

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

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

PERMIT NO: 38414-012-SF/01 Hardee County LF, Phase I Closure Page 2 of 2

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 $N_{\sigma V}$, $N_{\sigma V}$, $N_{\sigma V}$ to the listed persons.

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 Brathy (Clerk)

 $\frac{I(/\sigma 9/2ov)}{(Date)}$

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.

General Information:	Phase I	
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)	North, East, and Top Slopes (approx. 7.0 acres) 12-inch soil subgrade, 40 mil LLDPE textured geomembrane, 300-mil bi-planar geocomposite drainage layer, 18-inch protective soil layer (max. 1 x 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] South and West Slopes (approx. 6.6 acres) 24-inch soil subgrade, 60 mil HDPE textured geomembrane, 300-mil bi-planar geocomposite drainage layer, 24-inch drainage soil layer (min. 1 x 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]	
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]	

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

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.

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

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 Statues 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:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the dates analyses were performed;
 - 4. the person responsible for performing the analyses;
 - 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.

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

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, 62-520, 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, <u>Hardee County Landfill Phase I Closure Construction Drawings...</u> (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. <u>This permit</u> 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

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 asbuilt 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.

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)];
 - 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:
 - 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. COAP, 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

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

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.
- 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.),
 - 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.

- CQA Plan and Observation.
 - 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.
 - The CQA professional engineer or his designee shall be onsite at all times during construction (including liner system and gas management system) to monitor construction activities.
 - 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].
 - 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].
 - 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.
- 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.

Spills. c.

- 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.
- 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.

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

SPECIFIC CONDITIONS: PART B - Construction Requirements

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

- d. <u>Defective work</u>. 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.

- 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.].
- 1. 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.].

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

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 ½ 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 ½ inch. [Spec. 02700-3.01.A.]
- c. The drainage/protective cover soil layer above the 60-mil HDPE liner shall be a <u>minimum</u> of 24-inches thick [ref. SC#A.2.a.(4), Sheet 11, Detail 1; Spec. 02220-3.09.D] and shall have a <u>minimum</u> 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 1x10⁻⁴ 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 $[CQAP\ 6.2.6.]$.

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

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.

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

SPECIFIC CONDITIONS: PART B - Construction Requirements

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

b. <u>Seaming.</u>

- 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].

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

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.

- 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.]
- The transmissivity of the geocomposite for the top, north, and east slopes of Phase I shall be a minimum of 1.6 x 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 x 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.
 - 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. <u>Wrinkles</u>. 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 $\S6.1.7$.]. 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.

- The GCL shall have a saturated hydraulic conductivity of no greater than 5 x 10^{-9} cm/sec with landfill leachate and no greater than 1 x 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 [se 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 is 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.

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

SPECIFIC CONDITIONS: PART C - Operation Requirements

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

- 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.

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

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

1. Closure Requirements.

- a. Long-Term Care Requirements.
 - 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	Notification of intent to renew permit	
•	By August 15, 2014	Submit permit renewal application	
A.9.a.	Within 24 hours of discovery	Notification of limestone encountered, sinkholes, or subsurface instability	
	Within 7 days of verbal notification	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	
В.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		