT65 as indicated on the SCS Geomembrane Repair Log (previously provided in Attachment 5-6 SCS Geomembrane Repair Logs) was identified correctly and has not been revised.

Destructive Test DT65 is shown correctly on the 40 mil destructive test results table (previously provided in Attachment 5-9 TRI 40 mil Destructive Seam Test Results) and has not been revised.

Destructive Test DT65 associated with Repair R333 was inadvertently not placed on the As-Built Panel Layout Drawing. Please refer to Attachment C for the revised As-Built Panel Layout Drawing which indicates the location for Destructive Test DT65 taken on Seam L82/L84, 10' East of P79.

14. **DT68: Destructive Test DT68 is identified as being on Seam L92/L93 in this log, in the Repair logs associated with Repair R320, and on the 40 mil destructive test results table in Attachment 5-9. However, DT68 is shown on Seam L94/L95 on the Panel Layout Drawing. Please verify this inconsistency and revise the appropriate logs and the panel layout drawing.**

Response: Destructive Test DT68 was taken on Seam L92/L93 as indicated on the SCS Destructive Test Logs (previously provided in Attachment 5-8 SCS Destructive Test Logs) was identified correctly and has not been revised.

The Geomembrane Repair Number R320 associated with Destructive Test DT68 as indicated on the SCS Geomembrane Repair Log (previously provided in Attachment 5-6

SCS Geomembrane Repair Logs) was identified correctly and has not been revised.

Destructive Test DT68 is shown correctly on the 40 mil destructive test results table (previously provided in Attachment 5-9 TRI 40 mil Destructive Seam Test Results) and has not been revised.

Destructive Test DT68 was previously indicated on the As-Built Panel Layout Drawing incorrectly. Please refer to Attachment C for the revised As-Built Panel Layout Drawing which indicates the correct location for Destructive Test DT68 taken on Seam L92/L93, 5' West of L91/L92/L93.

Attachment 5-10 - TRI 60 mil Destructive Seam Test Results

15. **Destructive Test DT-14 appears to be omitted from the table and the results of destructive test DS-14 are not included in this section. Please verify this omission and revise the table and provide a copy of the results, as appropriate.**

Response: Destructive Test DT14 was a fusion weld that failed during a field trial weld as indicated on the SCS Trial Weld Log previously provided in Attachment 5-4 and on the revised SCS Destructive Test Logs provided with these responses in Attachment E; therefore, the Destructive Test DT14 sample was not forwarded to TRI for CQA testing. Destructive Test DT14 has been added to the revised 60 mil destructive test results table as taken on Seam P29/P32 with the notation "Not submitted for CQA testing" added. Please refer to Attachment F for the revised TRI 60 mil Destructive Seam Test Results table.

The Geomembrane Repair Number R14 associated with Destructive Test DT14 as indicated on the revised SCS Geomembrane Repair Log provided in Attachment D was identified correctly and has not been revised. The location of Destructive Test DT14 provided on the As-Built Panel Layout Drawing was identified correctly and has not been revised.

Destructive Tests DT14A and DT14B were then collected and passed the field trial welds and were forwarded to TRI for CQA testing. Test results from Destructive Tests DT14A and DT14B were previously provided in Attachment 5-10 TRI 60 mil Destructive Seam Test Results and were indicated as passing on the 60 mil destructive test results table.

Attachment 5-12 - Agru America 60 mil Geomembrane MQC Certificates

16. **Test results for Agru MQC tests for Roll Nos. 445225-445231 and Roll No. 445332 appear to have been provided in Attachment 5-12 and TRI QA Test No. E-2348-75-06 appears to have been provided in Attachment 5-14. However these tests appear to have been omitted from the table in Attachment 5-12. Please verify and revise the table, as appropriate.**

Response: Test results for Agru MQC tests for Roll Nos. 445225 - 445231 and Roll No. 445332 were inadvertently left off of the AGRU CQA Test Results 60 mil HDPE Hardee County Class I Landfill Phase I Closure table previously provided in Attachment 5-12. Please refer to Attachment G for a revised AGRU CQA Test Results 60 mil HDPE Hardee County Class I Landfill Phase I Closure table with the results from Roll Nos. 445225 - 445231 and Roll No. 445332 added to the table.

SECTION 6 GAS COLLECTION SYSTEM

17. **Section 6.3: The information provided in the Horizontal LFG Trench Vent Schedule on Sheet 17 of 24 of the SCS Record Drawings appears inconsistent with the location and elevations provided on Sheet 3 of 5 of the Peavey survey drawings. Please verify and revise the Horizontal LFG Trench Vent Schedule on Sheet 17 of 24, as appropriate.**

Response: Please refer to Attachment B for revised SCS Record Drawing Sheet 17 of 24 where the Horizontal LFG Trench Vent Schedule and Vertical LFG Vent Schedule have been revised to be consistent with the locations and elevations provided on Sheet 3 of 5 of the Peavey survey drawings previously provided.

18. **Section 6.4: The information provided in the Vertical LFG Trench Vent Schedule on Sheet 17 of 24 of the SCS Record Drawings appears inconsistent with the location, elevations, and depths provided on the vent logs in Attachment 6-1. Please verify and revise the Vertical LFG Trench Vent Schedule on Sheet 17 of 24, as appropriate. Please revise this section to explain why Wells V-1, V-3, V-4 were installed shallower than proposed.**

Response: Please refer to Attachment B for revised SCS Record Drawing Sheet 17 of 24 where the Horizontal LFG Trench Vent Schedule and Vertical LFG Vent Schedule have been revised to be consistent with the locations, elevations and depths provided on Sheet 3 of 5 of the Peavey survey drawings previously provided.

V-1 was proposed on the Vertical LFG Trench Vent Schedule on Sheet 17 of 24 to be 50 feet deep with a corresponding ground surface at the LFG well location of EL 150 feet. The location of V-1 was shifted slightly during construction to a location where the ground surface elevation was EL 145.44 feet; approximately 4.56 feet lower than originally indicated in the Vertical LFG Trench Vent Schedule (EL 150 feet). Therefore, during installation the depth of the well had to be shorted by approximately 5 feet to account for the difference in the ground surface elevation. For that reason V-1 was installed 45 feet deep as opposed to the 50 feet as originally indicated. The installed solid pipe length was reduced from 20 feet to 15 feet and the perforated pipe length was installed 30 feet in length as originally indicated. Please refer to Attachment B for revised SCS Record Drawings.

V-3 was proposed on the Vertical LFG Trench Vent Schedule on Sheet 17 of 24 to be 52 feet deep with a corresponding ground surface at the LFG well location of EL 152 feet.

The location of V-3 was shifted slightly during construction to a location where the ground surface elevation was EL 145.95 feet; approximately 6.05 feet lower than originally indicated in the Vertical LFG Trench Vent Schedule (EL 152 feet). Therefore, during installation the depth of the well had to be shorted by approximately 6 feet to account for the difference in the ground surface elevation. For that reason V-3 was installed 50 feet deep as opposed to the 52 feet as originally indicated. The installed solid pipe length was reduced from 20 feet to 15 feet and the perforated pipe length was installed 35 feet in length as opposed to the originally indicated 32 feet in length. Please refer to Attachment B for revised SCS Record Drawings.

V-4 was proposed on the Vertical LFG Trench Vent Schedule on Sheet 17 of 24 to be 40 feet deep with a corresponding ground surface at the LFG well location of EL 140 feet. The location of V-4 was shifted slightly during construction to a location where the ground surface elevation was EL 135.81 feet; approximately 4.19 feet lower than originally indicated in the Vertical LFG Trench Vent Schedule (EL 140 feet). Therefore, during installation the depth of the well had to be shorted by approximately 4 feet to account for the difference in the ground surface elevation. For that reason V-4 was installed 35 feet deep as opposed to the 40 feet as originally indicated. The installed solid pipe length was reduced from 20 feet to 15 feet and the perforated pipe length was installed 20 feet in length as originally indicated. Please refer to Attachment B for revised SCS Record Drawings.

Attachment 6-1 - Vent Logs

19. **Please provide revised well completion logs that identify the installed solid and perforated pipe elevations and lengths for each well.**

Response: Please refer to Attachment H for revised Quality Drilling Service Drilling and Completion Logs that identify the installed solid and perforated pipe elevations and lengths for each well.

20. **Gas Vent HC-7.1 appears to have been omitted from the Job Summary Table in this section and the Drilling and Completion Log for HC-7.1 does not appear to have been provided. Please verify and revise the table and provide the well completion log for HC-7.1 accordingly.**

Response: Information for Gas Vent HC-7.1 was inadvertently listed on the Quality Drilling Service Job Summary Table as HC-1.B.1. One of the two Quality Drilling Service Drilling and Completion Logs previously provided as HC-1.B.1 was incorrectly labeled and should have been identified as HC-7.1 (two Gas Vents were identified as HC-1.B.1). Please refer to Attachment H for a revised Quality Drilling Service Job Summary Table which includes Gas Vent HC-7.1 (the incorrect well ID of HC-1.B.1 has been struckthrough and labeled HC-7.1). Also, please refer to Attachment H for the revised Quality Drilling Service Drilling and Completion Logs for Gas Vent HC-7.1 (the incorrect well ID of HC-1.B.1 has been struckthrough and labeled HC-7.1).

21. **HC-1B.1: There are two well Drilling and Completion Logs identified as HC-1.B.1. Please verify and revise these logs, including the narrative information provided, as appropriate.**

Response: Information for Gas Vent HC-7.1 was inadvertently listed on the Quality Drilling Service Job Summary Table as HC-1.B.1. One of the two Quality Drilling Service Drilling and Completion Logs previously provided as HC-1.B.1 was incorrectly labeled and should have been identified as HC-7.1 (two Gas Vents were identified as HC-1.B.1). Please refer to Attachment H for a revised Quality Drilling Service Job Summary Table which includes Gas Vent HC-7.1 (the incorrect well ID of HC-1.B.1 has been struckthrough and labeled HC-7.1). Also, please refer to Attachment H for the revised Quality Drilling Service Drilling and Completion Logs for Gas Vent HC-7.1 (the incorrect well ID of HC-1.B.1 has been struckthrough and labeled HC-7.1).

22. **HC-A.1: Please verify that the log identified as "HC.A.1" is for Gas Vent HC-1A.1 and revise the log, as appropriate.**

Response: The Quality Drilling Service Drilling and Completion Log previously identified as "HC-A.1" was incorrectly labeled and should have been identified as Gas Vent HC-1A.1. Please refer to Attachment H for a revised Quality Drilling Service Drilling and Completion Logs which identifies Gas Vent HC-1A.1 (the incorrect well ID of HC-A.1 has been struckthrough and labeled HC-1A.1). In addition, please refer to Attachment H for a revised Quality Drilling Service Job Summary Table which includes Gas Vent HC-1A.1 (the incorrect well ID of HC-A.1 has been struckthrough and labeled HC-1A.1).

SECTION 9 DRAINAGE SAND

23. **Section 9.1 & Attachment 9.1: The permeability and sieve analysis results provided in Attachment 9.1 appear to be the results of the borrow source testing specified by Technical Specification Section 02220-1.05.E. CQA testing of drainage sand during placement, at a frequency of 1/5,000 CY, was specified in Technical Specification Section 02220-3.09.H and Table 02220-1. Please verify whether CQA testing of the installed protective soil layer (drainage sand) was conducted and provide copies of the testing results and/or revise this section, as appropriate.**

Response: Technical Specification Section 02220-3.09.H required the protective cover soil (drainage sand) material placed within the closure area top/sideslopes footprint where the 40 mil textured LLDPE geomembrane was placed to be a sand with a maximum permeability of 1×10^{-4} cm/sec when a laboratory sample was compacted to 95 percent of the Standard Proctor in accordance with ASTM D2434; conform to the provided Sieve Analysis in accordance with ASTM D422; and be verified by laboratory testing at a frequency of one test per every 5,000 cubic yards of material installed. Also, the protective cover soil (drainage sand) material was to be tested in the field during placement by conducting one field density test according to ASTM D2922 Nuclear Method per acre per lift to ensure the placement achieved a 95 percent Standard Proctor.

In addition, the protective cover soil (drainage sand) material placed within the closure area sideslopes footprint where the 60 mil textured HDPE geomembrane was placed was to be a sand with a minimum permeability of 1×10^{-3} cm/sec when a laboratory sample was compacted to 95 percent of the Standard Proctor in accordance with ASTM D2434; conform to the provided Sieve Analysis in accordance with ASTM D422; and be verified by laboratory testing at a frequency of one test per every 5,000 cubic yards of material installed. In addition, the protective cover soil (drainage sand) material was to be tested in the field during placement by conducting one field density test according to ASTM D2922 Nuclear Method per acre per lift to ensure the placement achieved a 95 percent Standard Proctor. Please refer to Attachment I for Universal Engineering Sciences test results of the protective cover soil (drainage sand) material.

CQA testing of the in-place density of the protective cover soil (drainage sand) material was conducted at a frequency of one field density test according to ASTM D2922 Nuclear Method per acre per lift as required by the technical specifications. Please refer to Attachment I for Universal Engineering Sciences In-place Density Test Results for the installed protective cover layer.

Please be advised that under the provisions of Specific Condition #C.1.a of the above referenced permit and Specific Condition #A.3.a of Operation Permit No. 38414-011-SO/01, operation/acceptance of waste on the south slope of Phase I is not authorized at this time.

Response: Comment noted.

Attached are two copies of our response to RAI No. 1 as requested. Please do not hesitate to contact us if you need anything further.

Sincerely,



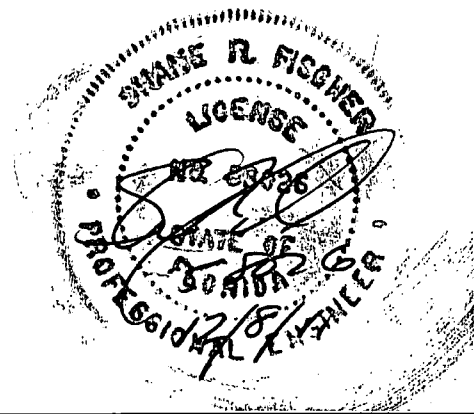
Shane R. Fischer, P.E.
Project Manager
SCS ENGINEERS



C. Ed Hilton, P.E.
Vice President/Solid Waste Division Director
SCS ENGINEERS

SRF/CEH:srf
Attachments

cc: Teresa Carver, Hardee County Solid Waste Director, w/ attachments



Brantley, Anna

From: Brantley, Anna
Sent: Friday, September 23, 2011 12:33 PM
To: 'teresa.carver@hardeecounty.net'; 'sfischer@scsengineers.com'; Gaskin, Nancy; Morris, John R.; Pelz, Susan
Cc: Morgan, Steve
Subject: RAI 1 for Hardee County LF CL I Phase I Closure Certification
Attachments: Hardee Co Landfill Class I Phase 1 Closure Cert 38414-012-SF-01 RAI 1_WACS 40612 - 9-23-2011.pdf

Attached is an electronic copy of the Request for Additional Information (RAI #1) letter and attachments for the above permit application.

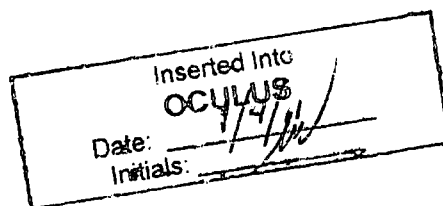
NOTE: If you have questions concerning the content of this document, please contact the DEP permit processor steve.morgan@dep.state.fl.us

This is the only electronic copy you will receive. Acrobat Reader 6.0 or greater is required to read this document, and is available for downloading at: <http://www.adobe.com/products/acrobat/readstep.html>

Anna

Anna Brantley
Administrative Assistant II
FL DEP / SWD / Waste Management
13051 North Telecom Parkway
Temple Terrace FL 33637-0629
Tel: 813/632-7600, Ext. 377
Fax: 813/632-7664
anna.brantley@dep.state.fl.us

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Hershel T. Vinyard Jr is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.





Florida Department of Environmental Protection

Southwest District
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
Telephone: 813-632-7600

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

Transmitted via email only to Teresa.Carver@hardeecounty.net

Ms. Teresa Carver, Director
Hardee County Solid Waste Department
685 Airport Road
Wauchula, Florida 33873

September 23, 2011

RE: Certification of Construction - Phase I Closure
Hardee County Class I Landfill
Permit No. 38414-012-SF/01, Hardee County
WACS No. SWD/25/40612

Dear Ms. Carver:

The Department has reviewed the above referenced Certification of Construction of the Phase I Closure and supporting documents received on June 3, 2011. The Department apologizes for the delay in its review. Based on the Department's review, the certification of construction is not approved at this time. This is the Department's first request for information. Please provide the information listed below promptly.

CERTIFICATION OF CONSTRUCTION COMPLETION REPORT

Please provide the following additional information and revisions to this Construction Completion Report. Please provide replacement pages with revisions noted (deletions may be struckthrough [struckthrough] and additions may be underlined [underlined] or a similar method may be used) and each page numbered with the document title and date of revision.

SECTION 3 - CONSTRUCTION OBSERVATION:

Attachment 3-1 - SCS Daily Field Reports:

- Day 14 - 10/18/10:** This daily report discusses completing the tie-in to MH-6 via manhole cover, as a result of the discrepancy in the reported manhole cover elevation (See Day 10 report). A comparison of the as-built tie-in elevations reported on Sheet 3 of 5 of the Peavey & Associates (Peavey) survey drawings to the rim elevation reported on Sheet 10 of 24 of the SCS Record Drawings appear to indicate that tie-elevations are above the rim elevations at both MH-5 and MH-6. Please verify whether the tie-in at MH-5 is also via the manhole cover. Please provide an as-built drawing of this alternate "Vent Trench Tie-In to Manhole Detail" on Sheet 19 of 24 of the record drawings or another plan sheet, as appropriate.
- Day 154 - 3/7/11:** This daily report discusses the installation of a "pump station for cell groundwater". This construction does not appear to be part of the proposed Phase I closure and does not appear to be discussed in the certification report or shown on the record drawings. Please verify and explain this construction activity.

SECTION 5 - GEOMEMBRANE INSTALLATION REPORT:

Attachment 5-1 - As-Built Panel Layout Drawing:

3. Please revise the panel layout drawing, as appropriate, to address the comments provided below regarding the geomembrane repair logs and destructive test logs. Please identify each repair by its repair number on the revised panel layout drawing.

Attachment 5-6 - SCS Geomembrane Repair Logs:

4. Based on the description of the repair locations on the repair logs, the following repairs do not appear to be shown on the panel layout drawings or may not be shown at the location described on the logs: R34, R68, R96, R97, R103, R112, R117, R120, R122, R145, R149, R152, R161, R169, R174, R194, R201, R202, R230, R231, R249, R250, R251, R257, R259, R269, R278, R280, R292, R320, R333, and R362. Please verify and revise the panel layout drawing and/or the location descriptions on the repair logs, as appropriate, to address these apparent inconsistencies.

5. The repairs associated with Destructive Tests D22, D46, and D47 do not appear to be identified in this log. Please verify and revise this log accordingly.

Attachment 5-8 - SCS Destructive Test Logs:

6. **DT7:** Destructive Test DT7 is identified as being on Seam P8/P9 in this log and on the 60 mil destructive test results table in Attachment 5-10. However DT7 is shown on Seam P8/P10 on the Panel Layout Drawing and DT7 and associated Repair R35 are identified to be on Seam P8/P10 in the Repair Logs. Please verify these inconsistencies and revise the appropriate logs and the panel layout drawings.

7. **DT10:** Destructive Test DT10 is identified as being on Seam "P13/TI nr. P13/P14" in this log and on Seam P13/TI on the 60 mil destructive test results table in Attachment 5-10. However DT10 is shown on Seam P12/TI on the Panel Layout Drawing and DT10 and associated Repair R37 are identified to be on Seam "P13/TI 5'W of P12/P13" in the Repair Logs. Please verify these inconsistencies and revise the appropriate logs and the panel layout drawing.

8. **DT24:** Destructive Test DT24 is identified as being on Seam L5/L6 in this log. However, DT24 is identified on Seam L6/L7 on the 40 mil destructive test results table in Attachment 5-9; is shown on Seam L6/L7 on the Panel Layout Drawing; and DT24 and associated Repair R93 are identified to be on Seam L6/L7 in the Repair Logs. Please verify these inconsistencies and revise the appropriate logs and the panel layout drawing.

9. **DT29:** Destructive Test DT29 does not appear to be shown on Seam P62/P63 on the Panel Layout Drawing, as identified in this log, the Repair Logs associated with Repair R153, and the 60 mil destructive test results table in Attachment 5-10. Please verify and revise the panel layout drawing, as appropriate.

10. **DT32:** Destructive Test DT32 is identified as being on Seam P67/P69 in this log and on the 60 mil destructive test results table in Attachment 5-10. However DT32 is shown on Seam P69/P70 on the Panel Layout Drawing and DT32 and associated Repair R203 is identified to be on Seam P69/P70 in the Repair Logs. Please verify these inconsistencies and revise the appropriate logs and the panel layout drawing.

11. **DT46:** Destructive Test DT46 does not appear to be shown on Seam P65/P67 on the Panel Layout Drawing, as identified this log and the 60 mil destructive test results table in Attachment 5-10. Please verify and revise the panel layout drawing, as appropriate.

12. **DT48:** Destructive Test DT48 is identified as being on Seam L50/L51 in this log, in the Repair logs associated with Repair R269, and on the 40 mil destructive test results table in Attachment 5-9. However DT48 is shown on Seam L48/L50 on the Panel Layout Drawing. Please verify this inconsistency and revise the appropriate logs and the panel layout drawing.

13. **DT65:** Destructive Test DT65 does not appear to be shown on Seam L82/L84 on the Panel Layout Drawing, as identified in this log, the Repair Logs associated with Repair R333, and the 40 mil destructive test results table in Attachment 5-9. Please verify and revise the panel layout drawing, as appropriate.

14. **DT68:** Destructive Test DT68 is identified as being on Seam L92/L93 in this log, in the Repair logs associated with Repair R320, and on the 40 mil destructive test results table in Attachment 5-9. However DT68 is shown on Seam L94/L95 on the Panel Layout Drawing. Please verify this inconsistency and revise the appropriate logs and the panel layout drawing.

Attachment 5-10 - TRI 60 mil Destructive Seam Test Results:

15. Destructive Test DS-14 appears to be omitted from the table and the results of destructive test DS-14 are not included in this section. Please verify this omission and revise the table and provide a copy of the results, as appropriate.

Attachment 5-12 - Agru America 60 mil Geomembrane MQC Certificates:

16. Test results for Agru MQC tests for Roll Nos. 445225-445231 and Roll No. 445332 appear to have been provided in Attachment 5-12 and TRI QA Test No. E-2348-75-06 appears to have been provided in Attachment 5-14. However these tests appear to have been omitted from the table in Attachment 5-12. Please verify and revise the table, as appropriate.

SECTION 6 - GAS COLLECTION SYSTEM:

17. **Section 6.3:** The information provided in the Horizontal LFG Trench Vent Schedule on Sheet 17 of 24 of the SCS Record Drawings appears inconsistent with the location and elevations provided on Sheet 3 of 5 of the Peavey survey drawings. Please verify and revise the Horizontal LFG Trench Vent Schedule on Sheet 17 of 24, as appropriate.

18. **Section 6.4:** The information provided in the Vertical LFG Trench Vent Schedule on Sheet 17 of 24 of the SCS Record Drawings appears inconsistent with the location, elevations, and depths provided on the vent logs in Attachment 6-1. Please verify and revise the Vertical LFG Trench Vent Schedule on Sheet 17 of 24, as appropriate. Please revise this section to explain why Wells V-1, V-3, V-4 were installed shallower than proposed.

Attachment 6-1 - Vent Logs:

19. Please provide revised well completion logs that identify the installed solid and perforated pipe elevations and lengths for each well.

20. Gas Vent HC-7.1 appears to have been omitted from the Job Summary Table in this section and the Drilling and Completion Log for HC-7.1 does not appear to have been provided. Please verify and revise the table and provide the well completion log for HC-7.1 accordingly.

21. **HC-1B.1:** There are two well Drilling and Completion Logs identified as HC-1B.1. Please verify and revise these logs, including the narrative information provided, as appropriate.

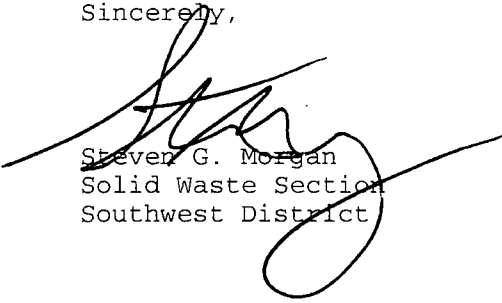
22. **HC-A.1:** Please verify that the log identified as "HC.A.1" is for Gas Vent HC-1A.1 and revise the log, as appropriate.

SECTION 9 - DRAINAGE SAND:

23. **Section 9.1 & Attachment 9.1:** The permeability and sieve analysis results provided in Attachment 9.1 appear to be the results of the borrow source testing specified by Technical Specification Section 02220-1.05.E. CQA testing of drainage sand during placement, at a frequency of 1/5000 CY, was specified in Technical Specification Section 02220-3.09.H and Table 02220-1. Please verify whether CQA testing of the installed protective soil layer (drainage sand) was conducted and provide copies of the testing results and/or revise this section, as appropriate.

Please be advised that under the provisions of Specific Condition #C.1.a. of the above referenced permit and Specific Condition #A.3.a. of Operation Permit No. 38414-011-SO/01, operation/acceptance of waste on the south slope of Phase I is not authorized at this time. If you would like to discuss any issue in this letter or schedule a meeting with the Department to discuss these issues, please contact me at (813) 632-7600 ext. 385.

Sincerely,



Steven G. Morgan
Solid Waste Section
Southwest District

cc: Shane Fischer, P.E., sfischer@scsengineers.com
Nancy Gaskin, FDEP Tampa (e-mail)
John Morris, P.G., FDEP Tampa (e-mail)
Susan Pelz, P.E., FDEP Tampa (e-mail)

To: Hardee County Elected Officials; Moore, Ronni; Wick, Fred; Hornbrook, Frank; Morris, John R.; Pelz, Susan; sfischer@scsengineers.com
Cc: Morgan, Steve
Subject: Hardee County CL I LF Phase I CLosure Issued Permit #38414-012-SF-01 - dated & mailed 11-09-2009.pdf (SECURED) - Adobe Acrobat Professional
Attachments: Hardee County CL I LF Phase I CLosure Issued Permit #38414-012-SF-01 - dated & mailed 11-09-2009

Attached please find Notice of Permit Issuance for the subject Solid Waste Facility. These are the only copies you will receive.

NOTE: If you have questions concerning the content of these documents, please contact the DEP permit processor steve.morgan@dep.state.fl.us.

Acrobat Reader 6.0 or greater is required to read these documents. It is available for downloading at: <http://www.adobe.com/products/acrobat/readstep.html>

Anna

Anna Brantley
Administrative Assistant II
FL DEP / SWD / Waste Management
13051 North Telecom Parkway
Temple Terrace FL 33637-0629
Tel: 813/632-7600, Ext. 377
Fax: 813/632-7664
anna.brantley@dep.state.fl.us

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.

Memorandum

Florida Department of Environmental Protection

PERMIT COVER MEMO

TO: x ~~DEBORAH A. GETZOFF, District Director~~

FROM/THROUGH: William Kutash ENVIRONMENTAL ADMINISTRATOR
Susan Pelz, P.E. SOLID WASTE MANAGER
Steve Morgan SOLID WASTE PERMITTING *11/11/09*

DATE: November 9, 2009

FILE NAME: Hardee County Class I Landfill
Phase I Closure
PROGRAM : Solid Waste

PERMIT #: 38414-012-SF/01

COUNTY : Hardee

TYPE OF PERMIT ACTION: ISSUE FINAL PERMIT

PERMIT SUMMARY: This permit application is for closure of Phase I of the existing Hardee County Class I landfill, including the vertical expansion bottom liner system on the south slope of Phase I for the Phase II, Section I lateral expansion and the vertical expansion bottom liner system on the west slope of Phase I for the future Phase II, Section II lateral expansion. Proof of publication of the Notice of Proposed Agency Action was received October 28, 2009. No third-party petitions have been filed.

PROFESSIONAL RECOMMENDATION: X APPROVE DENY

EVALUATION SUMMARY: The applicant has provided sufficient information to demonstrate compliance with Department Rules.

TIH= 193; TTP=117 (to 11/09/09)		TTP
Application rec'd	04/29/09	
RAI #1 sent	05/29/09	30
RAI #1 response rec'd	07/13/09	
Supplemental Info rec'd	08/13/09	
Application complete	07/13/09	
Intent to Issue sent	10/08/09	86
Proof of Publication rec'd	10/28/09	
Final Permit routed for signature	11/09/09	1

DAY 90/30 FOR THIS ACTION IS: ASAP Day 90=11/15/09

Hardee County CL 1 LF Phase 1 Closure
#38414-012-SF/01

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Teresa Carver, Director		
Hardee County Solid Waste Dept.		
685 Airport Road		
Wauchula, FL 33873		
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<small>City, State, ZIP</small>		

PS Form 3800, August 2006

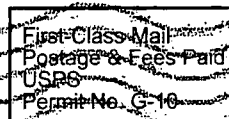
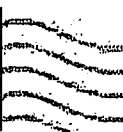
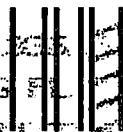
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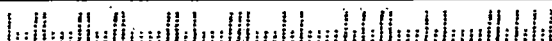
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Florida Department of Environmental Protection
Southwest District
c/o Steve Morgan – Solid Waste
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Dept. Of Environmental Protection
NOV 13 2009
Southwest District



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Teresa Carver, Director
Hardee County Solid Waste Dept.
685 Airport Road
Wauchula, FL 33873

Notice of Permit
Hardee Co 1 LF 38414-012-SF

2. Article Number

(Transfer from service label)

7008 0150 0003 4894 2944

COMPLETE THIS SECTION ON DELIVERY

A. Signature

T. Carver

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

11/12/09

D. Is delivery address different from item 1?

☐ Yes

If YES, enter delivery address below:

☐ No

3. Service Type

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☐ Express Mail

☐ Registered

☒ Return Receipt for Merchandise

☐ Insured Mail

☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes



Florida Department of Environmental Protection

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

CERTIFIED MAIL #7008 0150 0003 4894 2944
RETURN RECEIPT REQUESTED

November 9, 2009

NOTICE OF PERMIT

Ms. Teresa Carver, Director
Hardee County Solid Waste Department
685 Airport Road
Wauchula, Florida 33873

RE: Hardee County Class I Landfill Phase I Closure
Permit No. 38414-012-SF/01, Hardee County
WACS No. SWD/25/40612

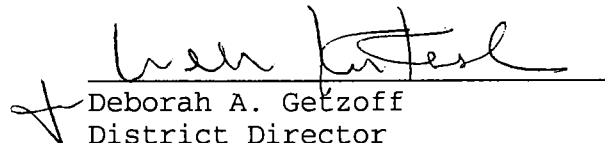
Dear Ms. Carver:

Enclosed is permit number 38414-012-SF/01, issued pursuant to Section(s) 403.087(1), Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Blvd., Mail Station 35, Tallahassee, 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


Deborah A. Getzoff
District Director
Southwest District

CERTIFICATE OF SERVICE

This undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed or transmitted electronically to the addressee and the listed persons before the close of business on Nov. 9, 2009 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to
Section 120.52(11), Florida
Statutes, with the designated
Department Clerk, receipt of
which is hereby acknowledged.

Anna Brantly
(Clerk)

11/09/2009
(Date)

DAG/sgm

Attachment

Copies furnished to:

Hardee County Elected Officials Notification
Shane Fischer, P.E., SCS Engineers, sfischer@scsengineers.com
Ronni Moore, OGC Tallahassee (e-mail)
Fred Wick/Frank Hornbrook, FDEP, Tallahassee (e-mail)
John Morris, P.G., FDEP Tampa, SW (e-mail)
Susan Pelz, P.E., FDEP Tampa (e-mail)



Florida Department of Environmental Protection

Southwest District
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
Telephone: 813-632-7600

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

PERMITTEE

Hardee County Solid Waste
Department
685 Airport Road
Wauchula, Florida 33873
C/o Ms. Teresa Carver, Director

PERMIT/CERTIFICATION

WACS Facility ID No: SWD/25/40612
Permit No: **38414-012-SF/01**
Date of Issue: **11/09/2009**
Expiration Date: **11/09/2014**
County: Hardee
Lat/Long: 27°34'17"N
81°46'58"W
Sec/Town/Rge: 35/33S/25E
Project: Hardee County Class I Landfill
Phase I Closure

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-302, 62-330, 62-522, 62-550, and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or referenced in Specific Condition #A.2., and made a part hereof and specifically described as follows:

To **construct** a final cover system and a passive gas collection system and conduct monitoring and maintenance for closed portions (approx 13.6 acres) of a Class I landfill, referred to as the **Hardee County Class I Landfill - Phase I**, subject to the specific and general conditions attached, located at **685 Airport Road, east of the City of Wauchula, Hardee County, Florida**. The specific conditions attached are for the construction and operation of:

1. Final cover system
2. Passive gas venting system within the lined landfill area

Replaces Permit No.: New

This permit contains compliance items summarized in **Attachment 1** that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.

<u>General Information:</u>	<u>Phase I</u>
Closure acres	Approx. 13.6 acres [ref. SC#A.2.a., Sec. P.2.a.]
Bottom elevation of the landfill liner system	+72 feet NGVD (approximate top of clay) [ref. SC#A.2.a.(4), Sheet 9]
Bottom landfill liner system	In-situ clay bottom w/geosynthetic sidewalls
LCS design LDS design	Perimeter rock/LCS piping None
Top closure elevation (including cover)	Approx. 169 ft NGVD [ref. SC#A.2.a.(4), Sheet 7]
Final cover system (bottom to top)	<p><u>North, East, and Top Slopes</u> (approx. 7.0 acres)</p> <p>12-inch soil subgrade, 40 mil LLDPE textured geomembrane, 300-mil bi-planar geocomposite drainage layer, 18-inch protective soil layer (max. 1×10^{-4} cm/sec) [Spec. 02220-2.06.B.], 6-inch top soil, sod [ref. SC#A.2.a., Sec. P.4; SC#A.2.a.(4), Sheet 11, Detail 6]</p> <p><u>South and West Slopes</u> (approx. 6.6 acres)</p> <p>24-inch soil subgrade, 60 mil HDPE textured geomembrane, 300-mil bi-planar geocomposite drainage layer, 24-inch drainage soil layer (min. 1×10^{-3} cm/sec) [Spec. 02220-2.06.C.], 12-mil rain tarp [Spec 02941-2.01] (south slope), ConCover 180 or Engineer approved equal [Spec 02941-2.01] (west slope) [ref. SC#A.2.a., Sec. P.4; SC#A.2.a.(4), Sheet 11, Detail 1]</p>
Closure slopes	3H:1V max. side slopes, 5% min. top slope [ref. SC#A.2.a.(4), Sheet 7]
Gas vent system	8 passive vertical gas vents (6" SCH 80 PVC pipes w/ 3/8" x 8" slots) and 8 horizontal LFG trench vents w/11 vertical gas vents (4" HDPE SDR 17 pipes w/ 1/2" perforations) [ref. SC#A.2.a.(4), Sheets 8 & 15]

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

(a) Have access to and copy any records that must be kept under conditions of the permit;

(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

GENERAL CONDITIONS:

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (a) Determination of Best Available Control Technology (BACT)
- (b) Determination of Prevention of Significant Deterioration (PSD)
- (c) Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
- (d) Compliance with New Source Performance Standards

GENERAL CONDITIONS:

14. The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS: PART A -Solid Waste Facility General Requirements

1. **Facility Designation.** This site shall be classified as a Class I landfill and shall be constructed, operated, closed, monitored and maintained in accordance with all applicable requirements of Chapters 62-4, 62-302, 62-330, 62-520, 62-522, 62-550, and 62-701, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.
2. **Permit Application Documentation.** This permit is valid for **construction** of the Phase I Closure and related systems (including final cover, stormwater drainage system and passive gas venting system), of the Hardee County Class I Landfill in accordance with Department rules and the reports, plans and other information prepared by SCS Engineers (SCS) (unless otherwise specified) as follows:
 - a. Hardee County Landfill Application for Phase I Closure Permit (collated into two 3-ring binders*) dated April 29, 2009 (received April 30, 2009), as revised, replaced or amended (information inserted into original) dated and received July 13, 2009, and dated and received August 13, 2009. This information includes, but is not limited to:
 - 1) *Construction Quality Assurance Plan*, Attachment P-2, [CQAP], as revised July 13, 2009;
 - 2) *Technical Specifications*, Attachment P-2, Appendix J, [Specs.], as revised July 13, 2009;
 - 3) *Long-Term Care Plan*, Part R, dated September 25, 2006; and
 - 4) Plan Sheets titled, Hardee County Landfill Phase I Closure Construction Drawings... (23 Sheets) dated April 2009 (received April 30, 2009) including revised Sheets 1, 6, 7, 8, 10, 14, and 15, dated and received July 13, 2009 and revised Sheet 12 dated July 13, 2009 (received August 13, 2009).
3. **Permit Modifications.**
 - a. Any construction or operation not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate. Any significant changes to the construction or operation at the facility shall require a permit modification. Permits shall be modified in accordance with the requirements of Rule 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.
 - b. This permit does not authorize landfill operation. Construction, operation, or other activities not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate, or unless otherwise approved in writing by the Department.
 - c. This permit authorizes the construction of the Phase I Closure final cover system, and related passive gas venting system and other related appurtenances, only.
 - d. This permit does not authorize the tie-in of the west slope closure liner system to the future bottom liner system of Phase II, Section II.

* see OCULUS for uncollated submittals

SPECIFIC CONDITIONS: PART A -Solid Waste Facility General Requirements

4. **Permit Renewal.** On or before April 15, 2014 the permittee shall notify the Department in writing or electronically of its intent to apply for renewal of this permit and of the anticipated date of submittal of the permit renewal application. **No later than August 15, 2014**, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Permits shall be renewed at least every five years as required by Rule 62-701.320(10)(b), F.A.C. Long-term care permit renewal shall include, but not be limited to; an updated long-term care plan; an assessment of the effectiveness of the landfill design, including the surface water and stormwater management, leachate management, gas management and final cover systems; a gas migration evaluation; a water quality monitoring plan evaluation; and revised (not inflation-adjusted) financial assurance cost estimates.

5. **Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

6. **General Conditions.** The permittee shall be aware of and operate under the "General Conditions." General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

7. **Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

8. **Regulations.** Chapter 62-701, F.A.C., effective May 27, 2001, is incorporated into this permit by reference. In the event that the regulations governing this permitted operation are revised, the Department shall notify the permittee, and the permittee shall request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions.

9. **Prohibitions.** The prohibitions of Rule 62-701.300, F.A.C., shall not be violated by the activities at this facility.

a. In the event that limestone is encountered during excavation or construction activities, the excavation/construction activities shall cease and the Department shall be notified **within 24 hours of discovery**. Written notification shall be submitted **within 7 days of discovery**. The written notification shall include the location, elevation, and extent of limestone noted on a plan sheet, a description of the materials encountered, and a plan of action which ensures that groundwater will not be adversely affected by the continued construction and operation of the facility. Excavation or construction activities shall not resume in the affected area until the Department-approved plan of action has been completed.

PERMITTEE: Hardee County Solid Waste Dept.
Ms. Teresa Carver, Director

PERMIT NO: 38414-012-SF/01
Hardee County LF, Phase I Closure

SPECIFIC CONDITIONS: PART A -Solid Waste Facility General Requirements

(Specific Condition #A.9., cont'd)

b. In the event that surface depressions or other occurrences which may be indicative of sinkhole activity or subsurface instability, are discovered on-site, or within 500 feet of the site, the Department shall be notified in accordance with Specific Condition #C.6.b. The written notification shall include a description of the incident, the location and size of the affected area shown on an appropriate plan sheet, and a corrective action plan which describes the actions necessary to prevent the unimpeded discharge of waste or leachate into ground or surface water.

c. Open burning of solid waste is prohibited except in accordance with Rule 62-701.300(3) and Chapter 62-256, F.A.C. All fires which require longer than one (1) hour to extinguish must be promptly reported to the Department in accordance with Specific Condition #C.6.b.

SPECIFIC CONDITIONS: PART B - Construction Requirements

1. **Construction.** All significant construction activities shall be approved by the Department prior to initiating work, unless specifically authorized otherwise.

a. This permit authorizes the construction of the Phase I Closure, including the final cover system and passive gas venting system in the closure area.

2. **Certification of Construction Completion.** All information required by this Specific Condition shall be signed and sealed by a registered professional engineer or land surveyor as appropriate.

a. **Within sixty (60) days** after the specified construction has been completed, the following activities shall be completed and submitted by the permittee for Department approval:

1) The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer in charge of construction and quality assurance to the Department for approval, and shall arrange for Department representatives to inspect the construction in the company of the permittee, the engineer, and the facility operator.

2) The owner or operator shall submit Record Drawings/Documents showing all changes (i.e. all additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations). The Record Documents shall include as-built plans, details and elevations (survey) as appropriate.

3) The owner or operator shall submit a narrative indicating all changes in plans, the cause of the deviations, and certification of the Record Drawings/Documents by the Engineer to the Department.

4) The professional engineer of record shall submit to the Department a final report to verify conformance with the plans and specifications in accordance with Rules 62-701.400(7) and (8), F.A.C.

3. **Record Drawings/Documents.**

a. The Record Drawings/Documents shall include, but not be limited to, the following information:

1) Location of all anchor trenches, i.e. limits of liner.

2) As-built locations and details of liner tie-ins as shown on Sheet 12 of 16 [ref. SC#A.2.a.(4)];

3) Daily construction reports;

4) As-built drawings showing the geomembrane panel installation layout, locations of fabricated and field seams, type of seams, destructive sampling locations, locations of all repairs, panel designations, geomembrane booting and connection details;

5) All geomembrane destructive test results;

6) A compact disc or other electronic media that includes all available photographs documenting all stages of the construction project [ref. CQAP, Sec. 7.2];

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.3.a., cont'd)

- 7) Permeability testing of the protective soil materials;
- 8) Gas vent and trench construction diagrams, including elevation at top of ground, total depth of vent, depth, thickness and description of soil or waste strata and the occurrences of any water-bearing zones.

4. Pre-Construction Submittals.

a. **At least thirty (30) days prior** to initiation of any construction activity, unless otherwise specified, the permittee shall submit the following information to the Department:

- 1) A **complete set** of Plans, Specifications and CQA Plan to be used for construction which includes all changes (i.e., all additions, deletions, revisions to the plans previously approved by the Department). All changes shall be noted using strikethrough (~~strikethrough~~) for deletions, and shading (~~shading~~) or underline (underline) for additions. All changes in the plans, specifications and CQA Plan shall be accompanied by a narrative indicating the change. Significant changes in the plans, as determined by the Department, shall require a permit modification. All changes in the plans shall be noted on the plans and the cause of the deviation and a re-certification of the alternate design by the design engineer shall be provided. These alternate designs shall be approved by the Department prior to construction. If **no** changes have been made to the construction plans, Specifications or CQA Plan, the permittee shall notify the Department in writing that no changes have been made, and re-submittal of these documents will not be required prior to construction.

- 2) The role and name of the specific company/organization for each of the parties in the Organization and Personnel team [ref. CQAP, Figure 3-1].

b. **Prior to initiation** of installation of the liner or geocomposite, the results of the interface friction testing using actual construction materials shall be submitted to the Department. The results must demonstrate that the all interfaces exhibit a minimum safety factor of 1.5 against sliding. Placement of the geomembrane or geocomposite shall not proceed prior to the Engineer's receipt of the results of the interface friction testing which meet the requirements of this condition. The minimum specified interface friction angle is 25.1 degrees with no cohesion for all interfaces [Spec. 02700-2.01.D.& E.; 02776-2.01.D.& E., 02930-3.02.C.].

c. **No later than 2 weeks** prior to construction of the following components of the project, the Department shall be notified of the initiation of construction of these components (for each phase of construction) to allow the Department to observe the construction of:

- 1) Seaming performed using a method other than double-fusion (wedge) or extrusion welding;
- 2) Final cover tie-in (overlap) to Phase I bottom liner on north, east, and west slopes and final cover tie-in to Phase II, Section I bottom liner on south slope;
- 3) Any liner penetrations/boots

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.4., cont'd)

- d. To allow for observation, at least 72 hours prior to initiation, the Department shall be notified of any spark testing.
5. **Pre-Construction Meeting Notification.** Department Solid Waste Permitting staff shall be notified **at least one (1) week prior** to all pre-construction meetings [CQAP 4.1]. Prior to initiating construction activities, the permittee shall make arrangements for the Engineer of Record to meet on site and discuss all plan changes with Department Solid Waste Permitting Staff of the Southwest District Office. A copy of the minutes from the pre-construction conference shall be submitted to the Department within two (2) weeks of the conference.
6. **Construction Schedule and Progress Report.**
 - a. **No later than two (2) weeks after** the pre-construction conference, the owner or operator shall submit a construction schedule, which includes estimated dates for each portion of the construction to the Department. The Engineer of Record or another qualified professional engineer shall make periodic inspections during construction to ensure that design integrity is maintained.
 - b. An updated construction schedule and progress report shall be submitted to the Department **monthly, by the 15th of each month**. The monthly progress report should be submitted in an appropriately labeled three-ring binder of sufficient size to store the monthly progress reports for the entire project, or may be submitted electronically. The monthly progress reports shall include, but not be limited to:
 - 1) A narrative explaining the status (and any delays) of major stages of the construction (i.e., liner, piping, liner penetrations, etc.),
 - 2) A summary of submittals and change order requests,
 - 3) Weekly progress meeting minutes [CQAP 4.2] and
 - 4) Color copies of photographs which are representative of the typical construction activities for the reporting period, and photographs which show overall views and details of major stages of construction (e.g., liner penetrations, bottom liner tie-in, gas vent installation, etc.).
7. **Construction Tolerances.**
 - a. The construction tolerance for elevations and grades shall be ± 0.20 ft. (vertical) and ± 0.50 ft. (horizontal) [Spec. 01050-3.01.H].
 - b. As-built topographic surveys shall demonstrate that the liner and protective soil cover were constructed within the tolerance required by the Drawings and Specifications. Grid spacing shall be no greater than a 50 ft. grid [Spec. 01050-1.04.C].
 - c. All soil layers shall be constructed to the thicknesses listed in the Specifications and CQA Plan, which are minimum requirements.
 - d. Surveys for piping shall be conducted at 100-foot intervals along the pipeline [Spec. 31 20 00-3.05.A].

SPECIFIC CONDITIONS: PART B - Construction Requirements

8. Construction Quality Assurance.

a. CQA Plan and Observation.

1) Liner systems shall have a construction quality assurance plan to provide personnel with adequate information to achieve continuous compliance with the construction requirements. The Construction Quality Assurance Plan shall be in accordance with Rules 62-701.400(7) and (8), F.A.C., the CQA Plan [ref. SC#A.2.a(2)], and the conditions of this permit.

2) The CQA professional engineer or his designee shall be on-site at all times during construction (including liner system and gas management system) to monitor construction activities.

3) The responsibility and/or authority of the Contractor shall not be modified or expanded to include activities required to be conducted by the CQA consultant or independent CQA laboratories [see CQAP 3.0].

4) The CQA Engineer and Inspectors shall evaluate contractor activities; review and evaluate submittals, and MQC and CQC results; perform and evaluate CQA tests; and notify the Engineer of defective or non-conforming work [CQAP 3.4].

5) The CQA Laboratories shall be independent of the Contractors, Installers, and Manufacturers. The CQA Laboratories are responsible for conducting interface friction angle testing and liner seams destructive testing as well as other tests listed in the specification and CQA Plan.

b. Construction Documents. A complete set of construction drawings and shop drawings, which include daily additions, deletions and revisions, shall be maintained on-site at all times for reference. Drawings which show the locations of geomembrane panel seams and repairs shall be kept on-site at all times for reference. Work shall not be concealed until required information is recorded.

c. Spills.

1) All liquid encountered during construction inside the landfill footprint is leachate and shall be managed appropriately. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to the land, surface water or groundwater outside the liner system at any time during the construction activities.

2) The Department shall be notified in accordance with Specific Condition #C.6.b. of all fuel, oils, greases, solvents, lubricants, etc., that are spilled or leaked in areas that may discharge outside the liner system. The permittee shall ensure that all personnel working on the landfill site (including contractors and subcontractors) shall utilize all appropriate measures to prevent spills and leaks of fuel, solvents, lubricants, oils, etc.

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.8., cont'd)

d. Defective work. Unsatisfactory, defective or non-conforming work shall be reported to the Engineer and shall be corrected, or the reasons for not correcting the work shall be recorded and maintained on-site for reference and inspections. Documentation of the corrections or reasons for not correcting the work shall be submitted with the Record Documents required by Specific Conditions #B.2 and #B.3. All areas not meeting the requirements of the contract specifications and CQA Plan shall be reworked by the Contractor to meet the specifications, CQA Plan and requirements of this permit.

e. Night work. Construction activities such as geomembrane seaming, QA/QC testing of the geosynthetics or soil materials, surveying, etc. shall not be carried out in non-daylight hours without prior Department approval [see CQAP 6.1.8.6.]. If these activities will be conducted during nighttime hours, the Department shall be notified **at least 1 week** in advance for schedule makeup, and 1 day for weather emergencies, to allow for Department observation. This notification shall include a description of the methods which will be used to provide adequate illumination to ensure that the quality of the construction is not compromised.

f. Where sod is used over lined areas, pegging of sod shall not damage the liner. Sod shall be used on the entire surface of the top, north, and east slopes of the Phase I closure area [ref. SC#A.2.a, §P.5.a.].

g. All portions of the final cover system and gas management system construction, shall be observed and documented by the CQA Consultant.

h. CQA daily reports shall include weather conditions (e.g., precipitation, temperature).

i. Runoff from stockpiled soils shall not discharge to surface water bodies or wetlands such that Department surface water standards are violated at the point of discharge.

j. Dewatering.

1) All excavations shall be maintained free from standing water. Except for the stormwater management system construction, no construction, including pipe laying, shall be allowed in water. The surface shall be graded such that there is no ponding of water.

2) All liquids encountered within the landfill footprint are considered to be leachate and shall not be discharged to the stormwater management system [Spec. 01568-1.01.F and G., 02220-3.03.A.].

k. All waste exposed by excavations or other construction activity shall be covered or removed for disposal daily [Spec. 02220-3.04.F. and 3.06.B.]. All wastes generated during the construction shall be disposed of within the on-site permitted disposal areas or a permitted off-site Class I landfill. No solid waste shall be used for backfill [Spec. 02220-3.06.A.].

l. Runoff that has contacted excavated waste shall be managed as leachate and shall not be discharged to the stormwater management system [Spec. 01568-1.01.F and G.].

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.8., cont'd)

- m. Gas well drilling shall be in accordance with the Specification Section 33 20 00 and 33 21 70, the closure construction drawings [ref. SC#A.2.a, Sheets 8 & 15], and the conditions of this permit. In the event that the gas well installation indicates that the bottom liner of landfill may have been encountered during gas well installation, the gas well drilling **shall cease** in the affected area and the Department shall be notified in accordance with Specific Condition #C.6.b. Gas well installation shall not resume until specifically approved by the Department.
 - n. Groundwater and gas monitoring wells/probes shall be protected at all times during construction [Spec. 01530-1.12]. In the event that a monitoring well is damaged, the Department shall be notified in accordance with Specific Condition C.6.b.
9. **Laboratory and Field Testing Requirements.** Field and laboratory testing during the construction activities shall be conducted by a qualified testing laboratory, independent of the manufacturer or installer, representing the owner. A qualified field technician representing the owner shall provide full time, on-site inspection during construction. The field technician shall work under the supervision of a professional engineer registered in the State of Florida with experience in landfill liner construction.
10. **Soil Materials.**
- a. The liner subgrade beneath the 60-mil HDPE liner shall be compacted to a minimum of 95% Standard Proctor maximum dry density. [Spec. 02220-2.04.C. & 2.02.A.] Surfaces adjacent to geosynthetics shall be free of angular or sharp rocks and debris of any kind and free from particles greater than ½ inch in diameter and any particles with protrusions of greater than ¼ inch. [Spec. 02220-2.02.A.]
 - b. The intermediate cover/grading layer beneath the 40-mil LLDPE liner shall be placed and compacted in accordance with Specification Section 02220-3.08 [Spec. 02700-3.01.A.] Surfaces adjacent to geosynthetics shall be free of angular or sharp rocks and debris of any kind and free from particles greater than ½ inch in diameter and any particles with protrusions of greater than ¼ inch. [Spec. 02700-3.01.A.]
 - c. The drainage/protective cover soil layer above the 60-mil HDPE liner shall be a minimum of 24-inches thick [ref. SC#A.2.a.(4), Sheet 11, Detail 1; Spec. 02220-3.09.D] and shall have a minimum permeability of 1×10^{-3} cm/sec [Spec. 02220-2.06.C.]. A minimum of 1 permeability test per 5,000 CY shall be performed on the protective cover soil to demonstrate the required permeability [Spec. 02220-3.09.H. & Table 02220-1].
 - d. The protective cover soil layer above the 40-mil LLDPE liner shall be a minimum of 18-inches thick overlaid by a minimum of 6-inch thick topsoil material [ref. SC#A.2.a.(4), Sheet 11, Detail 1; Spec. 02220-3.09.B & C.] The protective cover soil layer shall have a maximum permeability of 1×10^{-4} cm/sec [Spec. 02220-2.06.B.]. A minimum of 1 permeability test per 5,000 CY shall be performed on the protective cover soil to demonstrate the required permeability [Spec. 02220-3.09.H. & Table 02220-1].
 - e. Soil cover material shall be placed over the geocomposite such that the geocomposite is not damaged and no tensile stress is induced in the materials [CQAP 6.2.6.].

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.10., cont'd)

- f. Earthwork shall be tested by the CQCC for the tests and frequencies specified in Specification Section 02220-Table 02220-1.
- g. The gravel used for the toe drain system and gas vent system installations shall be FDOT No. 4 or No. 57 aggregate [ref. SC#A.2.a.(4), Sheet 12, Detail 3; Spec. 02220-2.08]. The gravel used for the gas vent system installations shall be FDOT No. 4 [ref. SC#A.2.a.(4), Sheet 15, Details 1 & 5].
- h. Prior to placement of geosynthetic materials on the subbase, an as-built topographic survey shall be provided to the Engineer to verify conformance with the Drawings and Specifications. The subgrade shall be accepted by the Liner Installer and Engineer in writing before placement of the next layer [CQAP, 6.1.3.; Spec. 02220-3.08.G.].
- i. During the construction of, and until the geomembrane is placed on the subbase, the subbase shall be inspected daily for signs of desiccation, excessive moisture, or other damage. In the event that the condition of the subbase deteriorates, corrective actions shall be implemented immediately. Washouts or erosion of the subbase shall be repaired immediately. The CQAR shall observe the condition of the subbase and note areas of inadequacy, erosion or other deterioration in the Daily Reports.
- j. Loose granular materials shall be stored on solid surfaces in a well-drained area and shall be prevented from mixing with foreign matter [Spec. 01600-1.05.C.].

11. Geosynthetic Materials.

a. Conformance testing.

- 1) The CQA Consultant or designee (independent from the Contractor) shall take conformance samples of the geosynthetics materials in accordance with the test methods and frequencies referenced in Specific Condition B.11.a(3) below. [Spec. 02077-2.02; 02700-2.02; 02776-2.02; 02930-3.02; CQAP 6.1.2.2., 6.2.2., 6.3.5., 6.4.2] In all cases, the test results shall meet or exceed the property values in the Specifications and CQAP.
- 2) The geosynthetic materials shall not be accepted for use on the project until the results of the CQA conformance testing that indicate that the geosynthetics meet the specifications have been received.
- 3) The geosynthetic materials shall conform to the following:
 - a) Non-woven geotextile in geocomposite (CDN): Spec. 02930-Table 02930-2
 - b) 300-mil Bi-planar Geocomposite: Spec. 02930-Tables 02930-1 through 02930-3
 - c) 40-mil LLDPE: Spec. 02700-Table 02700-1
 - d) 60-mil HDPE: Spec. 02776-Table 02776-1
 - e) Geosynthetic Clay Liner (GCL): Spec. 02077-2.01 E. & F.
- 4) Certificates of Compliance from the Manufacturer are acceptable in lieu of CQA testing for resin certificates for raw materials for geosynthetics, water vapor transmission rates through geomembranes, Oxidation Induction Time (OIT), general chemical compatibility ratings.

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.11., cont'd)

b. Seaming.

- 1) Seaming processes other than fusion or extrusion welding shall be approved by the Engineer and submitted to the Department prior to implementation [CQAP 6.1.8.3].
- 2) All seams shall meet the requirements of Specification 02770 Table 02700-2. [Spec. 02700-3.07.C.7.] and Specification 02776 Table 02776-2. [Spec. 02776-3.07.C.7.]. Seaming apparatus or personnel which have failed trial welds shall not be used for seaming until passing welds are achieved [CQAP 6.1.8.7.; Spec. 02700-3.04.E.8. & 02776-3.04.E.8.].
- 3) Geomembrane seaming activities shall only be conducted during daylight hours and within the weather requirements of the Specifications, unless otherwise specifically approved by the Department. Seaming shall only take place with the "master seamer" present. No geomembrane seaming shall be performed unless the CQA manager/inspector is on-site.
- 5) The full-time resident CQA inspector shall observe no more than two geosynthetics seaming crews at any given time.
- 6) The procedure used to temporarily bond adjacent geomembrane panels together shall not damage the geomembrane. Solvent or adhesive shall not be used to bond geomembrane panels.
- 7) All seaming operations shall cease upon the presence of any precipitation (drizzle, sprinkle, fog, dew, etc.). [CQAP 6.1.7.; 6.1.8.5.]
- 8) Seams shall be oriented parallel to the line of maximum slope, i.e., oriented along, not across the slope. [Spec. 02700-3.04.A.1.; 02776-3.04.A.1]
- 9) No more geomembrane panels shall be deployed than can be seamed on the same day.

c. Destructive testing.

- 1) Destructive tests of the geomembrane seams shall be taken at random locations, at a minimum frequency of one test location per 500 feet of seam. This frequency shall not be based on an average throughout the entire facility [CQAP 6.1.9.2.; Spec. 02700-3.07.B.1.; 02776-3.07.B.1.].
- 2) In all cases destructive tests conducted on the geomembrane field seams shall demonstrate that the failure is outside of the seam area. Five specimens shall be tested for each test method (peel and shear) [CQAP, 6.1.9.4.; Spec. 02700-3.07.C.7.; 02776-3.07.C.7.]. All samples shall meet the minimum strength requirements for each test method (peel and shear) listed in Specification Tables 02770-2 & 02776-2. The strength results shall not be averaged and both sides of fusion welds shall be tested.
- 3) Work shall not proceed with any materials which will cover locations which have been destructively tested or repaired until laboratory test results which demonstrate passing values are provided to the on-site CQA manager/inspector [CQAP 6.1.10].

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.11.c., cont'd)

- 4) All areas that fail nondestructive testing shall be marked by the on-site CQA inspector [CQAP, 6.1.9.2].
 - 5) All welds shall be tested in shear and peel. Geomembrane seams shall not be tested by "hand" exclusively.
- d. Transmissivity.
- 1) The transmissivity test results required by the Specifications shall be submitted to the CQA Consultant for review before the proposed materials are approved for use on the project. [Spec. 02930-1.03.B.2.]
 - 2) The transmissivity of the geocomposite for the top, north, and east slopes of Phase I shall be a minimum of 1.6×10^{-3} m²/sec based upon a gradient of 0.33 and a normal load of 800 psf. [Spec. 02930-Table 02930-3] The transmissivity of the geocomposite for the south and west slopes of Phase I shall be a minimum of 8.0×10^{-4} m²/sec based upon a gradient of 0.33 and a normal load of 5000 psf [Spec. 02930-Table 02930-3]. Transmissivity testing shall be conducted on the actual materials that will be used in the project.
- e. Interface friction angles.
- 1) The minimum interface friction angle (peak) for all interfaces (geomembrane/soil, geomembrane/geocomposite, geocomposite/soil) shall be **25.1 degrees with no adhesion** [Spec. 02700-2.01.D.& E.; 02776-2.01.D.& E., 02930-3.02.C.]. Deviation from this requirement shall require a permit modification and shall demonstrate that adequate slope stability will be achieved.
- f. Wrinkles. The construction methods used shall minimize wrinkles in the geomembrane and geocomposites. Excessive wrinkles are wrinkles that fold over when stepped on or are at least 12 inches high. Excessive wrinkles shall be removed, and the areas repaired. Areas where wrinkles are removed shall be repaired and re-tested in accordance with the Specifications and CQA Plan.
- g. The liner system shall not be damaged by excessive traffic.
- h. The geocomposite drainage net (CDN) material and geotextile shall be handled (stored, placed, etc.) in a manner which prevents the infiltration of dirt and protects the CDN and geotextile from abrasion, punctures and excessive moisture. Geocomposite that is clogged by dirt shall be cleaned prior to placement [CQAP 6.3.6; Spec. 02930-3.05.A.].
- i. In areas where stakes are used, stakes shall not be of a type or used in a way that may damage the geomembrane.
- j. The geomembrane shall always be kept dry and protected from wind damage [CQAP §6.1.7.]. Temporary loading and/or anchoring devices (such as sand bags) shall be removed prior to placing the next layer (i.e., geocomposite or soil) over the geomembrane.

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.11.c., cont'd)

k. Geocomposite Clay Layer.

- 1) The GCL shall have a saturated hydraulic conductivity of no greater than 5×10^{-9} cm/sec with landfill leachate and no greater than 1×10^{-7} cm/sec with groundwater [Spec. 02077-2.01.F].
 - 2) GCL that has become prematurely hydrated or has become hydrated with no confining pressure shall not be used on this project [see Spec. 02077-3.07.D].
 - 3) Exposing the existing Phase I side liner system and placement of the GCL over the exposed Phase I liner shall be conducted with extreme care so as to not damage the existing liner [Spec. 02077-3.04.A]. Damage to the existing Phase I side liner system shall be reported to the Department in accordance with Specific Condition #C.6.b.
- l. No geomembrane and GCL shall be placed in an area that has become softened by precipitation or desiccated and cracked due to lack of moisture. No standing water or excessive moisture shall be allowed on the area to be lined before the geomembrane or GCL installation.

SPECIFIC CONDITIONS: PART C - Operation Requirements

1. Facility Operation Requirements.

a. The permittee shall operate the active portions of this facility in accordance with Chapter 62-701, F.A.C., and Operation Permit 38414-011-SO/01 (including modifications, if any), or its successors.

b. This permit does not authorize the disposal of waste on the closed south and west slopes of Phase I.

c. After issuance of this permit (including the time period during construction of the final cover until the certification of closure construction is approved by the Department), and throughout the operating life of the active portions of this facility, the top, north and east slopes of Phase I shall be inspected and maintained as required in the Long-Term Care Plan [ref. SC#A.2.a(3)].

2. Facility Personnel. The owner or operator shall provide adequate personnel for constructing, operating, monitoring and maintaining the facility in an orderly, safe, and sanitary manner.

3. Control of Access. Access to, and use of, the facility shall be controlled as required by Rule 62-701.500(5), F.A.C.

4. Monitoring of Waste. The permittee shall not accept hazardous waste or any hazardous substance at this site. Hazardous wastes are wastes listed in 40 CFR 261 Subpart D as hazardous or are wastes characterized in 40 CFR 261 Subpart C as hazardous. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule. Sludges or other wastes which may be hazardous should be disposed of in accordance with Rules 62-701.300(4) and 62-701.500(6)(b), F.A.C. In the event that hazardous wastes are discovered, the Department shall be notified in accordance with Specific Condition C.6.b. below.

5. Control of Nuisance Conditions. The owner or operator shall control odors, vectors (mosquitoes, other insects, rodents), and fugitive particulates (dust, smoke) arising from the construction and operation so as to protect the public health and welfare. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance.

6. Facility Maintenance and Repair.

a. The site shall be properly maintained including maintenance of access roads, equipment, stormwater and leachate management systems (including tanks and piping), cover systems and berms, gas venting and/or monitoring and management systems, surface water management system, and groundwater monitoring system. Erosion and ponded water within landfill footprint shall be prevented.

b. In the event of damage to any portion of the landfill site facilities, unauthorized leachate discharges, failure of any portion of the landfill systems (including damaged or dry groundwater monitoring wells), fire, explosion, the development of sinkhole(s) or other subsurface instability at the site, the permittee shall **immediately (within 24 hours)** notify the Department explaining such occurrence and remedial measures to be taken, method to prevent reoccurrence, and time needed for repairs. **Written, detailed notification shall be submitted to the Department within seven (7) days following the occurrence.** Routine maintenance does not require notification but shall be noted on daily reports.

SPECIFIC CONDITIONS: PART C - Operation Requirements

(Specific Condition #C.6., cont'd)

c. In the event that any portion of the groundwater monitoring system is damaged or unable to be sampled, corrective actions shall be completed **within sixty (60) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department. Corrective actions which include relocation or installation of new groundwater monitoring wells shall be in accordance with Specific Condition #E.5., or as otherwise approved by the Department.

d. In the event that the leachate management systems are damaged or are not operating effectively, corrective actions shall be initiated **within thirty (30) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department.

7. **Stormwater Management.** The site shall have a surface water management system designed, constructed, operated, and maintained to prevent surface water from running on to waste filled areas, and a stormwater runoff control system designed, constructed, operated, and maintained to collect and control stormwater to meet the requirements of Chapter 62-330, F.A.C., and the requirements for management and storage of surface water in accordance with Rule 62-701.500(10), F.A.C., to meet applicable standards of Chapters 62-3, 62-302, and 62-330, F.A.C. The stormwater management system shall be inspected for damage and proper operation daily.

8. **Leachate Management.**

a. Leachate shall be managed in accordance with the requirements of Operation Permit 38414-011-SO/01 (including modifications, if any), or its successors, the *Long-Term Care Plan* [ref.SC#A.2.a(3)], Rule 62-701.500(8), F.A.C., and other applicable Department rules.

SPECIFIC CONDITIONS: PART D - Recordkeeping

1. **Report Submittals.** Unless otherwise specified, all submittals, notifications, requests for permit modification, reports for compliance with this permit, etc. shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, Fl. 33637-0926.
2. **Operation Plan and Operating Record.** Each landfill owner or operator shall have an operational (long-term care, monitoring and maintenance) plan. A copy of the Department approved permit, plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections. Operating records as required by Rule 62-701.500(3), F.A.C., shall be maintained at the site.
3. **Construction Records.** The permittee shall maintain all records required by the construction specifications, CQA Plan and this permit on-site during construction, and shall provide copies to the Department upon request, unless specified otherwise.
4. **Financial Assurance.** The permittee shall provide adequate financial assurance for this facility and related appurtenances in accordance with Rule 62-701.630, F.A.C.
 - a. All costs for closure shall be adjusted and submitted annually, by September 1st each year to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 13051 North Telecom Parkway, Temple Terrace, Fl. 33637-0926.
 - b. Proof that the financial mechanism has been adequately funded shall be submitted annually to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, MS#4565, Tallahassee, Florida 32399-2400.

SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements

1. Water quality monitoring shall be conducted as required by Operation Permit 38414-011-SO/01 (including modifications, if any), or its successors.

SPECIFIC CONDITIONS: PART F - Landfill Gas Management

1. Landfill Gas - NPs and Title V Air Requirements.

a. This solid waste permit will meet the statutory requirement to obtain an air construction permit before modifying or constructing a source of air pollution, except for those landfills that are subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. Facilities that are subject to the PSD requirements shall obtain an air construction permit from the Bureau of Air Regulation prior to beginning construction or modification pursuant to Rule 62-210.400, F.A.C.

b. The permittee shall comply with any applicable Title V air operation permit application requirements of Chapter 62-213, F.A.C., and 40 CFR 60, Subparts WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. Title V Permit applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill.

c. The permittee shall submit to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 3900 Commonwealth Blvd., Tallahassee, FL 32399-3000, any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b).

2. **Gas Monitoring and Control.** Landfill gas shall be monitored and controlled as required by Operation Permit 38414-011-SO/01 (including modifications, if any); or its successors.

3. **Gas Monitoring Locations.** Gas monitoring probes shall be located as listed in Operation Permit 38414-011-SO/01 (including modifications, if any), or its successors.

4. **Gas Remediation.** In the event that the Lower Explosive Limit (LEL) is greater than 25% inside structures either on or off of the landfill site, or greater than 100% at the property boundary, the owner shall submit to the Department, **within 7 days of detection**, a remediation plan detailing the nature and extent of the problem and the proposed remedy. The remedy shall be completed **within 60 days of detection** unless otherwise approved by the Department.

SPECIFIC CONDITIONS: PART G - Closure and Long-Term Care Requirements

1. Closure Requirements.

a. Long-Term Care Requirements.

1) The owner or operator shall perform long-term care for the closed portions of the site in accordance with Rule 62-701.620, F.A.C., the *Long-Term Care Plan* [ref. SC#A.2.a(3)], and the conditions of Operation Permit 38414-011-SO/01 (including modifications, if any), or its successors.

2) Long-term care includes, but is not limited to, water quality, leachate and gas monitoring, maintenance of the final cover system, maintenance of the leachate collection and removal system and gas management system, erosion control, and the prevention of ponding within disposal areas.

b. Closing Requirements.

1) **No later than ninety (90) days** prior to the date when wastes will no longer be accepted for portions of the landfill which have reached closure design dimensions, the landfill owner or operator shall submit a closure permit application to the Department, in order to assure conformance with all applicable Department rules. A closure permit is required prior to implementing closure related activities.

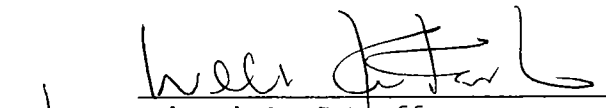
2. Future Use of Closed Landfill Areas.

a. There are no current Department-approved uses of the portions of Hardee County Class I landfill closed under this permit for activities other than those associated with conducting the monitoring and maintenance of the facility in accordance with the long-term care plan.

b. Use of closed landfill and waste disposal areas requires consultation with and approval by the Department prior to conducting these activities in accordance with Rules 62-701.610(7) and 62-701.610(8), F.A.C. The Department retains regulatory control over any activities which may affect the integrity of the environmental protection measures such as the final cover materials (soil and vegetation), monitoring systems or stormwater controls. A plan detailing the proposed activities and the potential effects on the facility systems (e.g., final cover soils and vegetation), including engineering designs, calculations and plans, as appropriate, shall be submitted for Department review. The Department's document entitled "Guidance for Disturbance and Use of Old Closed Landfills or Waste Disposal Areas in Florida", dated May 3, 2001, or successor document, may be used as guidance. Authorization to use the closed portions of the Hardee County Class I landfill for activities other than those described in Specific Condition #G.2.a., may require a modification of this permit to comply with Specific Condition #A.3.a.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


Deborah A. Getzoff
District Director
Southwest District

ATTACHMENT 1		
Specific Condition	Submittal Due Date	Required Item
A.4.	By April 15, 2014 By August 15, 2014	Notification of intent to renew permit Submit permit renewal application
A.9.a.	Within 24 hours of discovery Within 7 days of verbal notification	Notification of limestone encountered, sinkholes, or subsurface instability Written notification & corrective action plan
B.2.a.	Within 60 days of completion	Submit certification of construction completion, record drawings, etc.
B.4.a.	At least 30 days prior to construction	Submit complete plans, specification, CQA plan, or statement that no changes have occurred, org. chart with parties/roles
B.4.b.	Prior to installation of the geomembrane liner and geocomposite	Submit interface friction testing results.
B.4.c.	No later than 2 weeks prior to use of alternate seaming methods and construction of liner penetrations and tie-in to Phase I & Phase II, Section I bottom liners	Notify of construction initiation to allow for observation
B.5.	At least 1 week prior	Notify of preconstruction meeting
B.5. B.6.a.	No later than 2 weeks after pre-construction meeting	Submit meeting minutes and pre-construction schedule
B.6.b.	Monthly, by the 15 th each month	Submit monthly progress report & schedule
B.8.e.	At least 1 week prior	Notify of night work

ATTACHMENT 1 cont'd		
Specific Condition	Submittal Due Date	Required Item
C.6.b.	Within 24 hours of discovery	Notification of: hazardous waste receipt, failure of landfill systems or equipment
	Within 7 days of verbal notification	Written notification & corrective action plan
C.6.c.	Within 60 days of written notification	Complete corrective actions for gradient or groundwater monitoring system
C.6.d.	Within 30 days of written notification	Implement corrective actions for leachate management system
D.4.a.	Annually, by September 1 st each year	Submit revised cost estimates
D.4.b.	Annually	Submit proof of funding
F.4.	Within 7 days of detection	Submit gas remediation plan
	Within 60 days of detection	Complete corrective actions
G.1.b.	No later than 90 days prior to the date when wastes will no longer be received	Submit Closure Permit application

AFFIDAVIT OF PUBLICATION
The Herald-Advocate
Published Weekly at Wauchula, Florida

Dept. of Environmental Protection

OCT 28 2009

Southwest District

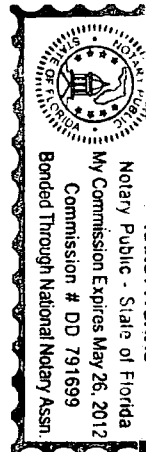
STATE OF FLORIDA,
COUNTY OF HARDEE

Before the undersigned authority personally appeared Kim Reas
who on oath says he is the Secretary of The Herald-Advocate, a
newspaper published at Wauchula, in Hardee County, Florida; that the attached copy of advertise-
ment, being a Notice of Proposed Agency Action on
in the matter of Hardee Co. Solid Waste Dept. Permit Application
in the _____ Court, was published in said newspaper in the issues
of Oct 15, 22, 2009

Affiant further says that the said Herald-Advocate is a newspaper published at Wauchula, in
said Hardee County, Florida, and that the said newspaper has heretofore been continuously published
in said Hardee County, Florida, each week and has been entered as second class mail matter at the
post office in Wauchula, in said Hardee County, Florida, for a period of one year next preceding the
publication of the attached copy of advertisement; and affiant further says that he has neither paid nor
promised any person, firm or corporation any discount, rebate, commission or refund for the purpose
of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me this 22nd day of October
A.D. 20 09

My Commission Expires May 26, 20 12
Notary Public



State of Florida
Department of Environmental Protection
Notice of Proposed Agency Action on Permit Application

The Department gives notice of its intent to issue a permit (File No. 38414-012-SF/01) to the Hardee County Solid Waste Department, who applied on April 30, 2009 to the Department of Environmental Protection for a permit for closure and long-term care of a portion of an existing Class I Landfill, referred to as the Hardee County Class I Landfill - Phase I, subject to the specific and general conditions attached, located at 685 Airport Road, east of the City of Wauchula, Hardee County, Florida.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below, and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within fourteen (14) days of publication of this notice. A copy of the petition must also be mailed at the time of filing to the applicant at the address indicated. Failure to file a request for hearing within this time period shall constitute a waiver any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes. Mediation is not available in this proceeding.

The petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of Department's action, or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; and (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department.

Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes, and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at 13051 North Telecom Parkway, Temple Terrace, Florida 33635-0926.

From: Brantley, Anna
Sent: Friday, October 09, 2009 7:34 AM
To: Moore, Ronni; Wick, Fred; Hornbrook, Frank; Morris, John R.; County Administrator Lex Albritton and Commissioners; Represenative Baxter Troutman; Senator J.D. Alexander
Cc: Pelz, Susan; Morgan, Steve
Subject: Hardee County CL I LF.Phase I Closure - Intent to Issue Permit - #38414-12-SF.01 - dated & mailed 10-8-2009.pdf (SECURED) - Adobe Acrobat Professional
Attachments: Hardee County CL I LF.Phase I Closure - Intent to Issue Permit - #38414-12-SF.01 - dated & mailed 10-8-2009

On behalf of Steve Morgan, please find attached an electronic copy of the "Intent to Issue of Permit for Hardee County Class I Landfill – Phase I Closure, Permit #38414-12-SF/01" dated and issued 10-8-2009.

Anna

*Anna Brantley
Administrative Assistant II
FL DEP / SWD / Waste Managment
13051 North Telecom Parkway
Temple Terrace FL 33637-0629
Tel: 813/632-7600, Ext. 377
Fax: 813/632-7664
anna.brantley@dep.state.fl.us*

Memorandum

Florida Department of Environmental Protection

PERMIT COVER MEMO

TO: x ~~DEBORAH A. GETZOFF, District Director~~

FROM/THROUGH: WME

William Kutash

Susan Pelz, P.E. 10/6/09

Steve Morgan

ENVIRONMENTAL ADMINISTRATOR

SOLID WASTE MANAGER

SOLID WASTE PERMITTING 10/8/09

DATE: October 8, 2009

FILE NAME: Hardee County Class I Landfill
Phase I Closure

PERMIT #: 38414-012-SF/01

PROGRAM : Solid Waste

COUNTY : Hardee

TYPE OF PERMIT ACTION: INTENT TO ISSUE PERMIT

PERMIT SUMMARY: This permit application is for closure of Phase I of the existing Hardee County Class I landfill, including the vertical expansion bottom liner system on the south slope of Phase I for the Phase II, Section I lateral expansion and the vertical expansion bottom liner system on the west slope of Phase I for the future Phase II, Section II lateral expansion.

PROFESSIONAL RECOMMENDATION: X APPROVE DENY

EVALUATION SUMMARY: The applicant has provided sufficient information to demonstrate compliance with Department Rules.

TIH= 161; TTP=116 (to 10/08/09)		TTP
Application rec'd	04/29/09	
RAI #1 sent	05/29/09	30
RAI #1 response rec'd	07/13/09	
Supplemental Info rec'd	08/13/09	
Application complete	07/13/09	
Final permit for routing	10/08/09	86

DAY 90/30 FOR THIS ACTION IS: ASAP Day 90=10/11/09

Hardee County CLIF Phase 1 Closure

U.S. Postal Service TM
CERTIFIED MAIL TM RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

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OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage	

10-8-09

Postmark
Here

Sent To

Teresa Carver, Director
Hardee County Solid Waste Dept.
685 Airport Road
Wauchula, FL 33873

Street, Apt. No.,
or PO Box No.

City, State, ZIP+

PS Form 3800, August 2005 See Reverse for Instructions

Intent To Issue

7008 0150 0003 4894 2470

UNITED STATES POSTAL SERVICE

SAINT PETERSBURG FL

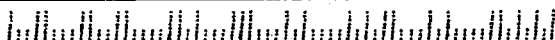
09 OCT 2009 PM 7:17

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

OCT 13 2009

Florida Department of Environmental Protection Southwest District
Southwest District
c/o Steve Morgan – Solid Waste
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Teresa Carver, Director
Hardee County Solid Waste Dept.
685 Airport Road
Wauchula, FL 33873

2. Article Number

(Transfer from service label)

7008 0150 0003 4894 2470

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *[Signature]* ☐ Agent
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

[Signature] *[Signature]* 10-9-09

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

- ☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

**THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

CERTIFIED MAIL 7008 0150 0003 4894 2470
RETURN RECEIPT REQUESTED

October 8, 2009

In the matter of an
Application for Permit by:

Permit No.: **38414-012-SF/01**
Citrus County

Ms. Teresa Carver, Director
Hardee County Solid Waste Department
685 Airport Road
Wauchula, Florida 33873

INTENT TO ISSUE

The Department of Environmental Protection gives notice of its Intent to Issue a permit (copy attached) for the proposed project as detailed in the application specified above, for the reasons stated below.

The applicant, Hardee County Solid Waste Department, applied on April 30, 2009 to the Department of Environmental Protection for a permit for closure and long-term care of a portion of an existing Class I Landfill, referred to as the Hardee County Class I Landfill - Phase I, subject to the specific and general conditions attached, located at 685 Airport Road, east of the City of Wauchula, Hardee County, Florida.

The Department has permitting jurisdiction under Sections 403.707 and 403.861, Florida Statutes (F.S.), and Chapters 62-4 and 62-701, Florida Administrative Code (F.A.C.). The project is not exempt from permitting procedures. The Department has determined that a solid waste closure permit is required for the proposed work.

The Department intends to issue this permit based on its belief that reasonable assurances have been provided to indicate that the proposed project will not adversely impact water quality and the proposed project will comply with appropriate provisions of Chapters 62-4 and 62-701, F.A.C., subject to the specific conditions attached in the permit.

Pursuant to Section 403.815, Florida Statutes and Chapters 62-110 and 28-106, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on Permit Application. The notice must be published one time only within thirty (30) days of receipt of this intent in the legal ad section of a newspaper of general circulation in the area affected. Proof of publication must be provided to the Department within seven (7) days of publication of the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit. The Department will issue the permit with the attached conditions unless petition for administrative proceeding (hearing) is filed pursuant to the provisions of Sections 120.569 and 120.57, Florida Statutes.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by

any other person must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 of the Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number, and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by the petitioner, if any;
- (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the action or proposed action addressed in this notice of intent.

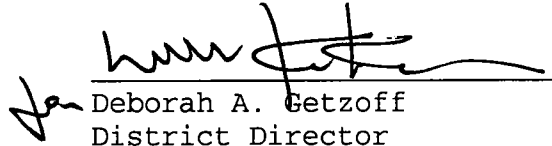
Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available in this proceeding.

Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above, and must therefore file their petitions within fourteen days of receipt of this notice of intent.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


Deborah A. Getzoff
District Director
Southwest District

DAG/sgm

Attachments

Copies furnished to:

Hardee County Elected Officials Notification
Shane Fischer, P.E., SCS Engineers, sfischer@scsengineers.com
Ronni Moore, OGC Tallahassee (e-mail)
Fred Wick/Frank Hornbrook, FDEP, Tallahassee (e-mail)
John Morris, P.G., FDEP Tampa, SW (e-mail)
Susan Pelz, P.E., FDEP Tampa (e-mail)

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this **NOTICE OF INTENT TO ISSUE** and all copies were mailed or transmitted electronically to the addressee and the listed persons before the close of business on October 8, 2009 to the listed persons.
Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to Section
120.52(11), Florida Statutes, with the
designated Department Clerk, receipt of
which is hereby acknowledged.


(Clerk)

10/8/09
(Date)

**State of Florida
Department of Environmental Protection
Notice of Proposed Agency Action on Permit Application**

The Department gives notice of its intent to issue a permit (File No. 38414-012-SF/01) to the Hardee County Solid Waste Department, who applied on April 30, 2009 to the Department of Environmental Protection for a permit for closure and long-term care of a portion of an existing Class I Landfill, referred to as the Hardee County Class I Landfill - Phase I, subject to the specific and general conditions attached, located at 685 Airport Road, east of the City of Wauchula, Hardee County, Florida.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below, and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within fourteen (14) days of publication of this notice. A copy of the petition must also be mailed at the time of filing to the applicant at the address indicated. Failure to file a request for hearing within this time period shall constitute a waiver any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes. Mediation is not available in this proceeding.

The petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of Department's action, or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; and (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department.

Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes, and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at 13051 North Telecom Parkway, Temple Terrace, Florida 33635-0926.



Florida Department of Environmental Protection

Southwest District
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
Telephone: 813-632-7600

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

PERMITTEE

Hardee County Solid Waste
Department
685 Airport Road
Wauchula, Florida 33873
C/o Ms. Teresa Carver, Director

PERMIT/CERTIFICATION

WACS Facility ID No: SWD/25/40612
Permit No: **38414-012-SF/01**
Date of Issue:
Expiration Date:
County: Hardee
Lat/Long: 27°34'17"N
81°46'58"W
Sec/Town/Rge: 35/33S/25E
Project: Hardee County Class I Landfill
Phase I Closure

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-4, 62-302, 62-330, 62-522, 62-550, and 62-701. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or referenced in Specific Condition #A.2., and made a part hereof and specifically described as follows:

To **construct** a final cover system and a passive gas collection system and conduct monitoring and maintenance for closed portions (approx 13.6 acres) of a Class I landfill, referred to as the **Hardee County Class I Landfill - Phase I**, subject to the specific and general conditions attached, located at **685 Airport Road, east of the City of Wauchula, Hardee County, Florida**. The specific conditions attached are for the construction and operation of:

1. Final cover system
2. Passive gas venting system within the lined landfill area

Replaces Permit No.: New

This permit contains compliance items summarized in **Attachment 1** that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure compliance with the conditions of this permit.

<u>General Information:</u>	<u>Phase I</u>
Closure acres	Approx. 13.6 acres [ref. SC#A.2.a., Sec. P.2.a.]
Bottom elevation of the landfill liner system	+72 feet NGVD (approximate top of clay) [ref. SC#A.2.a.(4), Sheet 9]
Bottom landfill liner system	In-situ clay bottom w/geosynthetic sidewalls
LCS design LDS design	Perimeter rock/LCS piping None
Top closure elevation (including cover)	Approx. 169 ft NGVD [ref. SC#A.2.a.(4), Sheet 7]
Final cover system (bottom to top)	<p><u>North, East, and Top Slopes (approx. 7.0 acres)</u></p> <p>12-inch soil subgrade, 40 mil LLDPE textured geomembrane, 300-mil bi-planar geocomposite drainage layer, 18-inch protective soil layer (max. 1×10^{-4} cm/sec) [Spec. 02220-2.06.B.], 6-inch top soil, sod [ref. SC#A.2.a., Sec. P.4; SC#A.2.a.(4), Sheet 11, Detail 6]</p> <p><u>South and West Slopes (approx. 6.6 acres)</u></p> <p>24-inch soil subgrade, 60 mil HDPE textured geomembrane, 300-mil bi-planar geocomposite drainage layer, 24-inch drainage soil layer (min. 1×10^{-3} cm/sec) [Spec. 02220-2.06.C.], 12-mil rain tarp [Spec 02941-2.01] (south slope), ConCover 180 or Engineer approved equal [Spec 02941-2.01] (west slope) [ref. SC#A.2.a., Sec. P.4; SC#A.2.a.(4), Sheet 11, Detail 1]</p>
Closure slopes	3H:1V max. side slopes, 5% min. top slope [ref. SC#A.2.a.(4), Sheet 7]
Gas vent system	8 passive vertical gas vents (6" SCH 80 PVC pipes w/ 3/8" x 8" slots) and 8 horizontal LFG trench vents w/11 vertical gas vents (4" HDPE SDR 17 pipes w/ 1/2" perforations) [ref. SC#A.2.a.(4), Sheets 8 & 15]

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - (a) Have access to and copy any records that must be kept under conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

GENERAL CONDITIONS:

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (a) Determination of Best Available Control Technology (BACT)
- (b) Determination of Prevention of Significant Deterioration (PSD)
- (c) Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
- (d) Compliance with New Source Performance Standards

GENERAL CONDITIONS:

14. The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS: PART A -Solid Waste Facility General Requirements

1. **Facility Designation.** This site shall be classified as a Class I landfill and shall be constructed, operated, closed, monitored and maintained in accordance with all applicable requirements of Chapters 62-4, 62-302, 62-330, 62-520, 62-522, 62-550, and 62-701, Florida Administrative Code (F.A.C.) and all applicable requirements of Department rules.

2. **Permit Application Documentation.** This permit is valid for construction of the Phase I Closure and related systems (including final cover, stormwater drainage system and passive gas venting system), of the Hardee County Class I Landfill in accordance with Department rules and the reports, plans and other information prepared by SCS Engineers (SCS) (unless otherwise specified) as follows:

a. Hardee County Landfill Application for Phase I Closure Permit (collated into two 3-ring binders*) dated April 29, 2009 (received April 30, 2009), as revised, replaced or amended (information inserted into original) dated and received July 13, 2009, and dated and received August 13, 2009. This information includes, but is not limited to:

- 1) Construction Quality Assurance Plan, Attachment P-2, [CQAP], as revised July 13, 2009;
- 2) Technical Specifications, Attachment P-2, Appendix J, [Specs.], as revised July 13, 2009;
- 3) Long-Term Care Plan, Part R, dated September 25, 2006; and
- 4) Plan Sheets titled, Hardee County Landfill Phase I Closure Construction Drawings... (23 Sheets) dated April 2009 (received April 30, 2009) including revised Sheets 1, 6, 7, 8, 10, 14, and 15, dated and received July 13, 2009 and revised Sheet 12 dated July 13, 2009 (received August 13, 2009).

3. **Permit Modifications.**

a. Any construction or operation not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate. Any significant changes to the construction or operation at the facility shall require a permit modification. Permits shall be modified in accordance with the requirements of Rule 62-4.080, F.A.C. A modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review by the Department is considered a substantial modification.

b. This permit does not authorize landfill operation. Construction, operation, or other activities not previously approved as part of this permit shall require a separate Department permit unless the Department determines a permit modification to be more appropriate, or unless otherwise approved in writing by the Department.

c. This permit authorizes the construction of the Phase I Closure final cover system, and related passive gas venting system and other related appurtenances, only.

d. This permit does not authorize the tie-in of the west slope closure liner system to the future bottom liner system of Phase II, Section II.

* see OCULUS for uncollated submittals

SPECIFIC CONDITIONS: PART A -Solid Waste Facility General Requirements

4. **Permit Renewal.** On or before April 15, 2014 the permittee shall notify the Department in writing or electronically of its intent to apply for renewal of this permit and of the anticipated date of submittal of the permit renewal application. **No later than August 15, 2014**, the permittee shall apply for a renewal of a permit on forms and in a manner prescribed by the Department, in order to assure conformance with all applicable Department rules. Permits shall be renewed at least every five years as required by Rule 62-701.320(10)(b), F.A.C. Long-term care permit renewal shall include, but not be limited to; an updated long-term care plan; an assessment of the effectiveness of the landfill design, including the surface water and stormwater management, leachate management, gas management and final cover systems; a gas migration evaluation; a water quality monitoring plan evaluation; and revised (not inflation-adjusted) financial assurance cost estimates.

5. **Professional Certification.** Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.), Florida Statutes, applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

6. **General Conditions.** The permittee shall be aware of and operate under the "General Conditions." General Conditions are binding upon the permittee and enforceable pursuant to Chapter 403, Florida Statutes.

7. **Permit Acceptance.** By acceptance of this Permit, the Permittee certifies that he/she has read and understands the obligations imposed by the Specific and General Conditions contained herein and also including date of permit expiration and renewal deadlines. It is a violation of this permit for failure to comply with all conditions and deadlines.

8. **Regulations.** Chapter 62-701, F.A.C., effective May 27, 2001, is incorporated into this permit by reference. In the event that the regulations governing this permitted operation are revised, the Department shall notify the permittee, and the permittee shall request modification of those specific conditions which are affected by the revision of regulations to incorporate those revisions.

9. **Prohibitions.** The prohibitions of Rule 62-701.300, F.A.C., shall not be violated by the activities at this facility.

a. In the event that limestone is encountered during excavation or construction activities, the excavation/construction activities shall cease and the Department shall be notified **within 24 hours of discovery**. Written notification shall be submitted **within 7 days of discovery**. The written notification shall include the location, elevation, and extent of limestone noted on a plan sheet, a description of the materials encountered, and a plan of action which ensures that groundwater will not be adversely affected by the continued construction and operation of the facility. Excavation or construction activities shall not resume in the affected area until the Department-approved plan of action has been completed.

SPECIFIC CONDITIONS: PART A -Solid Waste Facility General Requirements

(Specific Condition #A.9., cont'd)

b. In the event that surface depressions or other occurrences which may be indicative of sinkhole activity or subsurface instability, are discovered on-site, or within 500 feet of the site, the Department shall be notified in accordance with Specific Condition #C.6.b. The written notification shall include a description of the incident, the location and size of the affected area shown on an appropriate plan sheet, and a corrective action plan which describes the actions necessary to prevent the unimpeded discharge of waste or leachate into ground or surface water.

c. Open burning of solid waste is prohibited except in accordance with Rule 62-701.300(3) and Chapter 62-256, F.A.C. All fires which require longer than one (1) hour to extinguish must be promptly reported to the Department in accordance with Specific Condition #C.6.b.

DRAFT

SPECIFIC CONDITIONS: PART B - Construction Requirements

1. **Construction.** All significant construction activities shall be approved by the Department prior to initiating work, unless specifically authorized otherwise.

a. This permit authorizes the construction of the Phase I Closure, including the final cover system and passive gas venting system in the closure area.

2. **Certification of Construction Completion.** All information required by this Specific Condition shall be signed and sealed by a registered professional engineer or land surveyor as appropriate.

a. **Within sixty (60) days** after the specified construction has been completed, the following activities shall be completed and submitted by the permittee for Department approval:

1) The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer in charge of construction and quality assurance to the Department for approval, and shall arrange for Department representatives to inspect the construction in the company of the permittee, the engineer, and the facility operator.

2) The owner or operator shall submit Record Drawings/Documents showing all changes (i.e. all additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations). The Record Documents shall include as-built plans, details and elevations (survey) as appropriate.

3) The owner or operator shall submit a narrative indicating all changes in plans, the cause of the deviations, and certification of the Record Drawings/Documents by the Engineer to the Department.

4) The professional engineer of record shall submit to the Department a final report to verify conformance with the plans and specifications in accordance with Rules 62-701.400(7) and (8), F.A.C.

3. **Record Drawings/Documents.**

a. The Record Drawings/Documents shall include, but not be limited to, the following information:

1) Location of all anchor trenches, i.e. limits of liner.

2) As-built locations and details of liner tie-ins as shown on Sheet 12 of 16 [ref. SC#A.2.a.(4)];

3) Daily construction reports;

4) As-built drawings showing the geomembrane panel installation layout, locations of fabricated and field seams, type of seams, destructive sampling locations, locations of all repairs, panel designations, geomembrane booting and connection details;

5) All geomembrane destructive test results;

6) A compact disc or other electronic media that includes all available photographs documenting all stages of the construction project [ref. CQAP, Sec. 7.2];

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.3.a., cont'd)

- 7) Permeability testing of the protective soil materials;
- 8) Gas vent and trench construction diagrams, including elevation at top of ground, total depth of vent, depth, thickness and description of soil or waste strata and the occurrences of any water-bearing zones.

4. Pre-Construction Submittals.

a. **At least thirty (30) days prior** to initiation of any construction activity, unless otherwise specified, the permittee shall submit the following information to the Department:

- 1) A **complete set** of Plans, Specifications and CQA Plan to be used for construction which includes all changes (i.e., all additions, deletions, revisions to the plans previously approved by the Department). All changes shall be noted using strikethrough (~~strikethrough~~) for deletions, and shading (~~shading~~) or underline (underline) for additions. All changes in the plans, specifications and CQA Plan shall be accompanied by a narrative indicating the change. Significant changes in the plans, as determined by the Department, shall require a permit modification. All changes in the plans shall be noted on the plans and the cause of the deviation and a re-certification of the alternate design by the design engineer shall be provided. These alternate designs shall be approved by the Department prior to construction. If **no** changes have been made to the construction plans, Specifications or CQA Plan, the permittee shall notify the Department in writing that no changes have been made, and re-submittal of these documents will not be required prior to construction.

- 2) The role and name of the specific company/organization for each of the parties in the Organization and Personnel team [ref. CQAP, Figure 3-1].

b. **Prior to initiation** of installation of the liner or geocomposite, the results of the interface friction testing using actual construction materials shall be submitted to the Department. The results must demonstrate that the all interfaces exhibit a minimum safety factor of 1.5 against sliding. Placement of the geomembrane or geocomposite shall not proceed prior to the Engineer's receipt of the results of the interface friction testing which meet the requirements of this condition. The minimum specified interface friction angle is 25.1 degrees with no cohesion for all interfaces [Spec. 02700-2.01.D.& E.; 02776-2.01.D.& E., 02930-3.02.C.].

c. **No later than 2 weeks** prior to construction of the following components of the project, the Department shall be notified of the initiation of construction of these components (for each phase of construction) to allow the Department to observe the construction of:

- 1) Seaming performed using a method other than double-fusion (wedge) or extrusion welding;
- 2) Final cover tie-in (overlap) to Phase I bottom liner on north, east, and west slopes and final cover tie-in to Phase II, Section I bottom liner on south slope;
- 3) Any liner penetrations/boots

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.4., cont'd)

- d. To allow for observation, at least 72 hours prior to initiation, the Department shall be notified of any spark testing.

5. **Pre-Construction Meeting Notification.** Department Solid Waste Permitting staff shall be notified **at least one (1) week prior** to all pre-construction meetings [CQAP 4.1]. Prior to initiating construction activities, the permittee shall make arrangements for the Engineer of Record to meet on site and discuss all plan changes with Department Solid Waste Permitting Staff of the Southwest District Office. A copy of the minutes from the pre-construction conference shall be submitted to the Department within two (2) weeks of the conference.

6. **Construction Schedule and Progress Report.**

a. **No later than two (2) weeks after** the pre-construction conference, the owner or operator shall submit a construction schedule, which includes estimated dates for each portion of the construction to the Department. The Engineer of Record or another qualified professional engineer shall make periodic inspections during construction to ensure that design integrity is maintained.

b. An updated construction schedule and progress report shall be submitted to the Department **monthly, by the 15th of each month**. The monthly progress report should be submitted in an appropriately labeled three-ring binder of sufficient size to store the monthly progress reports for the entire project, or may be submitted electronically. The monthly progress reports shall include, but not be limited to:

- 1) A narrative explaining the status (and any delays) of major stages of the construction (i.e., liner, piping, liner penetrations, etc.),
- 2) A summary of submittals and change order requests,
- 3) Weekly progress meeting minutes [CQAP 4.2] and
- 4) Color copies of photographs which are representative of the typical construction activities for the reporting period, and photographs which show overall views and details of major stages of construction (e.g., liner penetrations, bottom liner tie-in, gas vent installation, etc.).

7. **Construction Tolerances.**

a. The construction tolerance for elevations and grades shall be ± 0.20 ft. (vertical) and ± 0.50 ft. (horizontal) [Spec. 01050-3.01.H].

b. As-built topographic surveys shall demonstrate that the liner and protective soil cover were constructed within the tolerance required by the Drawings and Specifications. Grid spacing shall be no greater than a 50 ft. grid [Spec. 01050-1.04.C].

c. All soil layers shall be constructed to the thicknesses listed in the Specifications and CQA Plan, which are minimum requirements.

d. Surveys for piping shall be conducted at 100-foot intervals along the pipeline [Spec. 31 20 00-3.05.A].

SPECIFIC CONDITIONS: PART B - Construction Requirements

8. Construction Quality Assurance.

a. CQA Plan and Observation.

- 1) Liner systems shall have a construction quality assurance plan to provide personnel with adequate information to achieve continuous compliance with the construction requirements. The Construction Quality Assurance Plan shall be in accordance with Rules 62-701.400(7) and (8), F.A.C., the CQA Plan [ref. SC#A.2.a(2)], and the conditions of this permit.
- 2) The CQA professional engineer or his designee shall be on-site at all times during construction (including liner system and gas management system) to monitor construction activities.
- 3) The responsibility and/or authority of the Contractor shall not be modified or expanded to include activities required to be conducted by the CQA consultant or independent CQA laboratories [see CQAP 3.0].
- 4) The CQA Engineer and Inspectors shall evaluate contractor activities; review and evaluate submittals, and MQC and CQC results; perform and evaluate CQA tests; and notify the Engineer of defective or non-conforming work [CQAP 3.4].
- 5) The CQA Laboratories shall be independent of the Contractors, Installers, and Manufacturers. The CQA Laboratories are responsible for conducting interface friction angle testing and liner seams destructive testing as well as other tests listed in the specification and CQA Plan.

b. Construction Documents. A complete set of construction drawings and shop drawings, which include daily additions, deletions and revisions, shall be maintained on-site at all times for reference. Drawings which show the locations of geomembrane panel seams and repairs shall be kept on-site at all times for reference. Work shall not be concealed until required information is recorded.

c. Spills.

- 1) All liquid encountered during construction inside the landfill footprint is leachate and shall be managed appropriately. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to the land, surface water or groundwater outside the liner system at any time during the construction activities.
- 2) The Department shall be notified in accordance with Specific Condition #C.6.b. of all fuel, oils, greases, solvents, lubricants, etc., that are spilled or leaked in areas that may discharge outside the liner system. The permittee shall ensure that all personnel working on the landfill site (including contractors and subcontractors) shall utilize all appropriate measures to prevent spills and leaks of fuel, solvents, lubricants, oils, etc.

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.8., cont'd)

- d. Defective work. Unsatisfactory, defective or non-conforming work shall be reported to the Engineer and shall be corrected, or the reasons for not correcting the work shall be recorded and maintained on-site for reference and inspections. Documentation of the corrections or reasons for not correcting the work shall be submitted with the Record Documents required by Specific Conditions #B.2 and #B.3. All areas not meeting the requirements of the contract specifications and CQA Plan shall be reworked by the Contractor to meet the specifications, CQA Plan and requirements of this permit.
- e. Night work. Construction activities such as geomembrane seaming, QA/QC testing of the geosynthetics or soil materials, surveying, etc. shall not be carried out in non-daylight hours without prior Department approval [see CQAP 6.1.8.6]. If these activities will be conducted during nighttime hours, the Department shall be notified **at least 1 week** in advance for schedule makeup, and 1 day for weather emergencies, to allow for Department observation. This notification shall include a description of the methods which will be used to provide adequate illumination to ensure that the quality of the construction is not compromised.
- f. Where sod is used over lined areas, pegging of sod shall not damage the liner. Sod shall be used on the entire surface of the top, north, and east slopes of the Phase I closure area [ref. SC#A.2.a, §P.5.a].
- g. All portions of the final cover system and gas management system construction, shall be observed and documented by the CQA Consultant.
- h. CQA daily reports shall include weather conditions (e.g., precipitation, temperature).
- i. Runoff from stockpiled soils shall not discharge to surface water bodies or wetlands such that Department surface water standards are violated at the point of discharge.
- j. Dewatering.
 - 1) All excavations shall be maintained free from standing water. Except for the stormwater management system construction, no construction, including pipe laying, shall be allowed in water. The surface shall be graded such that there is no ponding of water.
 - 2) All liquids encountered within the landfill footprint are considered to be leachate and shall not be discharged to the stormwater management system [Spec. 01568-1.01.F and G., 02220-3.03.A.].
- k. All waste exposed by excavations or other construction activity shall be covered or removed for disposal daily [Spec. 02220-3.04.F. and 3.06.B.]. All wastes generated during the construction shall be disposed of within the on-site permitted disposal areas or a permitted off-site Class I landfill. No solid waste shall be used for backfill [Spec. 02220-3.06.A.].
- l. Runoff that has contacted excavated waste shall be managed as leachate and shall not be discharged to the stormwater management system [Spec. 01568-1.01.F and G.].

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.8., cont'd)

m. Gas well drilling shall be in accordance with the Specification Section 33 20 00 and 33 21 70, the closure construction drawings [ref. SC#A.2.a, Sheets 8 & 15], and the conditions of this permit. In the event that the gas well installation indicates that the bottom liner of landfill may have been encountered during gas well installation, the gas well drilling **shall cease** in the affected area and the Department shall be notified in accordance with Specific Condition #C.6.b. Gas well installation shall not resume until specifically approved by the Department.

n. Groundwater and gas monitoring wells/probes shall be protected at all times during construction [Spec. 01530-1.12]. In the event that a monitoring well is damaged, the Department shall be notified in accordance with Specific Condition C.6.b.

9. **Laboratory and Field Testing Requirements.** Field and laboratory testing during the construction activities shall be conducted by a qualified testing laboratory, independent of the manufacturer or installer, representing the owner. A qualified field technician representing the owner shall provide full time, on-site inspection during construction. The field technician shall work under the supervision of a professional engineer registered in the State of Florida with experience in landfill liner construction.

10. **Soil Materials.**

a. The liner subgrade beneath the 60-mil HDPE liner shall be compacted to a minimum of 95% Standard Proctor maximum dry density. [Spec. 02220-2.04.C. & 2.02.A.] Surfaces adjacent to geosynthetics shall be free of angular or sharp rocks and debris of any kind and free from particles greater than ¼ inch in diameter and any particles with protrusions of greater than ¼ inch. [Spec. 02220-2.02.A.]

b. The intermediate cover/grading layer beneath the 40-mil LLDPE liner shall be placed and compacted in accordance with Specification Section 02220-3.08 [Spec. 02700-3.01.A.] Surfaces adjacent to geosynthetics shall be free of angular or sharp rocks and debris of any kind and free from particles greater than ¼ inch in diameter and any particles with protrusions of greater than ¼ inch. [Spec. 02700-3.01.A.]

c. The drainage/protective cover soil layer above the 60-mil HDPE liner shall be a minimum of 24-inches thick [ref. SC#A.2.a.(4), Sheet 11, Detail 1; Spec. 02220-3.09.D] and shall have a minimum permeability of 1×10^{-3} cm/sec [Spec. 02220-2.06.C.]. A minimum of 1 permeability test per 5,000 CY shall be performed on the protective cover soil to demonstrate the required permeability [Spec. 02220-3.09.H. & Table 02220-1].

d. The protective cover soil layer above the 40-mil LLDPE liner shall be a minimum of 18-inches thick overlaid by a minimum of 6-inch thick topsoil material [ref. SC#A.2.a.(4), Sheet 11, Detail 1; Spec. 02220-3.09.B & C.] The protective cover soil layer shall have a maximum permeability of 1×10^{-4} cm/sec [Spec. 02220-2.06.B.]. A minimum of 1 permeability test per 5,000 CY shall be performed on the protective cover soil to demonstrate the required permeability [Spec. 02220-3.09.H. & Table 02220-1].

e. Soil cover material shall be placed over the geocomposite such that the geocomposite is not damaged and no tensile stress is induced in the materials [CQAP 6.2.6.].

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.10., cont'd)

f. Earthwork shall be tested by the CQCC for the tests and frequencies specified in Specification Section 02220-Table 02220-1.

g. The gravel used for the toe drain system and gas vent system installations shall be FDOT No. 4 or No. 57 aggregate [ref. SC#A.2.a.(4), Sheet 12, Detail 3; Spec. 02220-2.08]. The gravel used for the gas vent system installations shall be FDOT No. 4 [ref. SC#A.2.a.(4), Sheet 15, Details 1 & 5].

h. Prior to placement of geosynthetic materials on the subbase, an as-built topographic survey shall be provided to the Engineer to verify conformance with the Drawings and Specifications. The subgrade shall be accepted by the Liner Installer and Engineer in writing before placement of the next layer [CQAP, 6.1.3.; Spec. 02220-3.08.G.].

i. During the construction of, and until the geomembrane is placed on the subbase, the subbase shall be inspected daily for signs of desiccation, excessive moisture, or other damage. In the event that the condition of the subbase deteriorates, corrective actions shall be implemented immediately. Washouts or erosion of the subbase shall be repaired immediately. The CQAR shall observe the condition of the subbase and note areas of inadequacy, erosion or other deterioration in the Daily Reports.

j. Loose granular materials shall be stored on solid surfaces in a well-drained area and shall be prevented from mixing with foreign matter [Spec. 01600-1.05.C.].

11. Geosynthetic Materials.

a. Conformance testing.

1) The CQA Consultant or designee (independent from the Contractor) shall take conformance samples of the geosynthetics materials in accordance with the test methods and frequencies referenced in Specific Condition B.11.a(3) below. [Spec. 02077-2.02; 02700-2.02; 02776-2.02; 02930-3.02; CQAP 6.1.2.2., 6.2.2., 6.3.5., 6.4.2] In all cases, the test results shall meet or exceed the property values in the Specifications and CQAP.

2) The geosynthetic materials shall not be accepted for use on the project until the results of the CQA conformance testing that indicate that the geosynthetics meet the specifications have been received.

3) The geosynthetic materials shall conform to the following:

- a) Non-woven geotextile in geocomposite (CDN):
Spec. 02930-Table 02930-2
- b) 300-mil Bi-planar Geocomposite: Spec. 02930-
Tables 02930-1 through 02930-3
- c) 40-mil LLDPE: Spec. 02700-Table 02700-1
- d) 60-mil HDPE: Spec. 02776-Table 02776-1
- e) Geosynthetic Clay Liner (GCL): Spec. 02077-2.01
E. & F.

4) Certificates of Compliance from the Manufacturer are acceptable in lieu of CQA testing for resin certificates for raw materials for geosynthetics, water vapor transmission rates through geomembranes, Oxidation Induction Time (OIT), general chemical compatibility ratings.

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.11., cont'd)

b. Seaming.

- 1) Seaming processes other than fusion or extrusion welding shall be approved by the Engineer and submitted to the Department prior to implementation [CQAP 6.1.8.3].
- 2) All seams shall meet the requirements of Specification 02770 Table 02700-2. [Spec. 02700-3.07.C.7.] and Specification 02776 Table 02776-2. [Spec. 02776-3.07.C.7.]. Seaming apparatus or personnel which have failed trial welds shall not be used for seaming until passing welds are achieved [CQAP 6.1.8.7.; Spec. 02700-3.04.E.8. & 02776-3.04.E.8.].
- 3) Geomembrane seaming activities shall only be conducted during daylight hours and within the weather requirements of the Specifications, unless otherwise specifically approved by the Department. Seaming shall only take place with the "master seamer" present. No geomembrane seaming shall be performed unless the CQA manager/inspector is on-site.
- 5) The full-time resident CQA inspector shall observe no more than two geosynthetics seaming crews at any given time.
- 6) The procedure used to temporarily bond adjacent geomembrane panels together shall not damage the geomembrane. Solvent or adhesive shall not be used to bond geomembrane panels.
- 7) All seaming operations shall cease upon the presence of any precipitation (drizzle, sprinkle, fog, dew, etc.). [CQAP 6.1.7.; 6.1.8.5.]
- 8) Seams shall be oriented parallel to the line of maximum slope, i.e., oriented along, not across the slope. [Spec. 02700-3.04.A.1.; 02776-3.04.A.1.]
- 9) No more geomembrane panels shall be deployed than can be seamed on the same day.

c. Destructive testing.

- 1) Destructive tests of the geomembrane seams shall be taken at random locations, at a minimum frequency of one test location per 500 feet of seam. This frequency shall not be based on an average throughout the entire facility [CQAP 6.1.9.2.; Spec. 02700-3.07.B.1.; 02776-3.07.B.1.].
- 2) In all cases destructive tests conducted on the geomembrane field seams shall demonstrate that the failure is outside of the seam area. Five specimens shall be tested for each test method (peel and shear) [CQAP, 6.1.9.4.; Spec. 02700-3.07.C.7.; 02776-3.07.C.7.]. All samples shall meet the minimum strength requirements for each test method (peel and shear) listed in Specification Tables 02770-2 & 02776-2. The strength results shall not be averaged and both sides of fusion welds shall be tested.
- 3) Work shall not proceed with any materials which will cover locations which have been destructively tested or repaired until laboratory test results which demonstrate passing values are provided to the on-site CQA manager/inspector [CQAP 6.1.10].

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.11.c., cont'd)

- 4) All areas that fail nondestructive testing shall be marked by the on-site CQA inspector [CQAP, 6.1.9.2].
 - 5) All welds shall be tested in shear and peel. Geomembrane seams shall not be tested by "hand" exclusively.
- d. Transmissivity.
- 1) The transmissivity test results required by the Specifications shall be submitted to the CQA Consultant for review before the proposed materials are approved for use on the project. [Spec. 02930-1.03.B.2.]
 - 2) The transmissivity of the geocomposite for the top, north, and east slopes of Phase I shall be a minimum of 1.6×10^{-3} m²/sec based upon a gradient of 0.33 and a normal load of 800 psf. [Spec. 02930-Table 02930-3] The transmissivity of the geocomposite for the south and west slopes of Phase I shall be a minimum of 8.0×10^{-4} m²/sec based upon a gradient of 0.33 and a normal load of 5000 psf [Spec. 02930-Table 02930-3]. Transmissivity testing shall be conducted on the actual materials that will be used in the project.
- e. Interface friction angles.
- 1) The minimum interface friction angle (peak) for all interfaces (geomembrane/soil, geomembrane/geocomposite, geocomposite/soil) shall be **25.1 degrees with no adhesion** [Spec. 02700-2.01.D.&E.; 02776-2.01.D.&E., 02930-3.02.C.]. Deviation from this requirement shall require a permit modification and shall demonstrate that adequate slope stability will be achieved.
- f. Wrinkles. The construction methods used shall minimize wrinkles in the geomembrane and geocomposites. Excessive wrinkles are wrinkles that fold over when stepped on or are at least 12 inches high. Excessive wrinkles shall be removed, and the areas repaired. Areas where wrinkles are removed shall be repaired and re-tested in accordance with the Specifications and CQA Plan.
- g. The liner system shall not be damaged by excessive traffic.
- h. The geocomposite drainage net (CDN) material and geotextile shall be handled (stored, placed, etc.) in a manner which prevents the infiltration of dirt and protects the CDN and geotextile from abrasion, punctures and excessive moisture. Geocomposite that is clogged by dirt shall be cleaned prior to placement [CQAP 6.3.6; Spec. 02930-3.05.A.].
- i. In areas where stakes are used, stakes shall not be of a type or used in a way that may damage the geomembrane.
- j. The geomembrane shall always be kept dry and protected from wind damage [CQAP §6.1.7.]. Temporary loading and/or anchoring devices (such as sand bags) shall be removed prior to placing the next layer (i.e., geocomposite or soil) over the geomembrane.

SPECIFIC CONDITIONS: PART B - Construction Requirements

(Specific Condition #B.11.c., cont'd)

k. Geocomposite Clay Layer.

- 1) The GCL shall have a saturated hydraulic conductivity of no greater than 5×10^{-9} cm/sec with landfill leachate and no greater than 1×10^{-7} cm/sec with groundwater [Spec. 02077-2.01.F].
 - 2) GCL that has become prematurely hydrated or has become hydrated with no confining pressure shall not be used on this project [see Spec. 02077-3.07.D].
 - 3) Exposing the existing Phase I side liner system and placement of the GCL over the exposed Phase I liner shall be conducted with extreme care so as to not damage the existing liner [Spec. 02077-3.04.A.]. Damage to the existing Phase I side liner system shall be reported to the Department in accordance with Specific Condition #C.6.b.
1. No geomembrane and GCL shall be placed in an area that has become softened by precipitation or desiccated and cracked due to lack of moisture. No standing water or excessive moisture shall be allowed on the area to be lined before the geomembrane or GCL installation.

SPECIFIC CONDITIONS: PART C - Operation Requirements

1. Facility Operation Requirements.

a. The permittee shall operate the active portions of this facility in accordance with Chapter 62-701, F.A.C., and Operation Permit 38414-011-SO/01 (including modifications, if any), or its successors.

b. This permit does not authorize the disposal of waste on the closed south and west slopes of Phase I.

c. After issuance of this permit (including the time period during construction of the final cover until the certification of closure construction is approved by the Department), and throughout the operating life of the active portions of this facility, the top, north and east slopes of Phase I shall be inspected and maintained as required in the Long-Term Care Plan [ref. SC#A.2.a(3)].

2. Facility Personnel. The owner or operator shall provide adequate personnel for constructing, operating, monitoring and maintaining the facility in an orderly, safe, and sanitary manner.

3. Control of Access. Access to, and use of, the facility shall be controlled as required by Rule 62-701.500(5), F.A.C.

4. Monitoring of Waste. The permittee shall not accept hazardous waste or any hazardous substance at this site. Hazardous wastes are wastes listed in 40 CFR 261 Subpart D as hazardous or are wastes characterized in 40 CFR 261 Subpart C as hazardous. Hazardous substances are those defined in Section 403.703, Florida Statute or in any other applicable state or federal law or administrative rule. Sludges or other wastes which may be hazardous should be disposed of in accordance with Rules 62-701.300(4) and 62-701.500(6)(b), F.A.C. In the event that hazardous wastes are discovered, the Department shall be notified in accordance with Specific Condition C.6.b. below.

5. Control of Nuisance Conditions. The owner or operator shall control odors, vectors (mosquitoes, other insects, rodents), and fugitive particulates (dust, smoke) arising from the construction and operation so as to protect the public health and welfare. Such control shall minimize the creation of nuisance conditions on adjoining property. Complaints received from the general public, and confirmed by Department personnel upon site inspection, shall constitute a nuisance condition, and the permittee must take immediate corrective action to abate the nuisance.

6. Facility Maintenance and Repair.

a. The site shall be properly maintained including maintenance of access roads, equipment, stormwater and leachate management systems (including tanks and piping), cover systems and berms, gas venting and/or monitoring and management systems, surface water management system, and groundwater monitoring system. Erosion and ponded water within landfill footprint shall be prevented.

b. In the event of damage to any portion of the landfill site facilities, unauthorized leachate discharges, failure of any portion of the landfill systems (including damaged or dry groundwater monitoring wells), fire, explosion, the development of sinkhole(s) or other subsurface instability at the site, the permittee shall **immediately (within 24 hours)** notify the Department explaining such occurrence and remedial measures to be taken, method to prevent reoccurrence, and time needed for repairs. **Written, detailed notification shall be submitted to the Department within seven (7) days following the occurrence.** Routine maintenance does not require notification but shall be noted on daily reports.

SPECIFIC CONDITIONS: PART C - Operation Requirements

(Specific Condition #C.6., cont'd)

- c. In the event that any portion of the groundwater monitoring system is damaged or unable to be sampled, corrective actions shall be completed **within sixty (60) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department. Corrective actions which include relocation or installation of new groundwater monitoring wells shall be in accordance with Specific Condition #E.5., or as otherwise approved by the Department.
 - d. In the event that the leachate management systems are damaged or are not operating effectively, corrective actions shall be initiated **within thirty (30) days** of the written notification specified in Specific Condition #C.6.b., unless otherwise approved by the Department.
7. **Stormwater Management.** The site shall have a surface water management system designed, constructed, operated, and maintained to prevent surface water from running on to waste filled areas, and a stormwater runoff control system designed, constructed, operated, and maintained to collect and control stormwater to meet the requirements of Chapter 62-330, F.A.C., and the requirements for management and storage of surface water in accordance with Rule 62-701.500(10), F.A.C., to meet applicable standards of Chapters 62-3, 62-302, and 62-330, F.A.C. The stormwater management system shall be inspected for damage and proper operation daily.
8. **Leachate Management.**
- a. Leachate shall be managed in accordance with the requirements of Operation Permit 38414-011-SO/01 (including modifications, if any), or its successors, the *Long-Term Care Plan* [ref SC#A.2.a(3)], Rule 62-701.500(8), F.A.C., and other applicable Department rules.

SPECIFIC CONDITIONS: PART D - Recordkeeping

1. **Report Submittals.** Unless otherwise specified, all submittals, notifications, requests for permit modification, reports for compliance with this permit, etc. shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, Fl. 33637-0926.
2. **Operation Plan and Operating Record.** Each landfill owner or operator shall have an operational (long-term care, monitoring and maintenance) plan. A copy of the Department approved permit, plan, construction reports and record drawings, and supporting information shall be kept at the facility at all times for reference and inspections. Operating records as required by Rule 62-701.500(3), F.A.C., shall be maintained at the site.
3. **Construction Records.** The permittee shall maintain all records required by the construction specifications, CQA Plan and this permit on-site during construction, and shall provide copies to the Department upon request, unless specified otherwise.
4. **Financial Assurance.** The permittee shall provide adequate financial assurance for this facility and related appurtenances in accordance with Rule 62-701.630, F.A.C.
 - a. All costs for closure shall be adjusted and submitted annually, by September 1st each year to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 13051 North Telecom Parkway, Temple Terrace, Fl. 33637-0926.
 - b. Proof that the financial mechanism has been adequately funded shall be submitted annually to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, MS#4565, Tallahassee, Florida 32399-2400.

SPECIFIC CONDITIONS: PART E - Water Quality Monitoring Requirements

1. Water quality monitoring shall be conducted as required by Operation Permit 38414-011-SO/01 (including modifications, if any), or its successors.

SPECIFIC CONDITIONS: PART F - Landfill Gas Management

1. Landfill Gas - NPs and Title V Air Requirements.

a. This solid waste permit will meet the statutory requirement to obtain an air construction permit before modifying or constructing a source of air pollution, except for those landfills that are subject to the prevention of significant deterioration (PSD) requirements of Chapter 62-212, F.A.C. Facilities that are subject to the PSD requirements shall obtain an air construction permit from the Bureau of Air Regulation prior to beginning construction or modification pursuant to Rule 62-210.400, F.A.C.

b. The permittee shall comply with any applicable Title V air operation permit application requirements of Chapter 62-213, F.A.C., and 40 CFR 60, Subparts WWW and Cc, as adopted by reference at Rule 62-204.800, F.A.C. Title V Permit applications shall be submitted to the District Air Program Administrator or County Air Program Administrator with air permitting authority for the landfill.

c. The permittee shall submit to the Division of Air Resources Management, Department of Environmental Protection, Mail Station 5500, 3900 Commonwealth Blvd., Tallahassee, FL 32399-3000, any amended design capacity report and any Non-Methane Organic Compound (NMOC) emission rate report, as applicable, pursuant to 40 CFR 60.757(a)(3) and (b).

2. **Gas Monitoring and Control.** Landfill gas shall be monitored and controlled as required by Operation Permit 38414-011-SO/01 (including modifications, if any), or its successors.

3. **Gas Monitoring Locations.** Gas monitoring probes shall be located as listed in Operation Permit 38414-011-SO/01 (including modifications, if any), or its successors.

4. **Gas Remediation.** In the event that the Lower Explosive Limit (LEL) is greater than 25% inside structures either on or off of the landfill site, or greater than 100% at the property boundary, the owner shall submit to the Department, **within 7 days of detection**, a remediation plan detailing the nature and extent of the problem and the proposed remedy. The remedy shall be completed **within 60 days of detection** unless otherwise approved by the Department.

SPECIFIC CONDITIONS: PART G - Closure and Long-Term Care Requirements

1. Closure Requirements.

a. Long-Term Care Requirements.

1) The owner or operator shall perform long-term care for the closed portions of the site in accordance with Rule 62-701.620, F.A.C., the *Long-Term Care Plan* [ref. SC#A.2.a(3)], and the conditions of Operation Permit 38414-011-SO/01 (including modifications, if any), or its successors.

2) Long-term care includes, but is not limited to, water quality, leachate and gas monitoring, maintenance of the final cover system, maintenance of the leachate collection and removal system and gas management system, erosion control, and the prevention of ponding within disposal areas.

b. Closing Requirements.

1) **No later than ninety (90) days** prior to the date when wastes will no longer be accepted for portions of the landfill which have reached closure design dimensions, the landfill owner or operator shall submit a closure permit application to the Department, in order to assure conformance with all applicable Department rules. A closure permit is required prior to implementing closure related activities.

2. Future Use of Closed Landfill Areas.

a. There are no current Department-approved uses of the portions of Hardee County Class I landfill closed under this permit for activities other than those associated with conducting the monitoring and maintenance of the facility in accordance with the long-term care plan.

b. Use of closed landfill and waste disposal areas requires consultation with and approval by the Department prior to conducting these activities in accordance with Rules 62-701.610(7) and 62-701.610(8), F.A.C. The Department retains regulatory control over any activities which may affect the integrity of the environmental protection measures such as the final cover materials (soil and vegetation), monitoring systems or stormwater controls. A plan detailing the proposed activities and the potential effects on the facility systems (e.g., final cover soils and vegetation), including engineering designs, calculations and plans, as appropriate, shall be submitted for Department review. The Department's document entitled "Guidance for Disturbance and Use of Old Closed Landfills or Waste Disposal Areas in Florida", dated May 3, 2001, or successor document, may be used as guidance. Authorization to use the closed portions of the Hardee County Class I landfill for activities other than those described in Specific Condition #G.2.a., may require a modification of this permit to comply with Specific Condition #A.3.a.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Deborah A. Getzoff
District Director
Southwest District

ATTACHMENT 1

Specific Condition	Submittal Due Date	Required Item
A.4.	By April 15, 2014 By August 15, 2014	Notification of intent to renew permit Submit permit renewal application
A.9.a.	Within 24 hours of discovery Within 7 days of verbal notification	Notification of limestone encountered, sinkholes, or subsurface instability Written notification & corrective action plan
B.2.a.	Within 60 days of completion	Submit certification of construction completion, record drawings, etc.
B.4.a.	At least 30 days prior to construction	Submit complete plans, specification, CQA plan, or statement that no changes have occurred, org. chart with parties/roles
B.4.b.	Prior to installation of the geomembrane liner and geocomposite	Submit interface friction testing results.
B.4.c.	No later than 2 weeks prior to use of alternate seaming methods and construction of liner penetrations and tie-in to Phase I & Phase II, Section I bottom liners	Notify of construction initiation to allow for observation
B.5.	At least 1 week prior	Notify of preconstruction meeting
B.5. B.6.a.	No later than 2 weeks after pre-construction meeting	Submit meeting minutes and pre-construction schedule
B.6.b.	Monthly, by the 15 th each month	Submit monthly progress report & schedule
B.8.e.	At least 1 week prior	Notify of night work

ATTACHMENT 1 cont'd		
Specific Condition	Submittal Due Date	Required Item
C.6.b.	Within 24 hours of discovery	Notification of: hazardous waste receipt, failure of landfill systems or equipment
	Within 7 days of verbal notification	Written notification & corrective action plan
C.6.c.	Within 60 days of written notification	Complete corrective actions for gradient or groundwater monitoring system
C.6.d.	Within 30 days of written notification	Implement corrective actions for leachate management system
D.4.a.	Annually, by September 1 st each year	Submit revised cost estimates
D.4.b.	Annually	Submit proof of funding
F.4.	Within 7 days of detection	Submit gas remediation plan
	Within 60 days of detection	Complete corrective actions
G.1.b.	No later than 90 days prior to the date when wastes will no longer be received	Submit Closure Permit application

Pelz, Susan

From: Pelz, Susan
Sent: Friday, May 29, 2009 2:24 PM
To: Teresa Carver (teresa.carver@hardeecounty.net)
Cc: Shane Fischer (SFischer@scsengineers.com); Zell, David
Subject: FW: Hardee Co Landfill Class I 38414-012-SF-01 RAI mailed 5-29-2009.pdf - Adobe Acrobat Professional
Attachments: Hardee Co Landfill Class I 38414-012-SF-01 RAI mailed 5-29-2009

Teresa,

Please find attached electronic copy of RAI #1 for the pending Hardee Co LF closure permit application. Hard copy sent via US Mail.

In an effort to expedite applicants' receipt of Department correspondence, we are moving toward providing correspondence in electronic format only.

Please let me know if the County is amenable to receiving RAIs and other correspondence via email only, or if you prefer to receive a hard copy. We will continue to provide Notices of Proposed and Final Agency Action to the applicant (and others as appropriate) via certified U.S. Mail.

If you have any questions, please call or email (email is better).

Susan J. Pelz, P.E.
Solid Waste Program Manager
Southwest District

13051 N. Telecom Parkway
Temple Terrace, FL 33637
813-632-7600 x 386
susan.pelz@dep.state.fl.us

From: Brantley, Anna
Sent: Friday, May 29, 2009 8:39 AM
To: Morgan, Steve; Pelz, Susan; Morris, John R.; Hornbrook, Frank
Subject: Hardee Co Landfill Class I 38414-012-SF-01 RAI mailed 5-29-2009.pdf - Adobe Acrobat Professional

Please find attached copy of the Hardee County Landfill Class I – RAI #1 dated and mailed May 29, 2009.

Anna

Anna Brantley
Administrative Assistant II
FL DEP / SWD / Waste Management
13051 North Telecom Parkway
Temple Terrace FL 33637-0629
Tel: 813/632-7600, Ext. 377
Fax: 813/632-7664

Brantley, Anna

From: Brantley, Anna
Sent: Friday, May 29, 2009 8:39 AM
To: Morgan, Steve; Pelz, Susan; Morris, John R.; Hornbrook, Frank
Subject: Hardee Co Landfill Class I 38414-012-SF-01 RAI mailed 5-29-2009.pdf - Adobe Acrobat Professional
Attachments: Hardee Co Landfill Class I 38414-012-SF-01 RAI mailed 5-29-2009

Please find attached copy of the Hardee County Landfill Class I – RAI #1 dated and mailed May 29, 2009.

Anna

*Anna Brantley
Administrative Assistant II
FL DEP / SWD / Waste Management
13051 North Telecom Parkway
Temple Terrace FL 33637-0629
Tel: 813/632-7600, Ext. 377
Fax: 813/632-7664*



Florida Department of Environmental Protection

Charlie Crist
Governor

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Inserted into OCULUS	Jeff Kottkamp Lt. Governor
Date: <u>5/29/09</u>	Michael W. Sole Secretary
Initials: <u>[Signature]</u>	

Ms. Teresa Carver, Director
Hardee County Solid Waste Department
685 Airport Road
Wauchula, Florida 33873

May 29, 2009

RE: Hardee County Class I Landfill Phase I Closure
Pending Permit No. 38414-012-SF/01, Hardee County
WACS No. SWD/25/40612

Dear Ms. Carver:

This is to acknowledge receipt of your application dated April 29, 2009 (received April 30, 2009) prepared by SCS Engineers, for closure and long-term care monitoring and maintenance of Phase I of the Class I Landfill at the solid waste management facility referred to as the Hardee County Regional Landfill.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes.

Your application for a permit is incomplete. This is the Department's first request for additional information. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received.

GENERAL:

1. The requested information and comments below do not repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page, drawing detail number, etc. where the information has been presented in the original submittal.
2. Please submit 4 **copies** of all requested information. Please submit all revised plans and reports as a complete package. If possible, please provide revised pages, which may be inserted into the original submittal (holes punched for a three-ring binder). For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be shaded (**shaded**) or similar notation method. This format will expedite the review process. Please include revision date on all revised pages.
3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, etc.
4. Please be advised that although some comments may not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, clarification to the item, and/or other information as appropriate.

The following information is needed in support of the solid waste application [Chapter 62-701, Florida Administrative Code (F.A.C.)]

Application Form #62-701.900(1) - Rule 62-701.320(7)(b), F.A.C.

1. **SK. and Section K:** Based on the proposed filling (i.e. vertical expansion) over the south and west side slopes of Phase I in the future, the information required in Part K of the application and Rule 62-701.430, F.A.C. is applicable to the proposed design of and operation on the south and west side slopes of Phase I. Please provide this information as part of this application and revise this part of the application form and Section K accordingly.

Section E Solid Waste Management Facility Permit Requirements - Rule 62-701.320, F.A.C.

2. **SE.13.:** Please publish the attached Notice of Application and provide proof of publication to the Department.

3. **Attachment E-2:** Please provide revised reduced-sized drawings based on your responses to comments on the closure drawings in Attachment P-1, as appropriate.

Section O Gas Management System Requirements - Rule 62-701.530, F.A.C.

4. **SO.1.b.:** Please provide supporting information demonstrating that the design capacity is below 2.5 MG or 2.5 million CY.

5. **SO.1.d.:** Supporting information and/or calculations that demonstrate that the passive gas venting system will reduce gas pressure under the closure/bottom liner system that might interfere or cause failure of the liner system, in accordance with Rule 62-701.530(1)(a)4., F.A.C. and Rule 62-701.430(2)(d), F.A.C. does not appear to have been provided. Please verify and provide this information, as appropriate.

Part P Landfill Final Closure Requirements - Rule 62-701.600, F.A.C.

6. **SP.4.g.2.:**

a. Specification 02930-Table 02930-3 indicates that 100 hr. transmissivity test is run at 800 psf, which appears significantly less than the assumed final buildout (75 ft) overburden stress of 5000 psf. Therefore please explain how geotextile intrusion is factored into the test and revise this section, as appropriate.

b. Since the recording of daily precipitation at the facility is required by Department rule and has been required by Department permit since at least 1998, please explain why precipitation data for the landfill is only available for 2002-2007.

c. Please verify that the daily rainfall data from the NOAA weather station and the landfill was entered into the applicable HELP models or provide revised models with the daily rainfall data entered. Please provide a copy of the daily rainfall data utilized.

d. Please revise this section and all other appropriate sections of Section P, as appropriate, based on the responses to comments on, and the results of revised HELP models and transmissivity calculations, as appropriate.

e. West and South HELP Model Analysis: The worst-case predicted leachate generation typically occurs during initial placement of waste with no initial cover. Please provide HELP model analyses for this scenario for the south and west slope liner system.

7. **SP.4.g.6.:** Please revise this section, as appropriate, based the response to comments on Attachments P-7 and P-8 and the results of revised stability analyses, as appropriate.

8. **SP.4.h.:**

a. South Sideslope Stormwater Control: It is unclear from the closure drawing in Attachment P-1 where an anchor trench is included in the terrace design. Please explain.

Attachment P-1 Closure Design Drawings - Rule 62-701.600(5), F.A.C.

Please provide the following additional information and revisions to the Closure Drawings that include all necessary details for the closure construction of the facility. Due to the difficulty in describing comments related to these drawings, these drawings will be discussed in detail at the meeting requested at the end of this letter. The drawings will be reviewed in their entirety after the responses to this request for information, and as discussed in the meeting.

9. **Drawing 6 of 16:**

a. Details of the North Side Slope Berm are not referenced on this sheet and do not appear to have been included in the plan set. Please verify and provide this detail, as appropriate.

10. **Drawing 8 of 16:**

a. There appears to be typographic error in the detail reference for the "Horizontal LFG Vent Trench". Please verify and revise this sheet, as appropriate.

b. It appears that the horizontal LFG vent trenches to HC-1 may be located on or in close proximity to and may pass over, under or through the southwest side slope berm. Please explain the trenches locations in relation to the side slope berm and provide appropriate details of this orientation on the appropriate sheet of the plan set.

c. Please provide revised drawings that include gas venting from all areas of the landfill. It does not appear that gas will be vented from the north or east slopes.

11. **Drawing 9 of 16:**

a. The design of the final cover system for Phase I specifies 1×10^{-4} cm/sec protective sand over the 40-mil LLDPE/geocomposite and 1×10^{-3} cm/sec protective sand over the 60-mil HDPE/geocomposite at the transition points shown on the cross sections on this sheet. Please revise the protective soil layer installation specifications to describe how these sands will be installed adjacent to each other at the transition points and the north and south side slope berms (see Detail 1 on Sheet 12 of 16) and the CQA plan to indicate how this will be monitored.

12. **Drawing 10 of 16:**

a. The rationale and details of geocomposite daylighting or not daylighting above the side slope terraces or the toe of slope, how and where the geocomposite is re-established below the daylighting, the referenced anchor trench at the terraces, and how stormwater that bypasses the geocomposite daylighting is managed either does not appear to be shown on the details on this sheet and/or is confusing. Please explain and revise this sheet as appropriate. This comment will be discussed in further detail during the meeting requested at the end of this letter.

13. **Drawing 11 of 16:**

a. Section 5 & 6: These sections do not appear to be shown on Sheet 7 as indicated. Please verify and revise the applicable sheets, as appropriate.

14. **Drawing 12 of 16:**

a. Detail 4: Please revise this detail, as appropriate, based on your response to the above comment regarding Sheet 10 of 16.

b. Since the final cover liner is not proposed to be welded to the bottom liner, please explain how leachate discharge at the anchor trench will be prevented.

15. **Drawing 14 of 16:**

a. Details A & B: Please revise this detail, as appropriate, based on your response to the above comment regarding Sheet 10 of 16, including details of any pipe penetrations through daylighting geocomposite, as appropriate.

16. **Drawing 15 of 16:**

a. Detail 5: The configuration shown on this detail appears to be inconsistent with the vertical LFG components of the horizontal LFG vent trenches being located along the side slope terraces, as indicated on Sheet 8 of 16. Please verify and revise this detail, as appropriate.

Attachment P-2 Construction Quality Assurance Plan - Rules 62-701.400(3), (7) & (8), F.A.C.

Please revise the Construction Quality Assurance Plan (CQA Plan), as appropriate to address the following comments and deficiencies in the plan.

17. **Table of Contents**: Technical Specification 02941 - ConCover does not appear to have been provided in Appendix J. Please verify and provide this specification section.

18. **§6.1.2.2.:** The reference to Table 02700-1 of Technical Specification 02776 appears to be a typographic error. Please verify and revise this section.

19. **§6.1.5.:** This section refers to anchor trench construction, backfilling, and compaction in accordance with the technical specifications and closure drawings. However, anchor trench details do not appear to be provided in either the technical specifications or closure drawings. Please verify and revise this section the technical specifications, and/or the closure drawings accordingly.

20. **\$6.1.9.1.:** All repair locations shall be shown on Record Drawings (e.g. the panel layout sheet) and in repair logs and daily reports. Please revise this section accordingly.

Attachment P-2 - Appendix J Technical Specifications - Rules 62-701.400(3), (7) & (8), F.A.C.

Please revise the Technical Specifications, as appropriate to address the following comments and deficiencies in the specifications. The Technical Specifications will be reviewed in their entirety, as applicable, after the responses to these requests for information are submitted.

21. **Section 01530 - Protection of Existing Facilities**

a. **\$1.12:** This section does not appear to discuss protection of the existing landfill liner system. Please verify and revise this section, or the appropriate specification section as applicable.

22. **Section 02220 - Excavation, Backfill, Fill, and Grading**

a. **\$2.04.B.:** Please revise this or an appropriate section of this specification section to clarify that the Intermediate Cover/Grading Layer on the south and west slopes is a bottom liner subgrade and shall be consistent with and be installed in accordance with the liner subgrade specifications in Section 02220 and Section 02776 of Appendix J.

b. **\$2.06:** Please revise this or an appropriate section of this specification to provide pre-construction source material testing and test frequencies for the protective cover soil.

c. **\$3.03:** Please note that dewatering may require an Industrial Waste Permit from the Department and water collected from inside the landfill shall be managed as leachate. Please contact Ms. Yanisa Angulo, P.E., at 813-632-7600 x404, to determine if a permit is required. **This comment is for informational purposes only and does not require a response.**

d. **\$3.08.D. & 3.08.E:** Please revise these sections to clarify that removed unsuitable Intermediate Cover/Grading Layer soil on the south and west slopes shall be replaced with soils consistent with the subgrade soil specifications in Section 02770-2.02 of this specification section.

e. **\$3.09.H.:** The field density testing frequency specified in this section appears inconsistent with that specified in Table 02220-1. Please verify and revise this section, as appropriate.

f. **\$3.09.L. & 3.12.D.:** Technical Specification 02941 - ConCover does not appear to have been provided in Appendix J. Please verify and revise these sections, as appropriate.

g. **Table 02220-1:** Rule 62-701.400(8)(e), F.A.C. requires a minimum liner subbase density testing frequency of two tests per acre and the frequency doubled for the first five acres. Please verify and revise this table accordingly.

23. **Section 02700 - LLDPE Geomembrane Liner**

- a. §2.02.B.: A conformance test frequency at a rate of one sample per lot or one sample per 100,000 ft², whichever is larger appears to be more appropriate. Please verify and revise this section or provide a supporting justification for a test frequency based on "whichever is smaller", as appropriate.
- b. §3.01.B.: There do not appear to be erosion repair specifications in Specification Section 02220, as indicated. Please verify and provide erosion repair specifications, as appropriate.
- c. §3.04.A.5.: There appear to be seam overlap specifications provided in Section 6.1.8.4 of the CQA Plan. Please verify and revise this section to be consistent with the CQA Plan, as appropriate.
- d. §3.07.C.6.: The reference to Section 3.05.C.(8) in this section appears to be a typographic error. Please verify and revise this section.
- e. §3.07.C.8.: Please verify whether there should be a subsection "a." in this section and revise the section, as appropriate.
- f. §3.09.A.: This section refers to anchor trench backfilling and compaction as indicated on the closure drawings. However, anchor trench details do not appear to be provided in closure drawings. Please verify and revise this section and/or the closure drawings accordingly.

24. **Section 02776 - HDPE Geomembrane Liner**

- a. Please address the comments provided above regarding Specification Section 02700 for the corresponding sub-sections of this specification section.
- b. Table 02776-1 appears to have been omitted from this specification section. Please verify and revise the section accordingly.
- c. §2.02.C.: The reference to Table 02770-1 in the table note appears to be a typographic error. Please verify and revise this section.

25. **Section 02900 - Seeding and Sodding**

- a. §1.01.E.: Technical Specification 02941 - ConCover does not appear to have been provided in Appendix J. Please verify and revise this section, as appropriate.

26. **Section 02930 - Biplanar Geocomposite**

- a. §3.02.B.: A conformance test frequency at a rate of one sample per lot or one sample per 100,000 ft², whichever is larger appears to be more appropriate. Please verify and revise this section or provide a supporting justification for "whichever is smaller", as appropriate.
- b. Table 02930-3:
 - (1) Please revise the transmissivity specification in this table, based on the responses to comments on, and the results of revised HELP models and transmissivity calculations, as appropriate.

(2) Please explain why the 100 hr. transmissivity test is run at 800 psf, rather than at the assumed final buildout (75 ft) overburden stress of 5000 psf and revise Note 1, as appropriate.

27. **Section 31 20 00 - Trenching and Backfilling**

a. §1.01.B.: Please verify whether installation of the toe drain will be in accordance with the Section 31 20 00 and revise Section 31 20 00, as appropriate.

b. §1.01.D.: The statement that, "No classification of type of excavated material will be made" appears inconsistent with specifications for reuse of excavated soils (Section 2.05.A) and the disposition of excavated wastes and/or unsuitable soils (Section 3.07). Please verify and revise this part, as applicable.

Attachments P-3 through P-6 HELP Model Analyses and Geocomposite Transmissivity Calculations

Please provide the following additional information and revisions to the HELP model analyses and geocomposite transmissivity calculations that include all necessary details for the closure construction of the facility. Due to the difficulty in describing some of the comments related to the HELP Models and associated transmissivity calculations, Attachments P-3 through P-6 will be discussed in further detail at the meeting requested at the end of this letter. The HELP model analysis and associated calculations will be reviewed in their entirety after the responses to this request for information, and as discussed at the meeting.

28. **Geocomposite Transmissivity/Hydraulic Conductivity Calculations:** The Department has been unable to recreate the calculations conducted and reach the same calculated values. Please verify the values for the assumptions made in the calculations and the calculations themselves, and provide revised calculations and revised HELP Model analyses, as appropriate.

29. **Attachments P-3 & P-4:** The Collection System K-values reported in the HELP Model Summaries appear to be in error. Please verify and revise as appropriate.

30. **Attachments P-4:** The geocomposite thickness reported in the HELP Model Summary appears to be in error. Please verify and revise as appropriate.

31. **Attachments P-6:**

a. Transmissivity/Hydraulic Conductivity Calculations:

(1) Since there does not appear to be a linear relationship between transmissivity values at 1000 psf, 10,000 psf and 15,000 psf on Figure A-9, it does not appear that the transmissivity at 2,000 psf, 4000 psf, 5000 psf can be interpolated from Figure A-9. Please verify and explain the rationale for interpolating these values and/or revise the assumed transmissivity values at these loads, as appropriate.

(2) Please explain why the reduction factors used in Scenario 1 would not be the same reduction factors used in Attachments P-3 through P-5.

Attachment P-7 Veneer Slope Stability Analyses - Parallel Seepage

32. Please revise these calculations based on the responses to comments on, and the results of revised HELP models and transmissivity calculations, as appropriate.

33. Please explain why there would not be parallel seepage on slopes with 1×10^{-3} soils (i.e. the south and west slopes). Alternatively, please provide calculations for parallel seepage for these slopes.

34. Please revise the calculation sheets to indentify the specific transmissivity calculation utilized in the analysis.

Attachment P-9 Toe Drain Pipe Capacity Calculations

35. Please revise these calculations based on the responses to, and results of revised HELP models and transmissivity calculations, as appropriate.

Attachment P-10 ICPR Model Stormwater Analysis

36. As indicated in the closure drawing comments, it is unclear how the diversion of stormwater to the side slopes terraces via daylighting the geocomposite drainage layer is depicted and therefore it is unclear how this diversion of stormwater is accounted for in the ICPR analysis. Please explain.

Attachment P-12 Anchor Trench Calculations for Runout at Terraces

37. As indicated in the closure drawing comments, it is unclear where the anchor trench is located in the side slope terraces details. The Department will review and evaluate Attachment P-12 after the location of the anchor trench is clarified (see Comment #12.a.).

38. The " T_{ult} @ break" for the 40-mil LLDPE utilized in these calculations appears inconsistent with that specified in the Table 02770-1. Please verify and revise these calculations, as appropriate.

39. The supporting source for the anchorage ratio calculations and conclusions is unclear. Please explain.

Attachment P-13 Geotextile Design Calculations

40. The geotextile AOS utilized in these calculations appears inconsistent with that specified in the Specification Section 02940-2.01.A. Please verify and revise these calculations, as appropriate.

41. Since the toe drain will be located at the toe of the north and east slopes, it is unclear why the calculations indicate that the results of the Help Model analysis for the Open Cell Run (south and west slopes) were utilized. In addition the peak daily flow utilized does not appear to correspond to any of the reported HELP Model analysis results. Please verify and explain.

42. Please explain how the area of geotextile thorough which flow will pass is calculated.

Section R Long-Term Care Requirements - Rule 62-701.620, F.A.C.

43. Please provide a long-term care plan that specifically describes all post-closure activities and monitoring to be conducted at the facility (e.g. a long-term care plan similar to that provided with the Phase II Section I operation permit modification application, revised based the proposed closure details in this application.

Part 8 Financial Responsibility Requirements - Rule 62-701.630, F.A.C.

44. **§§.1:** The currently approved closure and long-term care cost estimates for the facility were based on a conceptual closure plan for the Phase I rather the specific closure details proposed by this application. Therefore please provide revised closure and long-term care cost estimates that are specific to the proposed closure design, including supporting calculations for each unit quantity and third-party quotes supporting each unit cost provided.

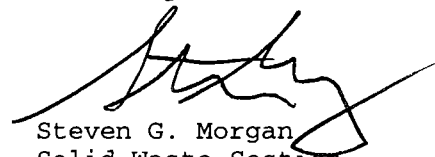
Please provide all responses that relate to engineering for design and operation, including plan sheets, signed and sealed by a professional engineer. All replacement pages should be numbered, and with revision date.

This staff assessment is preliminary and is designed to assist in the review of the application prior to final agency action. The comments provided herein are not the final position of the Department and may be subject to revision pursuant to additional information and further review.

Please respond by July 13, 2009, responding to all of the information requests and indicating when a response to any unanswered questions will be submitted. If the response will require longer than the above schedule, you should develop an alternate timetable for the submission of the requested information for Department review and consideration. If the Department does not receive a timely, complete response to this request for information, the Department may issue a final order denying your application. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant may reapply as soon as the requested information is available.

Due to the complexity of the issues addressed in the above comments, the Department recommends that a meeting be scheduled with the applicant, consultant, and Department staff to discuss the requested information. You are requested to submit your response to this letter together, as one complete package. Please contact me at (813)632-7600 ext. 385 to schedule the meeting.

Sincerely,



Steven G. Morgan
Solid Waste Section
Southwest District

sgm

Attachment

cc: Shane Fischer, P.E., SCS Engineers, sfischer@scsengineers.com
Frank Hornbrook, FDEP Tallahassee (e-mail)
John Morris, P.G., FDEP Tampa (e-mail)
Susan Pelz, P.E., FDEP Tampa (e-mail)

62-110.106(5). Notices: General Requirements.

Each person who files an application for a Department permit or other notice as may publish or be required to publish a notice of application or other notice as set forth below in this section. Except as specifically provided otherwise in this paragraph, each person publishing such a notice under this section shall do so at his own expense in the legal advertisements section a newspaper of general circulation (i.e., one that meets the requirements of sections 50.011 and 50.031 of the Florida Statutes) in the county or counties in which the activity will take place or the effects of the Department's proposed action will occur, and shall provide proof of the publication to the Department within seven days of the publication.

62-110.106(6). If required, the notice shall be published by the applicant one time only within fourteen days after a complete application is filed and shall contain the name of the applicant, a brief description of the project and its location, the location of the application file, and the times when it is available for public inspection. The notice shall be prepared by the Department and shall comply with the following format:

**State of Florida
Department of Environmental Protection
Notice of Application**

The Department announces receipt of an application for permit from the Hardee County Solid Waste Department for a permit to close the Phase I portion of the existing Class I landfill, subject to Department rules, at the Hardee County Regional Landfill located at 685 Airport Road, Wauchula, Hardee County, Florida.

This application is being processed and is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the Department of Environmental Protection, Southwest District Office, 13051 North Telecom Parkway, Temple Terrace, Florida 33637-0926.

Southwest District
Permitting Application

Susan

New Site

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

Existing Site

Site ID:	38414-012
Project Name:	HARDEE COUNTY PHASE I CLOSURE
Type/Subcode:	SF/01 <input checked="" type="radio"/> New <input type="radio"/> Modification <input type="radio"/> Renewal
Fee submitted:	\$ 100.00 <input checked="" type="radio"/> correct <input type="radio"/> incorrect <small>SMALL COUNTY FEE</small>
Total Fee Required \$ _____ Need \$ _____ Refund \$ _____	

Applicant Information

Name:	TERESA CARVER
Role:	APPLICANT
Company:	HARDEE COUNTY SOLID WASTE DEPT
Address:	
City:	ON-FILE
Zip Code:	
Phone:	

Fee verified by: S. MORGAN
Application Assigned To: S. MORGAN Date: 5/4/09

SCS ENGINEERS

April 29, 2009
File No. 09199033.17

Susan J. Pelz, P.E.
Solid Waste Program Manager
Florida Department of Environmental Protection
Southwest District
13051 N. Telecom Parkway
Temple Terrace, FL 33637

Dept. of Environmental Protection
APR 30 2009
Southwest District

Subject: Application for Phase I Closure Permit
Hardee County Landfill
Hardee County, Florida

Dear Ms. Pelz:

On behalf of the Hardee County Board of County Commissioners, SCS Engineers (SCS) hereby provides four copies of the permit application for the closure of Phase I at the Hardee County Landfill located in Hardee County Florida. The total Phase I closure construction area is approximately 13.6 acres. The final Phase I closure area of the top, north and east sideslopes is roughly 7.0 acres and the west and south sideslopes is approximately 6.6 acres.

In accordance with the Operations Plans, the existing Phase II Section I landfill area will "piggy-back" onto the south sideslope of the Phase I landfill area in the future. Therefore, the Phase I landfill closure liner system on the south sideslope will be the bottom liner system when the Phase II Section I landfill does "piggy-back". In addition, the County plans in the future to construct Phase II Section II which will be located to the west of the Phase I and Phase II Section I areas. Future plans are anticipated to also "piggy-back" the Phase II Section II area onto the west sideslope of the Phase I landfill area. Therefore, the Phase I landfill closure liner system on the west sideslope will also be the bottom liner system when the future Phase II Section II landfill does "piggy-back."

Components of the final closure cap system over the top, north and east sideslopes will include the following (from bottom to top) a 12 inch intermediate cover soil layer, a 40 mil textured Linear Low Density Polyethylene (LLDPE) geomembrane, a 300 mil bi-planar geocomposite, 18 inch protective cover soil layer and 6 inch sodded topsoil layer. Components of the final closure cap system over the west and south sideslopes (which will also be the bottom liner system for the future "piggy-back" options) will include the following (from bottom to top) a 24 inch intermediate cover soil layer, a 60 mil textured High Density Polyethylene (HDPE) geomembrane, a 300 mil bi-planar geocomposite, 24 inch protective cover soil layer and ConCover on the west sideslope. ConCover is a spray-on biodegradable, non-flammable, non-toxic foam product that adds no contamination to the site that is used to stabilize slopes and prevent erosion. A temporary rain tarp will be applied on a portion of the south sideslope.



685 Airport Road
Wauchula, FL 33873
Phone: 863-773-5089
Fax: 863-773-3907
Email: teresa.carver@hardeecounty.net

Hardee County Solid Waste Department

April 28, 2009

Ms. Susan Pelz
Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

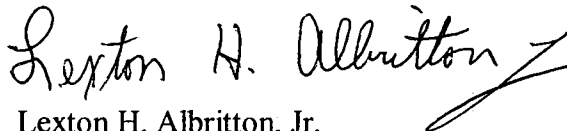
Dear Ms. Pelz:

Pursuant to Florida Statutes, Chapter 218.075, Hardee County is eligible for a permit fee reduction for the Phase I Closure Permit Application.

Hardee County is currently at 8.554 mills and Florida law states that millage greater than eight mills would justify a permit fee reduction to be granted on the basis of hardship. Hardee County certifies that the cost of the permit-processing fee is a fiscal hardship due to the fact the ad valorem operation millage is greater than eight mills.

Enclosed you will find the certification of the county millage by the Hardee County Property Appraiser's Office.

Thank you,



Lexton H. Albritton, Jr.
County Manager

LHA:tc

Please Recycle

Handwritten: CF_{point}

Hardee County closure

5/25/06

As part of closure may want to build
interface liners on west & south slopes
- will come up with how ~~to~~ to manage
runoff from south & west slopes

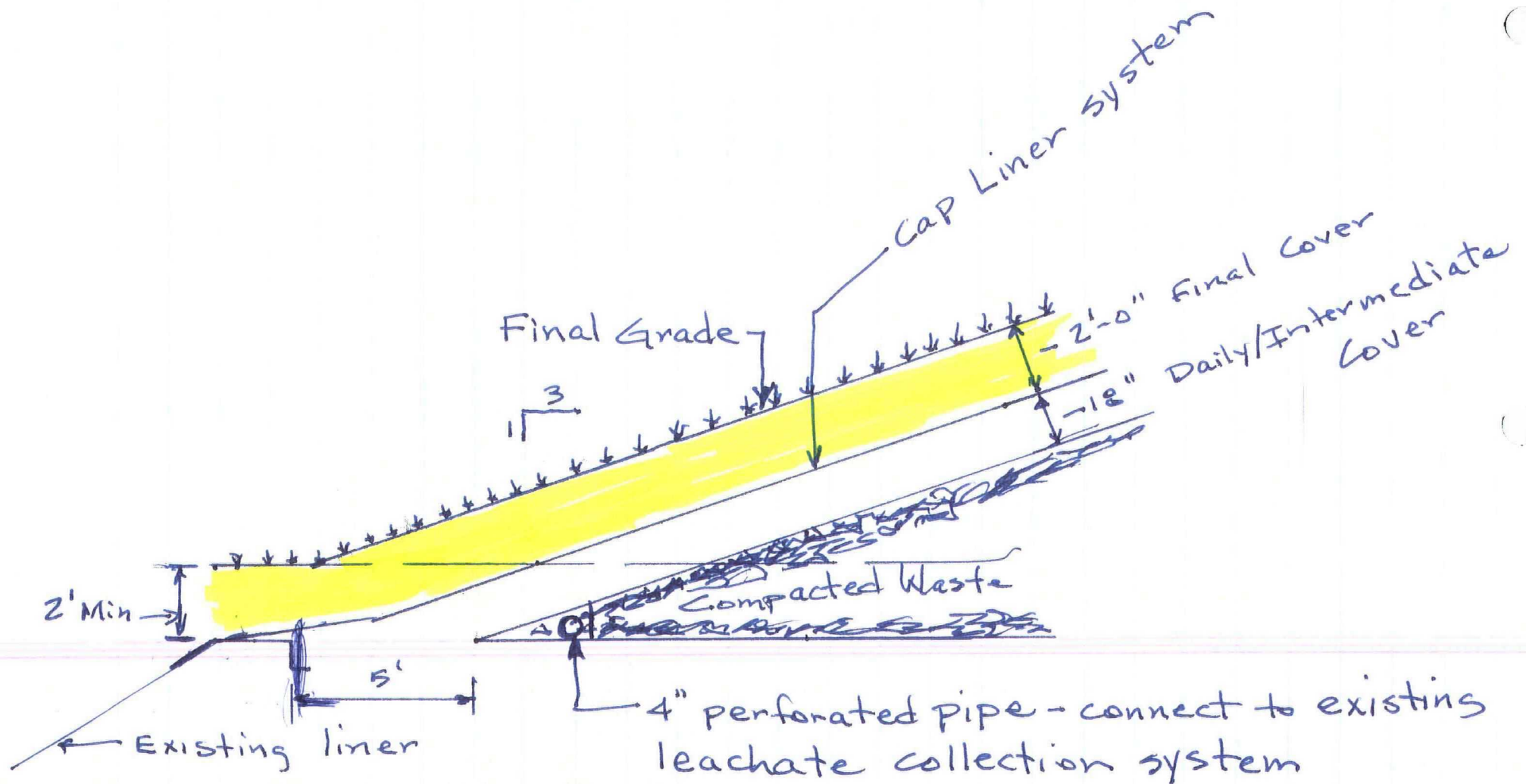
terraces on east & north slope down
to stormwater

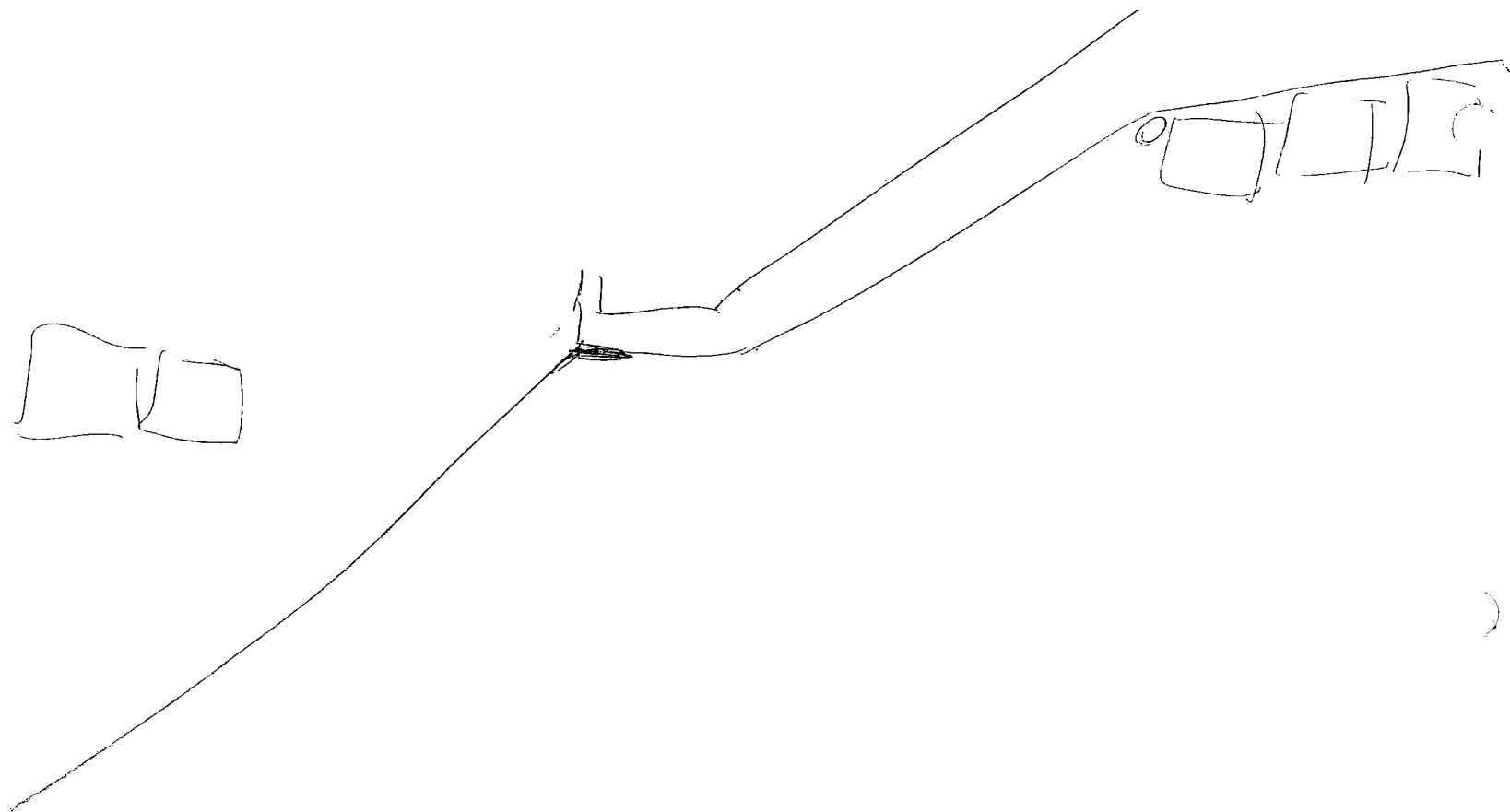
East & north side have additional
capacity want to go ~~to~~ to 5 ft
setback from liner edge

toe drain to collect leachate
- connect to manholes ~~manholes~~

bates on top, loose waste on strip on east
& north slopes
- send plan view & cross-section &
letter w/ description - no mail needed

Hardee County East/North Closure





IMPROVED CLOSURE 5/25/06

CONCRETE ON WEST / SOUTH SIDE SLOPES

5' SET BACK FROM EDGE OF UNDER

4" PORTLAND PIPE AT TOP OF WASTE

SNIP ON EAST & NORTH - LISTEN & REVISOR PLANNING

ORACLE



Distribution		Object		PAYMENT(S)						
Payment ID	CL Area	Code/Description	Payment Amount	Reference#	Appl	Fund *	Grant *	Status		
943476	SWD	002246	SOLID WASTE-CLO	\$100.00		PA	PFTF	COMPLETE		

COMMIT FREQUENTLY

\$100.00 Payment Total

A screenshot of a Windows XP desktop. The taskbar at the bottom shows the 'start' button and several icons: Internet Explorer, My Computer, My Recent Places, and a series of folders named 'L...', 'D...', 'O...', 'P...', 'O...', and 'P...'. The system tray on the right shows the date and time as '1:54 PM'.

ORACLE



✓ **X**

Press [LIST] for valid Roles for a Party

[illegible]