

SCS ENGINEERS  
 3012 U. S. Highway 301 N., Suite 700  
 Tampa, FL 33619  
 (813) 621-0080  
 Fax (813) 623-6757

## Facsimile transmittal

To: Susan Pelz Fax: (813) 744-6125  
 From: Joseph O'Neill Date: May 21, 2004  
 Re: 90-day time waiver Pages: 3  
 cc: Janice Williamson Project No. 09/95033.03  
 Fax (813) 773-3907

Urgent  For Review  Please Comment  Please Reply  Please Recycle

Notes: SUSAN

— attached is a signed waiver of the 90 day time limit for the Handee Co Landfill operations Permit

— Per the request, it is our understanding that ~~Handee County~~ the date specified in the waiver, July 16, 2004, is the date for Agency action. Should Handee County have comments on the "Draft" permit, to be finalized, comments are due to FDEP a minimum of two weeks prior to July 16, 2004.

— Handee County will continue to operate under the current permit  
 THANKS  
 Joe O'Neill

WASTE MGT TAMPA SWD

Fax:8137446125

May 21 2004 13:48

P.01



**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
3804 COCONUT PALM DRIVE  
TAMPA, FL 33619-1352**

**FAX**

Date: 5/21/04  
Number of pages including cover sheet: 2

TO: <u>Joe ONeill</u>	FROM: <u>Susan Pele</u>
PHONE: <u>621-0080</u>	PHONE: (813) 744-6100, <u>X386</u>
FAX #: <u>623-6757</u>	FAX #: (813) 744-6125
CC:	
REMARKS: <u>Urgent</u> <u>For your review</u> <u>Reply ASAP</u> <u>Please comment</u>	
<u>Hardee Co 90-day clock waiver</u>	
<u>Please sign &amp; return to me today (fax is good)</u>	
<u>Thx</u>	

WASTE MGT TAMPA SWD

Fax:8137446125

May 21 2004 13:48

P.02

WAIVER OF 90 DAY TIME LIMIT  
UNDER SECTIONS 120.60(2) AND 403.0876, FLORIDA STATUTES

*Handee Co LF Operation Permit Renewal*

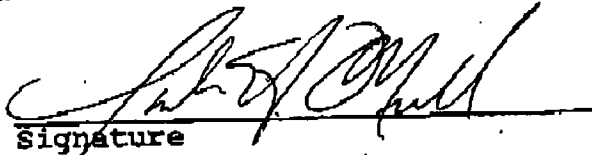
License (Permit, Certification) Application No. 38414-007-50

Applicant's Name: Handee County Solid Waste

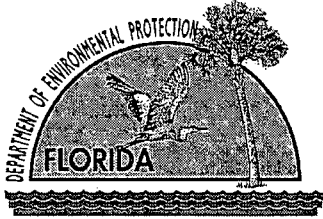
With regard to the above referenced application, the applicant hereby with full knowledge and understanding of applicant's rights under Sections 120.60(2) and 403.0876, Florida Statutes, waives the right to have the application approved or denied by the State of Florida Department of Environmental Protection within the 90 day time period prescribed by law. Said waiver is made freely and voluntarily by the applicant, with full knowledge, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Protection.

This waiver shall expire on the 27<sup>th</sup> day of June 2004  
16<sup>th</sup> July

The undersigned is authorized to make this waiver on behalf of the applicant.

  
signature

Joseph N. O'Neill, P.E.  
Name (Please Type or Print)



**FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
3804 COCONUT PALM DRIVE  
TAMPA, FL 33619-1352**

**FAXED**

**FAX**

Date: 5/21/04  
Number of pages including cover sheet: 2

TO:	<u>Joe ONeill</u>	FROM:	<u>Susan Pelz</u>	
PHONE:	<u>621-0080</u>	PHONE:	<u>(813) 744-6100, x586</u>	
FAX #:	<u>623-6757</u>	FAX #:	<u>(813) 744-6125</u>	
CC:				
REMARKS:	<u>Urgent</u>	<u>For your review</u>	<u>Reply ASAP</u>	<u>Please comment</u>
<u>Hardee Co 90-day clock waiver</u>				
<u>Please sign &amp; return to me today (fax is good)</u>				
<u>Thx</u>				

WAIVER OF 90 DAY TIME LIMIT  
UNDER SECTIONS 120.60(2) AND 403.0876, FLORIDA STATUTES

*Haadec Co LF Operation Permit Renewal*

License (Permit, Certification) Application No. 38414-007-50

Applicant's Name: *Haadec County Solid Waste*

With regard to the above referenced application, the applicant hereby with full knowledge and understanding of applicant's rights under Sections 120.60(2) and 403.0876, Florida Statutes, waives the right to have the application approved or denied by the State of Florida Department of Environmental Protection within the 90 day time period prescribed by law. Said waiver is made freely and voluntarily by the applicant, with full knowledge, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Protection.

This waiver shall expire on the 22<sup>ND</sup> day of JUNE 2004.

The undersigned is authorized to make this waiver on behalf of the applicant.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name (Please Type or Print)

WASTE MGT TAMPA SWD ax:8137446125

**\*\* Transmit Conf. Report \*\***

P.1

May 21 2004 13:49

Telephone Number	Mode	Start	Time	Pages	Result	Note
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**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**3804 COCONUT PALM DRIVE**  
**TAMPA, FL 33619-1352**

**FAX**

Date: 5/21/04  
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TO: <u>Joe O'Neill</u>	FROM: <u>Susan Pelz</u>
PHONE: <u>621-0080</u>	PHONE: (813) 744-6100, <u>x586</u>
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REMARKS: Urgent For your review <u>Reply ASAP</u> Please comment	
<u>Handee Co 90-day clock waiver</u>	
<u>Please sign &amp; return to me today (fax is good)</u>	

## Pelz, Susan

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**From:** Pelz, Susan  
**Sent:** Friday, May 21, 2004 7:32 PM  
**To:** Janice Williamson (E-mail); 'joneill@scsengineers.com'  
**Cc:** Morris, John R.  
**Subject:** DRAFT Hardee Operation Permit

Janice,

As we discussed today on the phone, it is my understanding that Joe O'Neill has been authorized to sign a waiver of the 90-day clock on behalf of Hardee County in relation to application #38414-007-SO. I have received a signed waiver form that extends the 90 day clock to 7/16/04.

Please find attached a draft of your pending operation permit. Some of the conditions were prepared by Kim prior to his departure and I was not clear on any agreements you all had come to during the permitting process.

Please look over the permit and call or email with any comments or concerns. I will be happy to discuss any questions or comments you have. I tried to proofread it as much as possible and check for internal consistency, but there may still be an error here or there. I understand that you will be trying to get your comments to me by late June to allow 2 weeks for final processing time. We must take agency action by 7/16/04 (when the waiver expires).

I appreciate your patience and assistance in wrapping up this project.

Thanks.

Susan J. Pelz, P.E.  
Solid Waste Program Manager  
Southwest District  
813-744-6100 x 386  
susan.pelz@dep.state.fl.us



38414-7.SO.do

c

### Tracking:

#### Recipient

Janice Williamson (E-mail)  
'joneill@scsengineers.com'  
Morris, John R.

#### Read

Read: 5/22/2004 9:23 AM

**PERMITTEE**

Hardee County  
 Solid Waste Department  
 c/o Ms. Janice Williamson  
 685 Airport Road  
 Wauchula, Florida 33873

**PERMIT/CERTIFICATION**

WACS Facility ID No: SWD/25/40612  
 Permit No: **38414-007-SO**  
 Date of Issue:  
 Expiration Date: **05/15/2009**  
 County: Hardee  
 Lat/Long: 27°34'17"N  
 81°46'58"W  
 Sec/Town/Rge: 35/33S/25E  
 Project: Hardee County  
 Regional Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-330, 62-520, 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 on file with the Department and made a part hereof and specifically described as follows:

To operate, monitor, and maintain a Class I landfill (approximately 12.5 acres), referred to as the Hardee County Regional Landfill, and related ancillary facilities, subject to the specific and general conditions attached, for the management and disposal of solid waste, located at 675 Airport Road, east of the City of Wauchula, Hardee County, Florida. The specific conditions attached are for the operation of a:

1. Class I Landfill
2. Leachate storage tanks system
3. related appurtenances

<b>General Information:</b>	
Disposal acres	12.5 acres (Phase I)
Lowest elevation	+72 feet NGVD (approximate top of clay)
Bottom liner design	In-situ clay bottom w/geosynthetic sidewalls
LCS design	perimeter rock/LCS piping
LDS design	none
Final elevation,	+150 feet NGVD
Slopes	3H:1V (N, S, E) and 3.5H:1V (W), 5% top slope

**Replaces Permit No.: 38414-002-SO and modification #38414-004 (8/10/01), #38414-005 (10/22/01) and #38414-006 (11/22/02).**

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 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.

**GENERAL CONDITIONS:**

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.

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.

**GENERAL CONDITIONS:**

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
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:**

1. **Landfill Designation.** This landfill shall be classified as a Class I landfill and shall be operated, monitored and maintained in accordance with all applicable requirements of Chapters 62-4, 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 operation of the Class I landfill (Phase I), leachate storage tanks system, and related ancillary facilities, in accordance with the reports, plans and other information submitted by SCS Engineers, Inc. (SCS) as follows:

a. Document entitled Operations Permit Renewal Application - Hardee County Landfill, dated May 16, 2003 (received May 19, 2003) including but not limited to the following information (pages inserted into original where appropriate):

1) Response to Request for Additional Information - Operations Permit Renewal Application - Hardee County Landfill, dated and received on September 30, 2003;

2) Submittal of Modified Information for the Hardee County landfill,... dated and received December 30, 2003;

3) Additional Requested Information,... dated and received on January 29, 2004

b. Operations Plan for Hardee County Landfill,... dated December 24, 2003 (received December 30, 2003), including revised pages inserted into original dated and received January 29, 2004;

c. Water Quality and Leachate Monitoring Plan, Hardee County landfill,... (Attachment M-1 of SC#2.a., above) dated May 16, 2003 including revised pages received September 30, 2003 and January 29, 2004 (inserted into original);

d. Operations Drawings dated January 2004 (received February 23, 2004);

and in accordance with all applicable requirements of Department rules.

**SPECIFIC CONDITIONS:**

**3. Permit Modifications.**

a. Construction, operation or other activities not previously approved as part of this permit shall require a separate Department permit, a permit modification, or as otherwise approved in writing by the Department. Any significant changes to the operations 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 construction of a lateral or vertical landfill expansion. Upon completion of construction a lateral expansion to the facility, the permittee shall submit a permit application for operation of the system. This application shall be submitted as part of the Certification of Construction Completion documentation required by the construction permit and shall include:

- 1) the application form and fee,
- 2) certification of construction completion for the expansion with related documents required as part of the construction permit,
- 3) proof of adequate financial assurance, and
- 4) the Operations Plan and Operations Drawings with revisions to include the operation, monitoring and maintenance of the expansion.

c. Construction of improvements that include a liner or components of a liner system (such as the permanent drainage pipes, related structures, the permanent access road, and significant repairs to the leachate collection and removal system) shall not commence until receipt and approval of an appropriate construction quality assurance (CQA) plan. The CQA plan shall include all of the information required by Rule 62-701.400(7) (and Rule 62-701.400(8) where applicable).

d. Use of heavy equipment on the landfill not previously approved as part of this permit (such as equipment that is heavier or equipment that has more concentrated loading impacts than the equipment that was considered as part of the slope stability calculations for this permit) shall not commence until approved in writing by the Department.

**SPECIFIC CONDITIONS:**

4. **Permit Renewal.** No later than one hundred eighty (180) days before the expiration of the Department Permit, 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 Rules 62-4.090 and 62-701.320(10), F.A.C. Operation permit renewal shall include, but not be limited to, an updated Operations Plan and Site Plans for the sequence of filling with cross-sections of lifts, with revisions if necessary.

5. **Prohibitions.**

a. The prohibitions of Rule 62-701.300, F.A.C., shall not be violated by the activities at this site.

b. In the event that surface depressions or other occurrences which may be indicative of sinkhole activity or subsurface instability, are discovered onsite, or within 500 feet of the site, the Department shall be reported **within 24 hours** of discovery in accordance with Specific Condition #23.b., with written notification submitted **within 7 days** of discovery. 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. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to soils, surface water or groundwater outside the liner and leachate management systems at any time. Leachate discharge to area surface waters is not authorized by this permit and shall be considered a violation of this permit. The permittee shall immediately report any such discharge to the Southwest District Office of the Department in accordance with Specific Condition #23.b., below.

d. Waste Burning. Open burning of solid waste is prohibited except in accordance with Rule 62-701.300(3) and Chapter 62-256, F.A.C. Controlled burning of solid waste is prohibited at this site except for clean vegetative and wood wastes which may be burned in a permitted air curtain incinerator in accordance with Rule 62-296.401, 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 #23.b., below.

6. **Facility Operation Requirements.**

a. The permittee shall operate this facility in accordance with Rule 62-701.500, F.A.C., the Operating Drawings [ref. SC#2.d.] and the Operations Plan [ref. SC#2.b.], and any other applicable requirements.

b. Waste shall not be disposed (unloaded, spread, or compacted) during non-daylight hours, unless sufficient lighting is provided to adequately assess the materials and remove unacceptable wastes.

**SPECIFIC CONDITIONS:**

(Specific Condition #6., continued)

c. Sufficient personnel and equipment shall be utilized to adequately operate the facility.

d. Ponded Water/Leachate. In the event of stormwater control problems which allow prolonged (greater than 72 hours) contact of ponded water with waste, the disposal of waste in the affected area shall cease in the affected area until the leachate has been collected and appropriate drainage has been restored.

e. In the event of equipment breakdown or scheduled maintenance of essential equipment (such as equipment required for spreading, compacting and covering waste), the owner or operator shall ensure that sufficient reserve equipment is operating at the site **within 24 hours** of the occurrence. In the event that sufficient reserve equipment is not obtained **within 24 hours**, the permittee shall notify the Department in accordance with Specific Condition #23.b., below and provide a schedule for corrective actions.

f. Unauthorized Wastes. A sufficient number of spotters and operators shall be utilized at the facility for removing (and arranging for the removal of) unacceptable wastes (such as liquids, biomedical waste, hazardous and unknown wastes, etc.) from the working face. At a minimum, spotting shall occur at the working face from the ground (while off of the equipment).

g. Special Wastes. The design, operation, and monitoring of disposal or control of any "special wastes" shall be in accordance with the Operations Plan [ref.SC#2.b.] and with Rules 62-701.300(8) and 62-701.520, F.A.C., and any other applicable Department rules, to protect the public safety, health and welfare. The special wastes shall be stored and managed such that discharge of contaminants to the environment is prevented.

1) Wastes which may include residual contaminants (such as gasoline, oil, paint, antifreeze, PCBs, etc.) shall be stored and managed such that the residues or constituents thereof are not spilled, leaked, dumped, or otherwise discharged onto the soil or into surface or groundwaters.

2) Special wastes (such as lead acid batteries, white goods, etc.), found at the working face, shall be stored in locations which do not adversely affect the sequence of filling, and shall be managed as described in Sections L.1. and L.2.d. of the Operations Plan. These wastes shall be removed from the site for proper recycling or disposal at the frequency described in the Operations Plan and this permit, unless another frequency for removal is approved in writing by the Department.

3) Asbestos. Asbestos shall be managed in accordance with Rule 62-701.520(4), F.A.C., the Operations Plan, and all other applicable federal and Department rules.

**SPECIFIC CONDITIONS:**

(Specific Condition #6.g., continued)

- 4) *Contaminated Soil.* Contaminated soil may be accepted for storage or disposal (within the bermed working area) provided that representative analytical results demonstrate that the material is not hazardous and that the material has been adequately dewatered prior to delivery so that the material passes the paint filter test.
- 5) *White Goods and other scrap metal.* White goods and lawnmowers which may contain liquids (such as oil or gasoline), chlorofluorocarbons (CFCs such as freon), or other gasses shall be stored and managed in a manner such that the liquids are contained, and CFCs or other gasses are not discharged to the atmosphere. White goods which have had the refrigerant appropriately removed shall be clearly marked. A maximum of 400 tons of scrap metal (including no more than 200 white goods) may be stored at the site at any time, and shall be removed at least **quarterly (every 3 months)**.
- 6) *Yard Trash.* Yard trash (including clean wood) shall be managed according to Rule 62-709.320, F.A.C., and as described in the Operations Plan. Yard trash shall be processed at least **semi-annually (every 6 months)**. A maximum of 3000 tons (or 12,000 cubic yards) of yard trash may be stored at the site at any time.
- 7) *Waste Tires.* Waste tires shall be managed according to the current Department-approved waste tire processing facility permit.
- h. Household Hazardous Waste (HHW). Household hazardous waste shall be managed in accordance with the Operations Plan, and stored at the Household Hazardous Waste Collection Center (HHWCC).
  - 1) HHW shall be identified, and then relocated for storage within the containment area of the HHWCC at the end of each collection day.
  - 2) Spillage shall be removed and properly packaged for disposal. Soils which have been contaminated by spills shall be removed and packaged for proper disposal on the same day as the spill occurred.
  - 3) Liquids, including contaminated rainwater, shall not be discharged outside of the containment structures.
  - 4) Non-latex paints shall not be air dried.
  - 5) Waste received at the HHWCC shall be stored within containment areas at all times.



**SPECIFIC CONDITIONS:**

(Specific Condition #6.h., continued)

6) Records on the quantities of HHW collected and removed for disposal shall be compiled monthly and maintained at the facility for Department review upon request.

7) Miscellaneous household hazardous wastes (such as paint, fluorescent light bulbs, chemicals, etc.) shall be managed as described in the Operations Plan. A maximum of 100 gallons of paint, 400 light bulbs, 50 gallons of liquid chemicals, and 250 lbs. of dry chemicals may be stored at the HHWCC at any time, and removed at least **quarterly (every 3 months)**.

8) *Lead acid batteries.* The batteries shall be stored in a manner which prevents the discharge of contaminants to the environment. A maximum of 140 batteries may be stored at the HHWCC at any time, and removed at least **quarterly (every 3 months)**.

9) *Used oil.* Used oil storage is limited to a maximum of 700 gallons stored in the tanks at the HHWCC at any time, and removed at least **quarterly (every 3 months)**.

10) *Electronics.* Electronics to be recycled shall be stored in an undamaged condition, and removed at least **semi-annually (every 6 months)**. Electronics that have been damaged (such as broken into pieces) shall be removed and stored in a covered containment area to prevent contact with rainfall and related discharge, and removed at least **quarterly (every 3 months)**.

i. Site Inspections.

1) The owner or operator shall inspect the site for erosion and settlement (low spots and improperly graded areas) **daily on operating days**. Erosion and settlement shall be repaired in accordance with Specific Conditions #23.e. and #23.f., below.

2) The owner or operator shall inspect the landfill facility for the presence of objectionable odors at the property boundary **daily on operating days**. In the event that odors are detected at the property boundary, the owner or operator shall abate the odors in accordance with Specific Condition #22.b., below.

**SPECIFIC CONDITIONS:**

(Specific Condition #6.i., continued)

3) The owner or operator shall inspect the normal traffic areas of the facility for litter **daily on operating days**. The accessible property boundaries shall be inspected for litter **at least weekly**. Litter shall be collected and disposed of in the Class I landfill, **at least once per day on operating days**, or more often as necessary. In the event that the litter control program is ineffective, the operator shall notify the Department, and implement additional litter control measures within 30 days.

4) Setback areas in the vicinity of all waste storage and disposal areas, the location of adjacent stormwater management system features (i.e. retention areas, ponds, swales), and all disposal area boundaries shall be clearly marked and the markers inspected **daily on operating days**. The permittee shall clearly stake/mark the location of the edge of the geomembrane liner and maintain the locations as the landfill increases in elevation to prevent waste disposal and leachate runoff outside the geomembrane liner. The markers shall be of a sufficient size or design that effectively prevents waste disposal in unauthorized areas. The staking/markers shall be maintained at all times throughout the operation of the facility.

**7. Method and Sequence of Filling.**

a. The method and sequence of filling shall be in accordance with Operations Drawings [ref.SC#2.d.], and as described in the Operations Plan, or as otherwise approved in writing by the Department.

b. Waste shall be setback a minimum of 5 feet from the inside top edge of the side portion of the bottom liner, and as shown on the Operations Drawings.

**8. Operating Personnel.**

a. The owner or operator shall be responsible for operating and maintaining the facility in an orderly, safe, and sanitary manner.

b. Sufficient trained personnel shall be available, to adequately operate the facility in compliance with this permit and Department rules. As required by Rule 62-701.500(1), F.A.C., at least one trained operator shall be at the Class I landfill at all times when the landfill receives waste. At least one trained spotter shall be at the working face when waste is received and unloaded, to inspect each load of waste from the ground (while off of the equipment), and to identify and properly manage prohibited materials.

**SPECIFIC CONDITIONS:**

(Specific Condition #8, continued)

c. The permittee shall notify the Department in writing of a change of the County's primary on-site supervisor within 7 days of the effective start date of this new responsible individual. Training documentation shall be maintained at the landfill site, and copies shall be provided to the Department upon request.

**9. Operation Plan and Operating Record.**

a. Each landfill owner or operator shall have an operational plan which meets the requirements of Rule 62-701.500(2), F.A.C. A copy of the Department approved permit, operational 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., are part of the operations plan, and shall also be maintained at the site.

b. Proposed changes to the current Department-approved Operations Plan shall be submitted in writing to the Department for review and may require a permit modification in accordance with Specific Condition #3. The Operations Plan shall be updated as operations change and for renewal of the permit. Revised pages shall be provided as replacement pages with revisions noted (deletions may be struckthrough (~~struckthrough~~) and additions may be shaded (shaded) or a similar method may be used) and each page numbered with the document title and date of revision.

c. Unless specified otherwise in this permit, all submittals, notifications, requests for permit modification, shall be provided to the Southwest District Solid Waste Section, 3804 Coconut Palm Drive, Tampa, FL 33619.

d. The following reports, documents and other information shall be maintained at the facility for reference, and copies shall be provided to the Department upon request:

- 1) Waste quantity reports required by Rule 62-701.500(4), F.A.C., and as described in Specific Condition #10;
- 2) A log of the facility operator's daily inspections, and any subsequent corrective actions;
- 3) Load checking records;
- 4) A list of incidents of disposal of contaminated soil or other industrial wastes or sludges. This list should include the generator's name and address, and a description of the waste disposed;
- 5) Operator and spotter training certificates and other documentation;
- 6) Log of odor complaints and corrective action; and

**SPECIFIC CONDITIONS:**

(Specific Condition #9.d., continued)

7) Records as described in Rule 62-701.500(13). These records shall include all certifications for construction completion.

e. Capacity Report. The owner or operator shall conduct a topographic survey of the Class I disposal area, and shall estimate the remaining disposal capacity and site life as required by Rule 62-701.500(13)(c), F.A.C. **Annually, no later than September 1<sup>st</sup> each year,** a copy of this survey, supporting capacity calculations, signed and sealed by a registered professional engineer and/or licensed professional land surveyor as appropriate shall be submitted to the Department. The survey shall demonstrate that the above-grade sideslopes are no greater than the design exterior sideslopes (4H:1V), that the top elevation does not exceed design elevation, and that all other design features and related improvements conform to the Department-approved Operations Drawings.

f. Certifications of construction completion. Certifications shall be provided for all permanent construction (e.g., for construction of permanent drainage swales and letdown pipes, other significant repairs and improvements). Within **thirty (30) days** after the specified construction has been completed or as otherwise specified by the Department, the following activities shall be completed:

- 1) The owner or operator shall submit a Certification of Construction Completion, DEP Form #62-701.900(2) (form attached), signed and sealed by the responsible professional engineer for the construction 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 and related documents showing all changes (i.e. additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations). The Record Drawings shall include as-built details and elevations.
- 3) The owner or operator shall submit a narrative indicating all changes in plans and the cause of the deviations and certification by the design engineer to the Department.

**SPECIFIC CONDITIONS:**

(Specific Condition #9.f., continued)

4) The engineer of record shall provide a report to verify conformance with the project specifications. The report including all related testing results shall be submitted to the Department along with the completion of construction documents.

**10. Waste Records.**

a. Waste records shall be maintained as required by Rule 62-701.500(4), F.A.C. The owner or operator of the facility shall weigh each load of waste as it is received (with scales at the facility) and record, in tons per day, the amount of waste debris and material received. This information shall be compiled **monthly** and submitted to the Department (Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, M.S. 4565, Tallahassee, Florida 32399-2400) **quarterly, by January 15<sup>th</sup>, April 15<sup>th</sup>, July 15<sup>th</sup> and October 15<sup>th</sup> of each year.** Waste shall not be accepted for disposal at the landfill unless weight scales are available at the facility and are in proper working condition.

b. Records shall be kept for all recycled electronics, including the quantities sent to each recycler, and related receipts with the name and address of each recycler.

**11. Control of Access.** Access to, and use of, the facility shall be controlled as required by Rule 62-701.500(5), F.A.C. Adequate access to the working face shall be provided for all weather conditions while the facility is receiving waste for disposal.

**12. Monitoring of Waste.**

a. Wastes shall be monitored as required by Rule 62-701.500(6), F.A.C., including a load checking program and associated activities. The owner or operator shall conduct three random load checks per week at the active working face. Documentation of the three random load checks, including descriptions (type and quantity) of unacceptable wastes discovered, shall be maintained on-site, and copies provided to the Department upon request. Load checks shall document the occurrence, type of unacceptable wastes, removal and disposition of unauthorized wastes discovered in the loads.

b. 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 #28.b., below.

**SPECIFIC CONDITIONS:**

(Specific Condition #12, continued)

c. The permittee shall maintain a program which prohibits the disposal of bulk industrial wastes which operating personnel reasonably believe to either be or contain hazardous waste, without first obtaining a chemical analysis of the material showing the waste to be non-hazardous. The chemical analysis of any such material so placed in the landfill, along with the customer's name and date of disposal, shall be kept on file by the operating authority on-site.

13. **Waste Handling Requirements.** All solid waste disposed of in the Class I disposal area shall be covered as required by Rule 62-701.500(7), F.A.C.

a. Initial Cover. Initial cover shall be applied and maintained at the end of each working day in accordance with Rule 62-701.500(7)(e), F.A.C., so as to protect the public health and welfare.

1) All solid waste disposed of in the Class I disposal area must be covered with at least 6 inches of compacted earth or other suitable material as approved by the Department (in writing), at the end of each working day. Areas which have received initial cover and exhibit erosion which results in exposed waste shall be repaired **by the end of the next working day.**

2) The following alternate daily cover materials are acceptable for use at this facility. Alternate daily cover materials not identified below are required to be approved by the Department prior to use at the facility.

a) **TARPS.** For those areas where solid waste will be deposited on the working face within 18 hours, initial cover may consist of a temporary cover or tarpaulin **(within the bermed working area).**

b) **WASTE TIRES.** Waste tires that have been cut into sufficiently small parts, which means that 70 percent of the waste tire material is cut into pieces of 4 square inches or less and 100 percent of the waste tire material is 32 square inches or less, and applied in a six (6) inch compacted layer, may be used as initial cover **(within the bermed working area).**

**SPECIFIC CONDITIONS:**

(Specific Condition #13.a(2), continued)

c) YARD TRASH (COMPOST OR MULCH). Yard trash (compost or mulch), screened or unscreened, and then mixed in the ratio of 50% compost (or mulch) to 50% soil, and applied in a six (6) inch compacted layer, may be used as initial cover. 90% of the compost shall pass through a 3/4" screen prior to mixing with soil. At least one sample of the compost (prior to mixing with soil) **shall be tested weekly** to verify particle size distribution.

d) YARD TRASH (COMPOST OR MULCH). A "mixture" of yard trash mulch and soil, such that (for the mixture) 100% shall pass a 2" screen, 85% shall pass a 3/4" screen, and 70% shall pass a 1/4" screen; and applied in a six (6) inch compacted layer, may be used as initial cover. At least one sample of the "mixture" **shall be tested weekly** to verify particle size distribution.

e) YARD TRASH (COMPOST OR MULCH). Composted yard trash, screened through a 1/2" mesh, and then mixed in the ratio of 75% screened compost to 25% soil, and applied in a six (6) inch compacted layer, may be used as initial cover.

f) CONTAMINATED SOIL. Contaminated soil applied in a six (6) inch compacted layer, may be used as initial cover (**within the bermed working area**) provided that representative analytical results demonstrate that the material is not hazardous and that the material has been adequately dewatered prior to delivery so that the material passes the paint filter test.

b. Intermediate Cover. Intermediate cover shall be applied and maintained in accordance with Rules 62-701.500(7)(a) and (f), F.A.C.. Cover materials other than soil (unless identified herein) shall not be used for intermediate cover without prior written Department approval.

1) An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion if final cover or an additional lift is not to be applied within 180 days of cell completion.

2) The alternate initial cover materials previously described in Specific Conditions #13.a(2)(c), #13.a(2)(d), and #13.a(2)(e) are also approved for intermediate cover when applied as a one (1) foot of compacted layer in addition to the six (6) inch initial cover.

**SPECIFIC CONDITIONS:**

(Specific Condition #13.b., continued)

3) **Sod shall be applied within 30 days** to all intermediately covered (external) sideslope areas that have reached designed dimensions.

c. Cover materials which have been previously used for intermediate or initial cover, and which contain solid waste (such as waste tire pieces, shredded shingles, C&D debris, ash, contaminated soil, etc.), shall not be re-used on areas which discharge to the stormwater management system or as berms around the perimeter of the active working face area. These materials may be re-used as initial cover (subject to Department approval) provided the runoff from these areas is managed as leachate.

d. The top of each lift of waste shall be maintained with a minimum 2% slope as described in the Operations Plan.

14. **Working Face.**

a. As required by Rule 62-701.500(7)(d), F.A.C., the permittee shall minimize the size of the working face to minimize leachate, and unnecessary use of cover material. The permittee shall maintain the working face of a cell only wide enough to efficiently accommodate the maximum quantity of vehicles discharging waste simultaneously and to minimize the exposed area.

b. **Interceptor/containment berms shall be maintained around the working area to prevent leachate runoff from the working face from entering the stormwater management system.** Runoff from outside the bermed working face area will be considered stormwater only if the flow passes over areas which have no exposed waste, and have been adequately covered with at least 6 inches of compacted soil or other Department-approved intermediate cover material that is free of waste and is stabilized to control erosion.

c. Waste shall be spread and compacted in accordance with the Operations Plan. Slopes shall be maintained in accordance with the Operations Drawings. The working face slope shall be no greater (steeper) than 3H:1V.

15. **Leachate Management.**

a. Leachate shall be managed in accordance with the requirements of Rule 62-701.500(8), F.A.C., the Operations Plan, and other applicable Department rules.

b. Leachate which has accumulated on the surface in low areas shall be collected and removed from the disposal area within 72 hours for appropriate treatment or disposal.



**SPECIFIC CONDITIONS:**

(Specific Condition #15, continued)

c. Leachate Disposal.

1) Leachate shall be hauled offsite for disposal at an appropriately permitted wastewater treatment facility (WWTP). No later than **thirty (30) days** prior to the expiration of any contracts or agreements for the disposal of leachate at wastewater treatment facilities, the permittee shall provide a copy of the contract renewal or the issuance of a new contract for leachate disposal.

2) In the event that the primary leachate disposal facility becomes unable or unwilling to accept leachate for disposal, **within three (3) days** of the cessation of leachate acceptance by the WWTP, the landfill owner or operator shall notify the Department and shall explain the contingency measures which will be implemented. The contingency measures shall be implemented **within seven (7) days** of the cessation of leachate acceptance at the WWTP, or in accordance with an alternate schedule approved by the Department.

d. Leachate Collection and Removal System (LCRS) Inspections/Maintenance.

1) The leachate collection and removal system and gravity pipelines, shall be visually or video inspected or water pressure cleaned at cleanouts and access pipes to verify adequate performance at least once during this permit period. Force mains shall be video inspected or water pressure cleaned when the pump station performance indicates that the force mains may be obstructed. An inspection report shall be provided and shall include an evaluation of the effectiveness of the system, the locations of cleaning and video inspections (indicated on a Site Plan drawn to scale) with the locations and the cause of all obstructions encountered, proposed corrective actions, and schedule for implementation of corrective actions as appropriate. If the pipes are water-jet cleaned, the report shall include a description of the method of cleaning. Components not performing adequately shall be cleaned and/or repaired. **No later than one hundred and eighty (180) days prior to permit expiration**, a final report summarizing the inspection results (with a copy of the inspection report) and describing the related corrective actions (repairs) when required (with photographic documentation for all repairs and a copy of the inspection videotape) shall be signed and sealed by a professional engineer, and shall be submitted to the Department to verify adequate performance of the leachate collection and removal system. The permittee shall retain a copy of the final report, each inspection report, and each inspection videotape at the facility for reference, and shall provide a copy to the Department upon request.

**SPECIFIC CONDITIONS:**

(Specific Condition #15.d., continued)

2) Each pump and pump station and related sensors and controller mechanisms shall be inspected on a semi-annual basis. Pump performance shall be verified and current draw recorded. Pumps showing reduced performance shall be removed for maintenance and repair, and a replacement pump installed if required for continued compliance. Documentation of all inspections shall be kept on file at the facility, and provided to the Department upon request.

3) Unless otherwise specified in this permit, the leachate collection and removal system components shall be inspected and maintained as described in the Operations Plan.

4) Upon the discovery of any defective (obstructed, separated, deformed) portion of the leachate collection system, the disposal of waste in the affected area shall cease in the affected area until the leachate collection system performance has been restored. Construction of improvements to the any part of the LCRS, including significant repairs to the leachate collection system, may require a permit modification pursuant to Specific Condition #3. The design and related supporting documents for the construction of improvements shall be substantially equivalent to those required for new construction.

e. Leachate quantities.

1) In the event of a failure of leachate metering or pumping equipment which is not corrected within 24 hours of detection, the Department shall be notified, and corrective actions implemented in accordance with Specific Condition #23.b., below.

2) Leachate generation reports shall be compiled monthly and submitted to the Department **quarterly, by January 15th, April 15th, July 15th and October 15th each year.** Leachate generation reports shall include the number of open, intermediate and closed acres, and the quantities of leachate collected, recirculated, treated and disposed, and hauled/piped off-site to a wastewater treatment facility, and daily precipitation amounts greater than one tenth of an inch.

f. Leachate Storage Tanks. The leachate storage tanks shall be inspected as required by Rule 62-701.400(6)(c)9., F.A.C., and in accordance with the conditions of this permit. The tanks, containment area, and truck loadout area, and other leachate storage system appurtenances shall be inspected **at least weekly** for leakage or other damage. The interior of the tanks shall be inspected at least every three years, and the inspection report shall be provided to the Department.

**SPECIFIC CONDITIONS:**

**16. Landfill Gas - NSPS 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).

**17. Gas Monitoring and Control.**

a. Landfills that receive biodegradable wastes shall have a gas management system designed to prevent explosions and fires, and to minimize off-site odors, lateral migration of gases and damage to vegetation. Landfill gas shall be monitored and controlled as required by Rule 62-701.530, F.A.C., and as described in Section L.9. of the Operations Plan.

b. Landfill gas shall be monitored to demonstrate compliance with the criteria established in Rule 62-701.530(1)(a), F.A.C., (less than 25% of the lower explosive limit (LEL) for combustible gases in structures, and less than 100% of the LEL for combustible gases at or beyond the property boundary).

c. The results of quarterly monitoring required by Rule 62-701.530(2)(c), F.A.C., shall be submitted to the Department by the following dates:

<u>Measured During</u>	<u>Report Submitted By</u>
Quarter 1	April 15 <sup>th</sup> of each year
Quarter 2	July 15 <sup>th</sup> of each year
Quarter 3	October 15 <sup>th</sup> of each year
Quarter 4	January 15 <sup>th</sup> of each year

**SPECIFIC CONDITIONS:**

(Specific Condition #17., continued)

d. The ambient monitoring points and the soil monitoring probes listed below and shown on Figure K-1 (received January 29, 2004), prepared by SCS Engineers (attached), shall be sampled at least **quarterly** for concentrations of combustible gases determined as a percent of the LEL calibrated to methane, as described in Rule 62-701.530(2), F.A.C., as follow:

<u>Ambient Monitoring Points</u>	<u>Description</u>
Maintenance Building	Foundation penetrations; enclosed spaces; electrical control boxes, outlets and openings to conduits; and, ambient air within the
structure	
MRF building	↓
Scale house/office building	↓
Animal control building	↓
<u>Soil Monitoring Probes</u>	<u>Description</u>
GP-1	Northeast corner of landfill footprint
GP-2	North side of landfill footprint
GP-3	Northwest corner of landfill footprint
GP-4	West side of landfill footprint
GP-5	West side of landfill footprint
GP-6	West side of landfill footprint
GP-7	South side of landfill footprint
GP-8	South side of landfill footprint
GP-9	East side of landfill footprint
GP-10	East side of landfill footprint
GP-11	East side of landfill footprint

Gas monitoring probes GP-1 through GP-11 are to be clearly labeled and easily visible at all times.

e. Gas Remediation. If the results of gas monitoring show that combustible gas concentrations exceed 25% of the LEL calibrated to methane in structures or 100% of the LEL calibrated to methane at the property boundary, the permittee shall immediately take all necessary steps to ensure protection of human health and notify the Department. **Within seven (7) days** of detection, a gas remediation plan detailing the nature and extent of the problem and the proposed remedy shall be submitted to the Department for approval. The remedy shall be completed **within sixty (60) days** of detection unless otherwise approved by the Department.

**SPECIFIC CONDITIONS:**

**18. Stormwater Management.**

a. 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.

b. The system shall minimize stormwater from entering waste filled areas and avoid the mixing of stormwater with leachate. All stormwater conveyances shall be inspected **at least weekly** to verify adequate performance and shall be repaired in accordance with the Operations Plan and the conditions of this permit. Conveyances not performing adequately due to erosion or related sedimentation shall be repaired **within seven (7) days**. Documentation of all inspections and repairs shall be kept on file at the facility.

c. All temporary drainage berms, letdown pipes, and conveyances (terrace swales and benches) shall be installed at the earliest possible time, as noted and shown on the Operations Drawings, and as described in Section L.10 of the Operations Plan.

**19. Closure Permit Requirements. 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.

**20. Final Cover.** Portions of the landfill which have been filled with waste to the extent of designed dimensions shall be closed (shall receive final cover) within 180 days after reaching design dimensions, in accordance with Rule 62-701.500(7)(g), F.A.C. and all applicable requirements of Department rules.

**21. Financial Assurance.** The permittee shall provide 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 1<sup>st</sup> each year** to: Solid Waste Manager, Solid Waste Section, Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

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:**

22. **Control of Nuisance Conditions.**

a. The owner or operator shall control odors, vectors (mosquitoes, other insects, rodents), and fugitive particulates (dust, smoke) arising from the 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.

b. In the event that the odor control measures performed at the facility do not sufficiently abate objectionable odors offsite, the permittee shall submit an odor abatement plan to the Department **within sixty (60) days** of initial detection. The odor abatement plan shall include at a minimum, a description of the proposed corrective actions and a schedule for implementation.

23. **Facility Maintenance and Repair.**

a. The site shall be properly maintained including maintenance of access roads to disposal areas, equipment, stormwater systems, cover systems and berms, leachate control systems, gas monitoring system, surface water monitoring system, and groundwater monitoring system. Erosion and ponded water in disposal areas shall be prevented.

b. In the event of damage to any portion of the landfill site facilities, leachate discharge to area surface waters, 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.

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 Specified Condition #23.b., above, 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 #30, or as otherwise approved by the Department.

**SPECIFIC CONDITIONS:**

(Specific Condition #23., continued)

d. In the event that the leachate management systems are damaged or are not operating effectively, corrective actions shall be implemented **within thirty (30) days** of the written notification specified in Specific Condition #23.b., above, unless otherwise approved by the Department.

e. Erosion. Intermediately covered disposal areas, or other disposal areas which discharge to the stormwater management system, which exhibit significant erosion, shall be repaired according to the following schedule:

- 1) If the cover materials have eroded such that greater than 50% of the cover in that location has been eroded, then repair the affected area within seven (7) days; and
- 2) If waste or liner is exposed, then repair the affected area by the end of the next working day.

f. Settlement. Areas which exhibit settlement (low spots and improperly graded areas) that may cause ponding of water shall be repaired (additional soil placed, regraded, seeded and/or sodded) **within seven (7) days.**

**24. Water Quality Monitoring Quality Assurance.**

a. All field work done in connection with the facility's Water Quality Monitoring Plan shall be conducted in accordance with the Standard Operating Procedures (SOPs) described in DEP-SOP-001/01 (January 2002), as referenced in Rule 62-160.210(1), F.A.C. All laboratory analyses done in connection with the facility's Water Quality Monitoring Plan shall be conducted by firms that are certified by the Department of Health Environmental Laboratory Certification Program under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300(1), F.A.C., and in accordance with the schedule referenced in Rule 62-160.300(2), F.A.C. The SOPs utilized and the laboratory's list of certified test methods and analytes must specifically address the types of sampling and analytical work that are required by the permit and shall be implemented by all persons performing sample collection or analysis related to this permit. Alternate field procedures and laboratory methods may be used if approved according to the requirements of Rules 62-160.220 and 62-160.330, F.A.C., respectively.

b. The field testing, sample collection, sample preservation and laboratory testing, including the collection of quality control samples, shall be in accordance with the requirements of and methods approved by the Department in accordance with Rule 62-4.246 and Chapter 62-160, F.A.C. Approved methods published by the Department, or as published in Standard Methods or by A.S.T.M., or EPA methods shall be used.

**SPECIFIC CONDITIONS:**

**25. Zone of Discharge.**

a. The zone of discharge for this site shall extend horizontally 100 feet from the limits of the landfill liner or to the property boundary, whichever is less, and shall extend vertically to the bottom of the surficial aquifer.

b. The permittee shall ensure that the water quality standards and minimum criteria for Class G-II ground waters will not be exceeded at the boundary of the zone of discharge according to Rule 62-520.420, F.A.C., and that the minimum criteria listed in Rule 62-520.400, F.A.C., will not be exceeded outside the footprint of the landfill.

**26. Leachate Sampling.** Grab samples of leachate shall be collected at Manhole 9 (WACS Testsite ID No. 21061) of the leachate collection system. This leachate sampling location is identified as M-9 on Figure K-1 (received January 29, 2004), prepared by SCS Engineers (attached). Leachate sampling shall be conducted in accordance with the Department's SOPs to comply with the requirements of Rules 62-701.510(5) and 62-701.510(6)(c), F.A.C., as follow:

a. **Annual** leachate sampling shall be conducted for analysis of the following parameters:

Field Parameters  
Specific conductivity  
pH  
Dissolved oxygen  
Colors & sheens  
(by observation)  
Sodium

Laboratory Parameters  
Total ammonia - N  
Bicarbonate  
Chlorides  
Iron  
Mercury  
Nitrate  
Total dissolved solids (TDS)  
Those parameters listed in  
40 CFR Part 258, Appendix II

b. If the annual leachate analysis indicates that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level listed therein, the permittee shall initiate monthly sampling and analysis of the parameters listed in Specific Condition No. 26.a., and shall notify the Department in writing. If in any three consecutive months no listed contaminant is found to exceed the regulatory level, the permittee may discontinue the monthly sampling and analysis and return to a routine sampling schedule.



**SPECIFIC CONDITIONS:**

27. **Surface Water Sampling.**

a. All surface water bodies that may be affected by a contaminant release at the facility shall be monitored, except bodies of water contained completely within the property boundaries of the site which do not discharge from the site to surface waters (Rule 62-701.510(4), F.A.C.). The locations, parameters, and frequencies specified herein represent the minimum requirements for surface water monitoring. Additional samples, sampling locations, and parameters may be required based upon subsequent analysis. Method Detection Limits must be less than or equal to the criteria established for the individual parameters to demonstrate compliance with Class III (predominantly fresh water) surface water criteria presented in Chapter 62-302, F.A.C. Compliance with surface water criteria will be based on analysis of unfiltered samples.

b. Surface water samples shall be collected at SW-2 (WACS Testsite ID No. 21062) as identified on Figure K-1 (received January 29, 2004), prepared by SCS Engineers (attached). In accordance with Rule 62-701.510(4)(c), F.A.C., the monitoring station shall be marked and its positions shall be determined by a registered Florida land surveyor in degrees, minutes and seconds of latitude and longitude.

c. **Semi-annual** surface water sampling shall be conducted at SW-2 in accordance with Rule 62-701.510(6)(e), F.A.C., for analysis of the following parameters:

<u>Field parameters</u>	<u>Laboratory parameters</u>	
Specific conductivity	Unionized ammonia	Total organic carbon (TOC)
pH	Total hardness	Total nitrogen
Dissolved oxygen	Total phosphates	Chemical oxygen demand (COD)
Turbidity	Chlorophyll A	Fecal coliform
Temperature	Copper	Biochemical oxygen demand (BOD <sub>5</sub> )
Colors and sheens (by observation)	Iron	Total dissolved solids (TDS)
	Mercury	Total suspended solids (TSS)
	Nitrate	Zinc
	<u>Those parameters listed in 40 CFR Part 258, Appendix I</u>	

d. Hardee County shall collect samples at SW-2 during the semi-annual periods (January 1 to June 30, and July 1 to December 31 of each year) unless no surface water is present for the entire semi-annual period. In the event that no surface water is present for an entire semi-annual period, the report submitted for that period shall include a copy of the daily log (excluding Sundays) maintained by Hardee County of observations at SW-2 to document the absence of surface water at the sampling location.

**SPECIFIC CONDITIONS:**

28. **Ground Water Monitor Well Locations.** The ground water monitoring plan is described in the submittal entitled Water Quality and Leachate Monitoring Plan, Hardee County Landfill, prepared by SCS Engineers, received May 19, 2003, revisions received September 30, 2003 and January 29, 2004. The existing and proposed monitor well and piezometer locations for the facility are identified on Figure K-1 (received January 29, 2004), prepared by SCS Engineers (attached), as follows:

<u>Well No.</u>	<u>WACS Testsite ID Number</u>	<u>Aquifer</u>	<u>Designation</u>	<u>Location</u>
MW-1	296	Surficial	Background	See Figure K-1
MW-2	297	Surficial	Detection	↓
MW-4	299	Surficial	Background	↓
MW-5	300	Surficial	Detection	↓
MW-8	19255	Surficial	Detection	↓
MW-9	19256	Surficial	Detection	↓
MW-10 *	21063	Surficial	Detection	↓
MW-3	N/A	Surficial	Piezometer (GW)	↓
MW-6	N/A	Surficial	Piezometer (GW)	↓
MW-7	N/A	Surficial	Piezometer (GW)	↓
P-1	N/A	N/A	Piezometer (leachate)	↓
P-2	N/A	N/A	Piezometer (leachate)	↓
P-3	N/A	Surficial	Piezometer (GW)	↓
P-4	N/A	Surficial	Piezometer (GW)	↓
P-5	N/A	Surficial	Piezometer (GW)	↓
P-7	N/A	Surficial	Piezometer (GW)	↓
P-8	N/A	Surficial	Piezometer (GW)	↓
P-9	N/A	N/A	Piezometer (leachate)	↓
P-10	N/A	N/A	Piezometer (leachate)	↓
P-11	N/A	Surficial	Piezometer (GW)	↓
P-12	N/A	Surficial	Piezometer (GW)	↓
P-13	N/A	Surficial	Piezometer (GW)	↓
P-14	N/A	Surficial	Piezometer (GW)	↓
P-15	N/A	N/A	Piezometer (leachate)	↓
P-16	N/A	N/A	Piezometer (leachate)	↓

\* = to be installed **within 90 days of permit issuance** in accordance with the construction details provided in Table 6-1 of the submittal entitled Biennial Groundwater Monitoring Plan Evaluation, Hardee County Landfill, prepared by SCS Engineers, received May 19, 2003, revisions received September 30, 2003; documentation of well construction details as indicated in Specific Condition Nos. 30.c. and 30.d. shall be submitted **within 30 days of well installation**.

Piezometer (GW ) = ground water elevation measuring location

Piezometer (leachate) = leachate elevation measuring location

All wells and piezometers are to be clearly labeled and easily visible at all times. The permittee should keep all wells locked to minimize unauthorized access.

**SPECIFIC CONDITIONS:**

29. **Groundwater Sampling.** The locations, parameters, and frequencies specified herein represent the minimum requirements for ground water monitoring. Additional samples, wells, and parameters may be required based upon subsequent analysis. Method Detection Limits must be less than or equal to the Maximum Contaminant Levels established for the individual parameters to demonstrate compliance with Class G-II ground water standards referenced in Chapter 62-522, F.A.C. Compliance with ground water standards shall be based on analysis of unfiltered samples.

a. Ground water levels shall be measured at all wells and piezometers listed in Specific Condition No. 28 during all sampling events described in Specific Condition Nos. 29.c., to a precision of 0.01 foot. The ground water surface contour maps prepared for each sampling event shall include water elevations (feet NGVD) calculated for each well and piezometer.

b. An **initial sampling event** shall be conducted at proposed detection well MW-10 **within 7 days of well installation and development** for analysis of the following parameters:

Field Parameters  
Static water levels  
    before purging  
Specific conductivity  
pH  
Dissolved oxygen  
Temperature  
Turbidity  
Colors & sheens  
    (by observation)

Laboratory Parameters  
Total ammonia - N  
Chlorides  
Iron  
Mercury  
Nitrate  
Sodium  
Total dissolved solids (TDS)  
Those parameters listed in  
40 CFR Part 258, Appendix II

c. The background wells (MW-1 and MW-4) and detection wells (MW-2, MW-5, MW-8, MW-9 and MW-10) shall be sampled **semi-annually** for analysis of the following parameters:

Field Parameters  
Static water levels  
    before purging  
Specific conductivity  
pH  
Dissolved oxygen  
Temperature  
Turbidity  
Colors & sheens  
    (by observation)

Laboratory Parameters  
Total ammonia - N  
Chlorides  
Iron  
Mercury  
Nitrate  
Sodium  
Total dissolved solids (TDS)  
Those parameters listed in  
40 CFR Part 258, Appendix I

**SPECIFIC CONDITIONS:**

30. **Ground Water Monitor Well Construction.** The following information shall be submitted for all new or replacement monitor wells (and included piezometers), or as stated below:

- a. **Prior to construction** of all new or replacement monitor wells, the permittee shall request and receive Department approval of a minor permit modification.
- b. **Within one week of monitor well completion and development**, each new monitor well shall be sampled for the parameters listed in Rules 62-701.510(8)(a) and 62-701.510(8)(d), F.A.C.
- c. **Within 90 days of monitor well installation**, construction details (record drawings) for all new or replacement monitor wells shall be provided to the Department's Southwest District Office on Department Form No. 62-522.900(3), Monitor Well Completion Form (attached).
- d. **Within 90 days of monitor well installation**, a surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitor wells (active and abandoned), horizontally located in degrees, minutes and seconds of latitude and longitude, and showing the elevation of the top of the well casing to the nearest 0.01 foot, National Geodetic Vertical Datum. The surveyed drawing shall include the monitor well identification numbers, and the locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Registered Surveyor.

31. **Well Abandonment.** All wells and piezometers not a part of the approved Water Quality Monitoring Plan and not listed in Specific Condition No. 28 are to be plugged and abandoned in accordance with Rule 62-532.440, F.A.C., and the Southwest Florida Water Management District (SWFWMD). Documentation of abandonment shall include a map showing piezometer/well locations and SWFWMD abandonment records. The permittee shall submit a written report to the Department providing verification of the well abandonment **within 30 days of abandonment**. A written request for exemption to the abandonment of a well must be submitted to the Department's Solid Waste Section for approval.

**SPECIFIC CONDITIONS:**

32. **Verification/Evaluation Monitoring.** If at any time monitoring parameters are reported in the detection wells at concentrations significantly above background water quality, or exceed the Department's water quality standards or criteria, the permittee has 30 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the permittee choose not to resample, the Department will consider the water quality analysis to be representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring, prevention measures and corrective action as described in Rule 62-701.510(7), F.A.C.

33. **Water Quality, Leachate Reporting Requirements.** All leachate, surface water and ground water quality monitoring results shall be reported on Department Form 62-522.900(2), Groundwater Monitoring Report (attached). The permittee shall submit the results of the leachate influent (required by Specific Conditions # 31.a.), by **January 15<sup>th</sup> of each year.** The permittee shall submit the results of surface water (required by Specific Condition #34.c.) and ground water quality (required by Specific Condition #36.c.) analysis by **January 15<sup>th</sup> and July 15<sup>th</sup> of each year** for the semi-annual periods July-December and January-June, respectively. The reports that transmit the results of ground water analysis shall contain the information listed in Rule 62-701.510(9)(a), F.A.C., including a ground water contour map representing conditions at the time of ground water sampling and a summary of any water quality standards or criteria that are exceeded. The results shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

34. **Water Quality Monitoring Plan Evaluation.** **By June 1, 2004 and no later than December 1, 2006,** the permittee shall submit an evaluation of the water quality monitoring data. The periods of time to be covered by the evaluations are summarized below:

<u>Water Quality Monitoring Data Evaluation Due Date</u>	<u>Starting Sampling Event</u>	<u>Ending Sampling Event</u>
<b>June 1, 2004</b>	Initial sampling event	Second Half 2003
<b>December 1, 2006</b>	First Half 2004	First Half 2006

The evaluations shall include the applicable information as listed in Rule 62-701.510(9)(b), F.A.C., and shall include assessment of the effectiveness of the existing landfill design and operation as related to the prevention of ground water contamination. Any ground water contamination that may be reported shall be addressed as part of evaluation monitoring conducted at the facility in accordance with Rule 62-701.510(7), F.A.C. The evaluations shall be sent to: Solid Waste Section, Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-1352.

**SPECIFIC CONDITIONS:**

35. **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.

36. **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.

37. **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.

38. **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.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

---

Deborah A. Getzoff  
District Director  
Southwest District

**ATTACHMENT 1**

Specific Condition	Submittal Due Date	Required Item
4, 15.d.	180 days prior to permit expiration	Submit permit renewal application, Submit final report for LCS assessment
5.b., 6.e., 23.b.	Within 24 hours of discovery  Within 7 days of verbal notification	Notification of: sinkholes, hazardous waste receipt, failure of landfill systems or equipment  Written notification & corrective action plan
9.e.	Annually, by September 1 <sup>st</sup> each year	Submit topographic survey & capacity calculations, and certification
15.c.	30 days prior to expiration	Submit copies of leachate disposal agreements
34	By June 1, 2004 and December 1, 2006	Submit water quality monitoring evaluation report
15.e.  17.c.	Quarterly, by January 15 <sup>th</sup> , April 15 <sup>th</sup> , July 15 <sup>th</sup> and October 15 <sup>th</sup>	Submit leachate generation reports  Submit gas monitoring results
19.	No later than 90 days prior to the date when wastes will no longer be received	Submit Closure Permit application
21.a.	Annually, by September 1 <sup>st</sup> each year	Submit revised cost estimates
21.b.	Annually	Submit proof of funding
23.c.	Within 60 days of notification	Complete repairs to groundwater monitoring system
23.d.	Within 30 days of notification	Implement corrective action for leachate management system damage
27.c.	Semi-annually	Sample/analyze surface water
28	Within 90 days of permit issuance	Install groundwater monitoring well MW-10

ATTACHMENT 1

Specific Condition	Submittal Due Date	Required Item
29.c.	Semi-annually	Sample groundwater monitoring wells
29.b.	Within 1 week of well completion and development	Conduct initial sampling
30.c. 30.d.	Within 90 days of installation	Submit well construction information, and survey drawing
31.	Within 30 days of well abandonment	Submit abandonment report
33.	Semi-annually, by January 15 <sup>th</sup> and July 15 <sup>th</sup> each year	Submit groundwater and surface water monitoring reports



**Ford, Kim**

**From:** Morgan, Steve  
**Sent:** Thursday, March 11, 2004 11:13 AM  
**To:** 'janice.williamson@hardeecounty.net'  
**Cc:** Pelz, Susan; Ford, Kim  
**Subject:** DOT Railroad Bed Soils

Ms. Williamson:

The Department has reviewed your February 18, 2004 letter, with attached analytical data, requesting the storage and subsequent use of the 3000 cu.yds. of soils removed from the old railroad beds by DOT. The Department has no objection to the temporary storage and subsequent disposal or use of the soils as initial cover only at the facility under the following conditions.

- 1) Since the Arsenic concentrations in the soils are above the FDEP Commercial SCTL of 3.7 mg/kg, operations involving storage, loading, transport, and placement of the soils at the facility should be conducted in such a manner as to minimize direct exposure pathways.
- 2) Storage of the soils in the designated area shall be temporary and all soils subsequently removed for disposal or use as initial cover only at the facility. The Department shall be notified in writing upon completing use or disposal of the soils, confirming the final disposition of the soils.
- 3) Storage of the soils shall be conducted in a manner such that runoff from the temporary storage area to surface water bodies and/or the stormwater management system is prevented.

Should you have any further questions or comments, please contact me.

Steven G. Morgan, Environmental Engineer  
Florida Department of Environmental Protection  
Southwest District - Solid Waste Section  
3804 Coconut Palm Drive  
Tampa, Florida 33619-1352

phone - (813) 744-6100 x385  
fax - (813) 744-6125  
e-mail - [steve.morgan@dep.state.fl.us](mailto:steve.morgan@dep.state.fl.us)

3/11/2004

Superior Client Service :

SCS ENGINEERS  
3012 U. S. Highway 301 N., Suite 700  
Tampa, FL 33619  
(813) 621-0080  
Fax (813) 623-6757



# facsimile transmittal

To: Kim Ford Phone: \_\_\_\_\_

Company: \_\_\_\_\_ Fax: \_\_\_\_\_

From: Joe O'Neill Date: \_\_\_\_\_

Re: Handec County Pages: \_\_\_\_\_

cc: \_\_\_\_\_ Project No. \_\_\_\_\_

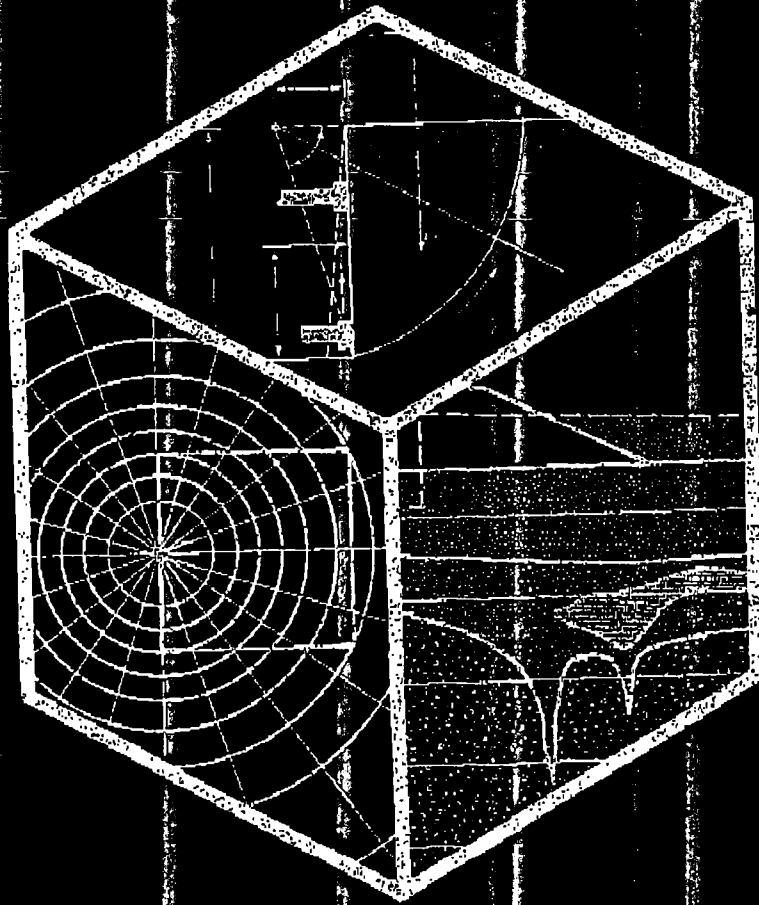
- Urgent     For Review     Please Comment     Please Reply     Please Recycle

Notes:

*See Attached Reference  
Material*

# Principles of Geotechnical Engineering

BRAJA M. DAS



## 13.5 Correlations for Standard Penetration Test

539

**Table 13.2** Approximate Correlation of Standard Penetration Number and Consistency of Clay

Standard penetration number, $N$	Consistency	Unconfined compression strength, $q_u$ (ton/ft <sup>2</sup> )
0	Very soft	0
2		0.25
4	Medium stiff	0.5
8		1
16	Very stiff	2
32		4
>32	Hard	>4

Note: 1 ton/ft<sup>2</sup> = 95.76 kN/m<sup>2</sup>

*Handwritten note:*  
 $N' = C_N N_F$   
 $N' = C_N K' \tan \phi$

overburden pressure (and hence higher lateral confining pressure) at depth  $h_2$  will contribute to a higher value of the standard penetration number. This fact has clearly been demonstrated by Gibbs and Holtz (1957). The results of their findings are shown in Figure 13.10. As an example, one can see that at  $D_r = 80\%$ , the standard penetration number is about 12 with  $\sigma' = 0$  lb/ft<sup>2</sup>. It increases to about 50 with  $\sigma' = 40$  lb/in.<sup>2</sup> (276 kN/m<sup>2</sup>). For that reason, it is necessary to convert the standard penetration numbers obtained at various depths to reflect a constant effective overburden pressure. Peck, Hanson, and Thornburn (1974) proposed the following empirical correlation for converting the field standard penetration number to an effective overburden pressure of  $\sigma' = 1$  ton/ft<sup>2</sup> (95.6 kN/m<sup>2</sup>).

$$N' = C_N N_F = 0.77 N_F \log\left(\frac{20}{\sigma'}\right) \quad (\text{for } \sigma' > 0.25 \text{ ton/ft}^2) \quad (13.6)$$

where

- $N'$  = corrected standard penetration number
- $N_F$  = field standard penetration number
- $C_N$  = correction factor

The unit of  $\sigma'$  is in ton/ft<sup>2</sup>.

In SI units, the preceding equation can be expressed as

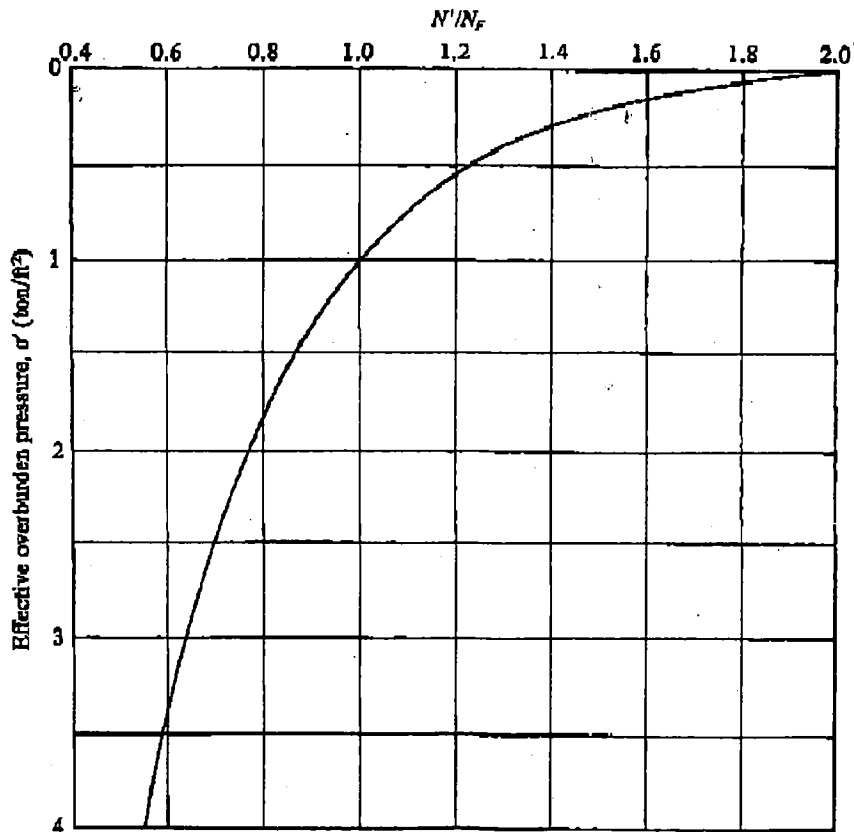
$$N' = 0.77 N_F \log\left(\frac{20}{0.0105 \sigma'}\right) \quad (\text{for } \sigma' > 23.9 \text{ kN/m}^2) \quad (13.7)$$

The unit of  $\sigma'$  in Eq. (13.7) is in kN/m<sup>2</sup>.

**Table 13.3** Approximate Relation Between Corrected Standard Penetration Number, Angle of Friction, and Relative Density of Sand

Corrected standard penetration number, $N$	Relative density, $D_r$ (%)	Angle of friction, $\phi$ (degrees)
0-5	0-5	26-30
5-10	5-30	28-35
10-30	30-60	35-42
30-50	60-95	38-46

The standard penetration number is a very useful guideline in soil exploration and assessment of subsoil conditions, provided that the results are interpreted correctly. Note that all equations and correlations relating to the standard penetration numbers are approximate. Since soil is not homogeneous, a wide variation in the  $N$ -value may be obtained in the field. In soil deposits



**Figure 13.44** Variation of  $N'/N_f$  with vertical effective stress,  $\sigma'$  (after Peck, Hanson, and Thornburn, 1974)

**SCS ENGINEERS**

TO Kim Ford  
FDEP - Southwest District

DATE Feb 23, 2004

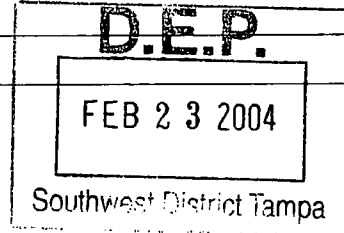
JOB NO. 09/99033.09

ATTENTION \_\_\_\_\_

Re: \_\_\_\_\_

WE ARE SENDING YOU

- Attached  Under separate cover via \_\_\_\_\_
- Shop drawings  Prints
- Copy of letter  Change order
- the following items:  Plans  Samples
- Specifications  HAND DELIVERED



COPIES	DATE	DESCRIPTION
1		JAN. 29, 2004 OPERATIONS PERMIT PLANS 24x36"
1		JAN 29 2004 REDUCED PLANS 11x17"
		FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
		FEB 23 2004
		SOUTHWEST DISTRICT TAMPA

THESE ARE TRANSMITTED as checked below:

- For approval  Approved as submitted  Resubmit \_\_\_\_\_ copies for approval
- For your use  Approved as noted  Submit \_\_\_\_\_ copies for distribution
- As requested  Returned for corrections  Return \_\_\_\_\_ corrected prints
- For review and comment  \_\_\_\_\_
- FOR BIDS DUE \_\_\_\_\_ 19 \_\_\_\_\_  PRINTS RETURNED AFTER LOAN TO US

REMARKS Kim,  
per your request, attached are signed and sealed  
copies of the Jan 29, 2004 HANCOCK County OPERATIONS  
PLAN DRAWINGS (SHEETS 1-12)

PLEASE CALL w/ any QUESTIONS

COPY TO \_\_\_\_\_ SIGNED: [Signature]



Florida Department of  
**Environmental Protection**

**Memorandum**

**TO:** Kim Ford, P.E.  
**FROM:** John R. Morris, P.G. *JRM*  
**DATE:** February 13, 2004  
**SUBJECT:** Hardee County Landfill  
Operating Permit Renewal Application, Pending Permit 38414-007-SO  
Environmental Monitoring Review Comments  
**cc:** Susan Pelz, P.E.

---

I have reviewed the following materials submitted in response to the Department's letter dated June 18, 2003 requesting additional information regarding the referenced application for the Hardee County Landfill prepared by SCS Engineers (SCS) on behalf of Hardee County:

- Letter from SCS dated and received September 30, 2003 that transmitted responses to my review comments memorandum dated June 12, 2003 as Appendix B, including Attachments B-1 through B-19;
- Letter from SCS dated and received December 30, 2003 that transmitted revisions to the *Operations Plan*; and,
- Letter from SCS dated and received January 2004 that transmitted the following:
  - replacement Figure K-1 (Monitoring Locations), dated January 28, 2004
  - replacement page 3, Water Quality and Leachate Monitoring Plan, dated January 29, 2004
  - well completion log and boring log for the supply well located adjacent to the maintenance building

My review focused on the hydrogeologic and environmental monitoring aspects of the renewal application. The review comment numbers presented below are consistent with my memorandum dated June 12, 2003.

**SECTION B – DISPOSAL FACILITY GENERAL INFORMATION**

1. **B.13.:** The September 30, 2003 submittal included the requested revision to this item on page 7 of the application form indicating the facility has not yet been recorded as a disposal site in the county land records as Attachment B-1. **No additional information is requested.**

**SECTION L – LANDFILL OPERATION REQUIREMENTS** (Rule 62-701.500, F.A.C.)

*Landfill Operations Plan for Hardee County Landfill, prepared by SCS Engineers, dated May 16, 2003*

2. **L.8.c. – Procedures for Managing Leachate if Regulated as Hazardous Waste.** The December 30, 2003 submittal included revisions to Section L.8.c. of the *Operations Plan* that reference the requirements of Rule 62-701.510(6)(c)2, F.A.C., in the event that leachate analytical results exceed the regulatory limits listed in 40 CFR Part 261.24. **No additional information is requested.**

3. **L.9 – Routine Gas Monitoring.** The December 30, 2003 submittal included revisions to Section L2.i.1. (Landfill Monitoring Locations) of the *Operations Plan* that refer to the monitoring locations presented on the site layout plan contained in Appendix K. The January 29, 2004 submittal included a revised Figure K-1 with the requested locations and identification numbers for the gas probes, existing/proposed monitor wells, existing/proposed surface water monitoring locations, existing/proposed leachate sampling locations, and existing piezometers. **No additional information is requested.**

## **SECTION M – WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS**

(Rule 62-701.510, F.A.C.)

*Attachment M-1 – Biennial Groundwater Monitoring Plan Evaluation, prepared by SCS Engineers, dated May 12, 2003*

### **Section 3 – Water Quality Monitoring Data Findings**

4. The September 30, 2003 submittal included the requested revisions to the water quality data charts for wells MW-1, MW-2, MW-4 and MW-9 as Attachment B-3. **No additional information is requested.**
5. The September 30, 2003 submittal included the requested revisions to Section 3 of the *Biennial Report* to reference the regulatory levels for the characteristic of toxicity as listed in 40 CFR Part 261.24 as Attachment B-4. **No additional information is requested.**
6. The September 30, 2003 submittal included the requested revisions to Section 3 of the *Biennial Report* to indicate that field measurements of specific conductance had been omitted from some of the sampling events at wells MW-6 and MW-7 as Attachment B-4. **No additional information is requested.**
7. The September 30, 2003 submittal included the requested revisions to the water quality trend analysis plot for iron as Attachment B-5. **No additional information is requested.**

### **Section 4 – Groundwater Levels and Flow Assessment**

8. The September 30, 2003 submittal included the requested revisions to Table 4-1, Figure E-6 and Figure E-9 regarding the ground water elevation measured at well MW-9 during December 2001 as Attachment B-6. **No additional information is requested.**
9. The September 30, 2003 submittal included the requested revision to Section 4 of the *Biennial Report* and also provided a revision to Section 5 of the *Biennial Report* regarding the maximum ground water velocity calculation as Attachments B-7 and B-8, respectively. **No additional information is requested.**

### **Section 5 – Adequacy of the Water Quality Monitoring Locations and Sampling Frequency**

10. The September 30, 2003 submittal included the requested revision to Section 5 of the *Biennial Report* regarding the occurrence of the maximum ground water elevations above the top of the well screens in the existing wells as Attachment B-8. **No additional information is requested.**
11. The September 30, 2003 submittal included the requested revision to Section 5 of the *Biennial Report* regarding the proposed changes to the parameter list for ground water samples as Attachment B-9. **No additional information is requested.**

### **Section 6 – Proposed Modifications/Recommendations to the Monitoring Program**

12. The September 30, 2003 submittal included the requested revision to Section 6 of the *Biennial Report* regarding compliance with the Department's SOP for field measured turbidity and dissolved oxygen during well purging as Attachment B-10. **No additional information is requested.**
13. The September 30, 2003 submittal included the requested revision to Section 6 of the *Biennial Report* regarding analysis of ground water samples for the parameters listed by 40 CFR Part 258, Appendix I as Attachment B-11. **No additional information is requested.**
14. The September 30, 2003 submittal included the requested revision to Section 6 of the *Biennial Report* regarding the addition of a sub-section that references surface water sampling to be consistent with the requirements of Rule 62-701.510(8)(b), F.A.C., as Attachment B-12. **No additional information is requested.**



Attachment M-2 – Water Quality and Leachate Monitoring Plan, Hardee County Landfill, prepared by SCS Engineers, dated May 16, 2003

**Section 2.0 – Water Quality and Leachate Monitoring Network**

15. The September 30, 2003 submittal included the requested revision to Section 2.0 of the *Water Quality and Leachate Monitoring Plan* regarding the proposed record keeping to document the occurrence of standing water at designated sampling location SW-2 for each semi-annual monitoring period as Attachment B-13. **No additional information is requested.**

**Section 3.0 – Water Quality and Leachate Monitoring Parameters**

16. The September 30, 2003 submittal included a revision to Section 3.0 of the *Water Quality and Leachate Monitoring Plan* regarding the analysis of ground water samples as Attachment B-14. The January 29, 2004 submittal included the requested revision to reference the parameters listed by 40 CFR Part 258 Appendix I to the column entitled “Revised Ground Water Parameters”. **No additional information is requested.**

17. The September 30, 2003 submittal included the requested revision to Section 3.0 of the *Water Quality and Leachate Monitoring Plan* regarding the analysis of surface water samples for total phosphates as Attachment B-15. **No additional information is requested.**

**Section 4.0 – Sampling Methods**

18. The September 30, 2003 submittal included the requested revision to Section 4.0 of the *Water Quality and Leachate Monitoring Plan* regarding the collection and analyses of samples using methods consistent with the Department’s SOPs as Attachment B-16. **No additional information is requested.**

**SECTION N – SPECIAL WASTE HANDLING REQUIREMENTS** (Rule 62-701.520, F.A.C.)

19. **N.4. – Procedures for Contaminated Soil Disposal.** The September 30, 2003 submittal included the requested revision to Section N.4 (Special Waste Handling Requirements) regarding the handling and disposal of contaminated soil only within the lined and bermed working face as Attachment B-17. **No additional information is requested.**

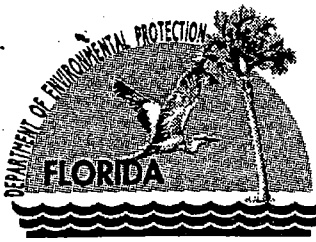
**SECTION O – GAS MANAGEMENT SYSTEM REQUIREMENTS** (Rule 62-701.530, F.A.C.)

20. **O.3.:** The September 30, 2003 submittal included a revision to this item on page 34 of the application form referencing Section O regarding the gas remediation plan as Attachment B-18. **No additional information is requested.**

21. The September 30, 2003 submittal included the requested revision to Section O.3 (Gas Remediation Plan) to be consistent with the requirements of Rules 62-701.530(3)(a) and (3)(b), F.A.C., as Attachment B-19. **No additional information is requested.**

Complete responses were provided to review comment Nos. 1 through 21 as requested in my previous memorandum dated June 12, 2003. The submitted revisions appear to provide sufficient information to address the hydrogeologic and monitoring requirements of Rule 62-701.510, F.A.C.

jrm



# Department of Environmental Protection

Jeb Bush  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

David B. Struhs  
Secretary

February 11, 2004

Ms. Janice Williamson  
Hardee County  
Solid Waste Department  
685 Airport Road  
Wauchula, FL 33873

**Re: Hardee County Landfill - Operation Permit**  
**Pending Permit No.: 38414-007-SO, Hillsborough County**

Dear Ms. Williamson:

This is to acknowledge receipt of receipt the additional information in support of your operation permit renewal application, received on September 30, 2003, December 30, 2003, and January 29, 2004, to operate the Class I 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 has been deemed complete. In accordance with F.A.C. Chapter 62-4, the Department must issue or deny the pending permit by April 28, 2004.

Department comments [in italics (*italics*)] are provided for information only and require no response. Please provide:

1. **62-701.300.** *Revisions to Section D were provided. No additional information required.*
2. **62-701.320(5)(b).** *A construction schedule was provided. No additional information required.*
3. **62-701.320(7)(d)1.** *The cover page for the engineering report was provided. No additional information required.*
4. **62-701.320(7)(f)6.** *The drawings regarding the stormwater management system were provided. No additional information required.*
5. **62-701.320(15).** *Documents for training and the training plan were provided. No additional information required.*

"More Protection, Less Process"

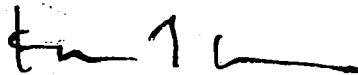
Printed on recycled paper.

6. **62-701.330(1)(c)**. Documents and references to documents to demonstrate that the landfill is "lined" were provided. As previously discussed, the Department will expect all vertical expansions to include an interface liner between the old and new landfill slopes. No additional information required.
7. **62-701.330(3)(d) and (j)**. Revisions to the operational drawings were provided. The Department intends to include language in the pending permit to require a construction quality assurance plan prior to construction of the permanent access road, sideslope drainage pipes and structures (including the associated geosynthetic liner). No additional information required.
8. **62-701.400(2)**. The construction schedule was provided. No additional information required.
9. **62-701.400(4)(a)**. The leachate collection and removal system (LCRS) inspection report with recommendations by SCS Engineers was provided. The Department will expect all related recommended improvements to be completed as described in "Option 2". As previously discussed, the Department will expect all designs for vertical expansions to include an evaluation for the underlying existing LCRS (based on field observations during repairs, a video inspection after repairs, and related calculations), signed and sealed by a professional engineer, to demonstrate compliance with each of the requirements in Rules 62-701.400(4)(a) and 62-701.430(2)(a), F.A.C. No additional information required.
10. **62-701.400(6)(c)9**. The leachate storage tank inspection report was provided. No additional information required.
11. **62-701.400(9)**. Documents regarding the stormwater management system were provided. As previously discussed, the Department will expect the entire existing stormwater management system and related proposed modifications to be included as part of one comprehensive Environmental Resource Permit application required for the anticipated landfill expansion. No additional information required.
12. **62-701.400(11)**. Documents regarding the landfill design and groundwater quality were provided. No additional information required.
13. **62-701.410(2)**. Geotechnical reports (including revised slope stability analysis) and references to related geotechnical reports were provided. The Department intends to include language in the pending permit to require that equipment used for compaction and grading on the landfill (such as the Caterpillar D7R Dozer) shall conform to the specified equipment that was considered as part of the geotechnical calculations for slope stability. The Department will expect all designs for vertical expansions to include comprehensive geotechnical reports. No additional information required.

14. **62-701.430.** Revised operations drawings and slope stability analysis were provided. The Department will expect all designs for vertical expansions to include comprehensive geotechnical reports to demonstrate compliance with each of the requirements of Rules 62-701.430(2)(a) and (b), F.A.C. No additional information required.
15. through 32. (**62-701.500 and 62-701.530**). A revised Operations Plan was provided. No additional information required.
33. **62-701.410, .500, and .510.** Responses to each of the items in Mr. John Morris' June 12, 2003 memorandum were provided. No additional information required.
34. **62-701.630.** Documents regarding financial assurance were provided. No additional information required.

If you have any questions you may call me at (813) 744-6100, extension 382.

Sincerely,



Kim B. Ford, P.E.  
Solid Waste Section  
Division of Waste Management

kbf

cc: Ray Dever, P.E., SCS Engineers  
Susan Pelz, P.E., FDEP Tampa  
John Morris, P.G., FDEP Tampa  
Steve Morgan, FDEP Tampa  
David Smith, P.E., FDEP Tampa

**Ford, Kim**

---

**From:** Pelz, Susan  
**Sent:** Tuesday, February 10, 2004 4:15 PM  
**To:** Ford, Kim; Morris, John R.  
**Subject:** RE: conversation with Janice Williamson about acceptance and use of contaminated soil

I spoke to Janice & told her to send her request with analyticals & figure showing where she wants to stockpile it & how to use it. I told her probably ok for daily cover but not intermediate. Other handling criteria may be necessary depending on results. Location for storage will also depend on results.

She said she will send in maybe this week.

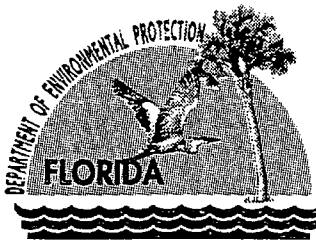
-----Original Message-----

**From:** Ford, Kim  
**Sent:** Tuesday, February 10, 2004 4:02 PM  
**To:** Pelz, Susan; Morris, John R.  
**Subject:** conversation with Janice williamson about acceptanvce and use of contaminated soil

On 2/10/04 I spoke with JW. She said DOT has soil with arsenic from a RR and wants to know what to sample for and whether it can be classified as clean soil. I suggested she call Susan to discuss and explained that stormwater cannot be allowed to runoff the landfill from contaminated soil and contaminated soil can be used for cover but only with the bermed area. She said that was also interested in stockpiling outside of the lined area if it is clean.

Kim

2/11/2004



# Department of Environmental Protection

Jeb Bush  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

David B. Struhs  
Secretary

Ms. Janice Williamson, Superintendent  
Hardee County Solid Waste Department  
685 Airport Road  
Wauchula, Florida 33873

January 30, 2004

RE: Hardee County Class I Landfill Financial Assurance Cost Estimates  
Pending Permit No.: 38414-007-SF, Class I Landfill  
Permit Nos.: 129318-001-WT, WTPF  
126620-001-SO, MRF

Dear Ms. Williamson:

This letter is to acknowledge receipt of the revised cost estimates dated January 28, 2004 (received January 29, 2004), prepared by SCS Engineers for closure and long-term care of the Hardee County Class I Landfill and closure of the associated MRF and WTPF. The revised cost estimates received January 29, 2004 (total for closing \$1,585,203.55 and long-term care \$161,241.15/year x 30 years= \$4,837,234.38), are **APPROVED for 2003**. Please note that these estimates are acceptable for closure and long-term care of 12.5 acres. The next annual update (revised or inflation-adjusted estimates) is due no later than September 1, 2004.

A copy of these estimates will be forwarded to Mr. Fred Wick, Solid Waste Section, FDEP, 2600 Blair Stone Road, Tallahassee, Florida 32399-2407. Please work with him directly to assess the facility's compliance with the funding mechanism requirements of Rule 62-701.630, F.A.C. If you have any questions, you may contact me at (813) 744-6100 ext. 385.

Sincerely,

Steven G. Morgan  
Solid Waste Section  
Southwest District

sgm

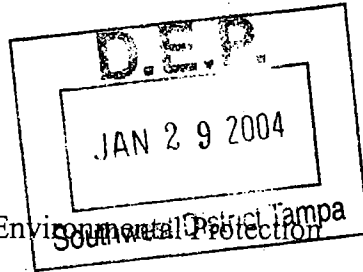
cc: Lindsey Kennelly, E.I., SCS Engineers, 3012 U.S. Highway 301 North, Suite 700, Tampa, Florida 33619-2242  
Fred Wick, FDEP, Tallahassee, w/attachment  
Kim Ford, P.E., FDEP Tampa  
Susan Pelz, P.E., FDEP Tampa

"More Protection, Less Process"

Printed on recycled paper.

**SCS ENGINEERS**

January 29, 2004  
File No. 09199033.08



Mr. Kim Ford  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, FL 33619

Subject: Additional Requested Information  
Hardee County Landfill – Permit No. 38414-002-SO  
Hardee County, Florida

Dear Mr. Ford:

Per our discussion on Monday January 26, 2004, SCS Engineers (SCS) is pleased to submit the following replacement items for your use in the completing the FDEP's review of the Hardee County Operations Permit Renewal Application. The following items are attached to this letter:

- Replacement drawings for Sheets 5,6,7,8,9,10,11,12 for the Operations Drawings;
- Replacement sheets, specifically sheets L-18, L-20, L-22, L-25, L-27, Figure K-1, Gas Monitoring Form.
- A copy of the well completion log and a copy of the boring logs conducted by PSI for the water supply well immediately adjacent to the maintenance building.

A review of the well construction log for the water supply well and the boring logs for that immediate area indicate that the well is approximately 200 feet deep with a confining clay layer at approximately 35 below ground surface. Therefore the water supply well is not a shallow well and was installed in accordance with Rules in effect at the time the well was installed, specifically Rule 17-701.040(2)(c), F.A.C.

Please do not hesitate to contact us if you should have any questions regarding this letter.

Very truly yours,

*Joseph H. O'Neill*  
Joseph H. O'Neill, P.E.  
Project Manager

JHO/JHO

Attachments



## ATTACHMENTS



As part of the Leachate Management Program, Hardee County personnel monitor the overflow protection system on a weekly basis. County personnel monitor the amount of liquid entering the tanks at the control panel to prevent possible overflowing of the tank, however ultra-sonic liquid level indicators continually monitor the levels in the tank as described in Section L.8.b of this Operations Plan. The ultra-sonic level indicators shut-off flow to the tanks from the lift station should the levels exceed a pre-determined level. Routine inspections of the overflow protection systems include:

- Inspection of flow meters from the lift station to the Tanks to ensure proper operation.
- Inspection and Testing of the overflow alarms and shut-off controls for proper operations.
- Examining the overflow pipes in Tank 1 for obstructions.
- Check the operations of the ultra-sonic level indicators located on top of each of the tanks for proper operations.
- Monitoring the liquid levels in both tanks.

Also refer to additional related information in Section L.8.b.

### **L.3 LANDFILL OPERATING RECORD**

Copies of all operating records, reports, engineering drawings, training records, etc. are kept on file at the landfill. Upon request, the records will be made available for FDEP inspection. All records pertaining to the operation of the facility will be retained throughout the design life of the landfill. All monitoring records, calibration and maintenance records, and reports required by the operating permit will be retained for at least ten years.

### **L.4 WASTE RECORDS**

Waste reports that include waste type and quantity are compiled monthly and submitted quarterly to FDEP. The waste is categorized and the tonnages are annotated in the appropriate category in the Waste Quantity Form located in Appendix J of this Operations Plan. Reports include: (a) types of solid waste received, and (b) quantities of solid waste received by category. The landfill operator also estimates the amount of the following waste categories:

Residential	Scrap Metals	White Goods	Used Oil
Commercial	Asbestos		
C&D Debris	Battery		
Clean Wood and Yard Trash	Tires		

Additionally, the County maintains all manifests provided by the contractors for the recyclable special wastes on file. These manifests are available for FDEP inspection upon request.

## **L.7 WASTE SPREADING AND COMPACTION PROCEDURES**

As previously discussed, both baled waste and loose waste are disposed of in the Class I landfill. The majority of incoming waste is baled for volume reduction. Waste that is not baled at the on-site MRF is disposed of as loose waste in the disposal area. Waste material may not be baled due to scheduled or unscheduled maintenance activities at the MRF. Some wastes, such as asbestos as described in Section L.2.d, are never baled and are taken directly to the Class I disposal area for disposal.

### **L.7.a Waste Layer Thickness and Compaction Frequencies**

At the working face, bales are stacked with a front-end loader equipped with a fork attachment. Each bale measures approximately 61-inches (width) by 46-inches (length) by 31-inches (height). Bales are stacked three high and across the working face. A lift of waste material is generally no more than 10 feet in thickness. When stacking the bales, they are positioned so that their joints are offset to allow the bales to interlock. Wastes that are baled have already been compacted prior to delivery to the disposal area; therefore no additional compaction is required in the bale fill area of the landfill.

When loose waste is disposed of, it is spread in two-foot thick layers and compacted with a Caterpillar D7R Dozer or other equipment of sufficient weight to compact the waste to approximately one-foot in thickness. Generally three to five passes should be sufficient to compact the waste. The loose waste is disposed of in layers atop the bales and along the outer sideslope; loose waste is used to supplement the bales and achieve smooth sideslopes.

To provide additional interlocking and stability of the stacked bales, the following procedures will be followed when placing both bales and loose waste in the landfill:

- Along the outer sideslope of the landfill for the first 20 feet (measured horizontally inward);
  1. loose waste will be placed and compacted; or
  2. Baled waste may be initially be placed along the outer edges; however, the bales will be broken up, crushed, and compacted thoroughly until no visible or distinct bale seams are present.
- Whole, complete bales will then be placed behind the compacted loose waste or crushed bales for the next 25 feet (measured horizontally inward);
- The next 10 feet of space will be filled with compacted loose waste or crushed, compacted bales (measured horizontally inward);

leachate is contained within the bermed area and to prevent leachate from leaving the working area.

#### **L.7.e Initial Cover Type**

Initial cover is used to control disease vector/animal attraction, fires, odors, blowing litter, and moisture infiltration. The initial cover used at the Class I landfill consists of a 6-inch thick layer of compacted soil obtained from the on-site or off-site borrow pit. Tarps may be used as a temporary daily cover on the exposed side of the working face of the disposal area if additional waste material will be deposited within 18 hours.

#### **L.7.f Initial Cover Application Procedures**

The working face shall be covered with a 6-inch thick layer of compacted soil or tarps at the end of each working day. All waste materials will be compacted prior to application of initial cover.

The initial cover, if soil is used, will be spread to cover the entire working face with a uniform six-inch compacted soil cover (free of waste) using a dozer or applicable equipment. If tarps are used as temporary daily cover then, the tarps will be spread to cover the waste material. Sand or the tarp spreader bar will be used to minimize uplift by wind. When the working face area exceeds the area of available tarp, then six inches of compacted soil will be placed to cover the waste material. Processed yard trash or clean wood (mulch) may be spread over the initial soil cover for stabilization and erosion control measures.

#### **L.7.g Intermediate Cover Application Procedures**

Intermediate cover, an additional 12-inches thick layer of compacted soil on top of the 6-inch thick layer of compacted initial soil cover, will be applied within seven days over areas that will not receive additional waste within 180 days. Intermediate cover consists of compacted sandy soils from the borrow pit or off-site borrow sources. The intermediate cover soils will be spread using a dozer. The dozer will make a minimum of three to four passes to compact the soils.

Soils containing any waste materials cannot be used as intermediate cover and must be placed within the bermed area of the disposal area. Berms will be placed around the working face to contain all leachate and to prevent leachate runoff from the working face from entering the stormwater management system.

The top of the intermediate cover soil will be graded, generally a minimum of two percent, to allow clean, uncontaminated surface water to runoff and to minimize ponding on the top of the cover soil.

When waste is to be placed in areas with intermediate cover, all or part of the intermediate cover can be removed for future use prior to the additional waste placement. The intermediate cover is removed by pushing the cover material into a stockpile on the side or a new berm

### **L.8.a.1 Leveling--**

The leachate levels within the landfill shall be maintained lower than the top of the perimeter liner and a general inward gradient will be maintained between the groundwater levels outside of the lined area and the leachate levels inside the lined area. Leachate levels will be monitored using piezometers P-1, P-2, P-9, P-10, P-15, and P-16. Outside groundwater water levels monitored by groundwater monitoring wells or piezometers (MW-1, MW-5, MW-2, P-11, MW-8, MW-9). The leachate levels within the landfill can be lowered by adjusting the pumping rate from Manhole Number 8; however leachate levels can only be lowered to the invert of the perimeter collection pipe. The lowest elevation of perimeter collection pipe is located on the southside of the disposal area at approximately Elevation 72.8 (source: PBS&J record drawings dated July, 2000).

On a monthly basis, the landfill operator or designee, will collect depth to leachate level readings from the interior piezometers and depth to water level readings in either a piezometer or monitoring well across from the lined area on the exterior. The depth to water level readings will be subtracted from the top of casings and water elevations calculated. Refer to Appendix N of the section for the "Monthly Leachate Leveling Form" that has the piezometer and monitoring well information to be used on a monthly basis. Based upon the levels of leachate on the interior of the landfill;

- If the exterior water levels are higher then the interior levels, then an inward gradient is acting on the sidewall barrier geomembrane;
- If the interior water levels are higher then the exterior levels, then increase the leachate removal (pumping) from Manhole Number 8 (Lift Station) until the interior water levels are lower.
- If the interior water levels are not lower, then check the manholes to see if clogs or debris is present which may not be allowing for adequate leachate collection. If clogs or debris is present, then the County will contract with a vacuum truck service to remove the debris and a jet cleaning service to clean the collection pipes.

Liquid levels in the two leachate storage tanks are monitored to estimate available storage and prevent possible overflow of the tanks. To adjust the levels of leachate in the tanks, liquid can be transferred from one tank to another or additional truckloads can be sent offsite for disposal.

### **L.8.a.2 Sampling, Analysis, and Results--**

Leachate is sampled from Manhole 9 every 6 months for water quality standards. The list of leachate test parameters is defined in the Water Quality and Leachate Monitoring Plan contained in Attachment M-2 of this 2003 Operations Permit application.

The **overflow protection system** of the tanks is provided by ultra-sonic liquid level indicators, located on the top of each of the tank, that provide continual monitoring of the liquid levels. The ultra-sonic level indicators provide both overflow protection and low liquid level monitoring to protect the pumps at the truck loading area. As liquid levels rise in the tank above a pre-determined height, the ultra-sonic level indicators send a signal to an alarm (an audible and flashing light) on the control panel located at the lift station. A signal is also send to the control panel at the lift station to shut-off the pump(s). When leachate is pumped from the tanks to the truck loading area, the ultra-sonic level indicators monitor the liquid level in the tanks and shut off the pumps at the truck loading area should the level drop below a pre-determined level. This prevents the pumps from running dry and possibly over heating.

As a back-up contingency plan (**only used should signal alarms and pump shut-offs fail**) the back-up overflow protection system for the tanks is as follows:

1. Tank 1 is filled by the pump station located at Manhole 8 (MH-8). If the liquid level rises above the overflow pipe in Tank 1, the flow is diverted to Tank 2.
2. As Tank 2 fills and equalizes with Tank 1, the two tanks fill simultaneously.
3. Should both tanks continue to fill, each tank has a final overflow pipe, which allows any overflow to be captured in the containment area for each individual tank.

Tanker trucks are used to transport leachate off-site for disposal. The tanker trucks pull around to the western side of the storage tanks and park on top of a concrete lined unloading area. The unloading area is designed to collect accidental spills and convey the spill back into the lift station. After parking the truck, the driver has the option of selecting which tank to begin draining. The control panel, located immediately adjacent to the truck unloading area, allows the truck driver to control the pump while a meter readout allows the driver to monitor the amount of leachate transferred to the truck. Once the truck is full, the leachate is hauled offsite for disposal.

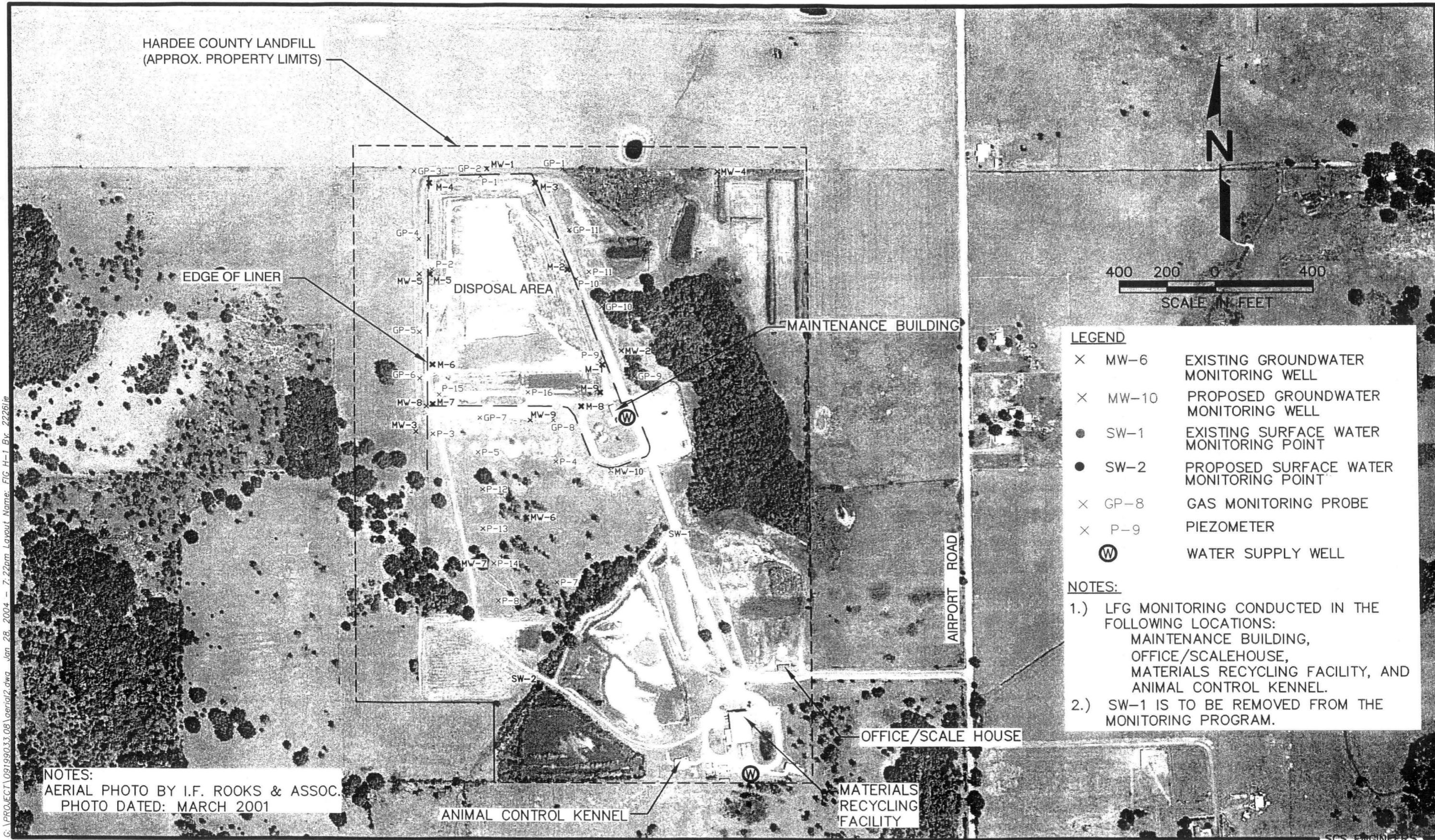
As part of the weekly responsibilities of the landfill operator (also described in Section L.2.k), the condition of the tanks will be visually inspected, for corrosion, leaks, structural damage to the tanks, loose or broken equipment, for leachate in the secondary containment area of the tanks, integrity of the cathodic protection system, overflow protection system and overflow control piping (located near the top of the tanks). Inspection of the interior of the tanks will be performed whenever the tank is drained or at a minimum of every three years. If the inspection reveals a tank or equipment deficiency, leak, or any other deficiency which could result in the failure of the tank to contain the leachate, then remedial actions will be taken to correct the deficiency immediately.

# HARDEE COUNTY LANDFILL LFG MONITORING FORM

<b>SAMPLER'S NAME:</b>		<b>PROJECT NAME:</b> Hardee County Landfill	
<b>DATE:</b>		<b>PROJECT:</b> LFG Monitoring	<b>LOCATION:</b> Wauchula
<b>WEATHER CONDITIONS:</b>			
<b>SAMPLE ID</b>	<b>TIME SAMPLE TAKEN</b>	<b>METHANE CONTENT (%LEL)</b>	<b>COMMENTS:</b>
GP-1			
GP-2			
GP-3			
GP-4			
GP-5			
GP-6			
GP-7			
GP-8			
GP-9			
GP-10			
GP-11			
Maintenance Bldg*			
Scalehouse*			
MRF*			
Animal Control Bldg*			

**NOTES:**

\* Sample locations within the buildings include any slab penetrations, enclosed spaces, or electrical conduits and as shown on the figures.



**LEGEND**

×	MW-6	EXISTING GROUNDWATER MONITORING WELL
×	MW-10	PROPOSED GROUNDWATER MONITORING WELL
●	SW-1	EXISTING SURFACE WATER MONITORING POINT
●	SW-2	PROPOSED SURFACE WATER MONITORING POINT
×	GP-8	GAS MONITORING PROBE
×	P-9	PIEZOMETER
Ⓜ		WATER SUPPLY WELL

- NOTES:**
- 1.) LFG MONITORING CONDUCTED IN THE FOLLOWING LOCATIONS:  
 MAINTENANCE BUILDING,  
 OFFICE/SCALEHOUSE,  
 MATERIALS RECYCLING FACILITY, AND  
 ANIMAL CONTROL KENNEL.
  - 2.) SW-1 IS TO BE REMOVED FROM THE MONITORING PROGRAM.

NOTES:  
 AERIAL PHOTO BY I.F. ROOKS & ASSOC.  
 PHOTO DATED: MARCH 2001

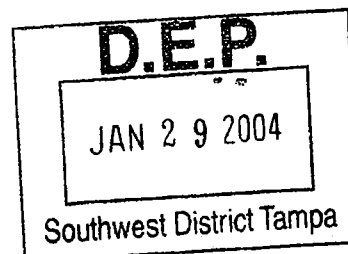
G:\PROJECT\09199033\08\airial2.dwg Jan 28, 2004 - 7:22am Layout Name: FIG H-1 By: 2226/le

SCS ENGINEERS

Figure K-1. Monitoring Locations, Hardee County Landfill, Hardee County, Florida

**SCS ENGINEERS**

January 29, 2004  
File No. 09199033.08



Mr. John Morris  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, FL 33619

Subject: Additional Requested Information  
Hardee County Landfill – Permit No. 38414-002-SO  
Hardee County, Florida

Dear Mr. Morris:


Per our discussion on Wednesday January 28, 2004, SCS Engineers (SCS) is pleased to submit the following replacement items for your use in the completing the FDEP's review of the Hardee County Operations Permit Renewal Application. The following items are attached to this letter:

- Replacement figure for Figure K-1, Monitoring Locations.
- Revised Sheet for Section 3 of the Water Quality and Leachate Monitoring Plan, groundwater parameters.
- A copy of the well completion log and a copy of the boring logs conducted by PSI for the water supply well immediately adjacent to the maintenance building.

A review of the well construction log for the water supply well and the boring logs for that immediate area indicate that the well is approximately 200 feet deep with a confining clay layer at approximately 35 below ground surface. Therefore the water supply well is not a shallow well and was installed in accordance with Rules in effect at the time the well was installed, specifically Rule 17-701.040(2)(c), F.A.C.

Please do not hesitate to contact us if you should have any questions regarding this letter.


Very truly yours,

  
Joseph H. O'Neill, P.E.  
Project Manager

JHO/JHO

Attachments

Offices Nationwide

  
1/29/04  
052048





**ATTACHMENTS**

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

JAN 29 2004

SOUTHWEST DISTRICT  
TAMPA

### 3.0 WATER QUALITY AND LEACHATE MONITORING PARAMETERS

#### Groundwater Parameters

Analytical parameters for groundwater should include the following:

Parameters required in current permit	Revised groundwater parameters
Specific Conductivity	Specific Conductivity
pH	pH
Dissolved Oxygen	Dissolved Oxygen
Turbidity	Turbidity
Temperature	Temperature
Total Ammonia -N	Total Ammonia -N
Chlorides	Chlorides
Mercury	Mercury
Nitrate	Nitrate
Iron	Iron
Sodium	Sodium
Total Dissolved Solids (TDS)	Total Dissolved Solids (TDS)
— 40 CFR part 258 Appendix I	EPA 8260 40 CFR part 258 Appendix I
Color and Sheen (observation)	Color and Sheen (observation)
	Sulfate
	Magnesium
	BOD
	COD

#### Surface Water Parameters

- Field Parameters
  - Specific conductivity
  - pH
  - Dissolved oxygen
  - Turbidity
  - Temperature
  - Colors and sheens
- Lab Parameters
  - Zinc

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

JAN 29 2004

SOUTHWEST DISTRICT  
TAMPA

Superior Client Service

SCS ENGINEERS  
3012 U. S. Highway 301 N., Suite 700  
Tampa, FL 33619  
(813) 621-0080  
Fax (813) 623-6757

**SCS ENGINEERS**

# facsimile transmittal

To:	<u>Kim Ford</u>	Phone:	<u>784 - 6100</u>
Company:	<u>FDEP</u>	Fax:	<u>784 - 6125</u>
From:	<u>Joe O'Neill</u>	Date:	_____
Re:	_____	Pages:	<u>4 include cover</u>
cc:	_____	Project No.:	_____

- Urgent    
 For Review    
 Please Comment    
 Please Reply    
 Please Recycle

Notes:

*Kim,*

*Attached is the equipment loading for  
slope stability models*

# SCS ENGINEERS

SHEET \_\_\_\_\_ OF \_\_\_\_\_

CLIENT <u>HANDSE</u>	PROJECT <u>Handse County</u>	JOB NO. <u>0919903208</u>
SUBJECT <u>Slope Stability</u>	BY <u>JRO</u>	DATE
<u>Equipment Loading</u>	CHECKED	DATE

## County Equipment

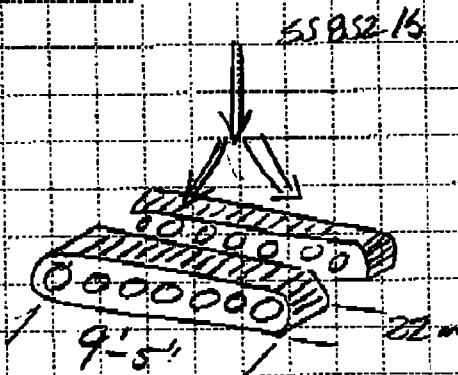
D7R SERIES II

(NOTE: THIS IS A NEW PARS OF EQUIPMENT PURCHASED IN 2001)

USE OPERATING WEIGHT

= 55952 LBs STANDARD DOLAN

Length of track on ground = 9.4 feet  
 width of shoe = 22 inches



LOAD = 55952 LB  
 2 TRACKS  
 = 2

### Surface Contact Area

$$\text{Area } (9.4 \text{ feet}) \left( \frac{22 \text{ feet}}{12} \right) = 17.2639 \text{ SF}$$

### Ground Contact Pressure

$$P = \frac{F}{A} = \frac{27926 \text{ LB}}{17.26 \text{ SF}} = 1617.6 \text{ PSF}$$

### per foot width of track

$$= 1617.6 \text{ PSF} / 2 \text{ feet wide} = 808.8 \text{ PSF}$$

## D7R Series II - Track-Type Tractors

## Equipment

## Track-Type Tractors

Choose a Different Product Family

**D7R Series II**  
Back to Track-Type Tractors

Other Models: 

Engineered for demanding work. The D7R Series II is designed to be productive in a variety of applications. It keeps material moving with the reliability and low operating costs you expect from Cat machines.

Features &amp; Benefits

Standard Equipment

Optional Equipment

Specification Graphics  
(PDF: 167K)

**Related Industries:** Agriculture, Construction, Forestry, Heavy Construction, Industrial, Quarry/Aggregate, Waste

## Detailed Specifications

**Engine**

Engine Model	Cat 3176C
Flywheel Power	179 kW / 240 hp
Maximum Flywheel Power	192 kW / 258 hp
Net Power - Caterpillar	179 kW / 240 hp
Net Power - ISO 9249	179 kW / 240 hp
Net Power - SAE J1349	177 kW / 238 hp
Net Power - EU 80/1269	179 kW / 240 hp
Net Power - DIN 70020	248 PS
Bore	125 mm / 4.9 in
Stroke	140 mm / 5.5 in
Displacement	10.3 L / 629 in <sup>3</sup>
<b>Weights</b>	
Operating Weight - Std.	24758 kg / 54582 lb

## D7R Series II - Track-Type Tractors

Shipping Weight - Std.	20084 kg / 44278 lb
Operating Weight - XR	25334 kg / 55852 lb
Shipping Weight - XR	20660 kg / 45548 lb
Operating Weight - LGP	26897 kg / 59299 lb
Shipping Weight - LGP	22176 kg / 48890 lb
<b>Transmission</b>	
1 Forward	3.52 kph / 2.19 mph
2 Forward	6.1 kph / 3.79 mph
3 Forward	10.54 kph / 6.55 mph
1 Reverse	4.54 kph / 2.82 mph
2 Reverse	7.85 kph / 4.88 mph
3 Reverse	13.58 kph / 8.44 mph
<b>Undercarriage - Std.</b>	
Shoe Type	Extreme Service
Pitch	216 mm / 8.5 in
Number Shoes/Side	40
Grouser Height	71.5 mm / 3 in
Track Rollers/side	7
Width of Shoe	600 mm / 22 in
Track on Ground	2870 mm / 9.4 ft
Track Gauge	1981 mm / 78 in
Ground Contact Area	3.21 m <sup>2</sup> / 4972 in <sup>2</sup>
Ground Pressure (Std.)	7.58 kPa / 11 psi
Ground Clearance	414 mm / 16.3 in
<b>Service Refill Capacities</b>	
Fuel Tank	479 L / 126.5 gal
Cooling System	77.4 L / 20.4 gal
Engine Crankcase	31 L / 8.2 gal
Power Train	178 L / 47 gal
Final Drives (each)	13 L / 3.4 gal
Roller Frames (each)	24.6 L / 6.5 gal
Attachment Hydraulic System Tank Only	54 L / 14.3 gal
Pivot Shaft Compartment	1.9 L / .5 gal
<b>Hydraulic Controls - Maximum Operating Pressure</b>	
Bulldozer	22800 kPa / 3307 psi
Tilt Cylinder	17225 kPa / 2498 psi
Ripper (Lift)	22750 kPa / 3300 psi
Ripper (Pitch)	22750 kPa / 3300 psi
Steering	38000 kPa / 5511 psi
<b>Hydraulic Controls - Pump</b>	
Pump Capacity at	7000 kPa / 1015 psi
RPM at Rated Engine Speed	2231 RPM / 2231 RPM
Pump Output (Clutch Brake)	222 L/min / 58.6 gal/min
Pump Output (Differential Steering)	295 L/min / 77.9 gal/min
Lift Cylinder Flow	180 L/min / 47.6 gal/min
Tilt Cylinder Flow	80 L/min / 21.1 gal/min
Ripper Cylinder Flow	180 L/min / 47.6 gal/min
<b>Hydraulic Controls - Main Relief Valve Settings</b>	
Clutch Brake Models	27000 kPa / 3916 psi
Differential Steering Models	42000 kPa / 6092 psi
<b>Winch Specifications</b>	
Winch Model	PA110VS Variable Speed

## D7R Series II - Track-Type Tractors

Weight	1894 kg / 4176 lb
Winch and Bracket Length	1461 mm / 57.5 in
Winch Case Width	1171 mm / 46.1 in
Increased Tractor Length - STD	742 mm / 29.2 in
Increased Tractor Length - XR	587 mm / 23.1 in
Increased Tractor Length - LGP	742 mm / 29.2 in
Flange Diameter	610 mm / 24 in
Drum Width	337 mm / 13.3 in
Drum Diameter	318 mm / 12.5 in
Drum Capacity - 24 mm (1 in)	885 m / 418 ft
Drum Capacity - 29 mm (1.13 in)	584 m / 276 ft
Drum Capacity - 32 mm (1.25 in)	409 m / 193 ft
Ferrule Size (O.D. X Length)	2.38 in x 2.56 in / 60 mm x 65 mm
Oil Capacity	15.1 L / 4 gal
<b>Blades</b>	
U Blade Capacity	8.34 m <sup>3</sup> / 10.91 yd <sup>3</sup>
U Blade Width	3988 mm / 13.08 ft
SU Blade Capacity	6.86 m <sup>3</sup> / 8.98 yd <sup>3</sup>
SU Blade Width	3693 mm / 12.12 ft
S Blade Capacity	5.16 m <sup>3</sup> / 6.75 yd <sup>3</sup>
S Blade Width	3904 mm / 12.81 ft
LGP S Blade Capacity	5.89 m <sup>3</sup> / 7.7 yd <sup>3</sup>
LGP S Blade Width	4545 mm / 14.91 ft
A Blade Capacity	3.89 m <sup>3</sup> / 5.08 yd <sup>3</sup>
A Blade Width	4503 mm / 14.77 ft
<b>Multi-Shank Ripper</b>	
Type	Adjustable Parallelogram
Beam width	2210 mm / 87 in
Beam cross section	343 x 279 mm 13.5 x 11 in
Maximum penetration	748 mm / 29.4 in
Maximum clearance raised (shank tip)	757 mm / 29.8 in
Number of pockets	3
Maximum penetration force	8664 kg / 19100 lb
Maximum pryout force	17138 kg / 38513 lb
Weight - with one shank	3307 kg / 7431 lb
Weight - each additional shank	150 kg / 330 lb

**Back to Top**

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## Ford, Kim

---

**From:** Morris, John R.  
**Sent:** Wednesday, January 28, 2004 11:05 AM  
**To:** Ford, Kim  
**Cc:** Pelz, Susan  
**Subject:** Conversation with Joe O'Neill regarding Hardee County LF permit renewal

I returned a call to Joe O'Neill, SCS Engineers (813-621-0080) at 1020 to discuss two comments regarding the responses to the Department's RAI letter dated June 18, 2003.

1. The September 30, 2003 submittal included changes to page 3 of the "Water Quality and Leachate Monitoring Plan" regarding parameters for ground water sample collection. The "revised ground water parameters" column included an incomplete revision -- it should be revised to indicate the parameters listed by "40 CFR Part 258 Appendix I".
2. The December 30, 2003 submittal included changes to the "Operations Plan". Section L.2.i.1 of the "Operations Plan" refers to the monitoring locations on a site layout plan contained in Appendix K, which includes Figure K-1. I requested the following revisions to this figure for its use as the permit attachment:
  - prepare the figure in a black-and-white format, no larger than 11x17 inches in size, that is drawn to scale
  - include larger (more legible) identification numbers for the monitoring locations
  - show gas probe locations
  - show existing/proposed monitor well locations
  - show existing/proposed surface water monitoring locations
  - show proposed leachate sampling location
  - show existing piezometers
  - show existing supply wells (near maintenance building and near MRF)

Joe indicated that he would make the requested revisions and submit replacement pages to Kim Ford on 1/29/04.

---

John R. Morris, P.G.  
Solid Waste Section, Southwest District Office  
Telephone: 813-744-6100, ext. 336 (suncom 512-1042, ext. 336)  
Facsimile: 813-744-6125  
E-mail: john.r.morris@dep.state.fl.us



1/28/04 phone call 9:15 am  
w/ Joe until SCS

I will FAX ( #6236757 FAX to SCS )  
~~TAG~~ 1989 PROVISIONS

J.D will call John. M. about figure

I DISCUSSES MORE REVISIONS TO DRAWINGS

WE DISCUSSED SLOPE STABILITY

J.D. SAID  $FS=1.3$  WAS DISCUSSED PREVIOUSLY AS OK

AND EXPLAINED THAT FRICTION ANGLE OF  $13^\circ$   
WAS BACK CALCULATED USING  $FS=1$ .

FOR CURRENT SLOPE

AND FRICTION ANGLE OF  $13^\circ$  IS

SIMILAR TO SMOOTH GROUNDWATER / REPTERTILE

REVISIONS COMING TOMORROW (TODAY/29th)

BY 10 AM I'VE LATER THAN 12 noon

for

(7) Time period for construction and operation permits. Landfills are generally long term projects which may be constructed in sections or phases at different time periods throughout the lifetime of the landfill. The Department may approve a permit for construction and operation of the entire facility with permit conditions requiring the permittee to advise the Department when construction is begun on each new section or phase of the landfill and when each section or phase is completed. Permits are issued subject to modification in accordance with Florida Administrative Code Rule 17-4.080.

(8) A copy of the Department approved engineering drawings, plans, reports, operational plan, and supporting information shall be kept at the facility at all times for reference and inspections.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: Transferred from 10-D12.03, 10D-12.04, 10D-12.07, 10-1-74; Amended 5-24-79, 6-13-84, 7-1-85; Previously Numbered as 17-7.03; Amended 12-10-85; Formerly 17-7.030.

#### 17-701.040 Prohibitions.

(1) No solid waste shall be disposed of except by sanitary landfill, incineration, recycling process, or other method approved by the Department and consistent with this chapter and applicable approved local agency programs or regulations.

(2) No solid waste shall be disposed of by being placed:

(a) in an open sink hole or in an area where geological formations or subterranean features would not provide support for a landfill.

(b) in a limestone, or gravel pit.

(c) in an area immediately adjacent to or within 500 feet of an existing or approved shallow water supply well unless disposal takes place in a sanitary landfill which was originally permitted before the shallow water supply well was in existence.

(d) in a dewatered pit unless permanent leachate containment and special design techniques are used to ensure the integrity of the landfill liner.

(e) in an area subject to frequent and periodic flooding unless drainage provisions approved by the Department are installed.

(f) in any natural or artificial body of water including ground water.

(g) within 200 feet of any natural or artificial body of water, except bodies of water contained completely within the sanitary landfill site, which do not discharge from the site. A person may dispose of solid waste within the 200 foot setback area upon demonstration to the Department that permanent leachate control methods will result in compliance with water quality standards under Chapter 17-3, F.A.C. Stormwater control methods shall meet stormwater requirements of Chapter 17-25, F.A.C. However, nothing contained herein shall prohibit the Department from imposing conditions necessary to assure that solid waste disposed of within the 200 foot setback area will not cause pollution from the site in contravention of Department rules.

17-701.030(7) -- 17-701.040(2)(g)

08-02-89

12

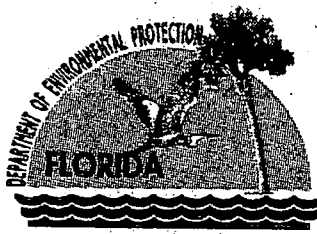
FAX to JOE DAVIS  
# 623 6757

2 CULVERT AT BACK LOCATION? OR 1?  
(SHEET 5, 6)

NOTE 10 DELETE  
(SHEET 5)

WHY A DOT IN THE CULVERT  
(SHEET 11)

MW DETAIL 17' x 15' SCREEN  
(SHEET 12)



Jeb Bush  
Governor

# Department of Environmental Protection

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

David B. Struhs  
Secretary

Ms. Janice Williamson, Superintendent  
Hardee County Solid Waste Department  
685 Airport Road  
Wauchula, Florida 33873

January 15, 2004

RE: Hardee County Class I Landfill Financial Assurance Cost Estimates  
Pending Permit No.: 38414-007-SF, Hardee County

Dear Ms. Williamson:

This letter is to acknowledge receipt of the revised cost estimates dated November 21, 2003 (received November 21, 2003) and additional information dated January 13, 2004 (received January 14, 2004), prepared by SCS Engineers for closure and long-term care of the Hardee County Class I Landfill. The revised cost estimates received November 21, 2003 and January 14, 2004 (total for closing \$1,558,216.55 and long-term care \$161,241.15/year x 30 years = \$4,837,234.38), are **APPROVED for 2003**. Please note that these estimates are acceptable for closure and long-term care of 12.5 acres. The next annual update (revised or inflation-adjusted estimates) is due no later than September 1, 2004.

A copy of these estimates will be forwarded to Mr. Fred Wick, Solid Waste Section, FDEP, 2600 Blair Stone Road, Tallahassee, Florida 32399-2407. Please work with him directly to assess the facility's compliance with the funding mechanism requirements of Rule 62-701.630, F.A.C. If you have any questions, you may contact me at (813) 744-6100 ext. 385.

Sincerely,

Steven G. Morgan  
Solid Waste Section  
Southwest District

sgm  
cc:

Lindsey Kennelly, E.I., SCS Engineers, 3012 U.S. Highway 301 North, Suite 700, Tampa, Florida 33619-2242

Fred Wick, FDEP, Tallahassee, w/attachment

Kim Ford, P.E., FDEP Tampa

Susan Pelz, P.E., FDEP Tampa

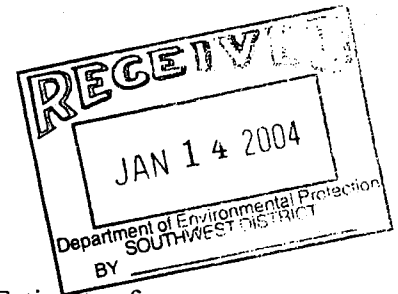
"More Protection, Less Process"

Printed on recycled paper.

**SCS ENGINEERS**

January 13, 2004  
File No. 09199033.08

Steven G. Morgan  
Florida Department of Environmental Protection  
Solid Waste Section  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619



Subject: Hardee County Class I Landfill Financial Assurance Cost Estimates for  
Pending Permit No. 38414-007-SF, Hardee County

Dear Mr. Morgan:

On behalf of Hardee County Solid Waste Department, SCS Engineers (SCS) submits the following responses to your comments in our telephone conversation of December 15, 2003. The leachate hauling and disposal portion of the financial assurance long-term care calculations for Hardee County Landfill has been reviewed and revised. Upon review of the annual leachate quantity values, SCS has determined that the 7.5 million gallon quantity previously submitted on September 30, 2003 is not indicative of leachate amounts that the County is currently treating annually. The 7.5 million gallon quantity is the 2002 leachate quantity for the site (see Attachment 1, Sheet 1 for annual leachate quantities). During 2002, an open leachate storage ditch and associated leachate sprayfield was active; this ditch allowed rainfall to mix with leachate. The ditch was actively dewatering the area in order to construct a liner system for waste. The storage ditch was abandoned and replaced in April 2002.

In 2003, the County treated 4.8 million gallons of leachate, as shown in Attachment 1, Sheet 1. This value is a more accurate estimate of anticipated annual leachate generation rates and does not reflect additional flow from the leachate storage ditch that has been abandoned. The annual hauling and treatment cost is based on 4.8 million gallons of leachate

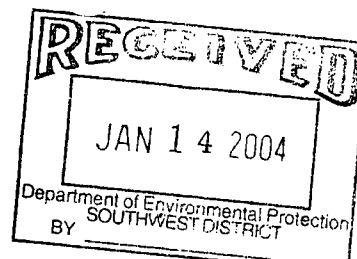
A third party leachate hauling cost of \$0.0167/gallon was used to determine the revised cost (see Attachment 1 for the quote and calculations). The annual leachate hauling cost based on 4.8 million gallons of leachate is approximately \$80,160.

As shown in Ordinance No. 2001-05, Section 1.(1)(b), located in Attachment 2, the leachate disposal cost used in the submittal dated on November 21, 2003 is the current disposal rate at the City of Wauchula Wastewater Treatment Facility. The leachate disposal rate is as follows:

- \$217.76 for the first 6000 gallons,
- \$4.49 for each additional 1000 gallons, and
- a surcharge of 25%.



Steven G. Morgan  
January 13, 2004  
Page 2



The annual leachate disposal cost based on 4.8 million gallons of leachate is approximately \$27,180.

As requested, SCS has included two copies of all information as requested. Please call Mr. O'Neill at (813) 621-0080 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Lindsey Kennelly".

Lindsey Kennelly, E.I.  
Staff Engineer

A handwritten signature in cursive script that reads "Raymond J. Dever".

Raymond J. Dever, P.E., DEE  
Vice President  
SCS ENGINEERS

LEK/RJD:lek

Attachments

cc: Janice Williamson, Superintendent  
Fred Wick, FDEP, Tallahassee, w/attachment  
Kim Ford, P.E., FDEP Tampa /  
Susan Pelz, P.E., FDEP Tampa

**ATTACHMENT 1**

**HAULING COSTS**

**RECEIVED**  
 JAN 14 2004  
 Department of Environmental Protection  
 SOUTHWEST DISTRICT  
 BY SHEET 1 of 1

**SCS ENGINEERS**

<b>CLIENT</b> Hardee County	<b>PROJECT</b> Operations Permit Renewal	<b>JOB NO.</b> 09199033.08
<b>SUBJECT</b> Response for Financial Assurance Leachate Quantities	<b>BY</b> LEK	<b>DATE</b> 1/7/2004
	<b>CHECKED</b>	<b>DATE</b>

Goal: Determine the anticipated annual leachate quantities for financial assurance.

Year	Leachate Quantity Treated <i>gallons</i>	Annual Rainfall <i>inches</i>	Comments
1997	4,955,000	65.94	Operations included the open storage ditch.
1998	5,793,532	66.05	Operations included the open storage ditch.
1999	1,910,230	38.27	Operations included the open storage ditch.
2000	2,002,320	30.46	TOTAL leachate generated for 2000.
	1,158,750		Gallons treated from the open storage ditch.
	843,570		Gallons treated from the tanks.
2001*	5,969,149	50.12	TOTAL leachate generated for 2001.
	3,733,782		Gallons treated from the open storage ditch.
	1,549,387		Gallons treated from the tanks.
2002	7,394,876	62.21	Open storage ditch was filled in on April 20, 2002.
2003**	4,836,780	51.04	

\*Disaster declared in September 2001 due to Hurricane Gabriel (14" of rainfall in two days). Delta Pioneer was contracted to haul 1,002,000 gallons of leachate to Manatee Wastewater Treatment Plant under the Emergency Declaration.

\*\*Disaster declared in June of 2003 due to flood (6" of rainfall in two days).

Represents the annual quantities of leachate treated.

Conclusion: The 2003 quantity of 4,836,780 gal/year represents the most accurate leachate quantity that the site could expect to receive upon closure. The leachate quantities prior to 2003 are not representative of current quantities due to the open storage ditch. The previous leachate quantities include dewatering of the open storage ditch.

Data provided by Hardee County, Janice Williamson (863-773-5089)



CLIENT Hardee	PROJECT Ops Permit Renewal	JOB NO. 09199033.08
SUBJECT Response to Comments - Financial Assurance	BY LEK	DATE 1/7/08
Leachate Hauling Costs	CHECKED [Signature]	DATE 1/14/08

As shown on Sheet 1, the anticipated annual leachate quantity is approximately 4.8 million gallons.

$$Q = 4.8 \times 10^6 \frac{\text{gal}}{\text{yr}}$$

A third-party quote from Overland Services, Inc. anticipates a hauling cost of \$83.50 per load. The quote accounts for the following (Attachment 1)

1. Transportation from Hardee County Landfill to the City of Wauchula Wastewater Treatment Plant (round trip 6 miles)
2. 6 loads per day
3. 10 hour days
4. 5000 gal tanker

$$\text{Unit Hauling Cost} = \frac{\$83.50}{\text{load}} \times \frac{\text{load}}{5000 \text{ gal}} = \frac{\$0.0167}{\text{gal}}$$

$$\text{Hauling Cost} = 4.8 \times 10^6 \frac{\text{gal}}{\text{yr}} \times \frac{\$0.0167}{\text{gal}} = \frac{\$80,160}{\text{yr}}$$

$$\text{Annual Hauling Cost} = \$80,160$$

P.O. Box 13869  
Fort Pierce, FL 34979  
(772) 467-1200  
Fax: (772) 465-4678

# OVERLAND SERVICES, INC.

5020 Santa Fe Road  
Tampa, FL 33619  
(813) 248-6524  
Fax: (813) 248-6539

## PROPOSAL

---

<b><u>SUBMITTED TO:</u></b>	SCS Engineers/Hardy County LF 3012 US Hwy 301 N. Suite 700 Tampa, FL 33619	<b><u>DATE:</u></b>	January 5, 2004
<b><u>ATTENTION:</u></b>	Joe O'Neal	<b><u>PHONE:</u></b>	813-621-0080
		<b><u>FAX:</u></b>	813-623-6757

---

### WE HEREBY SUBMIT OUR QUOTE FOR THE FOLLOWING:

Transportation from Hardy County Landfill to the City of Wauchula Waste Water Treatment Plant at a rate of \$83.50 per load, based on a 6 load per day minimum, includes Tractor and Class A Driver, plus a rate of \$50.00 per hour for any hours over ten (10) hours per day.

If fuel prices exceed \$1.50 per gallon, a fuel surcharge will be implemented in accordance with the Department of Energy's (D.O.E.) national fuel average.

Increases shall not exceed the percentage increase in the Southern region, Consumer Price Index (CPI - Transportation) over the preceding twelve months.

#### TERMS & CONDITIONS

1. Equipment ordered not used will be priced on a case by case basis.
2. Customer is responsible for all applicable taxes.

\*\*\*\*\* PLEASE SIGN AND RETURN IF AGREED \*\*\*\*\*

---

WE PROPOSE hereby to furnish transportation only - complete in accordance with above specifications for the sum of:  
-- listed above -- dollars (\$ \_\_\_\_\_ )

Payment to be made as follows: from date of invoice: net 21 days

All material is guaranteed to be as specified. All work to be completed in a substantial workman like manner according to specifications submitted, per standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control. Note: This proposal may be withdrawn by us if not accepted within 30 days.

  
Salvatore R. Merola, Vice President

---

#### ACCEPTANCE OF PROPOSAL:

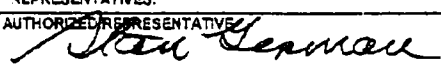
Date of Acceptance: \_\_\_\_\_ Signature: \_\_\_\_\_

The above prices, specifications and conditions are satisfactory to generator and are hereby accepted by generator. Transporter is hereby authorized to do the work as specified above. Payment will be made as specified above. Generator will be responsible for all costs, expenses and reasonable counsel fees incurred by or on behalf of transporter as a result of generators failure to remit payment as specified above. By my signature above, I certify that I am an authorized corporate officer or duly authorized representative of the above referenced company, and that I have the authority to agree to the acceptance of this proposal and to bind the above company to the prices and conditions stated herein.

<b>ACORD CERTIFICATE OF LIABILITY INSURANCE</b>		OP ID A# OVERL-1	DATE (MM/DD/YYYY) 11/14/03
<b>PRODUCER</b>  SHILE INSURANCE GROUP, INC. P. O. BOX 160398 ALTA MONTE SPRINGS FL 32716 Phone: 407-869-0962 Fax: 407-774-0936  <b>INSURED</b>  OVERLAND SERVICES, INC. 4111 BANDY BLVD FT. PIERCE FL 34987	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.		
		<b>INSURERS AFFORDING COVERAGE</b>	<b>NAIC #</b>
		INSURER A: <i>AcORD Preferred Insurance Co.</i>	
		INSURER B:	
		INSURER C:	
		INSURER D:	
		INSURER E:	

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.							
INSR ADD'L LTR INSR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS		
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR  <input type="checkbox"/> GEN'L AGGREGATE LIMIT APPLIES PER <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	WE ARE NOT THE INSURED  GENERAL LIABILITY CARRIER			EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMPROP AGG \$		
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident) \$  BODILY INJURY (Per person) \$  BODILY INJURY (Per accident) \$  PROPERTY DAMAGE (Per accident) \$		
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$  OTHER THAN AUTO ONLY EA ACC \$ AGG \$		
	EXCESS/UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE  DEDUCTIBLE RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$ \$		
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below OTHER	WCV7028148	10/25/03	10/25/04	<input checked="" type="checkbox"/> WC STATE TORY LIMITS <input type="checkbox"/> OTHER EL EACH ACCIDENT \$ 500,000 EL DISEASE - EA EMPLOYEE \$ 500,000 EL DISEASE - POLICY LIMIT \$ 500,000		

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

<b>CERTIFICATE HOLDER</b>  SCS Engineers Hardy County LF 3012 US Hwy 301 N. Suite 700 Tampa, FL 33619	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL <u>10</u> DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.  AUTHORIZED REPRESENTATIVE 
---	--

# ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY)  
11/14/03

**PRODUCER**  
BART PROUD INSURANCE  
AGENCY INC.  
P O BOX 557  
ALLENWOOD NJ 08720-0557

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

**INSURED**  
OVERLAND SERVICES INC  
PO BOX 13869  
4109 BANDY BLVD  
FORT PIERCE FL 34981

**COMPANIES AFFORDING COVERAGE**

COMPANY A	ATLANTIC CASUALTY INS CO *MA
COMPANY B	TRANSPORTATION CASUALTY INS *PI
COMPANY C	
COMPANY D	

**COVERAGES**  
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> OWNERS & CONTRACTOR'S PROT	L039000346-0	2/11/03	2/11/04	GENERAL AGGREGATE \$2,000,000 PRODUCTS - COM/POP AGG \$1,000,000 PERSONAL & ADV INJURY \$1,000,000 EACH OCCURRENCE \$1,000,000 FIRE DAMAGE (Any one fire) \$ 50,000 MED EXP (Any one person) \$
B	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	TC002258	02/11/03	02/11/04	COMBINED SINGLE LIMIT \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE \$
	<b>GARAGE LIABILITY</b> <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY: EACH ACCIDENT \$ AGGREGATE \$
	<b>EXCESS LIABILITY</b> <input type="checkbox"/> UMBRELLA FORM <input type="checkbox"/> OTHER THAN UMBRELLA FORM				EACH OCCURRENCE \$ AGGREGATE \$
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> THE PROPRIETOR/PARTNER/EXECUTIVE OFFICERS ARE <input type="checkbox"/> INCL <input type="checkbox"/> EXCL OTHER				WC STATUTORY LIMITS <input type="checkbox"/> QTR-ER EL EACH ACCIDENT \$ EL DISEASE-POLICY LIMIT \$ EL DISEASE-EA EMPLOYEE \$

**DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS**

**CERTIFICATE HOLDER**  
SCS Engineers  
Hardy County LF  
3012 US Hwy 301 N.  
Suite 700  
Tampa, FL 33619

**CANCELLATION**  
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.  
AUTHORIZED REPRESENTATIVE  
Bart Proud

**ATTACHMENT 2**

**DISPOSAL COSTS**

**&**

**ORDINANCE 2001-05**

CLIENT Hardee	PROJECT Ops Permit Renewal	JOB NO. 09199033.08
SUBJECT Response to Comments - Financial Assurance Leachate Disposal Costs	BY LEK CHECKED [Signature]	DATE 1/8/08 DATE 1/21/08

As shown on Sheet 1, the anticipated annual leachate quantity is approximately 4.8 million gallons.

$$Q = 4.8 \times 10^6 \frac{\text{gal}}{\text{yr}}$$

The treatment fee for leachate at the City of Wauchula Wastewater Treatment Plant is as follows: (See Attachment 2)

- \$217.76 for the first 1000 gallons,
- \$449 for each additional 1000 gallons, and
- 25% surcharge

$$\text{Disposal Cost} = \left[ \frac{\$217.76}{1000 \text{ gal}} \times 1000 \text{ gal} + \frac{\$449}{1000 \text{ gal}} \times (4.8 \times 10^6 - 1000) \text{ gal} \right] 1.25 = \$27,179$$

$$\text{Annual Disposal Cost} = \$27,180$$

ORDINANCE NO. 2001-05

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF WAUCHULA, FLORIDA, AMENDING ORDINANCE NUMBER 734 TO INCREASE RESIDENTIAL AND COMMERCIAL MINIMUM AND EXCESS SEWER RATES BY REVISING THE RATES ESTABLISHED IN ORDINANCE NUMBER 734, SECTION 1, SUBSECTION RESIDENTIAL SEWER RATES, PARAGRAPHS 1 AND 2, AND SECTION 1, SUBSECTION COMMERCIAL SEWER RATES, PARAGRAPHS 1 AND 2; AMENDING ORDINANCE NUMBER 702 SETTING RATES AND CHARGES FOR WATER; PROVIDING FOR SEMI-ANNUAL REVIEW OF SEWER AND WATER RATES; AND PROVIDING FOR AN EFFECTIVE DATE.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF WAUCHULA, FLORIDA, AS FOLLOWS:

Section 1. Section 1, subsection entitled Residential Sewer Rates, paragraphs 1 and 2., is amended as follows:

1. Each residential sewer customer connected to the City Sewer System located within or beyond the corporate limits of the City of Wauchula, Florida, shall be billed based on the customer's water meter size and water consumption. The rates of charges are as follows:

(a) Minimum Charge. The minimum charge for each customer's sewer service shall be as listed below based on the size of the customer's water meter. This is a minimum charge and will be separate and above the gallonage charge levied for sewer service based on the water consumption as registered through the water meter each month.

<u>Size of Service Meter (Inches)</u>	<u>Minimum Charge</u>
3/4	\$26.94
1	51.06
1 1/2	53.89
2	56.32
3	56.32
4	56.32

(b) Gallonge Charge. The rates for all sewer usage based on the customer's water consumption as registered through the customer's water meter shall be due and payable on a monthly basis at the rate of Four Dollars and 49/100 (\$4.49) per unit of each one thousand (1,000) gallons or portion thereof, in excess of six thousand (6,000) gallons. The gallonge charge will be in addition to the customer's minimum charge.

2. When a customer is not connected to the City's water system, but connected to the sewer system, there shall be a charge of \$26.94 per month for sewer service.

3. In addition to the charges outlined in paragraphs 1(a) and 1(b), customers outside the city limits of the City of Wauchula, Florida, shall be charged a twenty-five percent (25%) surcharge.

Section 2. Section 1, subsection entitled Commercial Sewer Rates, paragraphs 1. and 2., is amended as follows:

1. Each commercial sewer customer connected to the City Sewer System, located within or beyond the corporate limits of the City of Wauchula, Florida, shall be billed based on the customer's water meter size and water consumption. The rates of charges are as follows:

(a) Minimum Charge. The minimum charge for each customer's sewer service shall be as listed below based on the size of the customer's water meter. This is a minimum charge and will be separate and above the gallonge charge levied for sewer service based on the water consumption as registered through the water meter each month.

<u>Size of Service Meter (Inches)</u>	<u>Minimum Charge</u>
3/4	\$ 26.94
1	31.06
1 1/2	53.89
2	77.00
3	139.18
4	217.76

(b) Gallonge Charge. The rates for all sewer usage based on the customer's water consumption as registered through the customer's water



meter shall be due and payable on a monthly basis at the rate of Four Dollars and 49/100 (\$4.49) per unit of each one thousand (1,000) gallons, or portion thereof, in excess of six thousand (6,000) gallons. The gallonage charge will be in addition to the customer's minimum charge.

2. When a customer is not connected to the City's water system, but connected to the sewer system, there shall be a charge of \$26.94 per month for sewer service.

3. In addition to the charges outlined in paragraphs 1(a) and 1(b), customers outside the city limits of the City of Wauchula, Florida, shall be charged a twenty-five percent (25%) surcharge.

Section 3. That portion of Section 1 of Ordinance Number 702 entitled Water Rates is hereby amended as follows:

**City Water Rates:**

1. The rates for all water used through a customer's water service shall be due and payable on a monthly basis and will consist of a flat-rate service charge based on the size of the customer's water meter, plus a flat-rate for each unit of one thousand (1,000) gallons, or portion thereof, of water consumed.

The rates are as follows:

a. **Monthly Service Charge:** The monthly service charge for each customer's water meter shall be at the rates tabulated below. This is a service charge and will include the first six thousand (6,000) gallons of water used through the customer's water meter.

<u>Size of Service Meter (Inches)</u>	<u>Minimum Charge</u>
3/4	10.30
1	14.12
1 1/2	24.50
2	35.03
3	63.27
4	98.98
6	190.79

b. Each separate residential living unit, or separate commercial business unit, or professional office unit shall be served by an individual water service which shall be metered individually, and shall pay the above listed monthly service charge as a single customer plus the gallonage charge.

c. **Gallonage Charge:** The rates for all water used through a customer's water meter shall be due and payable on a monthly basis at the rate of \$2.04 per unit of each one thousand (1,000) gallons, or portion thereof, in excess of six thousand (6,000) gallons. The gallonage charge will be in addition to the customer's monthly service charge.

d. For existing buildings served by one water meter and occupied by more than one residential living unit and/or commercial unit, a monthly service charge at the applicable rate for each unit, plus the gallonage charge, shall be billed to the owner, or at the discretion of the City Clerk, may be billed to the renter, leaseholder or occupant for each unit.

**Rural Water Rates:**

All water customers located beyond the corporate limits of the City of Wauchula, Florida, and connected to and served by the City Water System, shall pay a monthly charge for all water used through the customer's water meter equal to one hundred twenty-five percent (125%) of the above-listed City Water Rates. Bills for rural water service shall be due and payable on a monthly basis.

**Other Water Charges:**

1. There shall be an installation and tapping charge for water services as follows:

<u>Size of Meter to be installed</u>	<u>Installation and Tapping Charge</u>
3/4 inch tap	\$550.00
1 inch tap	700.00
1 1/2 inch tap	City's cost
2 inch tap	City's cost
3 inch tap	City's cost

When over three (3) inch services are required, estimates will be furnished upon application for service.

In addition to the above charges, a charge for a lawn or irrigation service which is in addition to the service for the structure shall include actual cost of materials for the tap and meter installation and shall not be considered a separate service for the purpose of impact fees.

Such installation and tapping charges shall be paid before water service will be furnished by the City of Wauchula.

The above rates shall apply except where casing is required under state highways, railroad, etc. Then the actual cost of labor, equipment and materials shall be charged for the installation which shall be installed in accordance with state highway, railroad or other governing bodies' specifications.

2. There shall be a charge for a temporary water connection of Fifty Dollars (\$50.00).

**Section 4. Cost of Living Adjustments.** On or before December 1 and May 1 of each calendar year, beginning December 1 of 2001, the City Clerk, City Administrator, and department heads shall meet for the purpose of determining the need for a sewer/water rate increase and shall make recommendations to the City Council at its next regularly scheduled meeting with respect to whether or not there exists a need for an increase at that time.

**Section 5.** If any provision of this ordinance is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, such provision and such holding shall not affect the validity of any other provision, and to that end the provisions of this ordinance are hereby declared to be severable.

**Section 6.** All ordinances or parts of ordinances in conflict herewith are hereby repealed to the extent of such conflict.

**Section 7.** This ordinance shall take effect upon adoption by the Council as provided by law and signed by the Mayor and City Clerk as provided by ordinance, or upon adoption without said Mayor's approval.

This ordinance was read and approved at the regular session of the City Council on the 26<sup>th</sup> day of February, 2001. The final reading was held on the 12<sup>th</sup> day of March.

2001, and upon motion by Baxter and second  
Spiech this ordinance was adopted.

5 members of the Council voted for adoption

0 members of the Council voted against adoption

2 members of the Council were absent

(SEAL)

ATTEST:

CITY OF WAUCHULA, FLORIDA

By: James A. Braddock  
James Braddock, City Clerk

By: David B. Royal  
David B. Royal,  
Chairman of City Council

APPROVED AS TO FORM

THIS ORDINANCE APPROVED BY ME,  
this 12<sup>th</sup> day of March, 2001

By: Kenneth B. Evers  
Kenneth B. Evers,  
City Attorney

Kenneth A. Lambert  
Kenneth A. Lambert, Mayor

6

**ATTACHMENT 3**  
**REVISED FINANCIAL ASSURANCE FORM**  
**PAGES 8 & 11**

DESCRIPTION	Sampling Frequency (events/yr.)	Number of Wells	\$/Well/Event	\$ / Year
<b>4. Leachate Monitoring (62-701.510(5), (6)(b) and 62-701.510(8)(c))</b>				
Monthly	12	0	0.00	\$0.00
Quarterly	4	0	0.00	\$0.00
Semi-Annual	2	1	445.00	\$890.00
Annual	1	1	1,275.00	\$1,275.00
Other		0	0.00	\$0.00
Subtotal Leachate Monitoring:				\$2,165.00

DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
<b>5. Leachate Collection/Treatment Systems Maintenance</b>				
<b>Maintenance</b>				
Collection Pipes	LF	1	180.00	\$180.00
Sumps, Traps	EA	0	0.00	\$0.00
Lift Stations	EA	0	0.00	\$0.00
Cleaning	LS	0.2	4,450.00	\$890.00
Tanks	EA	0	0.00	\$0.00
<b>Impoundments</b>				
Liner Repair	SY	0	0.00	\$0.00
Sludge Removal	CY	0	0.00	\$0.00
<b>Aeration Systems</b>				
Floating Aerators	EA	0	0.00	\$0.00
Spray Aerators	EA	0	0.00	\$0.00
<b>Disposal</b>				
Off-site (Include Transportation and Disposal)	LS	1	107,340.00	\$107,340.00

16. Site Specific Costs (explain)

UNIT COST

<hr/>	<u>LS</u>	<u>\$0.00</u>
<hr/>	<u>LS</u>	<u>\$0.00</u>
<hr/>	<u>LS</u>	<u>\$0.00</u>

**ANNUAL LONG-TERM CARE COST (\$/Year):** \$161,241.15

**NUMBER OF YEARS OF LONG-TERM CARE** 30

**TOTAL LONG-TERM CARE COST (\$):** \$4,837,234.38

WASTE MANAGEMENT TECHNICAL SUPPORT  
ROUTING FORM

PERMITTED FACILITIES

To: John M  
From: dm f  
Date: 1/5/04  
Subject: HARDEC RESTART

Document Name: \_\_\_\_\_  
Revision Number 1 County: HARDEC  
Facility Name: \_\_\_\_\_  
Type of Facility: CI  
Permit Number: \_\_\_\_\_ Issue Date: \_\_\_\_\_

Copy of Permit attached: \_\_\_\_\_  
Document submitted in compliance with permit condition. \_\_\_\_\_  
Document subject to permit timeclock. YES

Day 1: 12/30/03  
Day 30: 1/29/04  
PATS sheet attached: \_\_\_\_\_

Enforcement Case/CO/NOV/ associated with this site: \_\_\_\_\_

Files and related documents can be found ATTACHED IN YOUR OFFICE

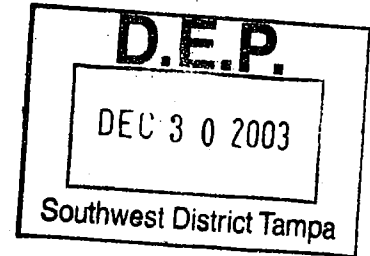
Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by 1/22/04.

Comments: NEW INFO RESTARTS THE CLOCK  
SEE ATTACHED RESTART FORM

Module \_\_\_\_\_

Attachments



**SCS ENGINEERS**December 30, 2003  
File No. 09199033.08Mr. Kim B. Ford, P.E.  
Solid Waste Engineer  
Southwest District  
Florida Department of Environmental Protection  
3804 Coconut Palm Drive  
Tampa, Florida 33619

Subject: Submittal of Modified Information for the Hardee County Landfill  
Renewal of Operations Permit No. 38414-002-SO  
Hardee County, Florida

Dear Mr. Ford,

On behalf of Hardee County, SCS Engineers (SCS) is submitting the following modified information to the Florida Department of Environmental Protection (FDEP) as outlined in SCS's letter dated October 22, 2003. This modified information is intended to replace specific portions of the information previously submitted to the FDEP regarding the first Request for Additional Information (RAI). As outlined in the October 22, 2003 letter, with this submittal, the County respectfully requests that "time clock be turned back on" for FDEP's review of the operations permit renewal application. With this submittal, FDEP should be able to complete their review and approval of the Operation Renewal Permit Application. SCS has been working with the FDEP to prepare the modified information below and believes this submittal adequately addresses all remaining outstanding issues. Outlined below are the original comments made by FDEP in RAI No.1, typed in bold, and the modified information and responses submitted by SCS. The numbering of the comments and responses remains as outlined in RAI No.1.

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

1. **62-701.300. Revisions to Section D are requested as follows:**
  - a) **Section D.2. - To explain that yard trash and the leachate storage tanks are subject to the prohibitions and to describe compliance with the prohibitions.**

**Response:** Changes have been made to Section D.2 in reference to Rule 62-701.300(12) and (16), F.A.C. Revised sheets are located in Attachment A.



WASTE MANAGEMENT TECHNICAL SUPPORT  
ROUTING FORM

PERMITTED FACILITIES

To: John M  
From: ku f  
Date: 10/1/03  
Subject: HARSTE LF ops Renewal

Document Name: \_\_\_\_\_  
Revision Number 1 County: HARSTE  
Facility Name: \_\_\_\_\_  
Type of Facility: LI  
Permit Number: \_\_\_\_\_ Issue Date: \_\_\_\_\_

Copy of Permit attached: \_\_\_\_\_

Document submitted in compliance with permit condition. \_\_\_\_\_

Document subject to permit timeclock. yes

Day 1: 9/30/03

Day 30: 10/30/03

PATS sheet attached: \_\_\_\_\_

Enforcement Case/CO/NOV/ associated with this site: \_\_\_\_\_

Files and related documents can be found Attached in files

Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by 10/25/03.

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Module \_\_\_\_\_

Attachments

WASTE MANAGEMENT TECHNICAL SUPPORT  
ROUTING FORM

PERMITTED FACILITIES

To: STEVE W  
From: km f  
Date: 1/5/04  
Subject: HARDEC Renewal

Document Name: \_\_\_\_\_  
Revision Number 1 County: HARDEC  
Facility Name: \_\_\_\_\_  
Type of Facility: CL  
Permit Number: \_\_\_\_\_ Issue Date: \_\_\_\_\_

Copy of Permit attached: \_\_\_\_\_  
Document submitted in compliance with permit condition. \_\_\_\_\_

Document subject to permit timeclock. Yes  
Day 1: 12/30/03

Day 30: 1/29/04

PATS sheet attached: \_\_\_\_\_

Enforcement Case/CO/NOV/ associated with this site: \_\_\_\_\_  
Files and related documents can be found \_\_\_\_\_

Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by 1/22/04.

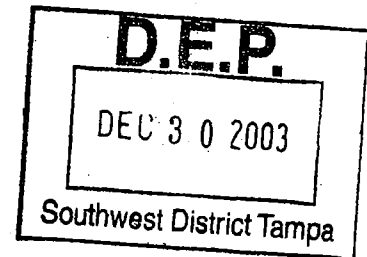
Comments: NEW INFO RESTART THE CLOCK  
SEE ATTACHED ROUTING FORM

Module \_\_\_\_\_  
Attachments

**SCS ENGINEERS**

December 30, 2003  
File No. 09199033.08

Mr. Bill B. Ford, P.E.  
Solid Waste Engineer  
Southwest District  
Florida Department of Environmental Protection  
3804 Coconut Palm Drive  
Tampa, Florida 33619



Subject: Submittal of Modified Information for the Hardee County Landfill  
Renewal of Operations Permit No. 38414-002-SO  
Hardee County, Florida

Dear Mr. Ford,

On behalf of Hardee County, SCS Engineers (SCS) is submitting the following modified information to the Florida Department of Environmental Protection (FDEP) as outlined in SCS's letter dated October 22, 2003. This modified information is intended to replace specific portions of the information previously submitted to the FDEP regarding the first Request for Additional Information (RAI). As outlined in the October 22, 2003 letter, with this submittal, the County respectfully requests that "time clock be turned back on" for FDEP's review of the operations permit renewal application. With this submittal, FDEP should be able to complete their review and approval of the Operation Renewal Permit Application. SCS has been working with the FDEP to prepare the modified information below and believes this submittal adequately addresses all remaining outstanding issues. Outlined below are the original comments made by FDEP in RAI No.1, typed in bold, and the modified information and responses submitted by SCS. The numbering of the comments and responses remains as outlined in RAI No.1.

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

1. **62-701.300. Revisions to Section D are requested as follows:**
  - a) **Section D.2. - To explain that yard trash and the leachate storage tanks are subject to the prohibitions and to describe compliance with the prohibitions.**

**Response:** Changes have been made to Section D.2 in reference to Rule 62-701.300(12) and (16), F.A.C. Revised sheets are located in Attachment A.

WASTE MANAGEMENT TECHNICAL SUPPORT  
ROUTING FORM

PERMITTED FACILITIES

To: STEVE W  
From: Tom A  
Date: 10/1/03  
Subject: HARDEE LI Ops Renewal

Document Name: \_\_\_\_\_  
Revision Number 1 County: HARDEE  
Facility Name: \_\_\_\_\_  
Type of Facility: LI  
Permit Number: \_\_\_\_\_ Issue Date: \_\_\_\_\_

Copy of Permit attached: \_\_\_\_\_  
Document submitted in compliance with permit condition. \_\_\_\_\_

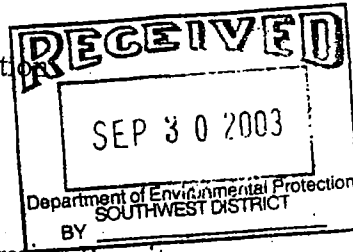
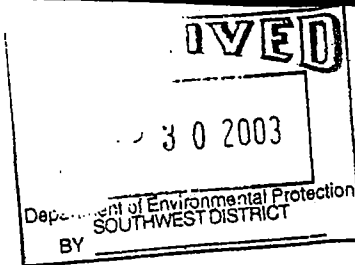
Document subject to permit timeclock. YES  
Day 1: 9/30/03  
Day 30: 10/30/03

PATS sheet attached: \_\_\_\_\_  
Enforcement Case/CO/NOV/ associated with this site: \_\_\_\_\_  
Files and related documents can be found ATTACHED IN FILES

Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by 10/25/03.

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Module \_\_\_\_\_  
Attachments

**SCS ENGINEERS**September 30, 2003  
File No. 09199033.08Kim B. Ford, P.E.  
Solid Waste Section  
Division of Waste Management  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619Subject: Hardee County Landfill - Operation Permit  
Pending Permit No.: 38414-007-SO, Hardee County

Dear Mr. Ford:

On behalf of Hardee County, SCS Engineers (SCS) submits the following responses to your request for additional information in a letter dated June 18, 2003. For ease of review, each FDEP comment is reiterated in bold type, followed by our response.

We have provided additional information and replacement pages attached to this letter, using a ~~striketrough~~ and underline format, to facilitate review. We have included the revision date as part of the header/footer for all revised pages and provided an original and two copies of all revised materials.

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

1. **62-701.300. Revisions to Section D are requested as follows:**
  - a) **Section D.2. - To explain that yard trash and the leachate storage tanks are subject to the prohibitions and to describe compliance with the prohibitions.**

**Response:** Changes have been made to Section D.2 in reference to Rule 62-701.300(12) and (13), F.A.C. Revised sheets are located in Attachment A-1. Figure 1, also located in Attachment A-1, depicts the 50-foot offset from Wetland Area No. 1 and the yard waste processing area and the leachate storage tank and the onsite well located immediately south of the maintenance building.

- b) **Section D.11. - To explain that used oil will not be accepted for disposal.**

**Response:** Used oil is not, and will not be disposed of within the landfill.

reporting methane as a percent by volume in air or as a percentage of the lower explosive limit (LEL) for methane. Hardee County currently owns a X-Check Gas Detector for LFG monitoring. Other industry-standard equipment also may be utilized.

31. **62-701.500(10). Revisions to Section L.10. are requested a) to describe the entire stormwater system design and operation, and b) to provide references for all record drawings for the entire stormwater management system. Documents on file with the Department may be referenced rather than resubmitted.**

**Response:** Changes have been made to Section L.10, located in Attachment A-9.

- a) Changes have been made to Section L.10, located in Attachment A-9.
- b) The stormwater management system has been previously reviewed and approved by FDEP. In the past consecutive permitting processes, FDEP has approved the stormwater management system at Hardee County Landfill. SCS is submitting the Wade Trim drawing set, which appears to coincide with the existing stormwater management system at Hardee County Landfill.

32. **62-701.500(11)(f). Revisions to Section L.11.f. are requested to describe the removal of litter from outside of the working face within 24 hours.**

**Response:** Changes have been made to Section L.11.f., located in Attachment A-9, to reflect Rule 62-701.500(7)(i), F.A.C.

33. **62-701.410, .500, and .510. Responses to each of the items in Mr. John Morris' June 12, 2003 memorandum (attached) are requested. You may call Mr. Morris at (813) 744-6100, extension 336 to discuss the items in his memorandum.**

**Response:** Please see responses to Mr. Morris' memorandum in Appendix B.

34. **62-701.630. Responses to each of the items in Mr. Steve Morgan's June 17, 2003 letter (attached) are requested. You may call Mr. Morgan at (813) 744-6100, extension 385 to discuss the items in his letter.**

**Response:** Please see responses to Mr. Morgan's letter in Appendix C.

Mr. Kim B. Ford, P.E.  
September 30, 2003  
Page 19

Please call if you have any questions.

Sincerely,



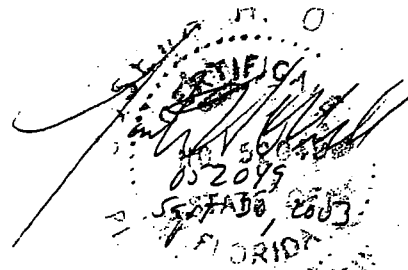
Joseph O'Neill, P.E.  
Project Manager  
SCS ENGINEERS

JHO/RJD:jlh

Attachments



Raymond J. Dever, P.E., DEE  
Vice President  
SCS ENGINEERS



RAYMOND J. DEVER, P.E., DEE  
052095  
SEP 2003  
FLORIDA



## APPENDIX C

### RESPONSES TO STEVEN G. MORGAN'S LETTER TO JANICE WILLIAMSON DATED JUNE 17, 2003.

#### Closing Costs

##### Stormwater Control System:

The cost estimates for the stormwater control system provided in this section only appear to address construction of the proposed stormwater control system up to the elevation 110 ft. NGVD. of the landfill. Please provide cost estimates and supporting calculation for the remainder of the proposed stormwater management system and revise the cost estimates in the section accordingly.

**Response:** The drawings submitted show stormwater drop inlets located on the northeast, northwest, and southeast corners of the landfill. The northeast and northwest drop inlets have drop structures at elevation 135 and 110. The southeast drop inlet has a drop structure located at elevation 110.

The drawings also reflect a series of benches and swales that divert stormwater to the drop inlets located at elevation 110. The financial assurance forms and calculations located in Attachment C-1 and C-2 reflect these changes.

##### Professional Services:

The assumption that it will require only two work months to complete closure construction appears to be optimistic. Please provide specific information and calculations of actual time to complete closure from a similar landfill closure project and the professional services hours spent on that project in support this assumption and revise this section accordingly.

**Response:** Changes have been made to this section. It is estimated that the closure construction will be completed in six months. The financial assurance forms and calculations located in Attachment C-1 and C-2 reflect these changes.

#### Long-term Care Costs

##### Gas Monitoring:

The cost estimates in this section were based on quarterly monitoring of gas probes GP-1 through GP-9. The current gas monitoring program consists of gas probes GP-1 through GP-11. Please explain this discrepancy and revise the cost estimates in this section accordingly.

**Response:** Under the existing solid waste permit (Permit Number 38414-002-SO), Specific Condition 20 states that the gas monitoring probes GP-1 through GP-9 and the following structures shall be monitored:

- Maintenance Building
- Materials Recovery Facility
- Scalehouse/Administrative Offices
- Animal Control Kennel

According to Rule, 62-701.530(2)(b), F.A.C., monitoring probes should be placed along the property boundary of the facility; GP-10 and GP-11 are located on the interior of the property. Probes GP-10 and GP-11 will also be added to the monitoring plan in order to obtain additional information on gas migration. The addition of two probes will not change the cost of the gas-monitoring fee for long-term care of the landfill. The financial assurance forms and calculations reflect these changes. The supporting calculations are located in Attachment C-2.

**Leachate Collection/Treatment Systems Maintenance – Maintenance:**

**Please provide justification for the assumption that no maintenance of the leachate collection pipes, sumps/traps, lift station, or tanks will be required during the long-term care period or revise this section to include annual costs for leachate system maintenance.**

**Response:** Changes have been made to this section. The financial assurance forms and calculations located in Attachment C-1 and C-2 reflect these changes.

**Leachate Collection/Treatment Systems Maintenance – Disposal:**

**In accordance with Rule 62-701.630(3)(a), closure and long-term care costs estimates are based on "... the time period in the landfill operations when the extent and manner of its operation making closing most expensive." In the case of leachate generation rates during long-term care, the time of maximum generation rate is immediately upon completion of closure activities. A reasonable estimate of this generation rate corresponds to the actual per acre leachate generation rate for the previous year calculated for the total acreage to be closed. During the facility's long-term care period, as the average annual leachate generation rate decreases, long-term care costs for leachate disposal can be reduced accordingly. Please revise the leachate quantities and costs provided for long-term care accordingly.**

**Response:** The leachate generation for the first year after capping the landfill is assumed to be the same rate as the present. As time progresses, the leachate generation rate will decrease. SCS has calculated the leachate disposal rate according to the present generation rate of 7,575,540 gallons per year. The financial assurance forms and calculations located in Attachment C-1 and C-2 reflect these changes.

**SCS ENGINEERS**

TO Kim Ford, P.E.  
SOLID WASTE SECTION  
S.W. DISTRICT  
FDEP

DATE Dec 30, 2007  
JOB NO. 09155033,08  
ATTENTION Kim Ford  
Re: Response to Comments  
Modified Information  
Handee County LF  
Operations Permit

Southwest District Tampa  
DEC 30 2007

WE ARE SENDING YOU

- Attached  Under separate cover via \_\_\_\_\_
- Shop drawings  Prints
- Copy of letter  Change order
- the following items:  Plans  Samples
- Specifications  HAND DELIVERED

COPIES	DATE	DESCRIPTION
1		Original Response to Comments
2		Copies of the Original Response to Comments
		{ included 3 total operations plans
		{ 3 total operations Drawings SHTS 1-12
		3 total TANK Reports
		3 total LCRS Reports

THESE ARE TRANSMITTED as checked below:

- For approval  Approved as submitted  Resubmit \_\_\_\_\_ copies for approval
- For your use  Approved as noted  Submit \_\_\_\_\_ copies for distribution
- As requested  Returned for corrections  Return \_\_\_\_\_ corrected prints
- For review and comment  \_\_\_\_\_
- FOR BIDS DUE \_\_\_\_\_ 19 \_\_\_\_\_  PRINTS RETURNED AFTER LOAN TO US

REMARKS

Kim  
Attached is the modified submittal information for the  
Handee County Landfill Operations permit Renewal  
Please call w/ any questions

COPY TO

Susan Petz ✓

SIGNED:

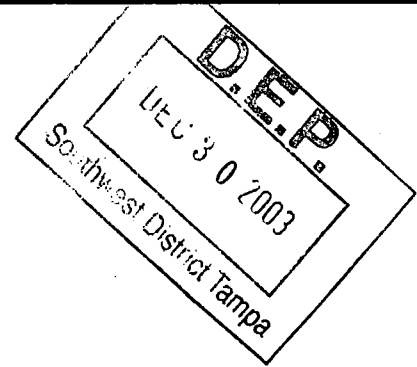
*[Signature]*



**SCS ENGINEERS**

December 30, 2003  
File No. 09199033.08

Mr. Kim B. Ford, P.E.  
Solid Waste Engineer  
Southwest District  
Florida Department of Environmental Protection  
3804 Coconut Palm Drive  
Tampa, Florida 33619



Subject: Submittal of Modified Information for the Hardee County Landfill  
Renewal of Operations Permit No. 38414-002-SO  
Hardee County, Florida

Dear Mr. Ford,

On behalf of Hardee County, SCS Engineers (SCS) is submitting the following modified information to the Florida Department of Environmental Protection (FDEP) as outlined in SCS's letter dated October 22, 2003. This modified information is intended to replace specific portions of the information previously submitted to the FDEP regarding the first Request for Additional Information (RAI). As outlined in the October 22, 2003 letter, with this submittal, the County respectfully requests that "time clock be turned back on" for FDEP's review of the operations permit renewal application. With this submittal, FDEP should be able to complete their review and approval of the Operation Renewal Permit Application. SCS has been working with the FDEP to prepare the modified information below and believes this submittal adequately addresses all remaining outstanding issues. Outlined below are the original comments made by FDEP in RAI No.1, typed in bold, and the modified information and responses submitted by SCS. The numbering of the comments and responses remains as outlined in RAI No.1.

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

1. **62-701.300. Revisions to Section D are requested as follows:**
  - a) **Section D.2. - To explain that yard trash and the leachate storage tanks are subject to the prohibitions and to describe compliance with the prohibitions.**

**Response:** Changes have been made to Section D.2 in reference to Rule 62-701.300(12) and (16), F.A.C. Revised sheets are located in Attachment A.



- b) **Section D.11. - To explain that used oil will not be accepted for disposal.**

**Response:** Used oil is not, and will not be disposed of within the landfill. Changes have been made to section D.11 and revised sheets are located in Attachment A.

2. **62-701.320(5)(b). A description and timeframe for applying for a construction permit for expansion and for a closure permit are requested.**

**Response:** A Schedule for applying for the expansion permit, construction of the proposed expansion, and applying for partial closure of the existing landfill is contained in Attachment B.

7. **62-701.330(3)(d) and (j). Revisions to the operational drawings are requested to show the additional information listed below:**

- a) **The typical liner system detail, including the bottom and side liners, leachate collection/conveyance system, waste limits, future final cover, and the adjacent stormwater conveyances;**

**Response:** Please refer to the revised drawings contained in Attachment C.

- b) **The direction of filling for each working face disposal area;**

**Response:** Please refer to the revised drawings contained in Attachment C.

- c) **The design details for the typical slopes and perimeter berms to be maintained to drain stormwater and to contain leachate in the vicinity of each working face disposal area;**

**Response:** Please refer to the revised drawings contained in Attachment C.

- d) **Cross-sections to show lifts of waste as filling progresses including details for permanent terraces and permanent drainage devices;**

**Response:** Please refer to the revised drawings contained in Attachment C.

- e) **Sheet 4 - to show the correct manhole numbers, and with the precise location of the perimeter liner, manholes, and leachate collection/conveyance system;**

**Response:** Please refer to the revised drawings contained in Attachment C.

- f) **Sheet 5 - to show the slope of the terrace swale (at elevation +135 NGVD) with the direction of flow, and the related drainage features to convey the stormwater down the slope, and to show passive gas vent typical cross-section details and locations on the final cover plan view.**

**Response:** Please refer to the revised drawings contained in Attachment C. The passive gas venting system will be installed during partial closure of the landfill. Details of the vents will be submitted with the closure permit application.

- g) **Sheet 8 - to show the top liner on the cover system detail, to include a note on the south slope partial reconstruction detail to ensure that asbestos will not be disturbed due to waste excavation, and to include a note on the typical waste place detail to describe the placement of loose waste over bales.**

**Response:** Please refer to the revised drawings contained in Attachment C.

- h) **Sheet 9 - to include a note to describe that only clean soil fill will be used over intermediately covered areas as needed prior to the final grading of slopes and terraces.**

**Response:** Please refer to the revised drawings contained in Attachment C.

9. **62-701.400(4)(a). Documentation to demonstrate that the entire existing leachate collection and removal system complies with each of the requirements in Rule 62-701.400(4)(a) is requested. Additionally, the following items are requested:**

**Response:** Please refer to the leachate collection system report contained in Attachment D.

- a) **A comprehensive inspection report as required by Specific Condition #17.g., signed and sealed by a professional engineer.**

**Response:** SCS has prepared a Leachate Collection and Removal System Inspection Report, a copy is contained in Attachment D.

- b) **A drawing to scale showing all distances between manholes to match the distances indicated by Florida Jetclean Inc., or a an appropriate explanation for each discrepancy.**

**Response:** As stated in the video provided by Florida Jetclean Inc., the counter,

which measures the pipe length, was not consistently operating correctly. In addition, the locations of the manholes are currently being surveyed to confirm the exact locations relative to the landfill. The distances are shown on the scaled figure located in Attachment E. Florida JetClean has reviewed the tape again and found a significant measurement deviation when measuring from Manhole No. 7 to the lift station. This was due to the camera falling into the liftstation and subsequent efforts (involving the camera being moved back and forth) to recover the camera. SCS had the manhole locations surveyed and the distances are shown on Figure 1 in Attachment D. There remains minor measurement differences between the Florida JetClean and the surveyed distances; however, JETCLEAN and SCS has reviewed the tapes, in their entirety, and is confident that all leachate collection lines have been video tape their entire length.

- c) **A drawing to scale showing the correct numbering for each manhole.**

**Response:** Please refer to Figure 1 in the Leachate Collection and Removal System Inspection Report, located in Attachment D.

- d) **A corrected Florida Jetclean report to include the correct numbering for each manhole.**

**Response:** The manholes, specifically Manhole No. 8 (the lift station) and No. 9, were mistakenly mislabeled in the field. The confusion was made during construction when a manhole was moved. Manhole No. 9 was mistakenly called Manhole No. 8 on the JETCLEAN videos. Manhole No. 8 was referred to as the lift station.

See Figure 1, Note 1 and the description notes for Manholes 8 and 9 of the Leachate Collection and Removal System Inspection Report, located in Attachment E. The JETCLEAN Report matches the text embedded on the video tape, therefore SCS is proposing the Figure and the Leachate Collection and Removal System Inspection Report, located in Attachment D, are sufficient to clarify the discrepancy.

- e) **An explanation with conclusions and recommendations for each location of each pipe "separation" and "egg-shaped" distortion.**

**Response:** Refer to the Leachate Collection and Removal System Inspection Report, located in Attachment D.

10. **62-701.400(6)(c)9. Documentation to demonstrate that each leachate storage tank has been inspected as required, and that each complies with the requirements in**

**Rule 62-701.400(6) (c) is requested. Additionally, the following items are requested:**

**Response:** Rule 62-701.400(6)(c) refers to the tank materials and operations of the tanks. The tank material and tank operations have been previously reviewed and approved by FDEP.

- a) **A comprehensive inspection report as required by Specific Condition #17.j., signed and sealed by a professional engineer.**

**Response:** Please refer to the Leachate Tank Inspection Reports contained in Attachment E.

- b) **Confirmation that the proposed repair materials are compatible with the original coatings.**

**Response:** A confirmation by Columbian TecTank is located in Attachment E. Columbian TecTank certifies that the coating used by Columbian TecTank (Trico Bond 478) during the tank inspection is not only compatible with the existing coating (Thermo-Thane 7000) it is the same coating.

- c) **The schedule for completing repairs and certification.**

**Response:** Refer to response to part (a) above.

15. **62-701.500(1). Revisions to Section L.1 are requested to describe or reference a training plan with the listed courses and hours of training for operators and spotters to demonstrate compliance with 62-701.320(15).**

**Response:** The section for describing the training plan with listed courses and hours for operators and spotter has been changed to Section L.2.a. The revised Section L is located in Attachment F.

16. **62-701.500(2). Revisions to the Operations Plan are requested to include the document title and date on each page. Revisions to the Section entitled Background Information are requested as follows:**

**Response:** Changes have been made to the Operations Plan to reflect the document title and date on each page. The revised Section L is located in Attachment F.



- a) **include section numbers by each subheading;**

**Response:** The revised Section L is located in Attachment F.

- b) **delete references to unrelated C&D debris disposal practices;**

**Response:** The revised Section L is located in Attachment F.

- c) **provide reference to the MRF operation plan on file with the Department rather than resubmit (this application does not include a review of the MRF operations plan which is permitted separately);**

**Response:** The MRF Operations Plan is referenced within Section L.1.d the Operations Plan. The revised Section L is located in Attachment F.

- **include a description for the storage of batteries, paint, used oil and other special wastes under cover with spill containment.**

**Response:** The batteries, paint, used oil and other special wastes are stored in the Household Hazardous Waste Collection Center (HHWCC). The section for Special waste handling and disposal is described in Section L.2.d. The revised Section L is located in Attachment F.

17. **62-701.500(2)(b). 1) Revisions to Section L.2.b. are requested for the following items:**

- a) **to describe procedures for responding to spills.**

**Response:** The section for responding to spills has been changed to Section L.2.c. The revised Section L is located in Attachment F.

- b) **to describe agreements with adjacent counties for the disposal of waste in the event that the facility must remain closed for more than 48 hours is requested.**

**Response:** The section for Landfill Shutdown contingency plans has been changed to Section L.2.c. The revised Section L is located in Attachment F.

- c) **to describe procedures for managing "hotloads".**

**Response:** The section for describing procedures for managing "hotloads" has

been changed to Section L.2.c. The revised Section L is located in Attachment F.

**18. 62-701.500(2)(c). Revisions to Section L.2.c. are requested to describe the following items:**

**a) procedures for the disposal of asbestos;**

**Response:** The section describing asbestos has been changed to Section L.2.d. The revised Operations Plan is located in Attachment F.

**b) for inspection of each load and the procedures for the removal each type of unacceptable waste from the working face;**

**Response:** The section for inspections and procedures for removal of unacceptable waste has been changed to Section L.2.d. The revised Section L is located in Attachment F.

**c) procedures for the disposal of contaminated soil.**

**Response:** The section for inspections and procedures for disposal of contaminated soil has been changed to Section L.2.d. The revised Section L is located in Attachment F.

**19. 62-701.500(2)(f). Revisions to Section L.2.f. are requested to describe the procedures for the daily disposal of both loose waste and baled waste at one or two working faces.**

**Response:** The section for procedures for daily disposal of both loose and baled waste has been changed to Section L.2.g. The revised Section L is located in Attachment F.

**20. 62-701.500(2)(j). Revision to Section L.2.j. is requested to include a procedures for inspecting the overfill protection system for each tank.**

**Response:** As part of the Leachate Management Program, Hardee County personnel monitor the amount of liquid entering the tanks at the control panel. Routine inspections of the overfill protection system for each tank are included in Section L.2.k. The revised Section L is contained in Attachment F.

**21. 62-701.500(6). Revisions to Section L.6 are requested to describe a loose waste disposal load checking program and procedures for managing all unacceptable waste and special wastes.**

**Response:** The section for the disposal load checking program is described in Section L.6. Procedures for managing all unacceptable waste and special wastes are described in Section L.2.d. The revised Section L is located in Attachment F.

**22. 62-701.500(7)(a). Revisions to Section L.7.a. are requested for the following items:**

- a) to describe a lift of bales not more than three high;**

**Response:** Changes have been made to Section L.7.a. The revised Section L is contained in Attachment F.

- b) to provide a figure for the bale layout;**

**Response:** Changes have been made to Section L.7.a. The revised Section L is contained in Attachment F.

- c) to describe compaction procedures for loose waste.**

**Response:** Changes have been made to Section L.7.a. The revised Section L is contained in Attachment F.

**23. 62-701.500(7)(c). Revision to Section L.7.d. are requested for the following items:**

- a) to describe the typical minimum top slope to drain;**

**Response:** Changes to Section L.7.c and L.7.g have been made to describe the minimum slopes for drainage. References to slopes have been removed from Section L.7.d. The revised Section L is contained in Attachment F.

- b) to describe a lift of bales not more than three high;**

**Response:** Changes have been made to describe bale heights has been made to Section L.7.d. The revised Section L is contained in Attachment F.

- c) to describe loose waste added to achieve the designed slopes.**

**Response:** Changes have been made to describe loose waste has been made to Section L.7.d. The revised Section L is contained in Attachment F.

**24. 62-701.500(7)(d). Revisions to Section L.7.d. are requested to describe a berm around the working face to contain leachate, and one or two working faces.**

**Response:** Changes have been made to describe berms around the working face has been made to Section L.7.d. The revised Section L is contained in Attachment F.

25. **62-701.500(7)(e) and (f). Revisions to Sections L.7.e. and L.7.f. are requested to describe the initial cover as “6-inches of compacted cover material”, and to describe all other proposed initial cover materials.**

**Response:** Changes have been made to describe compacted cover soil and other proposed cover materials has been made to Section L.7.e and L.7.f. The revised Section L is contained in Attachment F.

26. **62-701.500(7)(g). Revisions to Section L.7.g. are requested to describe the following items:**

- a) **to describe the typical minimum top slope to drain;**

**Response:** Changes have been made to describe the minimum slopes for drainage has been made to Section L.7.g. The revised Section L is contained in Attachment F.

- b) **to describe the construction of a berm around the working face to contain leachate;**

**Response:** Changes have been made to describe placement of the berm around the working face to contain leachate has been made to Section L.7.g. The revised Section L is contained in Attachment F.

- c) **to explain that soil with any waste cannot be used as intermediate cover, or anywhere outside of the bermed working face disposal area.**

**Response:** Soils containing any waste cannot be used as intermediate cover and must be placed within the lined and bermed working face to prevent stormwater runoff contamination. Changes have been made to been made to Section L.7.g. Section L is located in Attachment F.

27. **62-701.500(7)(h). Revisions to Section L.7.h. are requested to describe a timeframe for applying for a closure permit and for completing closure, and to describe the areas that are already completely filled to match the proposed cross-sections.**

**Response:** Changes have been made to describe the time frame for applying for closure

permits and completing closure has been made to Section L.7.h. The revised Section L is contained in Attachment F.

28. **62-701.500(7)(j). Revisions to Section L.7.h. are requested to describe the removal of litter from outside of the working face within 24 hours.**

**Response:** Changes have been made to describe typical minimum slopes for drainage has been made to Section L.7.j. The revised Section L is contained in Attachment F.

29. **62-701.500(8). a) Revisions to Section L.8.a. are requested to describe the landfill performance criteria to demonstrate that all leachate is removed from the landfill. b) Revisions to Section L.8.b. are requested to describe the design of the existing leachate collection system and the method of filtering the contained surface leachate prior to pumping it to a manhole. c) Revisions to Section L.8.B. are requested to describe the tank and truck loading procedures and tank inspections.**

**Response:**

- a) Refer to Attachment F for revisions to the Operations Plan. Revision include a discussion on how to use the interior piezometers to estimate leachate levels within the disposal area.
- b) Surface water runoff that comes in contact with solid waste is considered leachate. Surface water flows to low areas, which allows for percolation. If this low area is needed for operational purposes, the liquid is pumped to the nearest manhole to minimize pumping the surface debris into the manhole. The County uses a screened suction intake or will place hay bales or silt fence around the suction intake. Changes have been made to Section L.8.b., located in Attachment F.
- c) Refer to Attachment F for revisions to the Operations Plan.

30. **62-701.500(9) and 62-701.530. Revisions to Section L.9. are requested for the following items:**

- a) **to describe precautions to be taken when entering or, servicing areas where dangerous gases may have accumulated;**

**Response:** Changes have been made to Section L.9 for procedures for entering areas where gases may have accumulated. The revised Section L is in Attachment F.

**b) to describe the gas monitoring location within buildings;**

**Response:** Gas monitoring will be conducted at foundation penetrations, enclosed spaces such as ground-level cabinets, or electrical control boxes, outlets and openings to conduits. Changes have been made to Section L.9, located in Attachment F.

**c) to reference the gas monitoring report form;**

**Response:** The LFG Monitoring Form is located in the revised Section L contained in Attachment F.

**d) to provide a detail for the construction of the gas probes;**

**Response:** The Department has previously revised and approved the construction of the gas probes at Hardee County. Please refer to the Post, Buckley, Schuh, & Jernigan drawings dated June 1997, which is on file at the Department, for a detail of the gas probes.

**e) to describe the gas monitoring sampling procedures;**

**Response:** Changes have been made to Section L.9 of the Operations Plan contained in Attachment F. The LFG is monitored in accordance with Rule 62-701.530, F.A.C. The permit requires that LFG be monitored quarterly and all results submitted to the Department. LFG is monitored with the following procedure:

- (i) Calibrate the field instrument, or check the calibration per the instrument's factory settings.
- (ii) Monitor probes (GP-1 through GP-11) and on-site structures, which include the maintenance building, materials recovery facility, scalehouse, and animal control kennel for methane per Rule 62-701.530(2), F.A.C.
- (iii) Record data on the LFG Monitoring Form, located in Appendix P of the Operations Plan.

**f) to describe the type of gas monitoring meter.**

**Response:** Changes have been made to Section L.9 of the Operations Plan contained in Attachment F.

Mr. Kim Ford, P.E.  
December 30, 2003  
Page 12

31. **62-701.500(10). Revisions to Section L.10. are requested a) to describe the entire stormwater system design and operation, and b) to provide references for all record drawings for the entire stormwater management system. Documents on file with the Department may be referenced rather than resubmitted.**

**Response:** Changes have been made to Section L.10 of the Operations Plan contained in Attachment F.

- a) Changes have been made to Section L.10 of the Operations Plan contained in Attachment F.
- b) The stormwater management system has been previously reviewed and approved by FDEP. In the past consecutive permitting processes, FDEP has approved the stormwater management system at Hardee County Landfill. SCS previously submitted the Wade Trim drawing set, which appears to coincide with the existing stormwater management system at Hardee County Landfill.

32. **62-701.500(11)(f). Revisions to Section L.11.f. are requested to describe the removal of litter from outside of the working face within 24 hours.**

**Response:** Changes have been made to Section L.11.f., located in Attachment F, to reflect Rule 62-701.500(7)(i), F.A.C.

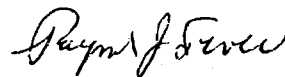
We believe that, with this submittal in hand, the FDEP should now be able to draft the Operation Permit renewal and the Notice of Intent to issue this permit. The landfill expansion schedule contained in Attachment B is contingent on the approval of this Operation Permit renewal and the associated Operations Plans, so time is of the essence.

Please call with any questions.

Very truly yours,



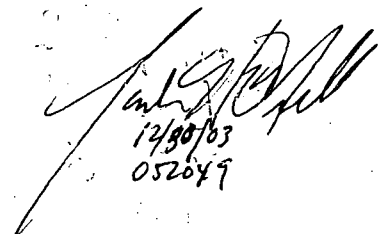
Joseph H. O'Neill, P.E.  
Project Manager  
SCS ENGINEERS



Raymond J. Dever, P.E., DEE  
Vice President  
SCS ENGINEERS

cc. Janice Williamson, Hardee County

Attachments



12/30/03  
052649

**ATTACHMENT A**  
**REVISED SECTION D**



**ATTACHMENT B**

**SCHEDULE**

**ATTACHMENT C**  
**OPERATIONS DRAWINGS**  
(SEE ATTACHED 24"x36 Drawings)

**ATTACHMENT D**

**LEACHATE COLLECTION & REMOVAL SYSTEM REPORT**

**ATTACHMENT E**

**LEACHATE STORAGE TANK INSPECTION REPORT**

**ATTACHMENT F**

**REVISED OPERATIONS PLAN**  
(See Attached 3-Ring Binder)

Superior Client Service . . . . .

SCS ENGINEERS  
3012 U. S. Highway 301 N., Suite 700  
Tampa, FL 33619  
(813) 621-0080  
Fax (813) 623-6757

**SCS ENGINEERS**

facsimile transmittal

To:	<u>Kim Ford</u>	Phone:	_____
Company:	_____	Fax:	<u>744-6125</u>
From:	<u>Joseph O'Neill</u>	Date:	<u>12/22/03</u>
Re:	_____	Pages:	<u>2</u>
cc:	_____	Project No.:	_____

- Urgent   
 For Review   
 Please Comment   
 Please Reply   
 Please Recycle

Notes: Kim,  
ATTACHED ARE SOME ASBESTOS REGULATIONS

Joe O'Neill

# Waste Classification

## Asbestos Waste Packages:

- Subpart Z of 29 CFR 1926.1101(g)(1)(iii)  
Prompt clean-up and disposal of wastes and debris contaminated with asbestos in leak-tight containers.  
*REQUIRED TO BE PLACED*
- Appendix H of 29 CFR 1926.1101(IV)E  
(Non-Mandatory)  
Asbestos-containing material that is removed from buildings must be disposed of in leak-tight 6-mil plastic bags, plastic-lined cardboard containers, or plastic-lined metal containers.

- COLOR OR THICKNESS IS NOT REQUIRED -

- COLORS USED LATER SLIDE

Superior Client Service

SCS ENGINEERS  
3012 U. S. Highway 301 N., Suite 700  
Tampa, FL 33619  
(813) 621-0080  
Fax (813) 623-6757

**SCS ENGINEERS**

# facsimile transmittal

To:	<u>Kim Ford</u>	Phone:	<u>813 774 6100</u>
Company:	_____	Fax:	<u>813 774 6125</u>
From:	<u>Joseph Drwell</u>	Date:	_____
Re:	_____	Pages:	_____
cc:	_____	Project No.:	_____

- Urgent   
  For Review   
  Please Comment   
  Please Reply   
  Please Recycle

Notes:

*Kim,*

*Revised note for Hardee County  
filling plan.*

*NOTE: I added a WET SEASON (2<sup>nd</sup> sentence)  
option for ONE operation*

*Joe*



Revised Note:

Part of the previously filled exterior sideslopes maybe filled during any sequence in the dry season. During the wet season, the operator will look at the five-day forecast during waste placement and if rain is forecast, then the operator will ensure that the working face is covered to minimize contact with stormwater. Should heavy rainfall be predicted, then filling operations should be moved from the sideslope areas to another area of the landfill where stormwater/leachate controls are easier to maintain. This alternative temporary filling area maybe out of the current fill sequence plan until weather improves.

Superior Client Service

SCS ENGINEERS  
3012 U. S. Highway 301 N., Suite 700  
Tampa, FL 33619  
(813) 621-0080  
Fax (813) 623-6757

**SCS ENGINEERS**

# facsimile transmittal

To:	<u>Kim Ford</u>	Phone:	<u>(813) 744 6100 ext 382</u>
Company:	<u>FDEP</u>	Fax:	<u>(813) 744 6125</u>
From:	<u>Joseph O'Neill</u>	Date:	<u>Dec 11, 2003</u>
Re:	_____	Pages:	<u>2</u>
cc:	_____	Project No.	_____

- Urgent   
 For Review   
 Please Comment   
 Please Reply   
 Please Recycle

Notes: Kim,

Re: Hardee County  
Operations Plan

— Attached is a note  
for filling in areas  
previously filled and  
weather conditions

— suggested note for  
filling on side slope

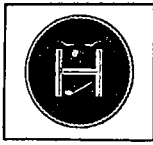
— Please Review & Comment

Joe O'Neill

**Note:**

9) When filling on sideslopes or previously filled areas where existing intermediate cover is to be removed, the operator will look at the five-day weather forecast during waste placement. If rain is forecast, then the operator will ensure stormwater diversion berms are in place and minimize the open working face. Should heavy rainfall be predicted, then filling operations should be moved to the another area of the landfill where stormwater/leachate control is easier to maintain. This alternative temporary filling area maybe out of the current fill sequence plan until weather improves. See Note 2.

NOTE 2 INDICATES THAT FILLING MAY OCCUR ON THE TOP OF THE LANDFILL.



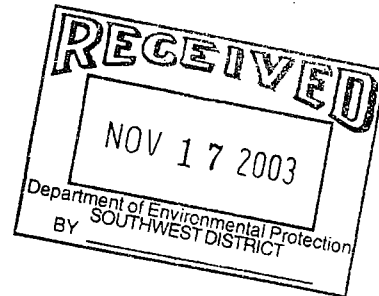
**Hardee County**  
**Solid Waste Department**

685 A Road  
Wauchula, FL 33873  
Phone: 863-773-5089  
Fax: 863-773-3907  
E-mail: janice.williamson@hardeecounty.net

Lora  
Danielle

November 13, 2003

Department of Environmental Protections  
Attention: Kim B. Ford, P.E.  
Solid Waste Section  
3804 Coconut Palm Drive  
Tampa, FL 33619



RE: Facility Inspection on 11/5/03

Dear Mr. Ford:

In response to the above referenced:

IIB16 – Lawn mower motor was removed from metal site immediately while DEP personnel were on site. Oil was drained at the used oil tanks and metal was returned to site.

IIB28 – Flagging was from old yard mulch that was contaminated with plastic bag. The material was used to construct a berm to direct storm water from the slope off of the working face. The amount of cover material is sufficient and we removed all littered material, regarded and re-bermed with clean soil. (See attached photos)

IIB41 & 43 – There were berms around all bales, including bales with tarps. (It may have been that the berms were underneath the tarpaulin and the inspectors did not realize they were there.)-(See attached photos) The access ramp and drive going to the dump area enter the area on the high side; therefore we have considered the drive or roadway the berm (See attached photos). The loose area on the slope did have berms on the east and west side. The west side was a distinctive berm and the cover material on the east side served as a berm. We recognize your concerns for berms at the foot of this slope. The operator had created a dip at the foot of the slope that would have captured any potential run off but we understand your request for actual berm and have complied immediately (See attached photos).

IIB53 – Drum was covered immediately while DEP personnel were on site. Tires were moved forward and site was de-grassed with the dozier (see attached photo).

IIB54 – Requested mowing services from the Public Works Department. Mowing services provided on 11/10/03 – 11/13/03.

Thank you for you advice and guidance and please feel free to contact me should you have any additional comments or questions.

Sincerely,

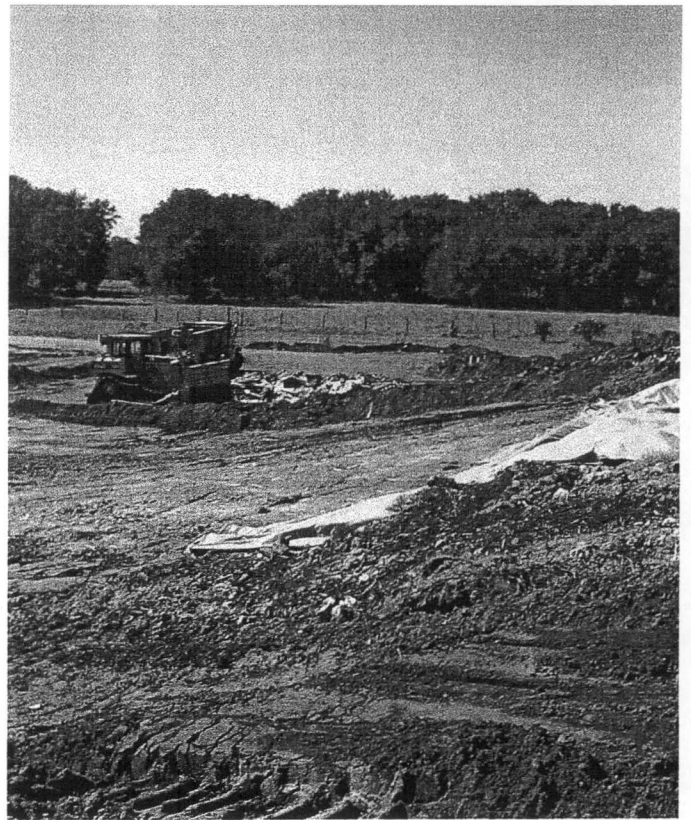
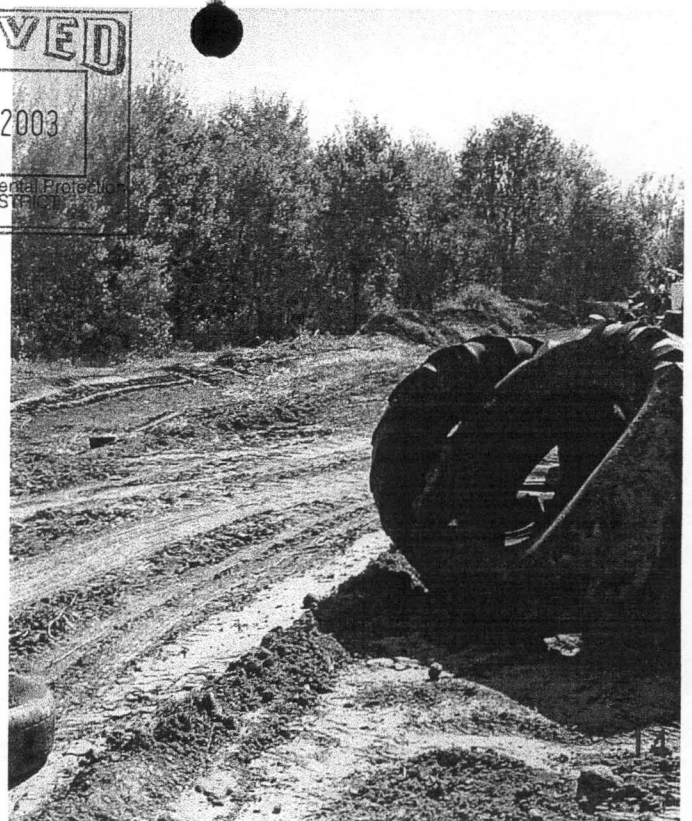
Janice Williamson  
Solid Waste Director

CC: Danielle Sobczak, Lora Boss - DEP

RECEIVED

NOV 17 2003

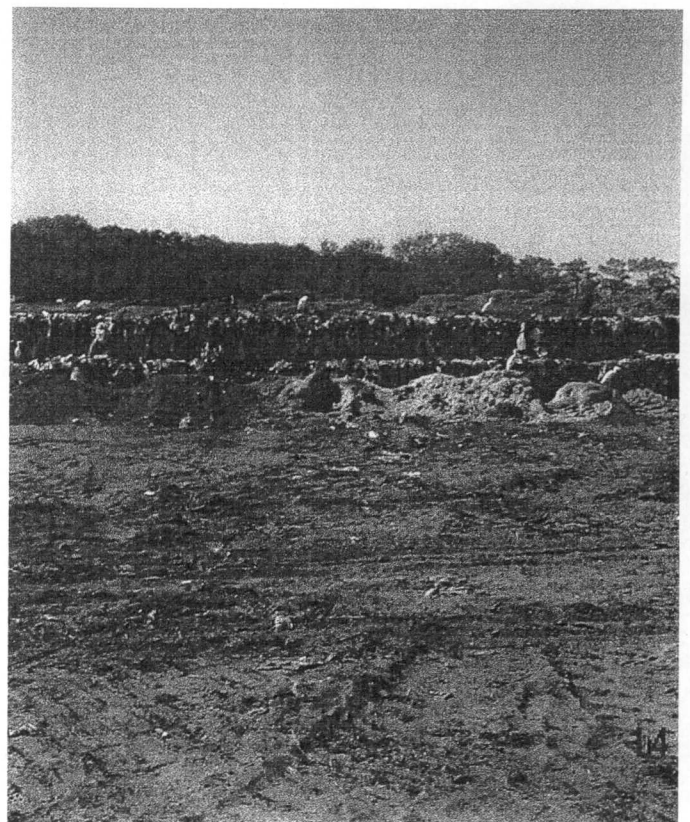
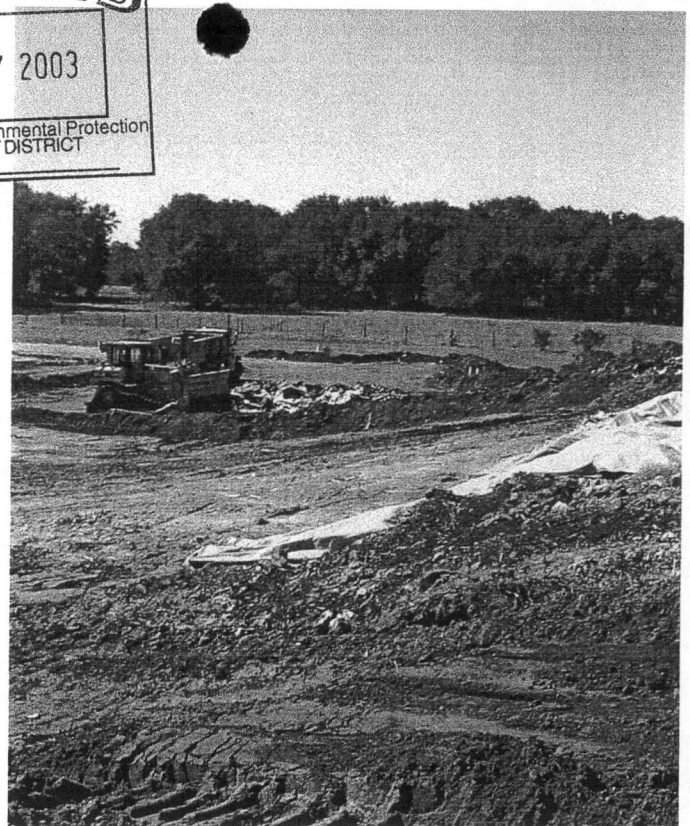
By: [Signature] Environmental Protection  
SOUTHWEST DISTRICT



RECEIVED

NOV 17 2003

Department of Environmental Protection  
SOUTHWEST DISTRICT  
BY





**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SOLID WASTE MANAGEMENT FACILITY  
INSPECTION CHECKLIST**

(CLI) 38414 M  
(MRF) 93309 I  
(WTPF) 188022 M  
KRF  
MSP  
11/10

Facility Name: Hardee County CLI Landfill, MRF, WTPF

WACS No. \_\_\_\_\_ GMS I.D. Number (if available): \_\_\_\_\_

Inspection Date: 11/5/03 Permit No.: 38414-002-SO, 126620-001-SO Expiration Date: 11/19/03, 7/1/05  
129318-002-WT

Facility Address: 685 Airport Road

City: Wauchula County: Hardee Zip: 33873

Permittee or Operating Authority: Hardee County Solid Waste Department

Telephone Number (Permittee or Operating Authority): (863) 773-5089

Inspection Participants (Include ALL Landfill and Department Employees Specifying Titles):

Principal Inspector: Danielle Sobczak, Lora Ross

Other Participants: Steve Strickland

**TYPE OF FACILITY (check all that apply):**

- |   |   |  |   |
|---|---|--|---|
| Landfill:<br><input checked="" type="checkbox"/> Class I<br><input type="checkbox"/> Class II<br><input type="checkbox"/> Class III | C&D Facility:<br><input type="checkbox"/> Disposal<br><input type="checkbox"/> Disposal w/Recycling<br><input type="checkbox"/> Land Clearing | Waste Processing Facility:<br><input type="checkbox"/> Transfer Station<br><input type="checkbox"/> C&D Recycling<br><input type="checkbox"/> Class III MRF<br><input checked="" type="checkbox"/> MSW MRF<br><input type="checkbox"/> Pulverizer/Shredder<br><input type="checkbox"/> Compactor/Baling<br><input checked="" type="checkbox"/> Other <u>WT</u> | Other Facilities:<br><input type="checkbox"/> Composting<br><input type="checkbox"/> WTE Facility<br><input type="checkbox"/> Incinerator/Trench Burner<br><input type="checkbox"/> Unauthorized Disposal<br><input type="checkbox"/> Other _____ |
|---|---|--|---|

**TYPE OF INSPECTION (check all that apply):**

- |  |  |                                      |
|--|--|--------------------------------------|
| <input type="checkbox"/> Construction Completion | <input type="checkbox"/> Complaint Investigation       | <input type="checkbox"/> Other _____ |
| <input checked="" type="checkbox"/> Operation    | <input checked="" type="checkbox"/> Routine Inspection |                                      |
| <input type="checkbox"/> Closure                 | <input type="checkbox"/> Reinspection                  |                                      |
| <input type="checkbox"/> Long-Term Care          | <input type="checkbox"/> Facility File Review          |                                      |

**REQUIREMENTS:**

THE REQUIREMENTS LISTED IN THIS INSPECTION CHECKLIST ARE BASED UPON RULES OF THE FLORIDA ADMINISTRATIVE CODE. A "NO" RESPONSE TO A REQUIREMENT (UNLESS OTHERWISE NOTED) REFLECTS A VIOLATION OF THE CORRESPONDING DEPARTMENT RULE(S). EACH VIOLATION IS DISCUSSED IN THE NARRATIVE SECTION OF THIS REPORT.

I. SOLID WASTE PROHIBITIONS (unless "grandfathered" in, see 62-701.300(16))		YES	NO	Unk	N/A
1.	Unauthorized disposal/storage prohibited in areas lacking geological support? 62-701.300(2)(a)				
2.	Unauthorized disposal/storage prohibited, except yard trash, within 500' of a potable water well? 62-701.300(2)(b)				
3.	Unauthorized disposal/storage prohibited in a dewatered pit unless pit is lined and has leachate controls? 62-701.300(2)(c)				
4.	Unauthorized disposal/storage prohibited in an area subject to frequent and periodic flooding unless flood protection measures in place? 62-701.300(2)(d)				
5.	Unauthorized disposal/storage prohibited in any natural or artificial body of water including ground water? 62-701.300(2)(e)				

II. CLASS I, II & III LANDFILLS (CONTINUED)		YES	NO	Unk	N/A
<b>B. OPERATION AND MAINTENANCE (CONTINUED)</b>					
13.	Is the training plan maintained and available on-site and is it being followed properly? 62-701.320(15)(a)	✓			
14.	Are training records maintained and available on-site at the facility? 62-701.320(15)(a)	✓			
15.	Approved operating plan and permit, operating and waste records maintained? 62-701.500(2), (3), (4), (8)(f), (8)(g), (13)	✓			
* 16.	Is the operation plan substantially complied with at all times and revised as needed? 62-701.500(2)	✓			
17.	Weighing or measuring of incoming waste? 62-701.500(4)(a)&(2)(d)	✓			
18.	Method and sequence of filling waste according to plans? 62-701.500(2)(f)			✓	
19.	Is access properly controlled to prevent unauthorized waste disposal? 62-701.500(5)	✓			
20.	Load checking program implemented? 62-701.500(6)	✓			
21.	Waste compaction as required? 62-701.500(7)(a)	✓			
22.	Working face and side grades above ground sloped no greater than 3 ft. horizontal to 1 ft. vertical rise? 62-701.500(7)(c)	✓			
23.	Is a narrow working face practiced? 62-701.500(7)(d)	✓			
24.	Are only permitted waste types disposed at facility? 62-701.340(3), 62-701.500(6)(a)&(2)(c)	✓			
25.	Is an adequate quantity of acceptable cover material available as stated in permit application? 62-701.330(3)(e)4, 62-701.530(1)(a)	✓			
26.	Frequency, amount and quality of initial cover, as required? 62-701.500(7)(e)	✓			
27.	Initial cover adequate to control birds, blowing wastes, disease vectors or fires? 62-701.500(7)(e)	✓			
* 28.	Frequency, amount and quality of intermediate cover, as required? 62-701.500(7)(f)	✓			
29.	Uncontrolled and unauthorized scavenging prohibited? 62-701.500(7)(h)	✓			
30.	Litter controlled and litter control devices maintained? 62-701.500(7)(i) and (11)(f)	✓			
DS* 31.	Adequate erosion control? 62-701.500(7)(j)	✓			
32.	Is leachate sampled and tested as required? 62-701.500(8)(a) & 62-510(6)(c)	✓			
33.	Leachate collection and removal system maintained and cleaned as required? 62-701.500(2)(j), 62-701.500(8)(b) & (h)	✓			
34.	Leachate disposed of or treated as required? 62-701.500(8)(b), (c) and (d)			✓	
35.	If leachate recirculation is practiced at the facility, is it done in accordance with Department requirements and the Operation Plan? 62-701.400(5)				✓
36.	Gas monitoring according to permit? 62-701.500(9) & 62-701.530(2)	✓			
37.	Gas controlled to not cause objectionable odors beyond the property boundary? 62-701.530(3)(b)	✓			
38.	Gas controlled to not allow combustible gas concentrations to exceed specified limits? 62-701.530(3)(a)			✓	
39.	Gas pressures not interfering with or causing failure of the liner or leachate control system? 62-701.530(1)(a)4.			✓	
40.	Gas vents intact and functioning properly? 62-701.500(9) & 62-701.530(1)(a)3.			✓	
41.	Mixing of leachate and stormwater prevented or minimized? 62-701.500(10) & 62-701.400(9)(c)		✓		
42.	Peak discharge stormwater run-on to unclosed portions of the landfill prevented as required? 62-701.500(10), 62-701.400(9)(b)	✓			
43.	Retention and/or detention ponds/ditches, culverts, berms maintained? 62-701.500(10)		✓		
44.	Sufficient operating equipment? 62-701.500(11)(a)	✓			
45.	Sufficient reserve equipment (or other arrangements)? 62-701.500(11)(b)			✓	
46.	Adequate communication facilities? 62-701.500(11)(c)	✓			
47.	Adequate approved dust control methods? 62-701.500(11)(d)	✓			
48.	Fire protection and fire fighting facilities adequate and operational? 62-701.500(11)(e)			✓	
49.	Required signs for operational directions and public information? 62-701.500(11)(g)	✓			
50.	Are all-weather access roads and inside perimeter roads properly maintained? 62-701.500(12)	✓			
51.	Ground water wells intact and functioning properly? 62-701.510(2)(b), 62-701.620(9)	✓		✓	
52.	Water quality sampling and testing according to standard procedures and at required frequencies? 62-701.510(2)			✓	
* 53.	Is there proper control, management or disposal of special wastes? 62-701.520	✓			
54.	Are all specific conditions in the permit being followed? 62-701.320(1)		✓		



I. SOLID WASTE PROHIBITIONS (CONTINUED)		YES	NO	Unk	N/A
6.	Unauthorized disposal/storage prohibited, except yard trash, within 200' of any natural or artificial body of water, including wetlands without permanent leachate controls, except impoundments or conveyances which are part of an on-site, permitted stormwater management system or on-site water bodies with no off-site discharge? 62-701.300(2)(f)				
7.	Unauthorized disposal/storage prohibited on the right of way of any public highway, road or alley? 62-701.300(2)(g)				
8.	Unauthorized disposal/storage prohibited, except yard trash, within 1000' of a potable water well serving a community water system? 62-701.300(2)(h)				
9.	Is open burning of solid waste prohibited except in accordance with Department requirements? 62-701.300(3)				
10.	Is hazardous waste disposal prohibited? 62-701.300(4)				
11.	Is PCB disposal prohibited except in accordance with Department requirements? 62-701.300(5)				
12.	Unless specifically authorized, is the known disposal of untreated biomedical waste prohibited? 62-701.300(6)				
13.	Is lead-acid battery disposal prohibited? 62-701.300(8)(a)				
14.	Is yard trash disposal prohibited in lined landfills? 62-701.300(8)(c)				
15.	Is the disposal of white goods prohibited? 62-701.300(8)(d)				
16.	Is whole waste tire disposal prohibited except in accordance with Department requirements? 62-701.300(8)(e)				
17.	Is the known disposal of lead-acid batteries, mercury-containing devices, or spent mercury-containing lamps in waste-to-energy facilities prohibited? 62-701.300(9)				
18.	Is the facility in compliance with the liquid restrictions on disposal? 62-701.300(10)				
19.	Is the disposal of used oil or used oil mixed with wastes prohibited in landfills with the exception of: (1) oily wastes, sorbents or other materials used for maintenance or to clean up spills, leaks or accidental releases of used oil; and (2) soils contaminated with used oil from spills and accidental releases? 62-701.300(11) and 62-701.300(8)(b)				
20.	Is the unauthorized storage/disposal of yard trash prohibited within the minimum setbacks for potable water wells (except on-site), water bodies and community water supply wells? 62-701.300(12)				
21.	Is the storage of solid waste in an approved tank prohibited within 500 feet of any existing community water supply well or within 100 of any other existing potable water supply well? 62-701.300(13)				
22.	Is the facility exempted from the prohibitions because of indoor storage in an area with an impervious surface and leachate collection system? 62-701.300(14)				
23.	Is the facility exempted from the prohibitions because of storage in a vehicle that is enclosed or covered and the vehicle has been unloaded or moved over public highways within the previous seven days? 62-701.300(15)				

II. CLASS I, II & III LANDFILLS		YES	NO	Unk	N/A
<b>A. CONSTRUCTION VERIFICATION</b>					
1.	Subgrade or foundation adequately prepared? 62-701.400(3)(a)2				
2.	Liner construction/installation according to plans? 62-701.400(3)				
3.	Leachate collection and removal system installed according to plans? 62-701.400(4)				
4.	Disposal units constructed at planned intervals? 62-701.400(2)				
5.	Gas management system installed according to plans (if currently required)? 62-701.530(3) & (4)				
6.	Soil monitoring probes (for monitoring combustible gases) installed along property boundaries as needed? 62-701.530(2)(b)				
7.	Surface water management system construction according to plans? 62-701.400(9)				
8.	Ground water monitoring system constructed according to approved plan? 62-701.510(2)				
9.	Leachate storage constructed according to plans? 62-701.400(6)				
10.	Liner quality assurance plan followed? 62-701.400(7)				
<b>B. OPERATION AND MAINTENANCE</b>					
11.	Trained operator on-site at Class I and III landfills during operation? 62-701.500(1)	✓			
12.	At least one spotter at each working face during operation at Class I and III? 62-701.500(1)	✓			

II. CLASS I, II & III LANDFILLS (CONTINUED)		YES	NO	Unk	N/A
<b>C. CLOSURE</b>					
55.	Final cover installation according to approved design plans and does the present condition and function appear adequate? 62-701.600(5)(f)(2)				
56.	Gas pressures not interfering with or causing failure of the final cover? 62-701.530(1)(a)4.				
57.	Facility meets closure requirements prohibiting unauthorized dumping? 62-701.600(5)(l)				
58.	All actions for closure completed satisfactorily according to approved closure operation plan? 62-701.600(6)				
59.	Have a final survey or an as-built report with all survey monuments and other permanent markers for waste filled areas been received ? 62-701.610(2) & (3)				
60.	Authorized use of closed landfill and integrity of environmental protection measures maintained? 62-701.610(7)				
61.	If waste is being relocated, is this performed according to the Department's requirements? 62-701.620(8)				
62.	Long term care performed adequately? 62-701.620				
63.	Financial assurance adequate? 62-701.630			✓	
64.	Are cost estimates current and adjusted every year? 62-701.630(4)			✓	

III. WASTE PROCESSING FACILITIES		YES	NO	Unk	N/A
<b>A. OPERATION AND MAINTENANCE</b>					
1.	Do the tipping, processing, sorting, storage and compaction areas that are in an enclosed building or covered area have ventilation systems? 62-701.710(3)(a)	✓			
2.	Are areas of the facility that are not enclosed equipped with litter control devices and visual screening? 62-701.710(3)(a)	✓			
3.	Except for C&D Recyclers, is the facility designed with a leachate control system to prevent discharge of leachate and mixing of leachate with stormwater, and to minimize the presence of standing water? 62-701.710(3)(b)	✓			
4.	If the facility is a C&D Recycler, is it designed with a leachate control system to prevent discharge of leachate and mixing of leachate with stormwater, and to minimize the presence of standing water or are all areas where waste is stored or processed covered by an approved ground water monitoring program? 62-701.710(10)(b)				✓
5.	Is an Operation and Maintenance Manual available at the facility and is it being followed? 62-701.710(4)(a)1.	✓			
6.	Are there procedures available at the facility to handle unauthorized wastes? 62-701.710(4)(a)2.	✓			
7.	Is a Contingency Plan available at the facility which addresses operational interruptions and emergencies such as fires, explosions or natural disasters? 62-701.710(4)(a)3.	✓			
8.	Are putrescible wastes not allowed to be stored unprocessed longer than 48 hours or longer than seven days if adequate vector and odor controls are provided? 62-701.710(4)(b)	✓			
9.	Are areas where waste is stored or processed cleaned at least weekly to prevent odor and vector problems? 62-701.710(4)(b)	✓			
10.	Are all drains and leachate conveyances kept clean so that leachate flow is not impeded? 62-701.710(4)(b)	✓			
11.	Are the operating hours posted at the facility? 62-701.710(4)(c)1.	✓			
12.	Is a trained operator on duty whenever the facility is operating? 62-701.710(4)(c)1.	✓			
13.	Is at least one trained spotter on duty at all times that waste is received at the facility to inspect the incoming waste? 62-701.710(4)(c)2.	✓			
14.	Are prohibited materials removed from the waste stream and placed into appropriate containers for disposal at a permitted facility? 62-701.710(4)(c)2.	✓			
15.	Is the facility operated to control objectionable odors? 62-701.710(4)(d)	✓			
16.	Is adequate fire protection equipment available at all times? 62-701.710(4)(e)			✓	
17.	Is access to the facility controlled by fencing or other effective barriers to prevent disposal of unauthorized waste? 62-701.710(4)(f)	✓			
18.	Except for Transfer Stations, is financial assurance for the facility adequate? 62-701.710(7)(a)			✓	
19.	Except for Transfer Stations, are cost estimates current and adjusted as required? 62-701.710(7)(b)			✓	

III. WASTE PROCESSING FACILITIES (CONTINUED)				
A. OPERATION AND MAINTENANCE (CONTINUED)				
	YES	NO	Unk	N/A
20. If the facility is a Transfer Station, is it exempt from providing financial assurance because it accepts primarily household waste, commercial waste or recovered materials and manages the waste on a first-in, first-out basis and stores waste for no greater than 7 days? 62-701.710(10)(a)				✓
21. Is stormwater controlled in accordance with Department requirements? 62-701.710(8)	✓			
22. Are adequate operational records available at the facility and maintained for at least three years? 62-701.710(9)(a)	OS		✓	
23. If the facility is a C&D Recycler, is an Annual Report for the recycling operation submitted to the Department by April 1 of each year? 62-701.710(9)(b)				✓
24. Are all specific conditions in the permit being followed? 62-701.320(1)	✓			
B. CLOSURE				
25. Are all wastes removed or disposed of in accordance with the approved Closure Plan within 30 days of receiving the final solid waste shipment? 62-701.710(6)(c)				
26. Are stored putrescible wastes managed in accordance with Rule 62-701.710(4)(b)? 62-701.710(6)(c)				
27. Has closure been completed within 180 days after receiving the final solid waste shipment? 62-701.710(6)(d)				

IV. C&D DEBRIS FACILITIES				
A. DISPOSAL				
	YES	NO	Unk	N/A
1. Is the facility only disposing of C&D wastes and are prohibited wastes properly managed? 62-701.730(4)(c), (6) & (7)(d)				
2. Ground water wells intact and functioning properly? 62-701.510(2)(b), 62-701.730(4)(b)				
3. Water quality sampling and testing according to standard procedures and at required frequency? 62-701.730(4)(b) & (10)				
4. Is stormwater controlled in accordance with Department requirements? 62-701.730(5)				
5. Are wastes compacted and sloped as necessary for later closure? 62-701.730(7)(b)				
6. Is access to the facility properly controlled? 62-701.730(7)(c)				
7. Is a trained operator on duty at the facility at all times the facility is operating and are there a sufficient number of spotters on duty at the working face to inspect the incoming wastes at all times waste is being accepted? 62-701.730(7)(d)				
8. Are objectionable odors controlled in accordance with Department requirements? 62-701.730(7)(e)				
9. Are fuels, solvents, lubricants, etc. safely stored in areas separate from disposal or sorting areas? 62-701.730(7)(f)				
10. Are plastic buckets empty before disposal? 62-701.710(7)(g)				
11. Are the spotters or operators properly trained? 62-701.730(8)				
12. Are areas of the facility requiring final cover properly closed? 62-701.730(9)				
13. Is financial assurance adequate? 62-701.730(11)(a)				
14. Are cost estimates current and adjusted as required? 62-701.730(11)(b)				
15. Are Annual Reports submitted to the Department for the disposal operation by April 1? 62-701.730(12)				
16. If an air curtain incinerator is also used at the facility, is it properly operated? 62-701.730(14)				
17. Is the facility operated so that adverse environmental and public health impacts, such as blowing litter and vectors, are minimized? 62-701.730(18)				
18. Are asbestos-containing waste materials regulated pursuant to 40 CFR Part 61, Subpart M, prohibited from disposal at the facility? 62-701.730(19)				
19. Are all specific conditions in the permit for the disposal operation being followed? 62-701.320(1)				

V. OTHER SOLID WASTE FACILITIES		YES	NO	Unk	N/A
1.	WTE facility in compliance with all permit conditions and applicable requirements? 62-701.320(1)				
2.	Compost facility in compliance with all permit conditions and applicable requirements? 62-701.320(1)				

VI. NARRATIVE

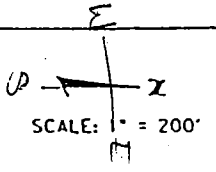
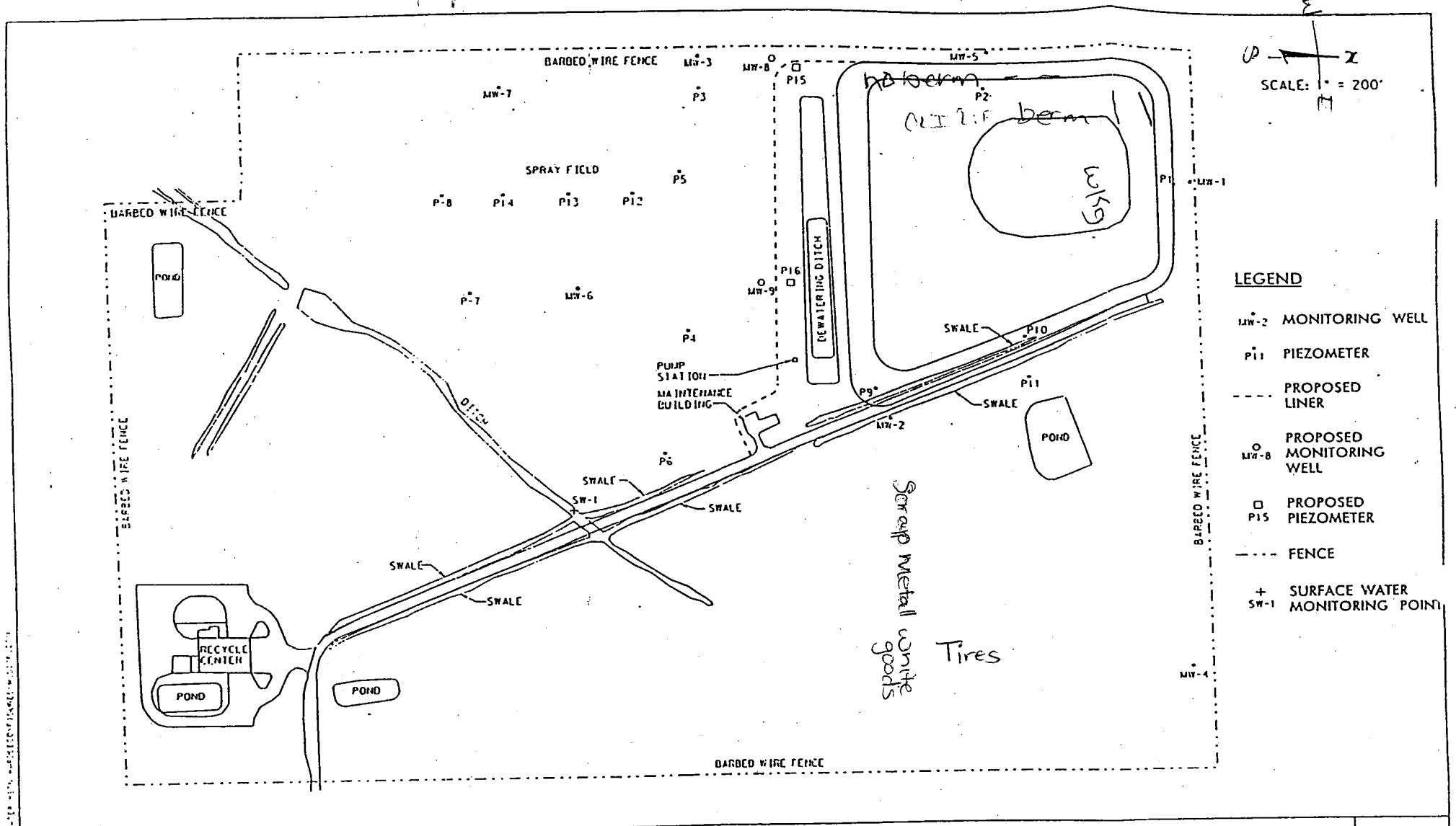
Explanation for all "NO" responses and other comments (continue on separate sheet if necessary)

- \* II.B.16 Department personnel observed oil leaking from <sup>what appeared to be</sup> an engine in the scrap metal pile (OPS plan 7.0.7) (Specific Cond. 16e)
- \* II.B.28. Department personnel observed flagging in the intermediate cover on the S.E. side of CLI area (Specific Condition 14a)
- II.B.41 & 43 Berms are located around the <sup>active</sup> bale working face. However, bales already disposed of are exposed and outside of the berm. In addition, no berm is in place around the loose waste working face. (Specific Condition 15b)
- \* II.B.53 Please refer to II.B.16 above. In addition, a drum containing an oil substance was observed uncovered behind the MRF building. Department personnel also requested the tires stored on the shell pad be moved in so that they are not stored in vegetation.
- II.B.54 Please refer to the above comments. Additionally, the ~~at~~ location of the access/perimeter road around the yard trash area could not be observed by Department personnel as a result of overgrown vegetation. (Specific Condition 14c)

Signed: Danielle Steyer 11/5/03  
DEP Representative Date

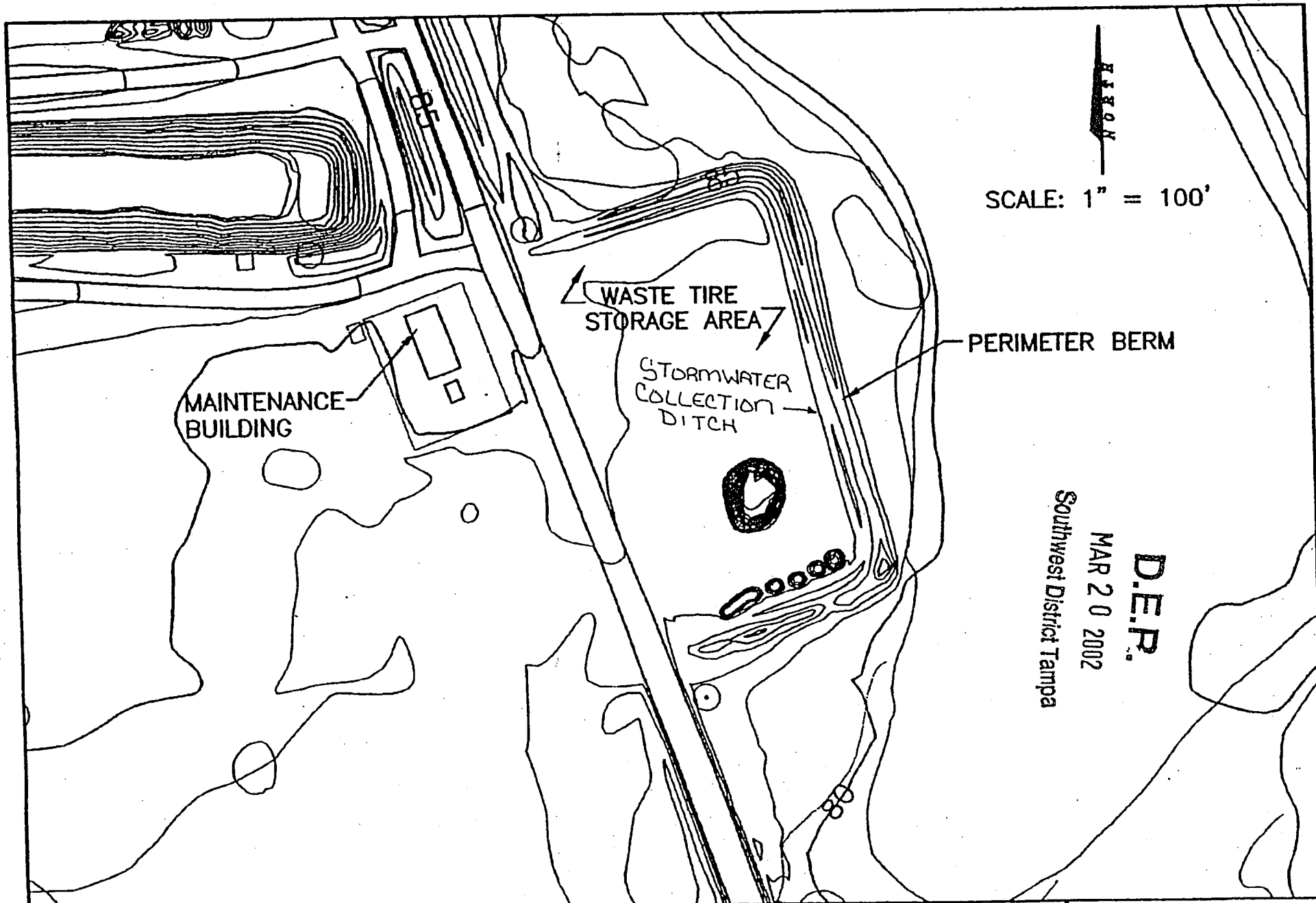
Received: Joni Williams 11/5/03  
Site Representative Date

PLEASE RESPOND TO THE ABOVE DEFICIENCIES IN WRITING TO THE DEPARTMENT WITHIN 10 DAYS STATING CORRECTIVE ACTIONS.

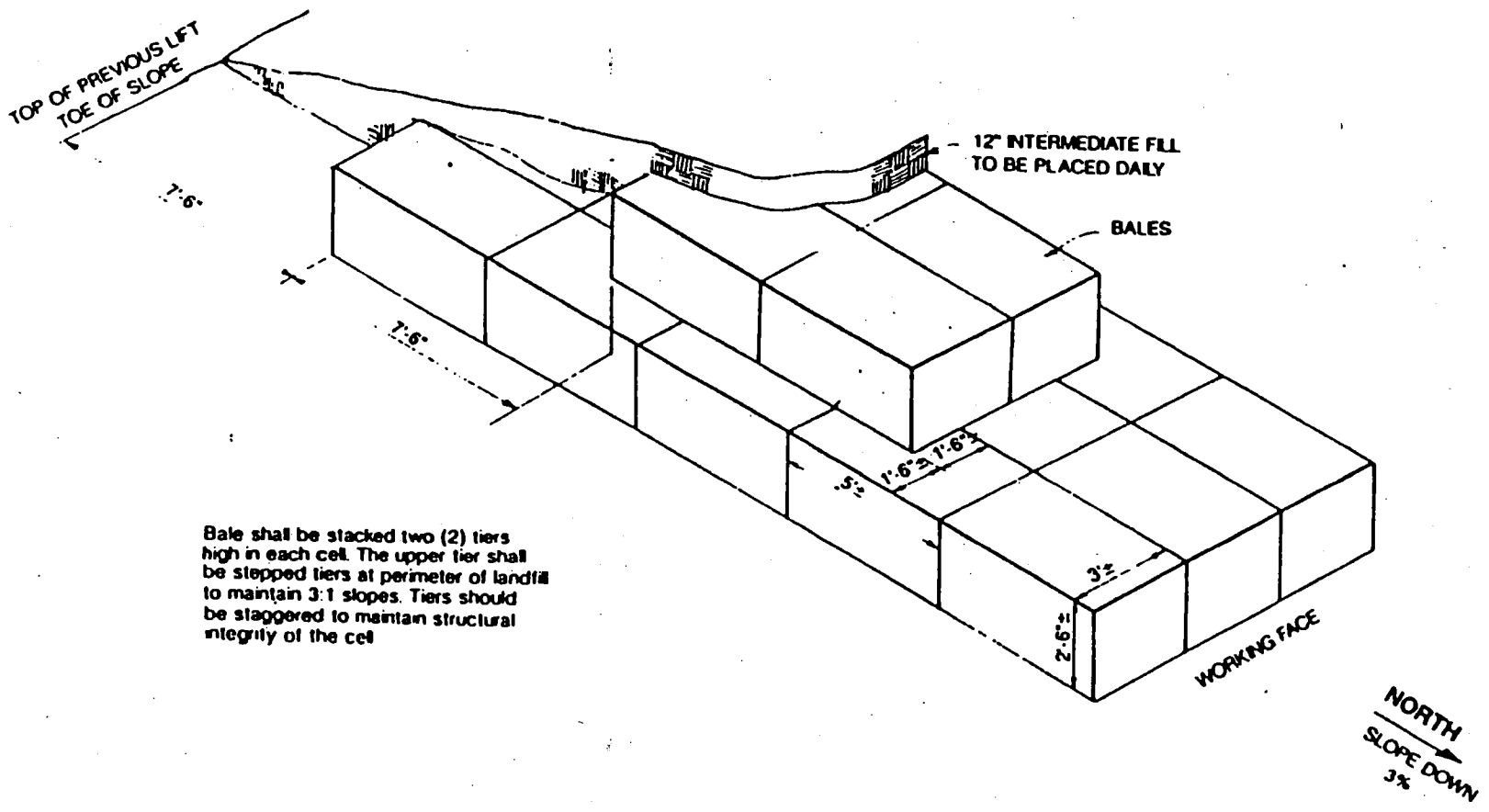


- LEGEND**
- MW-2 MONITORING WELL
  - P-1 PIEZOMETER
  - PROPOSED LINER
  - MW-8 PROPOSED MONITORING WELL
  - P-5 PROPOSED PIEZOMETER
  - FENCE
  - + SW-1 SURFACE WATER MONITORING POINT

HARDEE COUNTY SOLID WASTE MANAGEMENT FACILITY  
SITE PLAN

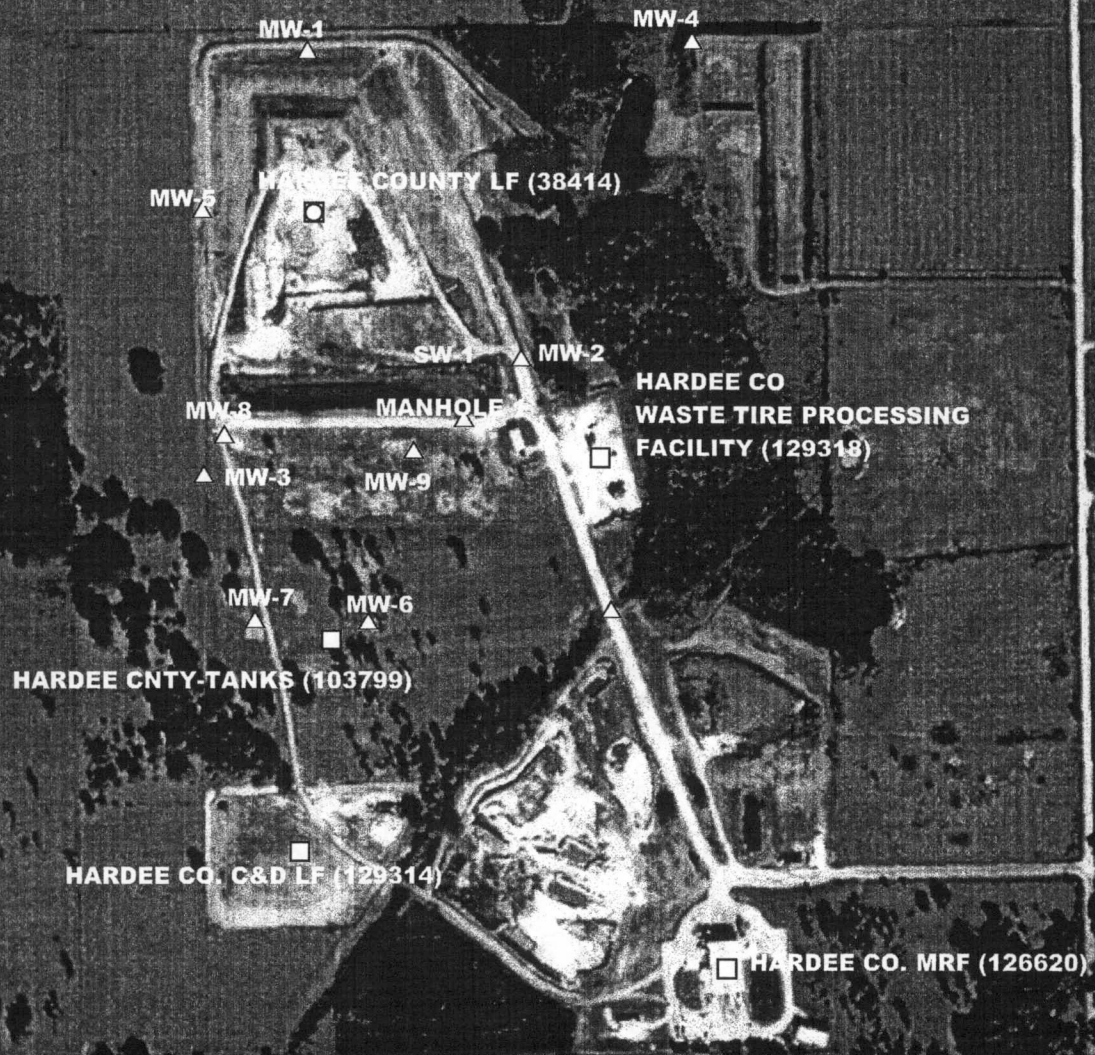


605



Bale shall be stacked two (2) tiers high in each cell. The upper tier shall be stepped tiers at perimeter of landfill to maintain 3:1 slopes. Tiers should be staggered to maintain structural integrity of the cell

# HARDEE COUNTY MONITORING LOCATIONS



- ▲ WACS Test Sites
- WACS Facilities
- COMET Facilities (site no.)

Field Verified 11/13/02

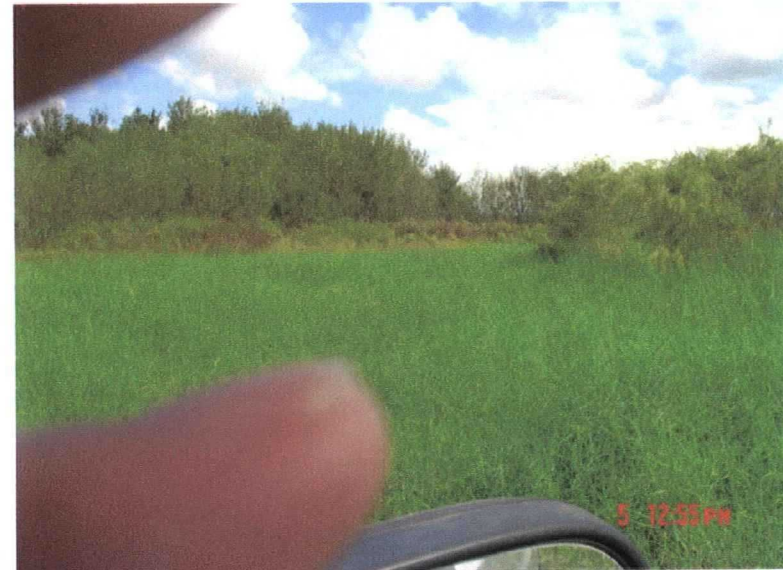
Map Created 7/7/03







1. Yard trash pile



3. Overgrown perimeter road around yard trash pile



2. Yard trash pile



4. Scrap metal pile



5. Oil leaking from engine in scrap metal pile



7. Tire pile over grown with vegetation



6. Scrap metal pile



8. General view of tire pile



9. General view of white goods



11. Flagging in intermediate cover



10. General view of white goods



12. General view of baled CLI working face



13. Berm adjacent to working face



15. Berm adjacent to working face



14. View looking below berm



16. View from west side of working face looking up



17. View from west side of working face looking up



19. Loose waste working face/no berm



18. View from west side of working face looking up



20. Loose waste working face/no berm



21. View from north side of working face looking up



23. Electronics pulled from waste



22. General view of MRF



24. Battery storage area



25. Open drum containing oil substance west side of MRF



27. Electronics waiting to be loaded into trailer located on west side of MRF



26. Drums stored on west side of MRF



28. Outside of used oil storage area located in household hazardous waste drop off area



29. General view of used oil storage area



30. Batteries stored in household hazardous waste drop off area





31. Leachate drain inside of MRF



33. Leachate tank

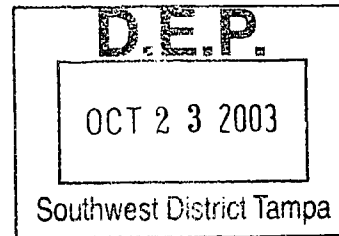


32. Leachate drain inside of MRF

**SCS ENGINEERS**

October 22, 2003  
File No. 09199033.08

Mr. Kim B. Ford, P.E.  
Solid Waste Engineer  
Southwest District  
Florida Department of Environmental Protection  
3804 Coconut Palm Drive  
Tampa, Florida 33619



Subject: Response to Comments for the Hardee County Landfill  
Renewal of Operations Permit No. 38414-002-SO  
Hardee County, Florida

Dear Mr. Ford,

On behalf of Hardee County, SCS Engineers (SCS) submitted responses to the Florida Department of Environmental Protection (FDEP) letter dated June 18, 2003 regarding comments concerning the Operations Permit Renewal application for the Hardee County Landfill located in Hardee County, Florida. Following a meeting with you on October 17, 2003, SCS will be modifying some of the information originally included in our response letter dated September 30, 2003. Therefore on behalf of Hardee County, the County is waiving the requirement for FDEP to provide comments within the 30 day time period. It is both the County's and SCS's understanding that the FDEP 30-day time clock will be restarted upon submittal of the modified information to FDEP.

Please call with any questions.

Very truly yours,

A handwritten signature in black ink, appearing to read "Joe O'Neill".

Joseph H. O'Neill, P.E.  
Project Manager

A handwritten signature in black ink, appearing to read "Raymond J. Dever".

Raymond J. Dever, P.E., DEE  
Vice President  
SCS ENGINEERS

cc. Janice Williamson, Hardee County

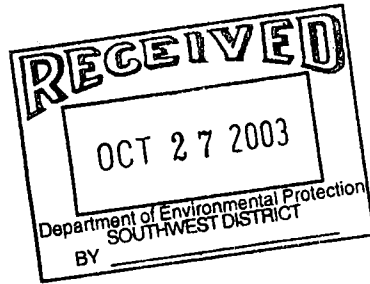




**Hardee County**  
**Solid Waste Department**

685 Airp. Road  
Wauchula, FL 33873  
Phone: 863-773-5089  
Fax: 863-773-3907  
E-mail: janice.williamson@hardeecounty.net

October 22, 2003



SCS Engineers  
Raymond J. Dever, P.E., DEE  
Joseph H. O'Neill, P.E.  
3012 U.S. Highway 301 North  
Suite 700  
Tampa, FL 33619

Subject: Response to Comments for the Hardee County Solid Waste Facility  
Renewal of Operations Permit No. 38414-002-SO  
Letter to FDEP from SCS Engineers dated 10/22/03

Dear Gentlemen:

Hardee County wished to extend their willingness to cooperate in a joint effort with both your firm and the FDEP and hereby grants approval for SCS to submit the above referenced letter to the FDEP on the county's behalf. We hope that through these efforts we can afford all parties the opportunity to simplify and expedite this particular permit process.

Sincerely,

Janice Williamson  
Solid Waste Director

Cc: Kim B. Ford, P.E., FDEP

Superior Client Service :

SCS ENGINEERS  
3012 U. S. Highway 301 N., Suite 700  
Tampa, FL 33619  
(813) 621-0080  
Fax (813) 623-6757

**SCS ENGINEERS**

# facsimile transmittal

To:	<u>Kim Ford</u>	Phone:	_____
Company:	<u>FREP</u>	Fax:	<u>744.6125</u>
From:	<u>Joe O'Neill</u>	Date:	<u>10/22/03</u>
Re:	_____	Pages:	<u>2 total</u>
cc:	<u>Janice Williamson</u> <u>(813) 713.3907</u>	Project No.:	<u>09199033.08</u>

- Urgent   
  For Review   
  Please Comment   
  Please Reply   
  Please Recycle

Notes:

Environmental Consultants

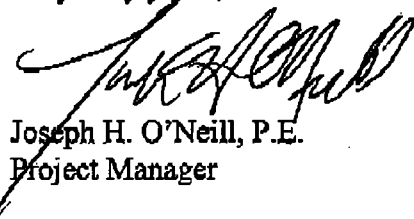
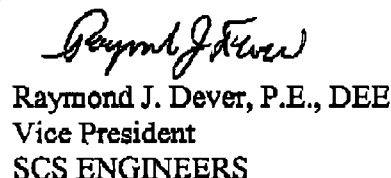
3012 U.S. Highway 301 North  
Suite 700  
Tampa, FL 33619-2242813 621-0080  
FAX 813 623-6757**SCS ENGINEERS**October 22, 2003  
File No. 09199033.08Mr. Kim B. Ford, P.E.  
Solid Waste Engineer  
Southwest District  
Florida Department of Environmental Protection  
3804 Coconut Palm Drive  
Tampa, Florida 33619Subject: Response to Comments for the Hardee County Landfill  
Renewal of Operations Permit No. 38414-002-SO  
Hardee County, Florida

Dear Mr. Ford,

On behalf of Hardee County, SCS Engineers (SCS) submitted responses to the Florida Department of Environmental Protection (FDEP) letter dated June 18, 2003 regarding comments concerning the Operations Permit Renewal application for the Hardee County Landfill located in Hardee County, Florida. Following a meeting with you on October 17, 2003, SCS will be modifying some of the information originally included in our response letter dated September 30, 2003. Therefore on behalf of Hardee County, the County is waiving the requirement for FDEP to provide comments within the 30 day time period. It is both the County's and SCS's understanding that the FDEP 30-day time clock will be restarted upon submittal of the modified information to FDEP.

Please call with any questions.

Very truly yours,

Joseph H. O'Neill, P.E.  
Project Manager  
Raymond J. Dever, P.E., DEE  
Vice President  
SCS ENGINEERS

cc. Janice Williamson, Hardee County

**Ford, Kim**

---

**From:** Ford, Kim  
**Sent:** Wednesday, October 22, 2003 10:02 AM  
**To:** Pelz, Susan  
**Subject:** conversation with Joe Oneil about Hardee LF LCRS

On October 22, 2003, I spoke with J.O. about the following :

- 1) J.O. asked if DEP has any question about the adequacy of the LCRS for renewal other than the proposed repair to the pipe between MH6-MH7.
- 2) I explained that the repair between MH6-MH7 needs to be made and then the section videoed.
- 3) I said MH2-MH3 is also a question because Jetclean report indicates a separation, so the section between MH2-MH3 should be revideoed and repaired if separated.
- 3) I asked that all videotaping should be observed by a PE and the inspection report certified by the PE with the Jetclean report as part of the PE certified inspection report. Also, all inspection reports should explain the significance of "submerged" pipes.
- 4) J.O. said that the repair cannot be made within 90 days so can it be done as a permit condition. I said that we need a reason why for the delay and a schedule for all the related work (bidding, field work, videotaping, PE certification and inspection report).
- 5) We discussed expansion. J.O. explained that a new line would be constructed between MH6-MH8 for additional pipe strength if the County applies for a vertical expansion. I explained that when that happens, DEP will expect calculations for supporting the existing LCRS pipe strength from MH6 to the north and prove that the old line can be videotaped from the north all the way to MH6.

Kim



Jeb Bush  
Governor

# Department of Environmental Protection

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

David B. Struhs  
Secretary

Ms. Janice Williamson, Superintendent  
Hardee County Solid Waste Department  
685 Airport Road  
Wauchula, Florida 33873

October 21, 2003

RE: Hardee County Class I Landfill Financial Assurance Cost Estimates  
Pending Permit No.: 38414-007-SF, Hardee County

Dear Ms. Williamson:

This letter is to acknowledge receipt of the revised cost estimates dated September 30, 2003 (received September 30, 2003), prepared by SCS Engineers. The cost estimates received September 30, 2003 are not approved. The following information is needed to fully evaluate the estimates submitted:

## Closing Costs

### **Professional Services**

In response to the Department's comments on this section, the third-party quote from SCS Engineers was modified to increase the anticipated time required for closure from 2 months to 6 months. However, no corresponding increases in the professional services hours or costs were proposed. Please explain this apparent inconsistency and provide specific information and calculations of the actual time required to complete a similar landfill closure project and the professional services hours spent on that project in support of this assumption. Please revise the cost estimates in this section, as appropriate.

## Long-term Care Costs

### **Leachate Collection/Treatment System Maintenance - Disposal**

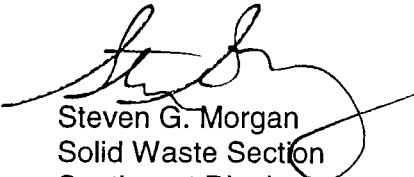
The hauling and disposal costs provided for leachate disposal in this section are significantly lower than typical leachate hauling and disposal costs at similar facilities in the Southwest District. Please provide a copy of the pertinent sections of the County's leachate disposal agreement with the City of Wauchula that document the costs for leachate disposal provided in this section and documentation from the City of Wauchula that these costs are consistent with those available for third-party disposal of leachate from the County landfill. Alternatively, please provide a third-party quote for leachate disposal. Please provide a third-party quote that supports the hauling costs provided in this section.

Ms. Janice Williamson, Superintendent  
Hardee County Solid Waste Department

Page 2 of 2

The Department requests that **two copies** of all information be provided to the Solid Waste Section, FDEP, and Tampa office within thirty (30) days of this notice. In order to expedite the review of this information, please forward all responses related financial assurance cost estimates directly to the undersigned. If you have any questions or concerns, please contact me at (813) 744-6100 ext. 385.

Sincerely,



Steven G. Morgan  
Solid Waste Section  
Southwest District

sgm

cc: Raymond J. Devers, P.E., DEE, Vice President, SCS Engineers, 3012 U.S. Highway 301 North, Suite 700,  
Tampa, Florida 33619-2242  
Fred Wick, FDEP, Tallahassee, w/attachment  
Kim Ford, P.E., FDEP Tampa  
Susan Pelz, P.E., FDEP Tampa



Superior Client Service

SCS ENGINEERS  
3012 U. S. Highway 301 N., Suite 700  
Tampa, FL 33619  
(813) 621-0080  
Fax (813) 623-6757

SCS ENGINEERS

facsimile transmittal

To:	<u>Kim Ford</u>	Phone:	<u>744 6100</u>
Company:	<u>FDEP</u>	Fax:	<u>744-6125</u>
From:	<u>Joseph Orvell</u>	Date:	<u>OCT 21 2003</u>
Re:		Pages:	<u>1</u>
cc:		Project No.	

- Urgent
- For Review
- Please Comment
- Please Reply
- Please Recycle

Notes: Kim, RE: *Hardee County Landfill Operations Permit Renewal*

ITEM No. 7) Adding a LCRS From MH6 to MH8.

I spoke with Janice Williamson at length regarding this, and she asked if this item could be placed in the construction permit. My comment was FDEP was concerned about ~~adequacy~~ <sup>adequacy</sup> of the collection system.

If the County fixes damage from MH6 to MH7 and agrees that if waste were to be placed over the LCRS from MH7 to MH8 then a secondary line (one from MH6 to MH8) would then be required.   
 - This will meet the Department's comments on "adequacy"!

FOR HARDER  
DISCUSS WITH JOE DRAED  
on 10/17/03

FAV



( START Clock AGAIN on 10/31 FRIDAY

with

- 1) OPS PLAN
- 2) DRAWINGS

DRAWING  
TUES 10/28  
FRI on 10/31

AND

3) → Tank Insps Done  
(Repair SCHEDULE  
to complete all  
within 30 days)

4) → Wet CUTOFF EXCEPT FIRE CONTROL  
Commitment 3) SCHEDULE  
(to complete  
within 35 days)

5) → White Goods & E-WASTE AREA LAYOUT  
AND REQUEST to RELOCATE  
within 30 days

6) → LCRS Repair proposal with  
A SCHEDULE  
(to complete within 90 days)  
Repair at 6-7

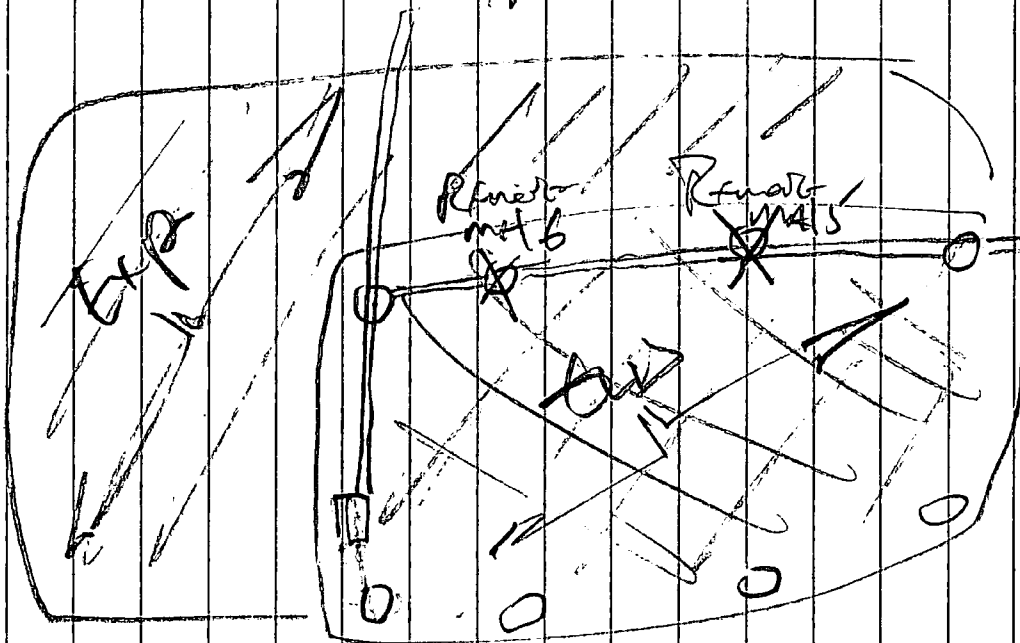
7) → (AND to  
GET Commitment for  
new LCRS LINTALS to B IN EXPANSION)  
AND VIDEO ENTIRE  
WET LINE AREA  
MONTH

# HARDIE

NEW  
12" HDPE

NEW  
12"

NEW  
10" HDPE



10/17/03  
dru

From  
HARRIS & C. L. C.

## Florida Contacts for Television, Computer and Electronics Demanufacturing and Recycling

(Page 1 of 2)

Solely as a service to the public and Florida businesses, the Florida Department of Environmental Protection (DEP) maintains the following list of companies that demanufacture and recycle televisions, computers and other electronic equipment. The information was voluntarily supplied by the services and is not necessarily a complete list of available services and a company's absence from the list does not imply prejudice or impropriety. The DEP does not endorse specific equipment or companies. The DEP, by providing this list, does not imply that the companies are in compliance with applicable laws. Users of this list are responsible for ensuring that products, equipment, or services comply with the requirements of local, state, and federal law. The DEP cautions users to personally evaluate the services and compliance status of any company they use. This list is updated periodically and subject to change without notice. The DEP welcomes information from companies who wish to have their products or services listed.

### **Creative Recycling Systems, Inc.**

Jon Yob  
P.O. Box 19120  
Brandon, FL 33686-9120  
(813) 621-2319  
1-800-797-2061  
FAX (813) 626-1248  
Email: [jayob@idca.com](mailto:jayob@idca.com)  
Homepage: [www.crserecycling.com](http://www.crserecycling.com)

### **Jack's Recycling and Salvage Co.**

Jack Jones  
1229 Clark Street  
Jacksonville, FL 32206  
(904) 355-7900  
FAX (904) 355-7737  
Email: [jscrap@bellsouth.net](mailto:jscrap@bellsouth.net)  
Homepage: [www.scrapcomputers.com](http://www.scrapcomputers.com)

### **E-Scrap, Inc.**

George J. Fery  
2901 N.W. 34 Street  
Miami, FL 33142  
(305) 636-1911  
1-800-451-2204  
FAX : (305) 636-1874  
Email : [sales@escrapusa.com](mailto:sales@escrapusa.com)  
Homepage : [www.escrapusa.com](http://www.escrapusa.com)

### **Quicksilver Recycling Services**

Mark Cardamone  
8503B Sunstate Street  
Tampa, FL 33634-1311  
(813) 886-1494  
1-877-937-3873  
FAX: 813-886-6252  
Email: [QSRcycling@aol.com](mailto:QSRcycling@aol.com)  
Homepage: [www.quicksilverrecycling.com](http://www.quicksilverrecycling.com)

### **Global Investment Recovery, Inc.**

David Ritter  
5409 E. Henry Avenue  
Tampa, FL 33610  
(813) 620-1507  
1-800-886-8086  
FAX (813) 664-0180  
Email: [GIR1REC@aol.com](mailto:GIR1REC@aol.com)  
Homepage: <http://www.girlrec.com/>

### **RecycledPCparts.com, Inc.**

James Wood  
4159 NW 135 Street.  
Miami, FL 33054  
(305) 688-7727  
FAX (305) 953-9378  
Email: [james@recycledPCparts.com](mailto:james@recycledPCparts.com)  
Homepage: [www.recycledpcparts.com](http://www.recycledpcparts.com)

... More contacts on page 2

**Florida Contacts for Television, Computer and Electronics  
Demanufacturing and Recycling**  
(Page 2 of 2)

**Republic Metals**

Marvin Luterman  
12900 NW 38 Avenue  
Miami, FL  
(305) 685-8505  
FAX (305) 685-8506  
Homepage:  
<http://www.republicmetalscorp.com>

**Secure Environmental Electronic Recycling  
(SEER)**

Ben Ashby  
6902 7th Ave., East  
Tampa, FL 33619  
(813) 621-8870  
1-888-600-7337  
FAX (813) 621-5457  
Email: [BAshby@seerrecycling.com](mailto:BAshby@seerrecycling.com)

**Unicor (Federal Prison Industries, Inc.)**

James Bailey or Joe McNeal  
3529 Russell Rd.  
Marianna, FL 32446  
(850) 482-2112 or (850) 482-5541  
FAX (850) 482-2257  
Email: [jlbailey@central.unicor.gov](mailto:jlbailey@central.unicor.gov)  
or [jmcneal@central.unicor.gov](mailto:jmcneal@central.unicor.gov)

Revised 11/25/02

Florida Department of  
**Environmental Protection**

**Memorandum**

TO: Kirby Green, Deputy Secretary  
District Directors

FROM: John M. Ruddell, Director *JMR*  
Division of Waste Management

DATE: October 28, 1999

SUBJECT: Strategy Paper for the Management of End of Life Cathode Ray Tubes,  
Computers, and Other Electronic Equipment

Cathode Ray Tubes (CRTs), found in all computer monitors and TVs, can be classified as a hazardous waste due to the amount of lead contained in the glass of the CRT which leaches out when subjected to the TCLP test. The EPA spent a lot of time and money looking at the various issues surrounding CRTs and the whole electronics industry under its Common Sense Initiative. To date, the EPA has not come out with any definitive guidance on the management of end of life electronic equipment containing a CRT.

Florida is one of just a few states (Mass. and Minn.) that have taken an active roll in studying the problem and attempting to come up with a reasonable management scheme that gets these materials out of the waste stream and into a recycling management system that is not overly burdensome on the generators. Legislation was also passed last session (Senate Bill 1434, attached) that directed the department to address the issue of used computers and other equipment containing a CRT. We are to work with Florida-based companies on innovative technologies to recycle these materials and to work with the Department of Management Services and other state and local governments in developing contracts and pilot programs for the collection, storage, transportation and recycling of used electronic equipment.

The attached "strategy paper" was developed and presented to Secretary Struhs last month. When Secretary Struhs was the environmental commissioner of Massachusetts he took a personal interest in this issue so it was important that he "sign off" on our direction. It was explained that the goal Mass. wanted to achieve--getting CRTs out of the SW stream, build up the private recycling infrastructure, assist local governments with collection, storage and transportation programs--was the same goal as Florida and that the methods used were similar, except for the hazardous waste classification. We would call "disposed of" CRTs a hazardous waste. (Mass. passed a rule that banned CRTs from SW landfills and incinerators and declared them RCRA non-hazardous.)

Memorandum  
October 28, 1999  
Page Two

Any computer monitor or TV can be repaired, and the person best suited to make that determination is the "CRT Specialist." Up until the point where the CRT Specialist determines that it is not worth fixing the CRT all the CRT-containing equipment are still considered products. The issue then became a "point of generation" concern. If the "CRT Specialist" (recycler or demanufacturer) decided to "throw the CRTs away" that was disposal and then the CRTs were hazardous waste and had to be managed as such. However, the CRT Specialist could use RCRA exemptions if the old CRTs were recycled into making new CRTs, or used as a feedstock for lead smelters, or resold as working CRTs (in monitors or TVs) as a product.

The attached strategy paper contains several projects that are in various stages of "getting started" and many are the result of the passage of senate bill 1434. Figure 2 at the end of the strategy paper is significant to graphically portray how these CRTs move, as products, through the various stages of a recycling system to the CRT Specialist or "point of generation."

Secretary Struhs gave a powerpoint slide presentation on this subject to the other state environmental commissioners recently and his presentation was based on this strategy paper. If you would like to view the powerpoint presentation it can be found on: \\tlh\_ptt\all common\temp\wy crt7.ppt (the drive letter may vary, but in Tallahassee it is the L drive). Please note that it is a big file, about 21 megabytes, so be prepared to use some time and space loading it up.

I invite your comments on the strategy paper. If you have questions on the strategy paper, or on this issue in general, please call or email Raoul Clarke (850-921-9216) or Jack Price (850-921-9218).

Attachments

Cc: District Waste Program Administrators  
Bill Hinkley  
Satish Kastury



# Electronics: A New Opportunity for Waste Prevention, Reuse, and Recycling

In the past decade, technological advances in electronic data management and communications have spurred economic growth and improved people's lives in countless ways. However, our growing dependence on electronic products both at home and in the workplace has given rise to a new environmental challenge: electronics waste. A recent study by EPA shows that electronics already make up approximately 1 percent of the municipal solid waste stream. Research completed in Europe shows that electronics waste is growing at three times the rate of other municipal waste. To the extent possible, electronics waste should be prevented, and older electronics should be reused and recycled.

## Why Prevent Electronics Waste?

End-of-life electronics:

**Are a fast-growing waste stream.**

Over 20 million personal computers became obsolete in 1998. Only 13 percent were reused or recycled. Many municipalities are facing the dilemma of what to do with growing amounts of retired electronics. Rapid changes in computer technology and the emergence of new electronic gadgets exacerbate the problem.

**Can contain hazardous materials.** There are hazardous materials, such as lead, mercury, and hexavalent chromium, in circuit boards, batteries, and color cathode ray tubes (CRTs). Televisions and CRT monitors contain four pounds of lead, on average (the exact amount depends on size and make). Mercury from electronics has been cited as a leading source of mercury in municipal waste. In addition, brominated flame retardants are commonly added to plastics used in electronics. If improperly handled, these toxics can be released into the environment through incinerator ash or landfill leachate.

**Are made with valuable materials.** In 1998, over 112 million pounds of materials were recovered from electronics, including steel, glass, and plastic, as well as precious metals. Reusing and recycling the raw materials from end-of-life electronics conserves natural resources and avoids the air and water pollution, as well as greenhouse gas emissions, that are caused by manufacturing new products.

## How To Reduce Electronics Waste

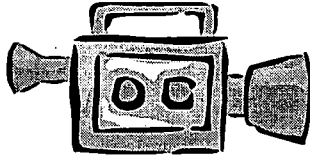
This fact sheet provides information on ways you can reduce the environmental impact of electronics use and disposal through reuse, donation, recycling, and buying greener electronic products.

### What products are considered consumer electronics?

- Televisions and Monitors
- Computers
- Computer Peripherals
- Audio/Stereo Equipment
- VCRs
- DVD Players
- Video Cameras
- Telephones
- Fax and Copying Machines
- Cellular Phones
- Wireless Devices
- Video Game Consoles



## Reusing and Donating Electronics



Preventing waste in the first place is usually preferable to any waste management option...including recycling. Donating electronics for reuse extends the lives of valuable products and keeps them out of the waste management system for a longer time. Reuse, in addition to being an environmentally preferable alternative, also benefits society. By donating your used electronics, you allow schools, non-profit organizations, and lower-income families to use equipment that they otherwise could not afford.

As a household or a business, you may be able to take advantage of tax incentives for computer equipment donations. The 21st Century Classrooms Act for Private Technology Investment encourages large companies to donate computer equipment to public and private schools. When donating equipment to a non-profit organization, inquire about documentation that can be applied toward your income tax return.

Before donating your computer or other electronics, make sure the equipment is reusable. Donation organizations have limited resources and employees to diagnose and repair hardware. A functional, working system, especially with monitor, wiring, and software licenses, is a lot more useful and requires less upgrading than a non-working, incomplete computer. Check to see what the donation organization's minimum computer requirements are. Donation organizations may not accept (or may charge a fee for) older, less useful equipment.

The most appropriate donation organization to handle a computer can vary from area to area. In some cases, the most viable donation organization may be a charity, but in other areas, the appropriate donation organization may be the local school district or materials exchange.

## Recycling Electronics

If donation for reuse or repair is not a viable option, households and businesses can send their used electronics for recycling. Recycling electronics avoids pollution and the need to extract valuable and limited virgin resources. It also reduces the energy used in new product manufacturing.

A growing number of municipalities are offering computer and electronics collections as part of household hazardous waste collections or special events. In addition, public and private organizations have emerged that accept computers and other electronics for recycling. Depending on where you live and the amount of equipment you have, the best

### Where can I donate my computer?

The following are just a few examples of organizations that can provide additional information on donating electronics.

#### Goodwill Industries

[www.goodwill.org](http://www.goodwill.org)

Many Goodwills accept computer donations. Donations to Goodwill help individuals with disabilities and other disadvantages upgrade their job skills and enter the workforce.

#### Students Recycling Used Technology (StRUT)

[www.strut.org](http://www.strut.org)

The StRUT program teaches students to evaluate and repair donated computer equipment, which is then contributed to local schools. Founded in Oregon, StRUT has since expanded to other states (AZ, CA, MA, NM, OR, TX, and WA). Call (503) 251-3771 to ask about a site near you.

#### Learning and Information Networking for Community via Technology (LINCT)

[www.linct.org](http://www.linct.org)

Using computers donated by businesses, LINCT provides computer training, teaches individuals to refurbish computers, and allows them to earn computers through community service.

#### Materials Exchanges

[www.epa.gov/jtr/comm/exchange.htm](http://www.epa.gov/jtr/comm/exchange.htm)

Many materials exchanges accept electronics. The Southern Waste Information Exchange (SWIX) has developed a materials exchange specifically for electronics at [www.ElectronicXchange.Org](http://www.ElectronicXchange.Org)

#### Reuse Development Organization (ReDO)

[www.redo.org](http://www.redo.org)

ReDO is a non-profit organization that promotes reuse of discarded and surplus materials, including electronics. ReDo provides education, training, and technical assistance to help start up and operate reuse programs.

recycling option may be a county recycling drop-off center, TV repair shop, charitable organization, electronics recycling company, or even your local electronics retailer, which may collect used products and send them to a recycler.

Some electronics manufacturers are accepting household electronics for recycling. In some cases, these services are provided free-of-charge. Asset management and recovery programs have been available to major corporations and large purchasers of electronic equipment for quite some time. Now, electronics manufacturers are beginning to offer similar services for households and small businesses.

## Where can I take my computer?

To find an electronics recycling organization near you, visit the following web sites:

### EIA Consumer Education Initiative (CEI)

[www.eiae.org](http://www.eiae.org)

The Electronic Industries Alliance (EIA) has developed the Consumer Education Initiative web site to help households and small businesses find environmentally responsible options for donating and recycling electronics in their community.

### International Association of Electronics

Recyclers (IAER) [www.iaer.org/search](http://www.iaer.org/search)

IAER has an online directory of electronics recyclers. This database is ideal for large organizations that are looking for a company to handle used electronics. The IAER web site also has information on electronics recycling news and industry events.

## Buying Green

Environmentally responsible electronics use involves not only proper end-of-life disposition of obsolete equipment, but also purchasing new equipment that has been designed with environmental attributes. Think about this when purchasing new equipment, and ask your retailer or electronics supplier about environmentally preferable electronics. Households, companies, and governmental organizations can encourage electronics manufacturers to design greener electronics by purchasing computers and other electronics with environmentally preferable attributes and by requesting takeback options at the time of purchase.

Look for electronics that:

- Are made with fewer toxic constituents
- Use recycled content
- Are energy efficient (e.g., showing the "Energy Star" label)
- Are designed for easy upgrading or disassembly
- Utilize minimal packaging
- Offer leasing or takeback options
- Have been recognized by independent certification groups (such as the Swedish TCO or Blue Angel) as environmentally preferable.

The National Recycling Coalition has assembled information on environmentally preferable procurement of electronics on their web site, at:

[www.nrc-recycle.org/Programs/electronics/index.htm](http://www.nrc-recycle.org/Programs/electronics/index.htm)

The Northwest Product Stewardship Council has developed a Guide to Environmentally Preferable Computer Purchasing, available at: [www.govlink.org/nwpsc](http://www.govlink.org/nwpsc)

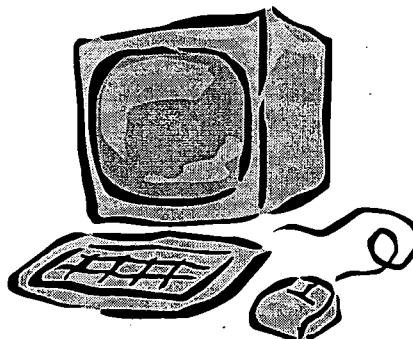
## What EPA Is Doing To Encourage Reuse, Recycling, and Greener Purchasing of Electronics

EPA's goal is to promote greater product stewardship of electronics. Product stewardship means that all who make, distribute, use, and dispose of products share responsibility for reducing the environmental impact of those products.

We intend to work towards this goal in three ways:

1) increase reuse and recycling of used electronics, 2) ensure that management of electronics is safe and environmentally sound, and 3) foster a life-cycle approach to product stewardship, including environmentally conscious design, manufacturing, and toxics reduction for new electronic products. EPA is currently working with stakeholders in both the public and private sectors to meet these goals. In support of these efforts, EPA will be looking to streamline regulations and policies. We aim to make it easier and more cost-effective for consumers, retailers, recyclers, manufacturers, and governments at all levels to help divert these products into environmentally sound reuse and recycling, as well as reduce the environmental footprint of electronic product use.

In addition, EPA's Design for the Environment Program ([www.epa.gov/dfe](http://www.epa.gov/dfe)) is working with electronics manufacturers to incorporate environmental considerations into product design. EPA's Environmentally Preferable Purchasing Program ([www.epa.gov/opptintr/epp](http://www.epa.gov/opptintr/epp)) is helping federal agencies in the purchasing of environmentally preferable products and services, including electronics. Also, the Energy Star Program ([www.energystar.gov](http://www.energystar.gov)) promotes energy-efficient products through its labeling and education program. EPA's WasteWise Program is challenging its almost 1,100 partners to set goals for reducing electronics waste ([www.epa.gov/wastewise](http://www.epa.gov/wastewise)). Finally, EPA's Office of Solid Waste is supporting multi-stakeholder dialogues, collection pilots, public education, and international cooperation to foster greater awareness and coordination of electronics reuse and recycling issues. For more information about EPA's efforts to encourage product stewardship for electronics, visit [www.epa.gov/epr](http://www.epa.gov/epr)



## Useful Publications

### **Analysis of Five Community Consumer/Residential Collections: End-of-Life Electronic and Electrical Equipment (EPA-901-R-98-003)**

U.S. EPA Region 1. April 1999.

[www.epa.gov/region01/programs/csifinal.pdf](http://www.epa.gov/region01/programs/csifinal.pdf)

A study that analyzes five residential collection programs and provides comparisons of materials collected and cost considerations.

### **Electronic Product Recovery and Recycling (EPR2) Baseline Report: Recycling of Selected Electronic Products in the United States**

National Safety Council. May 1999.

[www.nsc.org/ehc/epr2/baseline.htm](http://www.nsc.org/ehc/epr2/baseline.htm)

A report that provides results of the first ever attempt to characterize electronics recovery in the United States.

### **Plastics from Residential Electronics Recycling Report 2000**

American Plastics Council. April 2000.

[www.plastics.org/top\\_level/info.html](http://www.plastics.org/top_level/info.html)

This report analyzes the types of plastics found in consumer electronics and the current technologies available to recycle these plastics.

### **End of Life Computer and Electronics Recovery Options for the Mid-Atlantic States, 2nd Edition**

Mid-Atlantic Consortium of Recycling and Economic Development Officials (MACREDO). March 2000.

[www.libertynet.org/macredo/comelc.htm](http://www.libertynet.org/macredo/comelc.htm)

A regional policy report and general information document on electronics recovery.

### **Electronics Reuse and Recycling Infrastructure Development in Massachusetts (EPA-901-R-00-002)**

U.S. EPA Region 1 and Massachusetts Department of Environmental Protection. September 2000.

[www.epa.gov/region01/compliance/solid/jtrfinal00.pdf](http://www.epa.gov/region01/compliance/solid/jtrfinal00.pdf)

This report provides a thorough overview of the Massachusetts infrastructure development program that was established prior to the state's landfill ban on CRTs and analyzes various collection options with respect to recovery rates, cost effectiveness, and job creation.

### **Recycling Used Electronics:**

#### **Report on Minnesota's Demonstration Project**

Minnesota Office of Environmental Assistance. April 2001.

[www.moia.state.mn.us/plugin/index.cfm](http://www.moia.state.mn.us/plugin/index.cfm)

This report analyzes the results of the first large-scale, multi-stakeholder effort to remove used electronic products from municipal waste in North America.

### **WasteWise Update: Electronics Reuse and Recycling (EPA-530-N-00-007)**

U.S. EPA. October 2000.

[www.epa.gov/wastewise/pdf/wwupda14.pdf](http://www.epa.gov/wastewise/pdf/wwupda14.pdf)

A publication that provides an overview of electronics recovery issues and options for businesses.

## Organizations

### **EPA's Product Stewardship Program**

[www.epa.gov/epr](http://www.epa.gov/epr)

EPA's Product Stewardship program encourages more environmentally sustainable management of a variety of products, including electronics. Visit the program's web site for information about electronics stewardship projects that are occurring across the country.

### **Electronic Industries Alliance (EIA)**

[www.eia.org](http://www.eia.org)

A trade association for the electronics industry. The EIA web site maintains information on what member companies are doing to incorporate environmental attributes into electronic products.

### **International Association of Electronics Recyclers (IAER)**

[www.iaer.org](http://www.iaer.org)

A non-profit trade organization that supports the electronics recycling industry. The IAER web site provides information on industry trends and a database of commercial electronics recyclers.

### **National Recycling Coalition (NRC)**

[www.nrc-recycle.org/Programs/electronics/index.htm](http://www.nrc-recycle.org/Programs/electronics/index.htm)

A non-profit group dedicated to advancing recycling and source reduction. NRC's Electronics Recycling Initiative web site contains information on procurement and other electronics recycling issues.

### **Polymer Alliance Zone (PAZ)**

[www.pazwv.com](http://www.pazwv.com)

A public-private partnership that is developing a regional center for electronics recycling in West Virginia. Visit the PAZ web site to learn more about this innovative project.

### **Silicon Valley Toxics Coalition (SVTC)**

[www.svtc.org](http://www.svtc.org)

A grassroots coalition that performs research and advocacy on environmental and human health issues related to electronics. The SVTC web site includes a report on toxics in electronics waste and an analysis of the environmental performance of electronics manufacturers based on web site information.

The mention of any company, product, or process in this publication does not constitute or imply endorsement by the U.S. Environmental Protection Agency.

WASTE MANAGEMENT TECHNICAL SUPPORT  
ROUTING FORM

PERMITTED FACILITIES

To: John M  
From: EW F  
Date: 10/1/03  
Subject: HARSH LF ops Renewal

Document Name: \_\_\_\_\_  
Revision Number 1 County: HARSH  
Facility Name: \_\_\_\_\_  
Type of Facility: LF  
Permit Number: \_\_\_\_\_ Issue Date: \_\_\_\_\_

Copy of Permit attached: \_\_\_\_\_  
Document submitted in compliance with permit condition. \_\_\_\_\_  
Document subject to permit timeclock. Y

Day 1: 9/30/03  
Day 30: 10/30/03

PATS sheet attached: \_\_\_\_\_  
Enforcement Case/CO/NOV/ associated with this site: \_\_\_\_\_  
Files and related documents can be found Attached in files

Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by 10/25/03.

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Module \_\_\_\_\_  
Attachments

WASTE MANAGEMENT TECHNICAL SUPPORT  
ROUTING FORM

PERMITTED FACILITIES

To: Steve m  
From: Ken F  
Date: 10/1/03  
Subject: HARDEE LI OPS RENEWAL

Document Name: \_\_\_\_\_  
Revision Number 1 County: HARDEE

Facility Name: \_\_\_\_\_

Type of Facility: LI

Permit Number: \_\_\_\_\_ Issue Date: \_\_\_\_\_

Copy of Permit attached: \_\_\_\_\_

Document submitted in compliance with permit condition. \_\_\_\_\_

Document subject to permit timeclock. YES

Day 1: 9/30/03

Day 30: 10/30/03

PATS sheet attached: \_\_\_\_\_

Enforcement Case/CO/NOV/ associated with this site: \_\_\_\_\_

Files and related documents can be found AMARIBS 1- files

Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by 10/25/03.

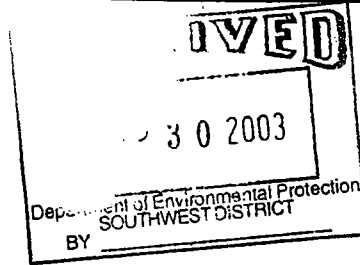
Comments: \_\_\_\_\_  
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Module \_\_\_\_\_

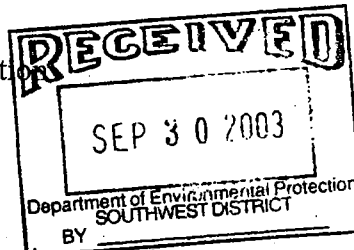
Attachments

# SCS ENGINEERS

September 30, 2003  
File No. 09199033.08



Kim B. Ford, P.E.  
Solid Waste Section  
Division of Waste Management  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619



Subject: Hardee County Landfill - Operation Permit  
Pending Permit No.: 38414-007-SO, Hardee County

Dear Mr. Ford:

On behalf of Hardee County, SCS Engineers (SCS) submits the following responses to your request for additional information in a letter dated June 18, 2003. For ease of review, each FDEP comment is reiterated in bold type, followed by our response.

We have provided additional information and replacement pages attached to this letter, using a ~~strike through~~ and underline format, to facilitate review. We have included the revision date as part of the header/footer for all revised pages and provided an original and two copies of all revised materials.

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

1. **62-701.300. Revisions to Section D are requested as follows:**
  - a) **Section D.2. - To explain that yard trash and the leachate storage tanks are subject to the prohibitions and to describe compliance with the prohibitions.**

**Response:** Changes have been made to Section D.2 in reference to Rule 62-701.300(12) and (13), F.A.C. Revised sheets are located in Attachment A-1. Figure 1, also located in Attachment A-1, depicts the 50-foot offset from Wetland Area No. 1 and the yard waste processing area and the leachate storage tank and the onsite well located immediately south of the maintenance building.

- b) **Section D.11. - To explain that used oil will not be accepted for disposal.**

**Response:** Used oil is not, and will not be disposed of within the landfill.

reporting methane as a percent by volume in air or as a percentage of the lower explosive limit (LEL) for methane. Hardee County currently owns a X-Check Gas Detector for LFG monitoring. Other industry-standard equipment also may be utilized.

31. **62-701.500(10). Revisions to Section L.10. are requested a) to describe the entire stormwater system design and operation, and b) to provide references for all record drawings for the entire stormwater management system. Documents on file with the Department may be referenced rather than resubmitted.**

**Response:** Changes have been made to Section L.10, located in Attachment A-9.

- a) Changes have been made to Section L.10, located in Attachment A-9.
- b) The stormwater management system has been previously reviewed and approved by FDEP. In the past consecutive permitting processes, FDEP has approved the stormwater management system at Hardee County Landfill. SCS is submitting the Wade Trim drawing set, which appears to coincide with the existing stormwater management system at Hardee County Landfill.

32. **62-701.500(11)(f). Revisions to Section L.11.f. are requested to describe the removal of litter from outside of the working face within 24 hours.**

**Response:** Changes have been made to Section L.11.f., located in Attachment A-9, to reflect Rule 62-701.500(7)(i), F.A.C.

33. **62-701.410, .500, and .510. Responses to each of the items in Mr. John Morris' June 12, 2003 memorandum (attached) are requested. You may call Mr. Morris at (813) 744-6100, extension 336 to discuss the items in his memorandum.**

**Response:** Please see responses to Mr. Morris' memorandum in Appendix B.

34. **62-701.630. Responses to each of the items in Mr. Steve Morgan's June 17, 2003 letter (attached) are requested. You may call Mr. Morgan at (813) 744-6100, extension 385 to discuss the items in his letter.**

**Response:** Please see responses to Mr. Morgan's letter in Appendix C.

Mr. Kim B. Ford, P.E.  
September 30, 2003  
Page 19

Please call if you have any questions.

Sincerely,



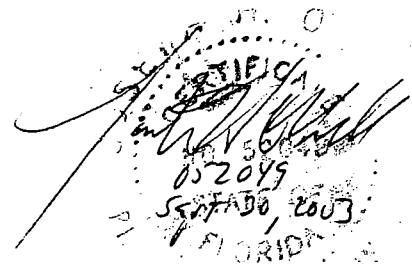
Joseph O'Neill, P.E.  
Project Manager  
SCS ENGINEERS



Raymond J. Dever, P.E., DEE  
Vice President  
SCS ENGINEERS

JHO/RJD:jlh

Attachments



RAYMOND J. DEVER, P.E., DEE  
052049  
SEP 30, 2003  
FLORIDA



## APPENDIX C

### RESPONSES TO STEVEN G. MORGAN'S LETTER TO JANICE WILLIAMSON DATED JUNE 17, 2003.

#### Closing Costs

##### **Stormwater Control System:**

**The cost estimates for the stormwater control system provided in this section only appear to address construction of the proposed stormwater control system up to the elevation 110 ft. NGVD. of the landfill. Please provide cost estimates and supporting calculation for the remainder of the proposed stormwater management system and revise the cost estimates in the section accordingly.**

**Response:** The drawings submitted show stormwater drop inlets located on the northeast, northwest, and southeast corners of the landfill. The northeast and northwest drop inlets have drop structures at elevation 135 and 110. The southeast drop inlet has a drop structure located at elevation 110.

The drawings also reflect a series of benches and swales that divert stormwater to the drop inlets located at elevation 110. The financial assurance forms and calculations located in Attachment C-1 and C-2 reflect these changes.

##### **Professional Services:**

**The assumption that it will require only two work months to complete closure construction appears to be optimistic. Please provide specific information and calculations of actual time to complete closure from a similar landfill closure project and the professional services hours spent on that project in support this assumption and revise this section accordingly.**

**Response:** Changes have been made to this section. It is estimated that the closure construction will be completed in six months. The financial assurance forms and calculations located in Attachment C-1 and C-2 reflect these changes.

#### Long-term Care Costs

##### **Gas Monitoring:**

**The cost estimates in this section were based on quarterly monitoring of gas probes GP-1 through GP-9. The current gas monitoring program consists of gas probes GP-1 through GP-11. Please explain this discrepancy and revise the cost estimates in this section accordingly.**

**Response:** Under the existing solid waste permit (Permit Number 38414-002-SO), Specific Condition 20 states that the gas monitoring probes GP-1 through GP-9 and the following structures shall be monitored:

- Maintenance Building
- Materials Recovery Facility
- Scalehouse/Administrative Offices
- Animal Control Kennel

According to Rule, 62-701.530(2)(b), F.A.C., monitoring probes should be placed along the property boundary of the facility; GP-10 and GP-11 are located on the interior of the property. Probes GP-10 and GP-11 will also be added to the monitoring plan in order to obtain additional information on gas migration. The addition of two probes will not change the cost of the gas-monitoring fee for long-term care of the landfill. The financial assurance forms and calculations reflect these changes. The supporting calculations are located in Attachment C-2.

#### **Leachate Collection/Treatment Systems Maintenance – Maintenance:**

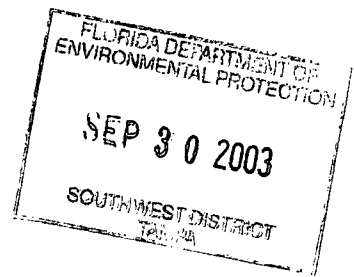
**Please provide justification for the assumption that no maintenance of the leachate collection pipes, sumps/traps, lift station, or tanks will be required during the long-term care period or revise this section to include annual costs for leachate system maintenance.**

**Response:** Changes have been made to this section. The financial assurance forms and calculations located in Attachment C-1 and C-2 reflect these changes.

#### **Leachate Collection/Treatment Systems Maintenance – Disposal:**

**In accordance with Rule 62-701.630(3)(a), closure and long-term care costs estimates are based on "... the time period in the landfill operations when the extent and manner of its operation making closing most expensive." In the case of leachate generation rates during long-term care, the time of maximum generation rate is immediately upon completion of closure activities. A reasonable estimate of this generation rate corresponds to the actual per acre leachate generation rate for the previous year calculated for the total acreage to be closed. During the facility's long-term care period, as the average annual leachate generation rate decreases, long-term care costs for leachate disposal can be reduced accordingly. Please revise the leachate quantities and costs provided for long-term care accordingly.**

**Response:** The leachate generation or the first year after capping the landfill is assumed to be the same rate at the present. As time progresses, the leachate generation rate will decrease. SCS has calculated the leachate disposal rate according to the present generation rate of 7,575,540 gallons per year. The financial assurance forms and calculations located in Attachment C-1 and C-2 reflect these changes.



**Response to Request for Additional Information  
Operations Permit Renewal Application  
Hardee County Landfill  
Hardee County, Florida**

**SCS ENGINEERS**

**Prepared for:**

Hardee County  
Board of County Commissioners  
412 West Orange Street  
Wauchula, FL 33873

**Prepared by:**

SCS Engineers  
3012 U.S. Highway 301 N., Suite 700  
Tampa, Florida 33619  
(813) 621-0080

File No. 09199033.08  
September 30, 2003

**SCS ENGINEERS**

September 30, 2003  
File No. 09199033.08

Kim B. Ford, P.E.  
Solid Waste Section  
Division of Waste Management  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619



Subject: Hardee County Landfill - Operation Permit  
Pending Permit No.: 38414-007-SO, Hardee County

Dear Mr. Ford:

On behalf of Hardee County, SCS Engineers (SCS) submits the following responses to your request for additional information in a letter dated June 18, 2003. For ease of review, each FDEP comment is reiterated in bold type, followed by our response.

We have provided additional information and replacement pages attached to this letter, using a ~~strike through~~ and underline format, to facilitate review. We have included the revision date as part of the header/footer for all revised pages and provided an original and two copies of all revised materials.

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

1. **62-701.300. Revisions to Section D are requested as follows:**
  - a) **Section D.2. - To explain that yard trash and the leachate storage tanks are subject to the prohibitions and to describe compliance with the prohibitions.**

**Response:** Changes have been made to Section D.2 in reference to Rule 62-701.300(12) and (13), F.A.C. Revised sheets are located in Attachment A-1. Figure 1, also located in Attachment A-1, depicts the 50-foot offset from Wetland Area No. 1 and the yard waste processing area and the leachate storage tank and the onsite well located immediately south of the maintenance building.

- b) **Section D.11. - To explain that used oil will not be accepted for disposal.**

**Response:** Used oil is not, and will not be disposed of within the landfill.



Changes have been made to section D.11 and reference Rule 62-701.300(8)(b), F.A.C. and are located in Attachment A-2.

2. **62-701.320(5)(b). A description and timeframe for applying for a construction permit for expansion and for a closure permit are requested.**

**Response:** SCS Engineers is in the process of developing an expansion plan for Hardee County's landfill. As part of the plan, the existing operation grading plan will be modified to match grading and drainage plans with future expansion plan as well as development of partial closure plans for northern and eastern sideslopes of the existing landfill. SCS will submit a schedule upon completion of the expansion layouts on behalf of Hardee County.

The expansion permit plans are currently being finalized and the proposed schedule for submittal to FDEP is by the end of October or early November of 2003. In addition, the County will be submitting partial closure permit application for the northern and eastern sideslope of the existing landfill in summer of 2004.

3. **62-701.320(7)(d)1. A cover page for the Engineering Report (just before the table of contents) signed and sealed by a professional engineer is requested.**

**Response:** The signed and sealed cover page is located in Attachment A-3.

4. **62-701.320(7)(f)6. A comprehensive set of Record Drawings are requested for the entire previously approved stormwater management system are requested.**

**Response:** The stormwater management system has been previously reviewed and approved by FDEP. In the past consecutive permitting processes, FDEP has approved the stormwater management system at Hardee County Landfill. SCS is submitting drawings from Envisors (dated 1982), Briley Wild and Associates (dated 1988), and Wade Trim (1994) for the existing stormwater management system at Hardee County Landfill. PBS&J drawings dated July 2000 are on file with the Department. The drawings are located in Attachment A-4. The contributing area, the entire landfill, remains the same as previously designed. SCS has completed supplemental calculations, contained in Attachment A-4, to verify the design of stormwater structures in the shown on the submitted operations plans. The overall stormwater management system for the site remains as designed by others.

5. **62-701.320(15). a) A list of all trained operators, and all trained spotters, including the hours of training completed by each is requested. b) A training plan with a list of courses to be attended and hours of training required for operators and spotters is requested.**

**Response:** Changes have been made to Section E.15, located in Attachment A-5, and reference Rule 62-701.320(15), F.A.C. Attachment A-5 also contains the hours of training completed by County personnel as well as a list of courses.

**6. 62-701.330(1)(c). Documentation, or references to documents on file with the Department, to demonstrate that the landfill is "lined" are requested.**

**Response:** Per Rule 62-701.200 (69), F.A.C., a lined landfill is defined as "a landfill constructed with a liner made of synthetic materials, low-permeability soils, or a combination of these materials, which have been permitted by the Department, and which met the Department's landfill design criteria specified in this chapter or previous versions of this chapter at the time of permitting". FDEP has previously approved Solid Waste Permits for Hardee County, which contains information regarding the lined landfill area. The landfill sideslopes are lined with geosynthetics, which tie into a low permeability clay to form the waste disposal unit. Reference documents include drawings by Envisors (dated 1982) showing the clay bottom and geosynthetic sideslopes, Briley Wild and Associates (dated 1988) and Wade Trim (dated 1994) showing geosynthetic sideslopes. PBS&J Construction Permit Application, dated June 1994, specifically Appendix C of the application, contains permeability test results on the underlying clay strata. The clay permeabilities range from  $4 \times 10^{-7}$  to  $6 \times 10^{-8}$  centimeters per second.

**7. 62-701.330(3)(d) and (j). Revisions to the operational drawings are requested to show the additional information listed below:**

Refer to response provided to Question 2.

- a) **The typical liner system detail, including the bottom and side liners, leachate collection/conveyance system, waste limits, future final cover, and the adjacent stormwater conveyances;**

**Response:** Please refer to the revised drawings contained in Attachment D.

- b) **The direction of filling for each working face disposal area;**

**Response:** Please refer to the revised drawings contained in Attachment D.

- c) **The design details for the typical slopes and perimeter berms to be maintained to drain stormwater and to contain leachate in the vicinity of each working face disposal area;**

**Response:** Please refer to the revised drawings contained in Attachment D.

- d) **Cross-sections to show lifts of waste as filling progresses including details for permanent terraces and permanent drainage devices;**

**Response:** Please refer to the revised drawings contained in Attachment D.

- e) **Sheet 4 - to show the correct manhole numbers, and with the precise location of the perimeter liner, manholes, and leachate collection/conveyance system;**

**Response:** Please refer to the revised drawings contained in Attachment D.

- f) **Sheet 5 - to show the slope of the terrace swale (at elevation +135 NGVD) with the direction of flow, and the related drainage features to convey the stormwater down the slope, and to show passive gas vent typical cross-section details and locations on the final cover plan view.**

**Response:** Please refer to the revised drawings contained in Attachment D. The passive gas venting system will be installed during partial closure of the landfill. Details of the vents will be submitted with the closure permit application.

- g) **Sheet 8 - to show the top liner on the cover system detail, to include a note on the south slope partial reconstruction detail to ensure that asbestos will not be disturbed due to waste excavation, and to include a note on the typical waste place detail to describe the placement of loose waste over bales.**

**Response:** Please refer to the revised drawings contained in Attachment D.

- h) **Sheet 9 - to include a note to describe that only clean soil fill will be used over intermediately covered areas as needed prior to the final grading of slopes and terraces.**

**Response:** Please refer to the revised drawings contained in Attachment D.

8. **62-701.400(2). A description of planned Hardee County Landfill construction and closure at planned intervals throughout the design period of the landfill is requested.**

**Response:** SCS Engineers is in the process of developing an expansion plan for Hardee

County's landfill. As part of the plan, the existing operation grading plan will be modified to match the future expansion plan. The existing landfill will be fill along the south side and along the eastern side. Minimal fill will be placed along the northern end of the landfill to allow placement of the stormwater terrace. As the eastside is filled the access road will be constructed to allow vehicle access to the top of the landfill. No filling will occur on the westside of the landfill.

The proposed expansion construction, along the southern and western sides of the existing landfill, will occur as the existing landfill is being filled. Upon completion and approval of the expansion area, the County will begin final grading of the southern and eastern sides of the existing landfill. Construction (placement of geomembrane) on the western and southsides of the existing landfill will occur while the County is filling the southern end of the expansion. Partial Closure construction of the northern and eastern sides of the existing landfill will occur upon completion and approval of the geomembrane placement along the west and south sides of the existing landfill. The County will then commence filling in the expansion area and filling along the sideslope of the existing landfill.

9. **62-701.400(4)(a). Documentation to demonstrate that the entire existing leachate collection and removal system complies with each of the requirements in Rule 62-701.400(4)(a) is requested. Additionally, the following items are requested:**

**Response:** The primary leachate collection system at Hardee County Landfill was previously designed and permitted by others. Per Rule 62-701.400(4)(a) F.A.C. and based upon available information (primarily record drawings, no construction completion reports were available) on the existing system, the following information is presented;

- 1) The leachate collection system is comprised of eight inch diameter corrugated polyethylene pipe, which is compatible with they typical municipal solid waste leachate.
- 2) The mechanical properties of the pipe were addressed in previously submitted and approved applications to the Department. The Florida Jetclean Inc. inspection and video also demonstrates that the leachate collection system can withhold the pressures exerted by waste, cover materials, and landfill equipment.
- 3) According to drawings prepared by Envisors, Briley Wild and Associates, Wade Trim, and PBS&J, the designs included a granular pack that encompasses the leachate collection pipe.



4) As stated in Specific Condition 17.g., the video inspection demonstrates that the pipes are not clogged. If at any time during the inspection the pipes were clogged, they were pressure washed to remove debris. Please review the Florida Jetclean Inc. video dated April 14, 2003 to see the pipes are not clogged.

a) **A comprehensive inspection report as required by Specific Condition #17.g., signed and sealed by a professional engineer.**

**Response:** Refer to the response to comment 9 and 9(e). The leachate collection system was video taped in its entirety and a report submitted by Florida JetClean. According to Specific Condition #17.g. of the Solid Waste Permit issued to Hardee County, the above-mentioned report does not need to be signed and sealed by a professional engineer.

b) **A drawing to scale showing all distances between manholes to match the distances indicated by Florida Jetclean Inc., or an appropriate explanation for each discrepancy.**

**Response:** As stated in the video provided by Florida Jetclean Inc., the counter, which measures the pipe length, was not consistently operating correctly. In addition, the locations of the manholes are currently being surveyed to confirm the exact locations relative to the landfill. The distances are shown on the scaled figure located in Attachment A-6. Florida JetClean has reviewed the tape again and found a significant measurement deviation when measuring from Manhole No. 7 to the lift station. This was due to the camera falling into the liftstation and subsequent efforts (involving the camera being moved back and forth) to recover the camera. SCS had the manhole locations surveyed and the distances are shown on Figure 1 in Attachment A-6. There remains a minor measurement differences between the Florida JetClean and Surveyed distances, however JetClean has reviewed the tapes in their entirety and has indicated that all leachate collection lines have been video tape their entire length.

c) **A drawing to scale showing the correct numbering for each manhole.**

**Response:** Prior to video taping the lines, the markers for the manholes were incorrectly labeled. See the revised Figure 1 of 1, Note 1 and the description notes for Manholes 8 and 9 of the Leachate Collection Line Report, located in Attachment A-6.

d) **A corrected Florida Jetclean report to include the correct numbering for each manhole.**

**Response:** See the revised Figure 1 of 1, Note 1 and the description notes for Manholes 8 and 9 of the Leachate Collection Line Report, located in Attachment A-6.

e) **An explanation with conclusions and recommendations for each location of each pipe “separation” and “egg-shaped” distortion.**

**Response:** Based upon a review of the video the following conclusions and recommendations are made for each item;

Manhole 3 toward Manhole 2 – Possible separation at 7 feet

**Conclusion:** The pipe is approximately 7 to 8 feet below ground surface with no visible tree or stumps in the area, therefore roots are unlikely. It was concluded that this may be mold or miscellaneous debris or roots from initial installation.

**Recommendation:** The pipe system was design and installed by Briley Wild and Associates in 1988. No clogging was evident during the video conducted by JetClean in 2003 so the system is function adequately.

Manhole 3 toward Manhole 2 – Possible separation at 237 feet

**Conclusion:** The pipe maybe separated along one side however it does not appear to be completely separated especially along the flowline. The camera was able to traverse through the pipe in this area. The size of the separation cannot be accurately estimated since an orange colored material covers the area. The orange colored material along the separation is probably iron mold which is consistent with slow seepage in high iron soils.

**Recommendation:** The pipe system was design and installed by Briley Wild and Associates in 1988. No clogging was evident during the video conducted by JetClean in 2003 so the system is function adequately.

Manhole 2 toward Manhole 3 – Possible separation at 152 feet

**Conclusion:** Same as described in Manhole 3 to 2 (Separation at 237 feet).

**Recommendation:** Same as described in Manhole 3 to 2 (Separation at 237 feet).

Manhole 7 toward Lift Station – Pipe “Egg-Shaped”

Conclusion: During construction, the pipeline was being video taped when the camera became stuck in the pipe. The pipeline was excavated to retrieve the camera. During the re-construction of the pipeline, the pipe may have been slightly misshaped as a new snap coupling was applied. (Refer the PBS&J Construction Certification Documents (dated Jul 2000) – Volume 1 of 2 Section 1.24)

Recommendation: The pipe flowline is continuous and no clogs were reported in the pipeline during the 2003 videotaping. The pipe is buried approximately 12 to 13 feet of soil and heavy truck traffic and landfill equipment has traversed the area since the pipe was installed in January of 2000. If pipe had sustained significant structural damage, then failure would have probably during backfill and compaction of the pipe trench. The recommendation is to leave the pipe in-place since a video camera can pass through the opening.

Manhole 7 toward Manhole 6 – Pipe separated

Conclusion: During construction, the pipeline was video taped and a restriction was noted. PSB&J approved the pipeline (Refer to Field Notes dated January 21, 2000 in PBS&J Construction Certification Documents Volume 1 of 2). It does appear that the pipe is separated. No clogs were reported in the 2003 video taping of the pipeline. Leachate is flowing from Manhole 6 to Manhole 7.

Recommendation: No clogs were reported in the pipeline during the 2003 videotaping. The pipe is buried approximately 12 to 13 feet of soil and heavy truck traffic and landfill equipment has traversed the area since the pipe was installed in January of 2000. Leachate can still flow within the pipe. At this time the recommendation is to leave the pipe in-place, since the leachate collection system is functioning adequately at the time. The County has planned to repair this section of the pipe in conjunction with future expansion plans.

10. **62-701.400(6)(c)9. Documentation to demonstrate that each leachate storage tank has been inspected as required, and that each complies with the requirements in Rule 62-701.400(6) (c) is requested. Additionally, the following items are requested:**

**Response:** The tank material and tank operations have been previously reviewed and approved by FDEP.

- a) **A comprehensive inspection report as required by Specific Condition #17.j., signed and sealed by a professional engineer.**

**Response:** The operational components of the leachate storage tanks (pumps, ultra-sonic level indicator, tank material, and shut-off controls) was inspected by SCS Engineers and all components appear to be functioning adequately. TEAM tank inspectors has completed inspection of Tank No. 2 and is currently (as of September 29, 2003) awaiting for Tank No. 1 to be pressure cleaned for re-inspection. Tank No 1 will be cleaned by October 1, 2003. TEAM will make inspections on October 2, 2003. Upon receipt of the Final report from TEAM, SCS will issue a final inspection report. TEAM should be complete with the final report by October 31, 2003.

**b) Confirmation that the proposed repair materials are compatible with the original coatings.**

**Response:** A confirmation by Columbian TecTank is located in Attachment A-7. Columbian TecTank certifies that the coating used by Columbian TecTank (Trico Bond 478) during the tank inspection is not only compatible with the existing coating (Thermo-Thane 7000) it is the same coating. Please see the attached confirmation.

**c) The schedule for completing repairs and certification.**

**Response:** Refer to response to part (a) above.

**11. 62-701.400(9). Copies of all permits, related calculations, and record drawings for the entire stormwater management system are requested. Documents on file with the Department may be referenced rather than resubmitted.**

**Response:** The stormwater management system has been previously reviewed and approved by FDEP. In the past consecutive permitting processes, FDEP has approved the stormwater management system at Hardee County Landfill. SCS is submitting drawings produced by Envisors, Briley Wild and Wade Trim for the existing stormwater management system at Hardee County Landfill as well as stormwater calculations for the existing stormwater management system produced by SCS Engineers. The drawings and calculations are located in Attachment A-4.

**12. 62-701.400(11). Documentation to demonstrate that the current landfill design provides an equivalent degree of protection for the environment as would a similar landfill whose bottom liner is not in contact with groundwater is requested.**

**Response:** The entire existing disposal area was permitted in 1983. The Department has reviewed and approved the previous construction permits for the sideslope liners

and containment system design at Hardee County Landfill. The waste disposal area has been permitted and regularly filled since 1983 and based upon the last biennial report, submitted on May 16, 2003, no major groundwater impacts have been noted.

13. **62-701.410(2). All related geotechnical reports are requested. Documents on file with the Department may be referenced rather than resubmitted.**

**Response:** The Department has reviewed and approved previous construction permits, which includes a geotechnical report from PSI, dated March 10, 1997.

14. **62-701.430. Documentation to demonstrate that the vertical expansion from elevation  $\pm 155$  NGVD (based on previous geotechnical calculations) to elevation  $\pm 164$  NGVD (after final cover as noted on the proposed drawings) complies with each of the requirements in Rule 62-701.430 is requested.**

**Response:** SCS and Hardee County have reviewed the previously submitted operations plan and have revised the plans to better conform with proposed expansion plans for the landfill. As a result, the fill sequence plans were revised and are contained in Attachment D. The revised final buildout elevation of the existing landfill is approximately elevation  $\pm 150$  NGVD (elevation  $\pm 153$  NGVD with cap). Therefore the settlement and bearing capacity analyses submitted are still applicable. The sideslopes of the proposed revision have changed from 4(h):1(v) to 3(h):1(v). SCS has completed revised slope stability analyses for the proposed sideslope increase. The slope stability analyses is contained in Attachment A-8.

15. **62-701.500(1). Revisions to Section L.1 are requested to describe or reference a training plan with the listed courses and hours of training for operators and spotters to demonstrate compliance with 62-701.320(15).**

**Response:** Changes have been made to Section L.1 and reference Rule 62-701.500(1), F.A.C. The revised Section L is located in Attachment A-9.

16. **62-701.500(2). Revisions to the Operations Plan are requested to include the document title and date on each page. Revisions to the Section entitled Background Information are requested as follows:**

**Response:** Changes have been made to the Operations Plan to reflect the document title and date on each page. Section L is located in Attachment A-9.

- a) **include section numbers by each subheading;**

**Response:** Changes have been made to the Operations Plan located in Attachment A-9.

- b) **delete references to unrelated C&D debris disposal practices;**

**Response:** Changes have been made to the Operations Plan located in Attachment A-9.

- c) **provide reference to the MRF operation plan on file with the Department rather than resubmit (this application does not include a review of the MRF operations plan which is permitted separately);**

**Response:** The MRF Operations Plan is referenced within the Landfill Operations Plan.

- **include a description for the storage of batteries, paint, used oil and other special wastes under cover with spill containment.**

**Response:** The batteries, paint, used oil and other special wastes are stored in the Household Hazardous Waste Collection Center (HHWCC). This area is roofed and has a curb in order to contain spills should one occur. Used oil is consolidated into two double-walled oil tanks. Lead acid batteries are stacked three high on palettes, with cardboard placed between each layer, and then shrink wrapped. Only empty dried out paint cans are accepted throughout the year. If a can of paint is found by landfill personnel it is taken to the household hazardous waste facility for temporary storage in hazardous waste bunkers until removed from the site by the qualified contractor. Private contractors are hired for the removal of the special wastes such as the used oil, paint, lead acid batteries, and fluorescent light bulbs. Changes have been made to the Operations Plan located in Attachment A-9.

17. **62—701.500(2)(b). 1) Revisions to Section L.2.b. are requested for the following items:**

- a) **to describe procedures for responding to spills.**

**Response:** Liquids are not accepted at the landfill. If a liquid is identified, the hauler is asked to remove the liquid from the site. If a liquid is spilled, absorbent granules are placed on the spilled liquid. The absorbent granules are placed in barrels at the Household Hazardous Waste area until a private hauler can remove the material. Changes have been made to the Operations Plan located in Attachment A-9.

- b) **to describe agreements with adjacent counties for the disposal of waste in the event that the facility must remain closed for more than 48 hours is requested.**

**Response:** If the landfill is shut down for more than 48 hours, the Department will be notified. Hardee County Landfill has a contact list of Class I, Class III, and C&D landfills that neighbor the County. Through the "Small County Coalition", various counties will work together during a times of emergency. The contact list is located in Attachment A-10. Changes have been made to the Operations Plan located in Attachment A-9 to include a contact list of adjacent waste disposal facilities.

- c) **to describe procedures for managing "hotloads".**

**Response:** As per Rule 62-701.500(6)(b), F.A.C., if a "hotload" is identified, the Department will be promptly notified and the hauler identified from a license plate or by hauling records. A front-end loader separates the "hotload" from other waste while keeping it within the lined area and marking it with applicable markers. The "hotload" will be covered and a perimeter berm will be placed around the "hotload" to minimize contact with stormwater. Covers include a 20-mil Visqueen rolls, which are available at the Household Hazardous Waste Collection Center. Hardee County will contact the person/entity who dumped the "hotload" and request removal within 48 hours. If the 48 hours expire without removal, Hardee County will separate clean materials that can be segregated onsite. The County will contact an independent waste hauler for proper disposal of the "hotloads" at a permitted hazardous waste management facility. Changes have been made to the Operations Plan located in Attachment A-9.

18. **62-701.500(2)(c). Revisions to Section L.2.c. are requested to describe the following items:**

- a) **procedures for the disposal of asbestos;**

**Response:** Changes have been made to Section L.2.c to reflect Rule 62-701.500(2)(c), F.A.C. The revised Section L is located in Attachment A-9.

- b) **for inspection of each load and the procedures for the removal each type of unacceptable waste from the working face;**

**Response:** Changes have been made to Section L.2.c to reflect Rule 62-701.500(2)(c), F.A.C. The revised Section L is located in Attachment A-9.

**c) procedures for the disposal of contaminated soil.**

**Response:** Changes have been made to Section L.2.c to reflect Rule 62-701.500(2)(c), F.A.C. The revised Section L is located in Attachment A-9.

**19. 62-701.500(2)(f). Revisions to Section L.2.f. are requested to describe the procedures for the daily disposal of both loose waste and baled waste at one or two working faces.**

**Response:** Changes have been made to Section L.2.f to reflect Rule 62-701.500(2)(f), F.A.C. The revised Section L is located in Attachment A-9.

**20. 62-701.500(2)(j). Revision to Section L.2.j. is requested to include a procedures for inspecting the overfill protection system for each tank.**

**Response:** As part of the Leachate Management Program, Hardee County personnel monitor the amount of liquid entering the tanks at the control panel. Routine inspections include:

- Inspection of flow meters to ensure proper operation.
- Examining the overflow pipes in Tank 1 for obstructions.
- Monitoring the liquid levels in both tanks.

The overfill protection system is as follows:

- 1.) Tank 1 is filled by the pump station located at Manhole 8 (MH-8). If the liquid level rises above the overflow pipe in Tank 1, the flow is diverted to Tank 2.
- 2.) As Tank 2 fills and equalizes with Tank 1, the two tanks fill simultaneously.
- 3.) As both tanks continue to fill, each tank has a final overflow pipe, which allows liquid to flow into the containment area for each individual tank. Changes have been made to Section L.2.j to reflect Rule 62-701.500(2)(j), F.A.C. Section L is located in Attachment A-9.

**21. 62-701.500(6). Revisions to Section L.6 are requested to describe a loose waste disposal load checking program and procedures for managing all unacceptable waste and special wastes.**

**Response:** Changes have been made to Section L.6 to reflect Rule 62-701.500(6), F.A.C. Section L is located in Attachment A-9.



**22. 62-701.500(7)(a). Revisions to Section L.7.a. are requested for the following items:**

- a) to describe a lift of bales not more than three high;**

**Response:** Changes have been made to Section L.7.a. to reflect Rule 62-701.500(7), F.A.C. Section L is located in Attachment A-9.

- b) to provide a figure for the bale layout;**

**Response:** Changes have been made to Section L.7.a. to reflect Rule 62-701.500(7), F.A.C. Section L is located in Attachment A-9.

- c) to describe compaction procedures for loose waste.**

**Response:** Changes have been made to Section L.7.a. to reflect Rule 62-701.500(7), F.A.C. Section L is located in Attachment A-9.

**23. 62-701.500(7)(c). Revision to Section L.7.d. are requested for the following items:**

- a) to describe the typical minimum top slope to drain;**

**Response:** The minimum top slope is sufficient to allow surface water runoff and minimize ponding. The slopes will vary with daily operations. The typical minimum slopes are 0.10 to 0.25 percent. Changes have been made to Section L.7.d, located in Attachment A-9 to reflect Rule 62-701.500(7)(c), F.A.C.

- b) to describe a lift of bales not more than three high;**

**Response:** Changes have been made to Section L.7.d. to reflect Rule 62-701.500(7)(c), F.A.C. Section L is located in Attachment A-9.

- c) to describe loose waste added to achieve the designed slopes.**

**Response:** Changes have been made to Section L.7.d. to reflect Rule 62-701.500(7)(c), F.A.C. Section L is located in Attachment A-9.

**24. 62-701.500(7)(d). Revisions to Section L.7.d. are requested to describe a berm around the working face to contain leachate, and one or two working faces.**

**Response:** Changes have been made to Section L.7.d. to reflect Rule 62-701.500(7)(d), F.A.C. Section L is located in Attachment A-9.

25. **62-701.500(7)(e) and (f). Revisions to Sections L.7.e. and L.7.f. are requested to describe the initial cover as “6-inches of compacted cover material”, and to describe all other proposed initial cover materials.**

**Response:** Changes have been made to Section L.7.e. and L.7.f to reflect Rule 62-701.500(7)(e) and (f), F.A.C. Section L is located in Attachment A-9.

26. **62-701.500(7)(g). Revisions to Section L.7.g. are requested to describe the following items:**

- a) **to describe the typical minimum top slope to drain;**

**Response:** The minimum top slope is sufficient to allow surface water runoff and minimize ponding. The slopes will vary with daily operations. The typical minimum slopes are 0.10 to 0.25 percent. Changes have been made to Section L.7.g., located in Attachment A-9, to reflect Rule 62-701.500(7)(g), F.A.C.

- b) **to describe the construction of a berm around the working face to contain leachate;**

**Response:** Berms and swales on the working face, shown on the Permit drawings, are maintained to prevent leachate runoff from the working face from entering the stormwater management system as stated in the existing solid waste permit. Changes have been made to Section L.7.g. to reflect Rule 62-701.500(7)(g), F.A.C. Section L is located in Attachment A-9.

- c) **to explain that soil with any waste cannot be used as intermediate cover, or anywhere outside of the bermed working face disposal area.**

**Response:** Soils containing any waste cannot be used as intermediate cover and must be placed within the lined and bermed working face to prevent stormwater runoff contamination. Changes have been made to Section L.7.g. to reflect Rule 62-701.500(7)(g), F.A.C. Section L is located in Attachment A-9.

27. **62-701.500(7)(h). Revisions to Section L.7.h. are requested to describe a timeframe for applying for a closure permit and for completing closure, and to describe the areas that are already completely filled to match the proposed cross-sections.**

**Response:** Changes have been made to Section L.7.h. to reflect Rule 62-701.500(7)(h), F.A.C. Section L is located in Attachment A-9.

28. **62-701.500(7)(j). Revisions to Section L.7.h. are requested to describe the removal of litter from outside of the working face within 24 hours.**

**Response:** Changes have been made to Section L.7.j. to reflect Rule 62-701.500(7)(i), F.A.C. Section L is located in Attachment A-9.

29. **62-701.500(8). a) Revisions to Section L.8.a. are requested to describe the landfill performance criteria to demonstrate that all leachate is removed from the landfill. b) Revisions to Section L.8.b. are requested to describe the design of the existing leachate collection system and the method of filtering the contained surface leachate prior to pumping it to a manhole. c) Revisions to Section L.8.B. are requested to describe the tank and truck loading procedures and tank inspections.**

**Response:**

- a) Refer to Attachment A-9 for revisions to the Operations Plan. Revision include a discussion on how to use the interior piezometers to estimate leachate levels within the disposal area.
- b) Surface water runoff that comes in contact with solid waste is considered leachate. Surface water flows to low areas, which allows for percolation. If this low area is needed for operational purposes, the liquid is pumped to the nearest manhole to minimize pumping the surface debris into the manhole. The County uses a screened suction intake or will place hay bales or silt fence around the suction intake. Changes have been made to Section L.8.b., located in Attachment A-9, to reflect Rule 62-701.500(8)(b), F.A.C.
- c) Refer to Attachment A-9 for revisions to the Operations Plan.
30. **62-701.500(9) and 62-701.530. Revisions to Section L.9. are requested for the following items:**

- a) **to describe precautions to be taken when entering or, servicing areas where dangerous gases may have accumulated;**

**Response:** Changes have been made to Section L.9, located in Attachment A-9. Upon entering areas with landfill gas (LFG), the following procedure should be followed in order to ensure worker safety:

- Ventilate the area if possible.
- Monitor the ambient air within the area at all times, using a hand-held or personal monitoring device.

**b) to describe the gas monitoring location within buildings;**

**Response:** Gas monitoring will be conducted at foundation penetrations, enclosed spaces such as ground-level cabinets, or electrical control boxes, outlets and openings to conduits. Changes have been made to Section L.9, located in Attachment A-9.

**c) to reference the gas monitoring report form;**

**Response:** The LFG Monitoring Form is located in Attachment A-9. The gas form includes the required monitoring locations, date and time of the sampling event, weather conditions, and methane content measured.

**d) to provide a detail for the construction of the gas probes;**

**Response:** The Department has previously revised and approved the construction of the gas probes at Hardee County. Please refer to the Post, Buckley, Schuh, & Jernigan drawings dated June 1997, which is on file at the Department, for a detail of the gas probes.

**e) to describe the gas monitoring sampling procedures;**

**Response:** LFG is monitored in accordance with Rule 62-701.530, F.A.C. and the permit (No. 38414-002-SO). The permit requires that LFG be monitored quarterly and all results submitted to the Department. LFG is monitored with the following procedure:

- (i) Calibrate the field instrument, or check the calibration per the instrument's factory settings.
- (ii) Monitor probes (GP-1 through GP-11) and on-site structures, which include the maintenance building, materials recovery facility, scalehouse, and animal control kennel for methane per Rule 62-701.530(2), F.A.C.
- (iii) Record data on the LFG Monitoring Form, located in Attachment A-9, Operations Plan. Changes have been made to Section L.9, located in Attachment A-9.

**f) to describe the type of gas monitoring meter.**

**Response:** Gas monitoring at the Hardee County Landfill will be performed using the appropriate hand-held gas-monitoring device capable of measuring and

reporting methane as a percent by volume in air or as a percentage of the lower explosive limit (LEL) for methane. Hardee County currently owns a X-Check Gas Detector for LFG monitoring. Other industry-standard equipment also may be utilized.

- 31. 62-701.500(10). Revisions to Section L.10. are requested a) to describe the entire stormwater system design and operation, and b) to provide references for all record drawings for the entire stormwater management system. Documents on file with the Department may be referenced rather than resubmitted.**

**Response:** Changes have been made to Section L.10, located in Attachment A-9.

- a) Changes have been made to Section L.10, located in Attachment A-9.
- b) The stormwater management system has been previously reviewed and approved by FDEP. In the past consecutive permitting processes, FDEP has approved the stormwater management system at Hardee County Landfill. SCS is submitting the Wade Trim drawing set, which appears to coincide with the existing stormwater management system at Hardee County Landfill.

- 32. 62-701.500(11)(f). Revisions to Section L.11.f. are requested to describe the removal of litter from outside of the working face within 24 hours.**

**Response:** Changes have been made to Section L.11.f., located in Attachment A-9, to reflect Rule 62-701.500(7)(i), F.A.C.

- 33. 62-701.410, .500, and .510. Responses to each of the items in Mr. John Morris' June 12, 2003 memorandum (attached) are requested. You may call Mr. Morris at (813) 744-6100, extension 336 to discuss the items in his memorandum.**

**Response:** Please see responses to Mr. Morris' memorandum in Appendix B.

- 34. 62-701.630. Responses to each of the items in Mr. Steve Morgan's June 17, 2003 letter (attached) are requested. You may call Mr. Morgan at (813) 744-6100, extension 385 to discuss the items in his letter.**

**Response:** Please see responses to Mr. Morgan's letter in Appendix C.

Mr. Kim B. Ford, P.E.  
September 30, 2003  
Page 19

Please call if you have any questions.


Sincerely,



Joseph O'Neill, P.E.  
Project Manager  
SCS ENGINEERS

JHO/RJD:jlh

Attachments



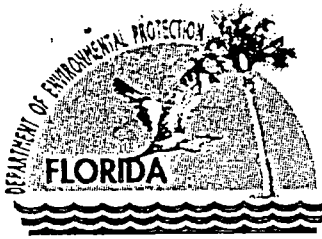
Raymond J. Dever, P.E., DEE  
Vice President  
SCS ENGINEERS



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# Department of Environmental Protection

Jeb Bush  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

David B. Struhs  
Secretary

DATE: SEP. 2, 2003  
 TIME: 10:00 A.M.  
 SUBJECT: HARDEE COUNTY LANDFILL - RAI #1 MEETING

### ATTENDEES

<u>Name</u>	<u>Affiliation</u>	<u>Telephone</u>
Susan Pelz	FDEP	813-744-6100 x386
Raymond Dever	SCS Engineers	813-621-0080
Lindsey Kennelly	SCS Engineers	(813) 621-0080
Joseph O'Neill	SCS ENGINEERS	(813) 621-0080
Janice Williamson	Hardee County	863-773-5089
Kim FORD	DEP	813-744-6100 x382
John Morris	DEP SOLID WASTE SECTION	↓ x336



August 29, 2003  
File No. 09199033.09

## MEMORANDUM

**TO:** Kim B. Fort, P.E.  
**FROM:** Joseph H. O'Neill, P.E.  
**SUBJECT:** Agenda for Hardee County Landfill

### Agenda Outline

**Where:** Florida Department of Environmental Protection  
Southwest District Office

**When:** September 2, 2003 @ 10:00 a.m.

### Topics

#### Operation Permit Renewal

1. Status of Leachate Tank Inspections/Repairs

2. Existing Leachate Collection System

3. Filling of Existing Landfill Cell

- A. Proposed Sideslopes and Bale/Loose Waste Placement
- B. Filling on East and South sides — loose waste

#### Proposed Expansion Plans

4. Proposed Bottom Expansion

- A. Bottom Liner System
- B. Seasonal High Groundwater Table / High Groundwater Table

5. Lining the Sideslopes of the existing Cell on West and Southern sides

6. Future Expansion Buildout / Master Stormwater Plan

7. FDEP Questions/Comments

Hardee Co

9/2/03

EXPANSION - south & west

Bottom liner -

proposed  
sump @ el. ~~78.5~~ → 79

SEASONAL high 78.5

All-time high 82 (Dec '02)

SEASONAL low ~~76~~ ≈ 76

2' SAND  
geocomposite

79 → 60 mil  
geomat  
60 mil

GCL (reinforced)

≈ 78.85 - 6-inch subgrade

Underdrain

current water levels? don't have them yet

- they will get current levels in next 2 wks

fluctuating zone -

- impacts on GCL?

- Added GCL AS additional protection because of fluctuation

- <sup>expect</sup> GCL will always be hydrated

if use underdrain, then NO GCL

below el +80

sump only ⇒ 1 ft  $10^{-7}$  instead of 6-inch  $10^{-5}$

side slope -

gm on west & south slope

may want to line new cell then come back &

tie into liner over existing cell

Existing LCS -

access from MH4 to 7 video

break in pipe from MH6-7 ⇒ want to repair ~~while~~ while construction

break in line MH6 - MH7

- it's functioning but needs repair
- functioning after fill over it

9/2/03

Handec

1/1

Expansion

J.D. sheets 7B

All Time sheet 8D

STANDARD DESIGN FOR DOUBLE LINER

EXCEPT GCL

LOTS OF DISCUSSION ABOUT

Bottom Liner Design

AND GOING THROUGH WITH DEVELOPER  
(SEE JOHN'S / SUSAN'S NOTES)

DISCUSSED EXISTING LERS

A RESPONSE WILL BE PROVIDED

TO 400 (E)(a) 1, 2, 3, 4

EE SUGGESTED 1' @ 10<sup>-7</sup> cm/sec clay

IN ALL AREAS OF EXPANSION

BELOW EL. 80 AND

Bottom to slope 2% AND

TOWARD OUTER PERIMETER, AND

UNDERDRAIN TO BE ABOVE

OUTER PERIMETER NOT

UNDER MOUND OF WASTE

9/2/03

HARDEE COUNTY LANDFILL

JANICE WILLIAMSON  
JOE O'NEILL  
KIM DEVERIS } SCS  
LINDSAY KENNEDY }  
KEF  
SSP  
JRM

EXPANSION PLANS

#4 - PROPOSED DESIGN OF LINER SYSTEM DISCUSSED

- LOW POINT AT SOUTH PART OF EXPANSION AT +79 FT ELEV ; SEASONAL LOW ~ 76.5 FEET
- ALL TIME HIGH MEASURED AT +82 FT ELEV (DEC 2002) ; REQUESTED THAT TAKE A CURRENT ROUND OF WATER LEVELS TO COMPARE W/ HIGHEST LEVELS MEASURED AT SITE
- DISCUSSED DESIGN IN RELATION TO SEASONAL HIGH VS. ALL TIME HIGH VS. CURRENT W/L'S
- INTENT TO STAY ABOVE SEASONAL HIGH W.T.
- $10^{-5}$  CM/SEC SANDY CLAY (NATIVE SOIL) BELOW GCL LAYER PLANNED
- OPTIONS FOR PUTTING BOTTOM LINER ALL BELOW SEASONAL LOW W.T. DISCUSSED - ADVANTAGES & DISADVANTAGES
- J-O'NEILL HAS CONTACTED SUPPLIER OF GCL REGARDING IMPACTS - MATERIAL WILL NOT RETURN TO ORIGINAL DURED (POWDERY) FORM, BUT NOT SUSCEPT TO CRACKING LIKE A NATURAL SOIL CLAY LAYER ; NOT SURE HOW LONG GCL WILL RETAIN MOISTURE
- DEP CONCERN IS REGARDING ABILITY OF WETTED GCL TO DRY OUT & RETAIN PROPERTY TO "RE-SEAL" WHEN HYDRATED AGAIN (EITHER W/L FLUCTUATION OR LEAK THROUGH LINER IN THE EVENT OF FAILURE)
- POTENTIAL FOR DRAINAGE BELOW CELL BOTTOM (FRENCH DRAIN OR GEONET) TO ALLOW GRAVITY DRAINAGE TO SW DITCH OR SOMOW PIT
- OPTION FOR DESIGNING SOUTH PART OF EXPANSION AREA TO SLOPE TO THE SOUTH THEN TOE DRAIN BELOW SOUTH CELL WOULD ACT AS DRAINAGE LAYER
- ISSUES ASSOCIATED W/ LONG-TERM OPERATION OF DRAINAGE PIPE & GEO-NET FOR 30+ YEARS
- POTENTIAL CONTINGENCY ISSUES WITH DESIGN APPEAR TO FALL BACK ON IMPACTS TO GCL LAYER BY W/L FLUCTUATIONS
- GCL LAYER MAY NOT BE NEEDED IF INSTALL UNDER DRAIN SYSTEM (TO OPERATE TO KEEP LINER SYSTEM OUT OF W.T. DURING PERIODS ~~WHERE~~ WHEN HAVE EXTREMELY WET COND'S)
- 1 FT OF  $10^{-7}$  CM/SEC CLAY IN SUMP AREA ONLY } ANYWHERE BELOW ELEV. 80 FT  
6 INCHES OF  $10^{-5}$  CM/SEC SANDY CLAY } GETS ADD'L CLAY LAYER

### HANDCOE COUNTY MTG

- IF PUT UNDERDRAIN PIPES UNDER LF FOOTPRINT NEED TO PROVIDE CRUSH CALCULATIONS
- IF PUT UNDERDRAIN PIPE AT TOE OF FOOTPRINT (PERIMETER) HAVE ONLY A FEW FEET OF SOIL OVER TOP
- 20<sup>+</sup> YEAR LIFE SPAN FOR PROPOSED EXPANSION ESTIMATED
- 5 YEAR FOOTPRINT WILL BE PERMITTED (WERE PLANNING TO CONSTRUCT ENTIRE FOOTPRINT AND COVER W/ RAIN TRAPS FOR AREA NOT BEING FILLED)
- SUGGESTED THAT PROJECTIONS FROM HANDCOE COUNTY BOCC BE AS CONSERVATIVE AS POSSIBLE TO ACCOMMODATE PROPOSED GROWTH
- DISCUSSED POT. (MAYBE) W/ NEW WELL INSTALLED WEST OF PROPERTY FOR LATER EXPANSION / PROHIBITIVES

### #5 SIDESLOPES

- PLAN TO GET CONSTRUCTION CREW TO BUILD NEW CELL SOUTH OF LF, THEN HAVE CREW PUT IN SIDESLOPE LINER OVER EXISTING FOOTPRINT FOR VERTICAL EXPANSION
- ULTIMATE PERM OF SITE WILL SHIFT WEST W/ EXPANSION
- LATER WILL COME BACK W/ PLAN TO CLOSE N & E SLOPES; NEED TO PUT NEW AREAS OF LOOSE WASTE ON N & E SLOPES TO GET TO DESIGN ELEVATIONS; WILL BE PUTTING 400'L BITLES ON THE S & SE CORNERS
- REQUEST THAT COUNTY ADVISE DEP WHEN PUTTING IN FILL ON N & E SLOPES SO INSPECTORS AIN'T CONFUSED BY 3 WORKING FACES

### #6 STORMWATER PLAN

- DAVID SMITH IS THE PERSON TO CONTACT REGARDING USE OF BORROW PIT FOR STORMWATER

NATWIDE COUNTY LF

#2 CEMENT LEACHATE COLLECTION SYSTEM

- APPEAR TO HAVE BROKE IN LINE BETWEEN MANHOLES #6 & #7 BASED ON VIDEO LOG
- CONSIDERING REPAIR OF LEACHATE LINES AT SAMETIME AS DO CONSTRUCTION OF NEW CELL
- ISSUE OF BEING ABLE TO ISSUE OPERATING PERMIT RENEWAL W/ IMPAIRED LEACHATE COLLECTION SYSTEM; NOT FILLED W/ SILT, STILL FUNCTIONING
- RIGHT NOW RUNNING JET CLEAN EQUIPMENT FROM MANHOLE TO MANHOLE, BUT INLET & EXIT PIPES IN MANHOLES ARE AT SAME ELEVATION (NOT OFFSET) SO WILL BE ABLE TO ACCESS LEACHATE COLLECTION PIPES FROM ONE END TO OTHER FROM MANHOLE #4 TO #7
- IT APPEARS THAT SITUATION IS ASSOCIATED W/ RECENT CONSTRUCTION AT SW CORNER; SOME ISSUES W/ JET CLEAN LOG SHOWING SEPARATIONS - MAY BE IRON BROKENUP THAT OBLSCURED VIEW; VIDEO SHOWS RUNNING FROM MANHOLE TO MANHOLE? CHECK DISTANCE RECORDING / CALIBRATION OF DISTANCE COUNTER
- IF CAN DEMONSTRATE THAT SYSTEM STILL IS FUNCTIONING, CAN ISSUE OPERATING PERMIT RENEWAL W/ SP. COND. THAT REQUIRES REPAIR W/IN SO MANY DAYS OF ISSUANCE; BECOMES A PROBLEM ASSOCIATED W/ VERTICAL EXPANSION NOT BEING ALLOWED UNTIL REPAIR HAS BEEN COMPLETED

#1 LEACHATE TANKS - HAVE SCHEDULE FOR REPAIR

EXPECTING 2 SEPARATE SUBMITTALS

- RESPONSES TO LRI LETTER
- SUBMITTAL FOR EXPANSION

} END OF SEPTEMBER ANTICIPATED SUBMITTAL

CLOSURE PERMIT NOT SCHEDULED YET, BUT AFTER CONSTRUCTION PERMIT IS ~~BEING~~ ISSUED

*Superior Client Service*

SCS ENGINEERS  
3012 U. S. Highway 301 N., Suite 700  
Tampa, FL 33619  
(813) 621-0080  
Fax (813) 623-6757

**SCS ENGINEERS**

# facsimile transmittal

To: Kim B. Ford Phone: (813) 744-6100  
 Company: FDEP - S. DISTRICT Fax: (813) 744-6125  
 From: Joseph H. O'Neill Date: AUGUST 29, 2003  
 Re: Handee Co - Agenda Pages: 2  
 cc: \_\_\_\_\_ Project No. 09199033.09

- Urgent
- For Review
- Please Comment
- Please Reply
- Please Recycle

Notes: *Kim,*

*attached is the meeting agenda for the  
SEPT. 2 meeting w/ Handee County (Janice Williamson)*

*Joe O'Neill*



August 29, 2003  
File No. 09199033.09

## MEMORANDUM

**TO:** Kim B. Ford, P.E.  
**FROM:** Joseph H. O'Neill, P.E.  
**SUBJECT:** Agenda for Hardee County Landfill

### Agenda Outline

**Where:** Florida Department of Environmental Protection  
Southwest District Office

**When:** September 2, 2003 @ 10:00 a.m.

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7. FDEP Questions/Comments

**SCS ENGINEERS**

August 29, 2003  
File No. 09199033.08

Mr. Kim B. Ford, P.E.  
Solid Waste Engineer  
Southwest District  
Florida Department of Environmental Protection  
3804 Coconut Palm Drive  
Tampa, Florida 33619



Subject: Request of Extension to Submitted Financial Assurance  
Hardee County Landfill – Permit No. 38414-002-SO  
Hardee County, Florida

Dear Mr. Ford,

On behalf of Hardee County, SCS Engineers (SCS) wishes to confirm our recent conversations regarding an extension to submit the financial assurance for the Hardee County (County) Landfill as required by Rule 62-701.630, Florida Administrative Code (FAC). SCS and the County are currently responding to the Department's June 18, 2003 request for additional information regarding the landfill's Operation Permit renewal application. SCS and the County will be meeting with the Department on September 2 to discuss the application and our proposed responses to the Department's comments. As we discussed, SCS is planning to submit the financial assurance with the responses to the comments on the permit renewal application, as the final form of the responses may impact the financial assurance. We expect that the responses will be submitted by the end of September 2003.

Please call with any questions.

Very truly yours,

Handwritten signature of Joseph H. O'Neill in cursive script. Below the signature, the word "for" is written in a smaller, simpler font.

Joseph H. O'Neill, P.E.  
Senior Project Engineer  
SCS ENGINEERS

Handwritten signature of Raymond J. Dever in cursive script.

Raymond J. Dever, P.E., DEE  
Vice President  
SCS ENGINEERS

JHO/RJD:lek

cc: Janice Williamson, Solid Waste Director, Hardee County



Environmental Consultants

3012 U.S. Highway 301 North  
Suite 700  
Tampa, FL 33619-2242

813 621-0080  
FAX 813 623-6757

**SCS ENGINEERS**

August 29, 2003  
File No. 09199033.08

Post-it® Fax Note	7671	Date	8/29/03	# of pages	1
To	Kim Ford	From	Lindsey Kennelly		
Co./Dept.	FDEP	Co.	SCS Engineers		
Phone #	813-744-6100	Phone #	813-621-0080		
Fax #	813-744-6125	Fax #	813-623-6757		

Mr. Kim B. Ford, P.E.  
Solid Waste Engineer  
Southwest District  
Florida Department of Environmental Protection  
3804 Coconut Palm Drive  
Tampa, Florida 33619

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Please call with any questions.

Very truly yours,

*Lindsey Kennelly*  
for

Joseph H. O'Neill, P.E.  
Senior Project Engineer  
SCS ENGINEERS

*Raymond J. Dever*

Raymond J. Dever, P.E., DEE  
Vice President  
SCS ENGINEERS

JHO/RJD:lek

cc: Janice Williamson, Solid Waste Director, Hardee County

8/12/03



# Complaint

# Florida Department of Environmental Protection

COMPLAINT #: \_\_\_\_\_ PROGRAM AREA: SW OFFICE: Tampa COUNTY: Hardee  
 OPEN DATE: \_\_\_\_\_ STATUS: \_\_\_\_\_ PRIORITY: \_\_\_\_\_ REVIEWER: \_\_\_\_\_

### \*\*\*COMPANY OR PERSON LODGING THE COMPLAINT\*\*\*

COMPANY: \_\_\_\_\_ JOB TITLE: \_\_\_\_\_  
 NAME: Rubin Cruz  
 ADDRESS: former Hardee County employee TYPE: \_\_\_\_\_  
 \_\_\_\_\_ PHONE: 863-375-2761  
 CITY: \_\_\_\_\_ ST: FL ZIP: \_\_\_\_\_ - \_\_\_\_\_ COUNTRY: USA

### \*\*\*COMPANY OR PERSON AGAINST WHOM THE COMPLAINT IS LODGED\*\*\*

COMPANY: Hardee County Solid Waste Department JOB TITLE: \_\_\_\_\_  
 NAME: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_ TYPE: \_\_\_\_\_  
 \_\_\_\_\_ PHONE: \_\_\_\_\_  
 CITY: \_\_\_\_\_ ST: \_\_\_\_\_ ZIP: \_\_\_\_\_ - \_\_\_\_\_ COUNTRY: USA

### \*\*\*COMPLAINT DETAILS\*\*\*

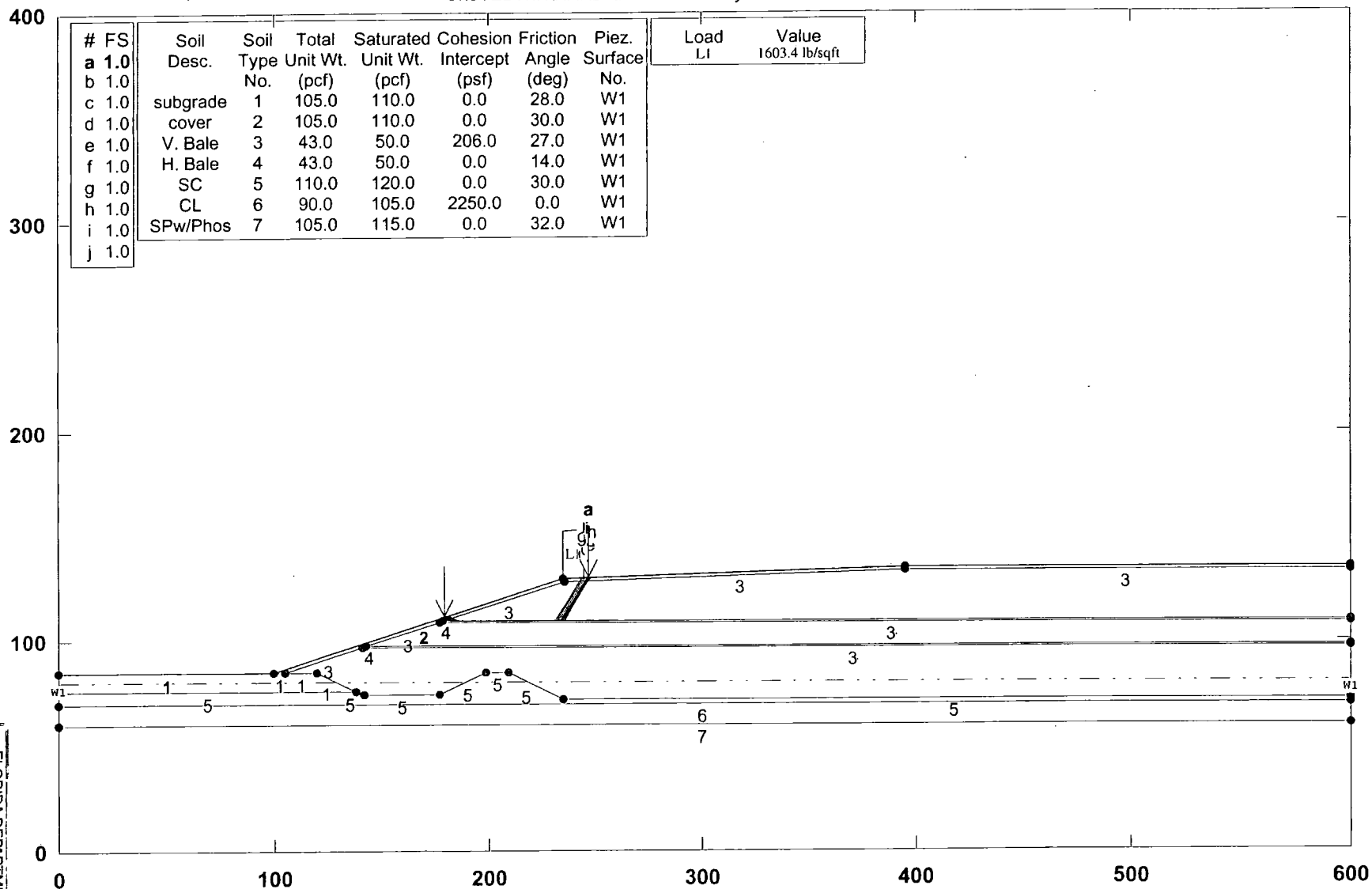
DESCRIPTION: Mr. Cruz feels that he was exposed to working conditions that were unhealthy and that have resulted in his current health problems, including:

- exposure to site water source for drinking/washing up for 3 weeks prior to being informed it was contaminated
- Animal Control stored the head of a raccoon in a plastic bag in the freezer compartment of the refrigerator used for employees lunches; he was later informed that the raccoon was determined to be rabid
- inadequate ventilation has been provided in the bailer building; operation of bailer equipment causes aerosol cans to rupt releasing vapors that the employees are exposed to; he repeatedly asked for respiratory protection that was not provided the County; protective equipment was limited to safety glasses and gloves; he was directed not to wear a hardhat
- inadequate protective clothing has been provided regarding lead dust; information provided by the County to employees indicates that protective clothing should be work outside work clothes and that clothes should be changed before returning home; he feels that his respiratory problems and those of his family members are related to this exposure
- he plans to file a suit against the County; he contacted OSHA and was told County agencies were exempt from OSHA reg

RECEIVED BY: John Morris MODE: Phone RECONTACT REQUESTED: Yes, requested ASAP (1 week)  
 TIME EXISTED: \_\_\_\_\_ INITIAL DISPOSITION: \_\_\_\_\_

# Hardee County Landfill - Existing 2003 Hardee County, Florida

C:\STEDWIN\HARD-EX.PL2 Run By: JHO 5/31/2003 5:45PM



# FS	Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.	Load LI	Value 1603.4 lb/sqft
a 1.0									
b 1.0									
c 1.0	subgrade	1	105.0	110.0	0.0	28.0	W1		
d 1.0	cover	2	105.0	110.0	0.0	30.0	W1		
e 1.0	V. Bale	3	43.0	50.0	206.0	27.0	W1		
f 1.0	H. Bale	4	43.0	50.0	0.0	14.0	W1		
g 1.0	SC	5	110.0	120.0	0.0	30.0	W1		
h 1.0	CL	6	90.0	105.0	2250.0	0.0	W1		
i 1.0	SPw/Phos	7	105.0	115.0	0.0	32.0	W1		
j 1.0									

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 SOUTHWEST DISTRICT  
 TAMPA  
 JUL 23 2003

**SCS ENGINEERS**

STABL6H FSmin=1.0  
 Safety Factors Are Calculated By The Modified Janbu Method

**DRAFT**

**\*\* STABL6H \*\***

by  
 Purdue University  
 --Slope Stability Analysis--  
 Simplified Janbu, Simplified Bishop  
 or Spencer's Method of Slices

Run Date: 5/31/2003  
 Time of Run: 5:53PM  
 Run By: JHO  
 Input Data Filename: C:\hard-ex.  
 Output Filename: C:\hard-ex.OUT  
 Plotted Output Filename: C:\hard-ex.PLT  
 PROBLEM DESCRIPTION Hardee County Landfill - Existing 2003  
 Hardee County, Florida

**DRAFT**

**BOUNDARY COORDINATES**

4 Top Boundaries  
 27 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.00	100.00	85.00	1
2	100.00	85.00	235.00	130.00	2
3	235.00	130.00	395.00	135.00	2
4	395.00	135.00	600.00	135.00	2
5	100.00	85.00	104.74	85.00	1
6	104.74	85.00	140.74	97.00	3
7	140.74	97.00	142.24	97.50	4
8	142.24	97.50	176.74	109.00	3
9	176.74	109.00	178.24	109.50	4
10	178.24	109.50	235.27	128.51	3
11	235.27	128.51	395.00	133.50	3
12	395.00	133.50	600.00	133.50	3
13	178.24	109.50	600.00	109.50	4
14	176.74	109.00	600.00	109.00	3
15	142.24	97.50	600.00	97.50	4
16	140.74	97.00	600.00	97.00	3
17	104.74	85.00	120.00	85.00	1
18	120.00	85.00	138.00	76.00	1
19	.00	76.00	138.00	76.00	5
20	138.00	76.00	142.00	74.00	5
21	142.00	74.00	177.00	74.00	5
22	177.00	74.00	199.00	85.00	5
23	199.00	85.00	209.00	85.00	5
24	209.00	85.00	235.00	72.00	5
25	235.00	72.00	600.00	72.00	5
26	.00	70.00	600.00	70.00	6
27	.00	60.00	600.00	60.00	7

**ISOTROPIC SOIL PARAMETERS**

7 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param. (psf)	Pressure Constant (psf)	Piez. Surface No.
1	105.0	110.0	.0	28.0	.00	.0	1
2	105.0	110.0	.0	30.0	.00	.0	1
3	43.0	50.0	206.0	27.0	.00	.0	1
4	43.0	50.0	.0	14.0	.00	.0	1
5	110.0	120.0	.0	30.0	.00	.0	1
6	90.0	105.0	2250.0	.0	.00	.0	1
7	105.0	115.0	.0	32.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

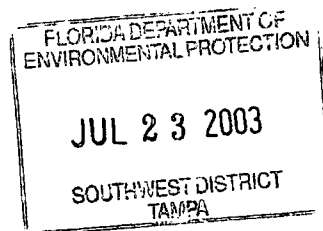
Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 2 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	80.00
2	600.00	80.00

**BOUNDARY LOAD(S)**

1 Load(s) Specified



Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	235.00	244.50	1603.4	.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface.

A Critical Failure Surface Searching Method, Using A Random Technique For Generating Sliding Block Surfaces, Has Been Specified.

The Active And Passive Portions Of The Sliding Surfaces Are Generated According To The Rankine Theory.

500 Trial Surfaces Have Been Generated.

2 Boxes Specified For Generation Of Central Block Base Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	181.50	109.25	200.00	109.25	.25
2	210.00	109.25	260.00	109.25	.25

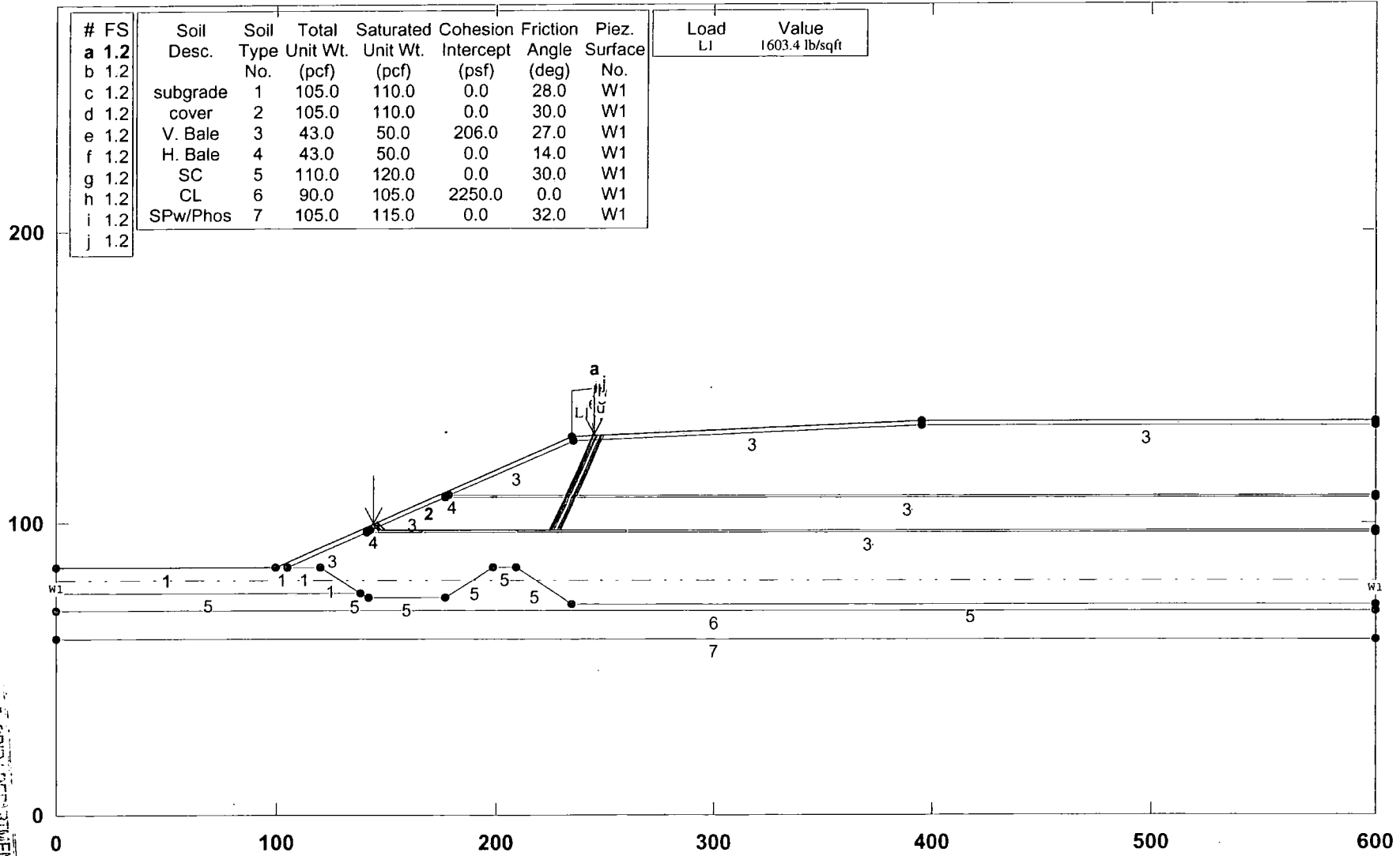
**DRAFT**

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 JUL 23 2003  
 SOUTHWEST DISTRICT  
 TAMPA

# Hardee County Landfill - Existing 2003 Hardee County, Florida

C:\STEDWIN\HARD-EX.PL2 Run By: JHO 5/31/2003 5:51PM

#	FS	Soil Desc.	Soil Type	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface	Load LI	Value
a	1.2									1603.4 lb/sqft
b	1.2									
c	1.2	subgrade	1	105.0	110.0	0.0	28.0	W1		
d	1.2	cover	2	105.0	110.0	0.0	30.0	W1		
e	1.2	V. Bale	3	43.0	50.0	206.0	27.0	W1		
f	1.2	H. Bale	4	43.0	50.0	0.0	14.0	W1		
g	1.2	SC	5	110.0	120.0	0.0	30.0	W1		
h	1.2	CL	6	90.0	105.0	2250.0	0.0	W1		
i	1.2	SPw/Phos	7	105.0	115.0	0.0	32.0	W1		
j	1.2									



STABL6H FSmin=1.2

Safety Factors Are Calculated By The Modified Janbu Method

**SCS ENGINEERS**

**DRAFT**

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 JUL 23 2003  
 SOUTHWEST DISTRICT  
 (P.004)



**\*\* STABL6H \*\***

by  
 Purdue University  
 --Slope Stability Analysis--  
 Simplified Janbu, Simplified Bishop  
 or Spencer's Method of Slices

Run Date: 5/31/2003  
 Time of Run: 5:51PM  
 Run By: JHO  
 Input Data Filename: C:\hard-ex.  
 Output Filename: C:\hard-ex.OUT  
 Plotted Output Filename: C:\hard-ex.PLT  
 PROBLEM DESCRIPTION Hardee County Landfill - Existing 2003  
 Hardee County, Florida

**DRAFT**

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6	104.74	85.00	140.74	97.00	3
7	140.74	97.00	142.24	97.50	4
8	142.24	97.50	176.74	109.00	3
9	176.74	109.00	178.24	109.50	4
10	178.24	109.50	235.27	128.51	3
11	235.27	128.51	395.00	133.50	3
12	395.00	133.50	600.00	133.50	3
13	178.24	109.50	600.00	109.50	4
14	176.74	109.00	600.00	109.00	3
15	142.24	97.50	600.00	97.50	4
16	140.74	97.00	600.00	97.00	3
17	104.74	85.00	120.00	85.00	1
18	120.00	85.00	138.00	76.00	1
19	.00	76.00	138.00	76.00	5
20	138.00	76.00	142.00	74.00	5
21	142.00	74.00	177.00	74.00	5
22	177.00	74.00	199.00	85.00	5
23	199.00	85.00	209.00	85.00	5
24	209.00	85.00	235.00	72.00	5
25	235.00	72.00	600.00	72.00	5
26	.00	70.00	600.00	70.00	6
27	.00	60.00	600.00	60.00	7

**ISOTROPIC SOIL PARAMETERS**

7 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param. (psf)	Pressure Constant (psf)	Piez. Surface No.
1	105.0	110.0	.0	28.0	.00	.0	1
2	105.0	110.0	.0	30.0	.00	.0	1
3	43.0	50.0	206.0	27.0	.00	.0	1
4	43.0	50.0	.0	14.0	.00	.0	1
5	110.0	120.0	.0	30.0	.00	.0	1
6	90.0	105.0	2250.0	.0	.00	.0	1
7	105.0	115.0	.0	32.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

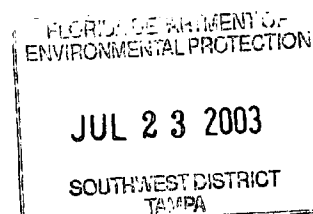
Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 2 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	80.00
2	600.00	80.00

BOUNDARY LOAD(S)

1 Load(s) Specified



Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	235.00	244.50	1603.4	.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface.

A Critical Failure Surface Searching Method, Using A Random Technique For Generating Sliding Block Surfaces, Has Been Specified.

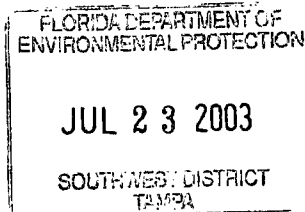
The Active And Passive Portions Of The Sliding Surfaces Are Generated According To The Rankine Theory.

500 Trial Surfaces Have Been Generated.

2 Boxes Specified For Generation Of Central Block Base Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	146.00	97.25	166.50	97.25	.25
2	210.00	97.25	260.00	97.25	.25

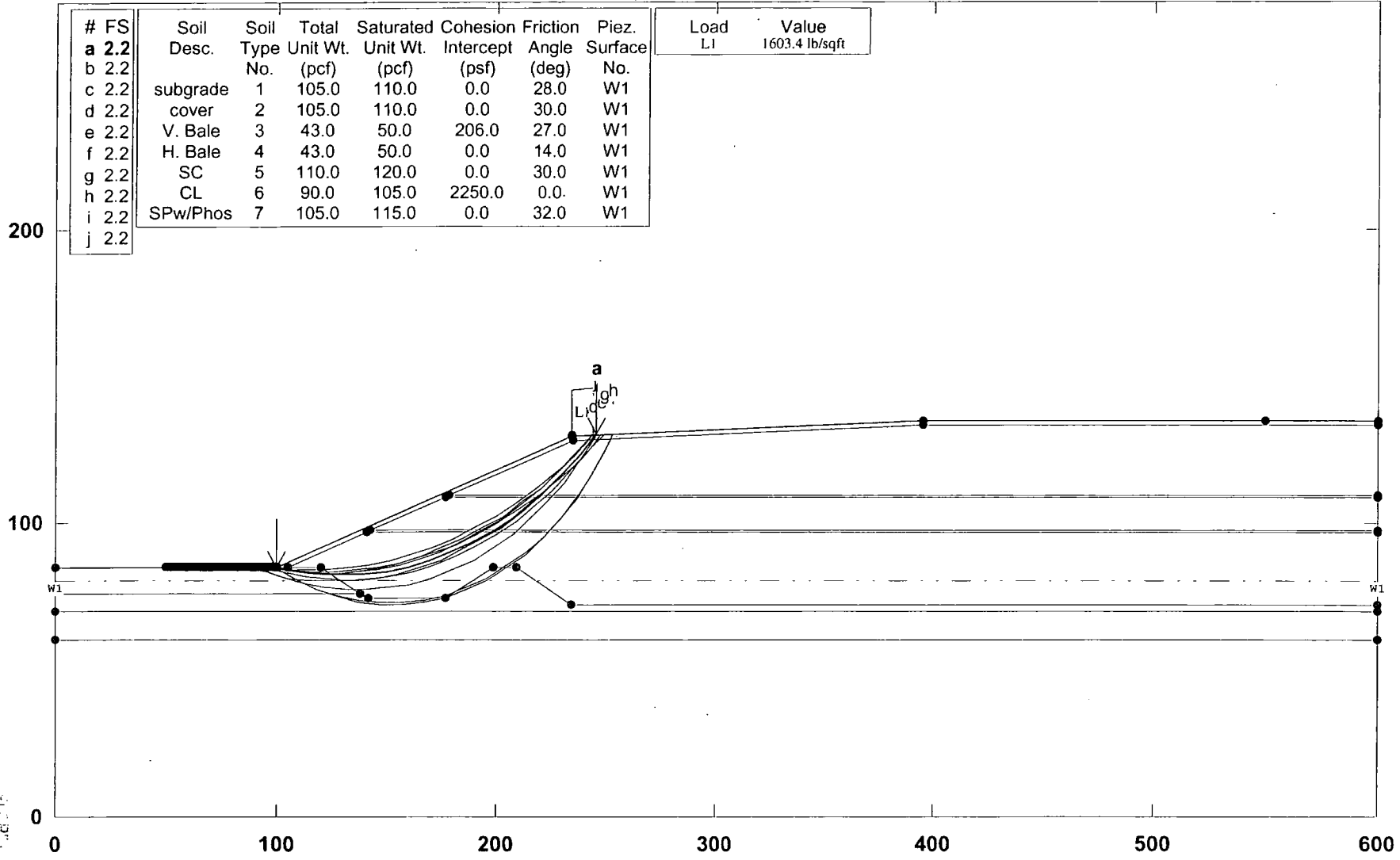
**DRAFT**



# Hardee County Landfill - Existing 2003 Hardee County, Florida

C:\STEDWINHARD-EX.PL2 Run By: JHO 5/31/2003 5:58PM

# FS	Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.	Load LI	Value 1603.4 lb/sqft
a 2.2									
b 2.2									
c 2.2	subgrade	1	105.0	110.0	0.0	28.0	W1		
d 2.2	cover	2	105.0	110.0	0.0	30.0	W1		
e 2.2	V. Bale	3	43.0	50.0	206.0	27.0	W1		
f 2.2	H. Bale	4	43.0	50.0	0.0	14.0	W1		
g 2.2	SC	5	110.0	120.0	0.0	30.0	W1		
h 2.2	CL	6	90.0	105.0	2250.0	0.0	W1		
i 2.2	SPw/Phos	7	105.0	115.0	0.0	32.0	W1		
j 2.2									



**SCS ENGINEERS**

STABL6H FSmin=2.2

Safety Factors Are Calculated By The Modified Bishop Method

**DRAFT**

SOUTH WEST DISTRICT  
 JUL 23 2003  
 FLORIDA DEPARTMENT OF  
 ENVIRONMENTAL PROTECTION  
 TPA 602

**\*\* STABL6H \*\***

by  
 Purdue University  
 --Slope Stability Analysis--  
 Simplified Janbu, Simplified Bishop  
 or Spencer's Method of Slices

Run Date: 5/31/2003  
 Time of Run: 5:58PM  
 Run By: JHO  
 Input Data Filename: C:hard-ex.  
 Output Filename: C:hard-ex.OUT  
 Plotted Output Filename: C:hard-ex.PLT  
**PROBLEM DESCRIPTION** Hardee County Landfill - Existing 2003  
 Hardee County, Florida

**BOUNDARY COORDINATES**

4 Top Boundaries  
 27 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.00	100.00	85.00	1
2	100.00	85.00	235.00	130.00	2
3	235.00	130.00	395.00	135.00	2
4	395.00	135.00	600.00	135.00	2
5	100.00	85.00	104.74	85.00	1
6	104.74	85.00	140.74	97.00	3
7	140.74	97.00	142.24	97.50	4
8	142.24	97.50	176.74	109.00	3
9	176.74	109.00	178.24	109.50	4
10	178.24	109.50	235.27	128.51	3
11	235.27	128.51	395.00	133.50	3
12	395.00	133.50	600.00	133.50	3
13	178.24	109.50	600.00	109.50	4
14	176.74	109.00	600.00	109.00	3
15	142.24	97.50	600.00	97.50	4
16	140.74	97.00	600.00	97.00	3
17	104.74	85.00	120.00	85.00	1
18	120.00	85.00	138.00	76.00	1
19	.00	76.00	138.00	76.00	5
20	138.00	76.00	142.00	74.00	5
21	142.00	74.00	177.00	74.00	5
22	177.00	74.00	199.00	85.00	5
23	199.00	85.00	209.00	85.00	5
24	209.00	85.00	235.00	72.00	5
25	235.00	72.00	600.00	72.00	5
26	.00	70.00	600.00	70.00	6
27	.00	60.00	600.00	60.00	7

**ISOTROPIC SOIL PARAMETERS**

7 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param. (psf)	Pressure Constant (psf)	Piez. Surface No.
1	105.0	110.0	.0	28.0	.00	.0	1
2	105.0	110.0	.0	30.0	.00	.0	1
3	43.0	50.0	206.0	27.0	.00	.0	1
4	43.0	50.0	.0	14.0	.00	.0	1
5	110.0	120.0	.0	30.0	.00	.0	1
6	90.0	105.0	2250.0	.0	.00	.0	1
7	105.0	115.0	.0	32.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

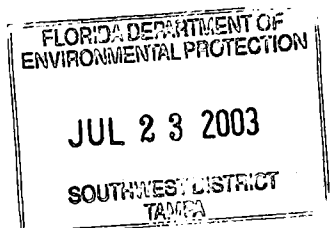
Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 2 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	80.00
2	600.00	80.00

BOUNDARY LOAD(S)

1 Load(s) Specified



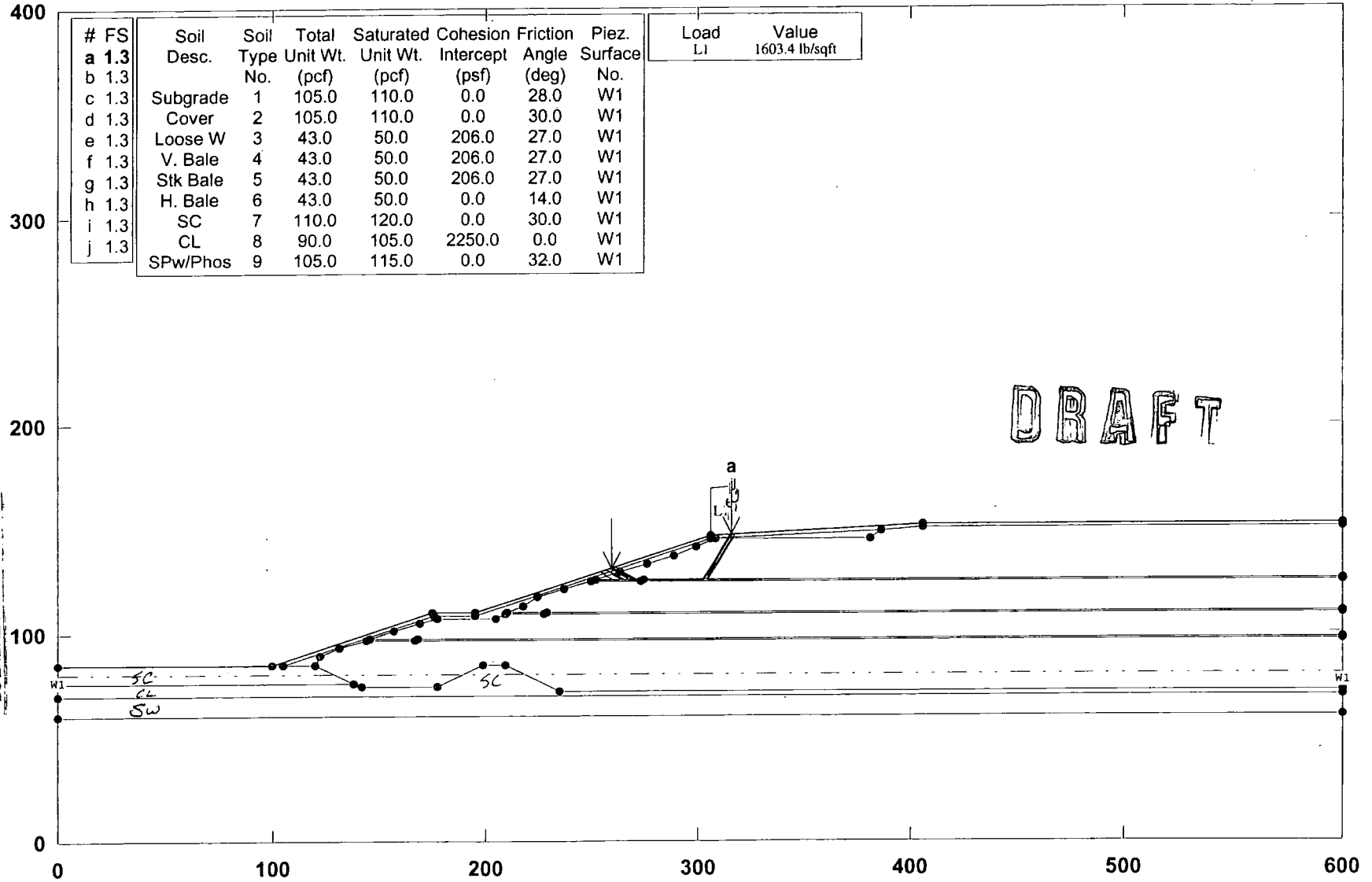
Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	235.00	244.50	1603.4	.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface. A Critical Failure Surface Searching Method, Using A Random Technique For Generating Circular Surfaces, Has Been Specified. 5000 Trial Surfaces Have Been Generated. 100 Surfaces Initiate From Each Of 50 Points Equally Spaced Along The Ground Surface Between X = 50.00 ft. and X = 100.00 ft. Each Surface Terminates Between X = 235.00 ft. and X = 550.00 ft. Unless Further Limitations Were Imposed, The Minimum Elevation At Which A Surface Extends Is Y = .00 ft. 10.00 ft. Line Segments Define Each Trial Failure Surface.

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
JUL 23 2003  
SOUTHWEST DISTRICT  
TAMPA

# Hardee County Landfill - N/S Slope Hardee County, Florida

C:\STEDWIN\HARDEENS.PL2 Run By: JHO 5/31/2003 5:39PM



DRAFT

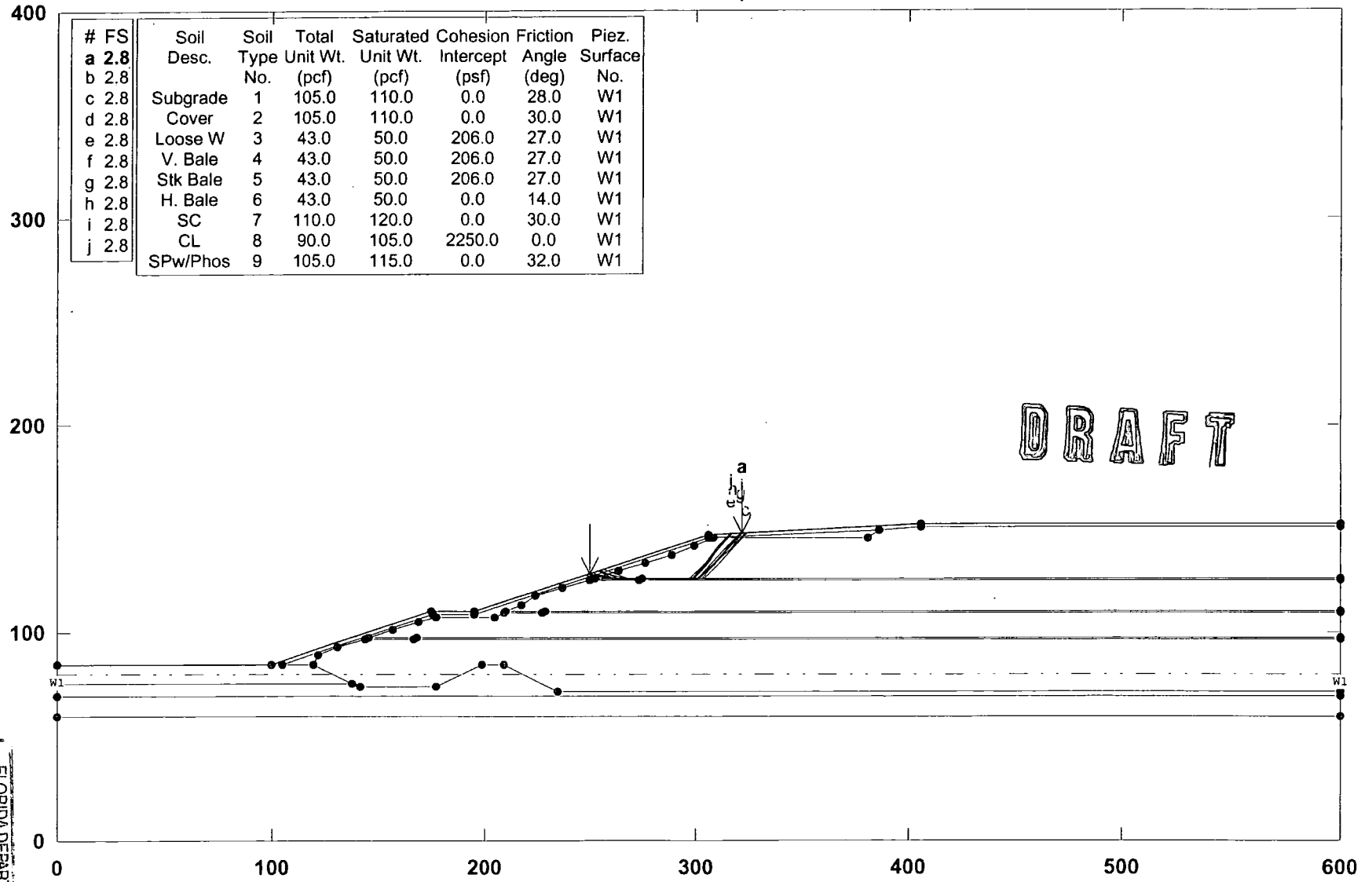
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SOUTHWEST DISTRICT  
TAMPA  
JUL 23 2003

SGS ENGINEERS

STABL6H FSmin=1.3  
Safety Factors Are Calculated By The Modified Janbu Method

# Hardee County Landfill - N/S Slope Hardee County, Florida

C:\STEDWIN\HARDEENS.PL2 Run By: JHO 5/31/2003 5:40PM



# FS	Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
a 2.8							
b 2.8							
c 2.8	Subgrade	1	105.0	110.0	0.0	28.0	W1
d 2.8	Cover	2	105.0	110.0	0.0	30.0	W1
e 2.8	Loose W	3	43.0	50.0	206.0	27.0	W1
f 2.8	V. Bale	4	43.0	50.0	206.0	27.0	W1
g 2.8	Stk Bale	5	43.0	50.0	206.0	27.0	W1
h 2.8	H. Bale	6	43.0	50.0	0.0	14.0	W1
i 2.8	SC	7	110.0	120.0	0.0	30.0	W1
j 2.8	CL	8	90.0	105.0	2250.0	0.0	W1
	SPw/Phos	9	105.0	115.0	0.0	32.0	W1

DRAFT

STABL6H FSmin=2.8

Safety Factors Are Calculated By The Modified Janbu Method



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 SOUTHWEST DISTRICT  
 TAMPA  
 JUL 23 2003

**\*\* STABL6H \*\***

by  
Purdue University  
--Slope Stability Analysis--  
Simplified Janbu, Simplified Bishop  
or Spencer's Method of Slices

Run Date: 5/31/2003  
Time of Run: 5:40PM  
Run By: JHO  
Input Data Filename: C:hardeens.  
Output Filename: C:hardeens.OUT  
Plotted Output Filename: C:hardeens.PLT  
PROBLEM DESCRIPTION Hardee County Landfill - N/S Slope  
Hardee County, Florida

**DRAFT**

**BOUNDARY COORDINATES**

Note: User origin value specified.  
Add 0.00 to X-values and 0.00 to Y-values listed.

6 Top Boundaries  
61 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.00	100.00	85.00	1
2	100.00	85.00	175.00	110.00	2
3	175.00	110.00	195.00	110.00	2
4	195.00	110.00	306.00	147.00	2
5	306.00	147.00	406.00	152.00	2
6	406.00	152.00	600.00	152.00	2
7	100.00	85.00	104.74	85.00	1
8	104.74	85.00	175.24	108.50	3
9	175.24	108.50	195.24	108.50	3
10	195.24	108.50	306.28	145.51	3
11	306.28	145.51	386.00	149.50	3
12	386.00	149.50	406.04	150.50	4
13	406.04	150.50	600.00	150.50	4
14	104.74	85.00	120.00	85.00	1
15	120.00	85.00	122.50	89.00	4
16	122.50	89.00	131.50	93.00	4
17	131.50	93.00	144.00	97.00	4
18	144.00	97.00	145.56	97.50	5
19	145.56	97.50	156.50	101.00	4
20	156.50	101.00	169.00	105.00	4
21	169.00	105.00	177.00	107.50	4
22	177.00	107.50	205.00	107.50	4
23	205.00	107.50	209.17	109.50	4
24	209.17	109.50	210.21	110.00	5
25	210.21	110.00	217.50	113.50	4
26	217.50	113.50	224.00	117.50	4
27	224.00	117.50	237.00	121.50	4
28	237.00	121.50	250.00	125.50	4
29	250.00	125.50	251.63	126.00	5
30	251.63	126.00	263.00	129.50	4
31	263.00	129.50	276.00	133.50	4
32	276.00	133.50	289.00	137.50	4
33	289.00	137.50	299.00	141.50	4
34	299.00	141.50	308.50	145.50	4
35	308.50	145.50	381.00	145.50	4
36	381.00	145.50	386.00	149.50	4
37	251.63	126.00	274.50	126.00	5
38	274.50	126.00	600.00	126.00	6
39	273.00	125.50	274.50	126.00	6
40	250.00	125.50	273.00	125.50	4
41	273.00	125.50	600.00	125.50	4
42	210.21	110.00	229.00	110.00	5
43	229.00	110.00	600.00	110.00	6
44	227.50	109.50	229.00	110.00	6
45	209.17	109.50	227.50	109.50	4

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

**JUL 23 2003**

SOUTHWEST DISTRICT  
TAMPA



46	227.50	109.50	600.00	109.50	4
47	145.56	97.50	168.00	97.50	5
48	168.00	97.50	600.00	97.50	6
49	166.50	97.00	168.00	97.50	6
50	144.00	97.00	166.50	97.00	4
51	166.50	97.00	600.00	97.00	4
52	120.00	85.00	138.00	76.00	1
53	.00	76.00	138.00	76.00	7
54	138.00	76.00	142.00	74.00	7
55	142.00	74.00	177.00	74.00	7
56	177.00	74.00	199.00	85.00	7
57	199.00	85.00	209.00	85.00	7
58	209.00	85.00	235.00	72.00	7
59	235.00	72.00	600.00	72.00	7
60	.00	70.00	600.00	70.00	8
61	.00	60.00	600.00	60.00	9

**DRAFT**

ISOTROPIC SOIL PARAMETERS

9 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	105.0	110.0	.0	28.0	.00	.0	1
2	105.0	110.0	.0	30.0	.00	.0	1
3	43.0	50.0	206.0	27.0	.00	.0	1
4	43.0	50.0	206.0	27.0	.00	.0	1
5	43.0	50.0	206.0	27.0	.00	.0	1
6	43.0	50.0	.0	14.0	.00	.0	1
7	110.0	120.0	.0	30.0	.00	.0	1
8	90.0	105.0	2250.0	.0	.00	.0	1
9	105.0	115.0	.0	32.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 2 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	80.00
2	600.00	80.00

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	306.00	315.50	1603.4	.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface.

SURCHARGE BOUNDARY LOAD DATA HAS BEEN SUPPRESSED

A Critical Failure Surface Searching Method, Using A Random Technique For Generating Sliding Block Surfaces, Has Been Specified.

500 Trial Surfaces Have Been Generated.

2 Boxes Specified For Generation Of Central Block Base

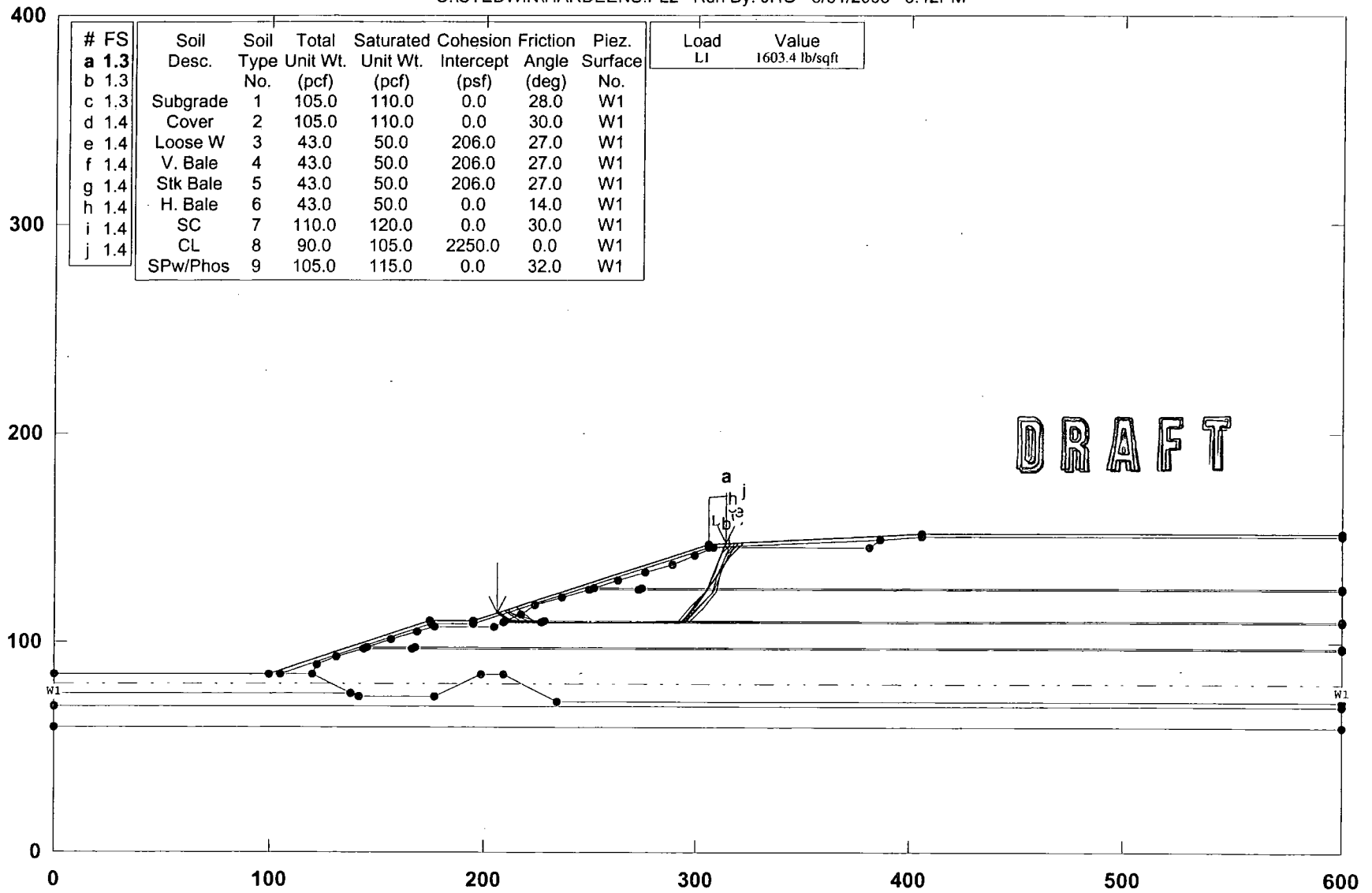
Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	254.00	125.75	273.00	125.75	.25
2	281.00	125.75	330.00	125.75	.25

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**JUL 23 2003**  
 SOUTHWEST DISTRICT  
 TAMPA

# Hardee County Landfill - N/S Slope Hardee County, Florida

C:\STEDWIN\HARDEENS.PL2 Run By: JHO 5/31/2003 5:42PM



DRAFT

SCS ENGINEERS

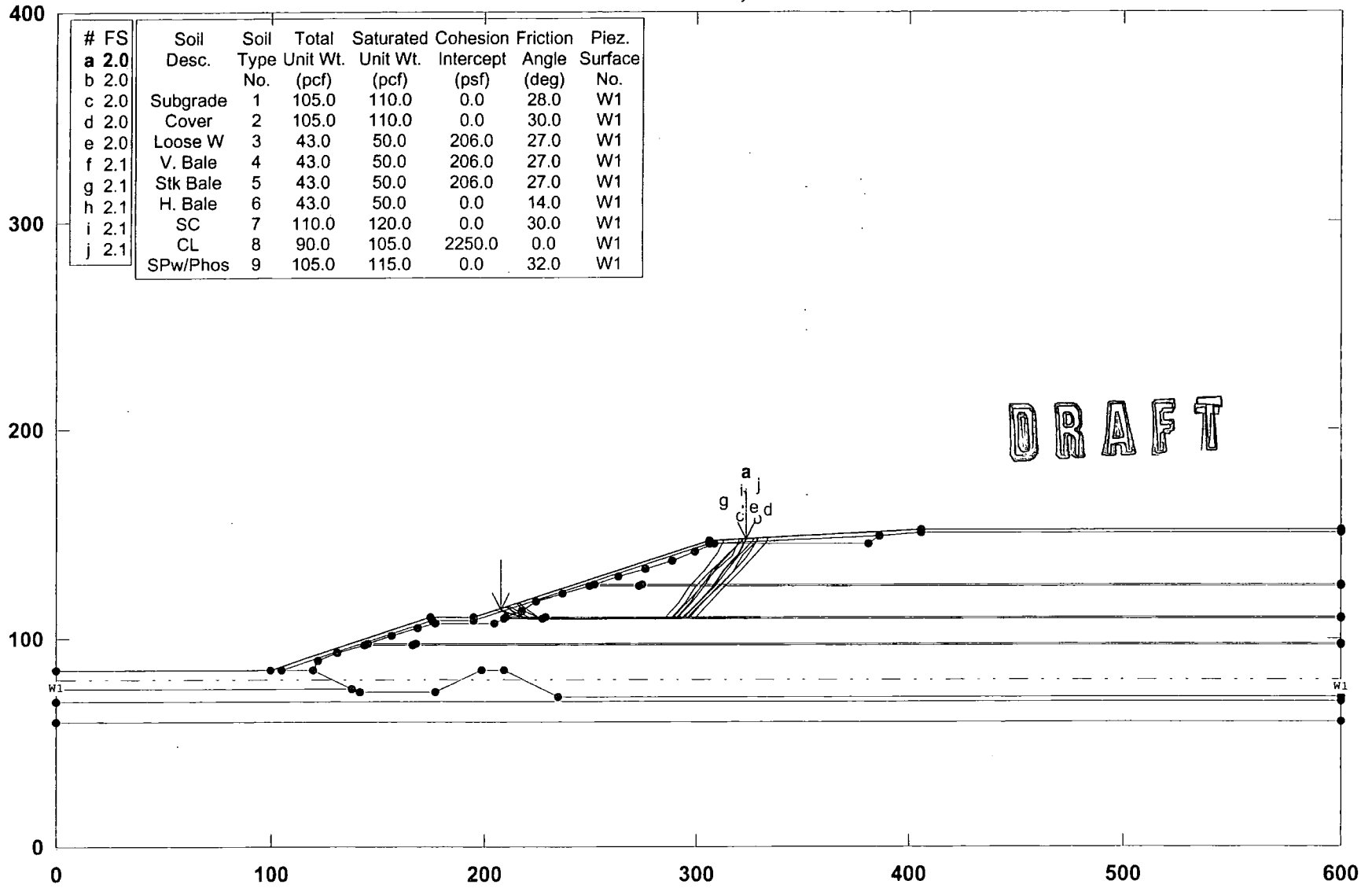
STABL6H FSmin=1.3

Safety Factors Are Calculated By The Modified Janbu Method

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SOUTHWEST DISTRICT  
TAMPA  
JUL 23 2003

# Hardee County Landfill - N/S Slope Hardee County, Florida

C:\STEDWIN\HARDEENS.PL2 Run By: JHO 5/31/2003 5:42PM



# FS	Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
a 2.0							
b 2.0							
c 2.0	Subgrade	1	105.0	110.0	0.0	28.0	W1
d 2.0	Cover	2	105.0	110.0	0.0	30.0	W1
e 2.0	Loose W	3	43.0	50.0	206.0	27.0	W1
f 2.1	V. Bale	4	43.0	50.0	206.0	27.0	W1
g 2.1	Stk Bale	5	43.0	50.0	206.0	27.0	W1
h 2.1	H. Bale	6	43.0	50.0	0.0	14.0	W1
i 2.1	SC	7	110.0	120.0	0.0	30.0	W1
j 2.1	CL	8	90.0	105.0	2250.0	0.0	W1
	SPw/Phos	9	105.0	115.0	0.0	32.0	W1

DRAFT

SCS ENGINEERS

STABL6H FSmin=2.0

Safety Factors Are Calculated By The Modified Janbu Method

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 JUL 23 2003  
 SOUTHWEST DISTRICT  
 TAMPA

**\*\* STABL6H \*\***

by  
 Purdue University  
 --Slope Stability Analysis--  
 Simplified Janbu, Simplified Bishop  
 or Spencer's Method of Slices

Run Date: 5/31/2003  
 Time of Run: 5:42PM  
 Run By: JHO  
 Input Data Filename: C:\hardeens.  
 Output Filename: C:\hardeens.OUT  
 Plotted Output Filename: C:\hardeens.PLT  
 PROBLEM DESCRIPTION Hardee County Landfill - N/S Slope  
 Hardee County, Florida

**DRAFT**

**BOUNDARY COORDINATES**

Note: User origin value specified.  
 Add 0.00 to X-values and 0.00 to Y-values listed.

6 Top Boundaries  
 61 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.00	100.00	85.00	1
2	100.00	85.00	175.00	110.00	2
3	175.00	110.00	195.00	110.00	2
4	195.00	110.00	306.00	147.00	2
5	306.00	147.00	406.00	152.00	2
6	406.00	152.00	600.00	152.00	2
7	100.00	85.00	104.74	85.00	1
8	104.74	85.00	175.24	108.50	3
9	175.24	108.50	195.24	108.50	3
10	195.24	108.50	306.28	145.51	3
11	306.28	145.51	386.00	149.50	3
12	386.00	149.50	406.04	150.50	4
13	406.04	150.50	600.00	150.50	4
14	104.74	85.00	120.00	85.00	1
15	120.00	85.00	122.50	89.00	4
16	122.50	89.00	131.50	93.00	4
17	131.50	93.00	144.00	97.00	4
18	144.00	97.00	145.56	97.50	5
19	145.56	97.50	156.50	101.00	4
20	156.50	101.00	169.00	105.00	4
21	169.00	105.00	177.00	107.50	4
22	177.00	107.50	205.00	107.50	4
23	205.00	107.50	209.17	109.50	4
24	209.17	109.50	210.21	110.00	5
25	210.21	110.00	217.50	113.50	4
26	217.50	113.50	224.00	117.50	4
27	224.00	117.50	237.00	121.50	4
28	237.00	121.50	250.00	125.50	4
29	250.00	125.50	251.63	126.00	5
30	251.63	126.00	263.00	129.50	4
31	263.00	129.50	276.00	133.50	4
32	276.00	133.50	289.00	137.50	4
33	289.00	137.50	299.00	141.50	4
34	299.00	141.50	308.50	145.50	4
35	308.50	145.50	381.00	145.50	4
36	381.00	145.50	386.00	149.50	4
37	251.63	126.00	274.50	126.00	5
38	274.50	126.00	600.00	126.00	6
39	273.00	125.50	274.50	126.00	6
40	250.00	125.50	273.00	125.50	4
41	273.00	125.50	600.00	125.50	4
42	210.21	110.00	229.00	110.00	5
43	229.00	110.00	600.00	110.00	6
44	227.50	109.50	229.00	110.00	6
45	209.17	109.50	227.50	109.50	4

FLORIDA DEPARTMENT OF  
 ENVIRONMENTAL PROTECTION  
 JUL 23 2003  
 SOUTHWEST DISTRICT  
 TAMPA

46	227.50	109.50	600.00	109.50	4
47	145.56	97.50	168.00	97.50	5
48	168.00	97.50	600.00	97.50	6
49	166.50	97.00	168.00	97.50	6
50	144.00	97.00	166.50	97.00	4
51	166.50	97.00	600.00	97.00	4
52	120.00	85.00	138.00	76.00	1
53	.00	76.00	138.00	76.00	7
54	138.00	76.00	142.00	74.00	7
55	142.00	74.00	177.00	74.00	7
56	177.00	74.00	199.00	85.00	7
57	199.00	85.00	209.00	85.00	7
58	209.00	85.00	235.00	72.00	7
59	235.00	72.00	600.00	72.00	7
60	.00	70.00	600.00	70.00	8
61	.00	60.00	600.00	60.00	9

**T  
E  
R  
M  
S**

ISOTROPIC SOIL PARAMETERS

9 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param. (psf)	Pressure Constant (psf)	Piez. Surface No.
1	105.0	110.0	.0	28.0	.00	.0	1
2	105.0	110.0	.0	30.0	.00	.0	1
3	43.0	50.0	206.0	27.0	.00	.0	1
4	43.0	50.0	206.0	27.0	.00	.0	1
5	43.0	50.0	206.0	27.0	.00	.0	1
6	43.0	50.0	.0	14.0	.00	.0	1
7	110.0	120.0	.0	30.0	.00	.0	1
8	90.0	105.0	2250.0	.0	.00	.0	1
9	105.0	115.0	.0	32.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 2 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	80.00
2	600.00	80.00

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	306.00	315.50	1603.4	.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface.

SURCHARGE BOUNDARY LOAD DATA HAS BEEN SUPPRESSED

A Critical Failure Surface Searching Method, Using A Random Technique For Generating Sliding Block Surfaces, Has Been Specified.

500 Trial Surfaces Have Been Generated.

2 Boxes Specified For Generation Of Central Block Base

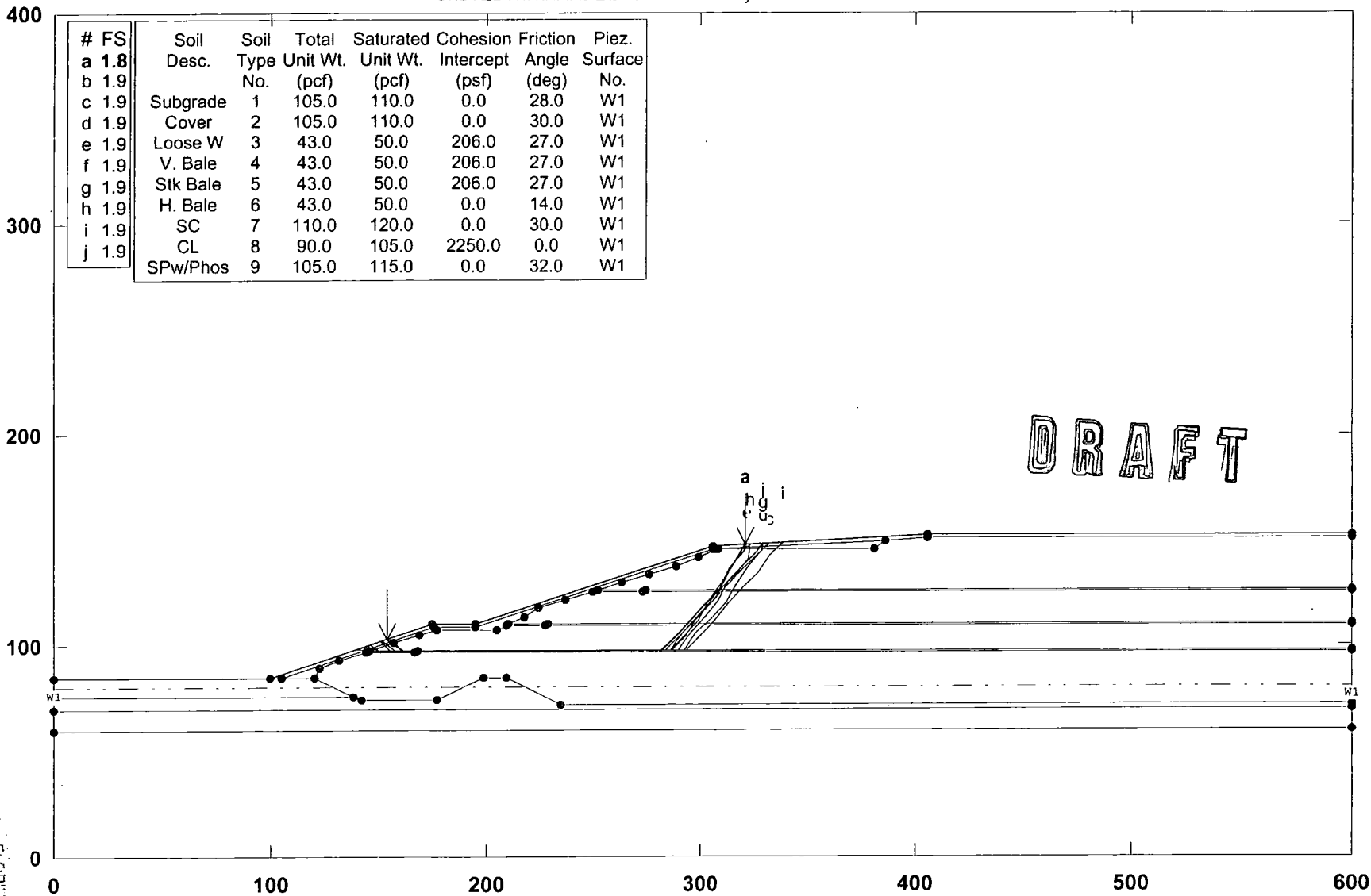
Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	211.50	109.75	227.50	109.75	.25
2	281.00	109.75	330.00	109.75	.25

FLORIDA DEPARTMENT OF  
 ENVIRONMENTAL PROTECTION  
  
**JUL 23 2003**  
 SOUTHWEST DISTRICT  
 TAMPA

# Hardee County Landfill - N/S Slope Hardee County, Florida

C:\STEDWIN\HARDEENS.PL2 Run By: JHO 5/31/2003 5:44PM



#	FS	Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
a	1.8							
b	1.9							
c	1.9	Subgrade	1	105.0	110.0	0.0	28.0	W1
d	1.9	Cover	2	105.0	110.0	0.0	30.0	W1
e	1.9	Loose W	3	43.0	50.0	206.0	27.0	W1
f	1.9	V. Bale	4	43.0	50.0	206.0	27.0	W1
g	1.9	Stk Bale	5	43.0	50.0	206.0	27.0	W1
h	1.9	H. Bale	6	43.0	50.0	0.0	14.0	W1
i	1.9	SC	7	110.0	120.0	0.0	30.0	W1
j	1.9	CL	8	90.0	105.0	2250.0	0.0	W1
		SPw/Phos	9	105.0	115.0	0.0	32.0	W1

DRAFT

STABL6H FSmin=1.8

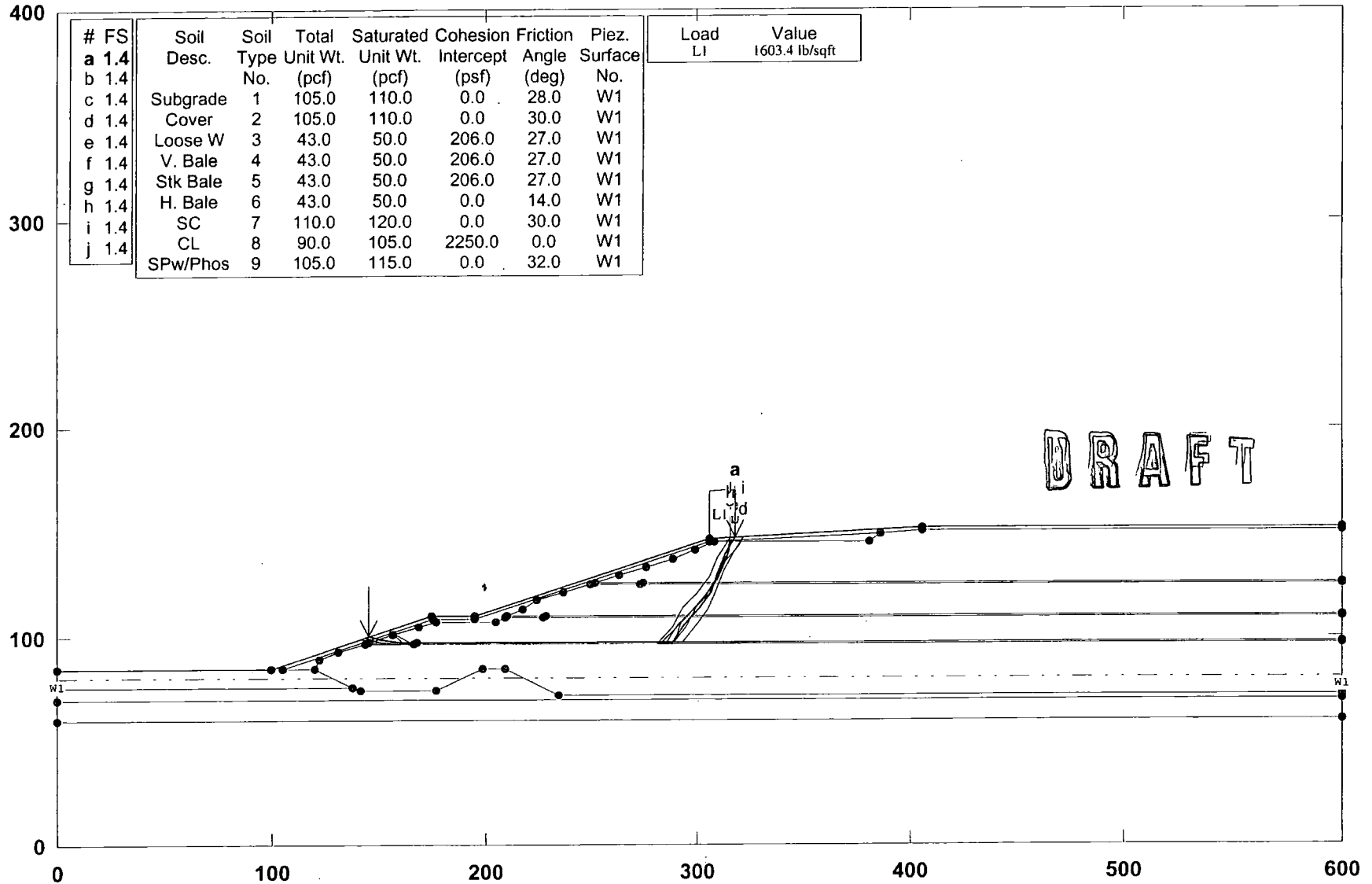
Safety Factors Are Calculated By The Modified Janbu Method

SCS ENGINEERS

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 JUL 23 2003  
 SOUTHWEST DISTRICT  
 TAMPA

# Hardee County Landfill - N/S Slope Hardee County, Florida

C:\STEDWIN\HARDEENS.PL2 Run By: JHO 5/31/2003 5:43PM



#	FS	Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface
a	1.4							
b	1.4							
c	1.4	Subgrade	1	105.0	110.0	0.0	28.0	W1
d	1.4	Cover	2	105.0	110.0	0.0	30.0	W1
e	1.4	Loose W	3	43.0	50.0	206.0	27.0	W1
f	1.4	V. Bale	4	43.0	50.0	206.0	27.0	W1
g	1.4	Stk Bale	5	43.0	50.0	206.0	27.0	W1
h	1.4	H. Bale	6	43.0	50.0	0.0	14.0	W1
i	1.4	SC	7	110.0	120.0	0.0	30.0	W1
j	1.4	CL	8	90.0	105.0	2250.0	0.0	W1
		SPw/Phos	9	105.0	115.0	0.0	32.0	W1

Load LI Value 1603.4 lb/sqft

DRAFT

STABL6H FSmin=1.4

Safety Factors Are Calculated By The Modified Janbu Method

SCS ENGINEERS

JUL 23 2003  
 SOUTH WEST DISTRICT  
 TAMPA  
 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

**\*\* STABL6H \*\***

by  
 Purdue University  
 --Slope Stability Analysis--  
 Simplified Janbu, Simplified Bishop  
 or Spencer's Method of Slices

Run Date: 5/31/2003  
 Time of Run: 5:43PM  
 Run By: JHO  
 Input Data Filename: C:hardeens.  
 Output Filename: C:hardeens.OUT  
 Plotted Output Filename: C:hardeens.PLT  
 PROBLEM DESCRIPTION Hardee County Landfill - N/S Slope  
 Hardee County, Florida

**DRAFT**

**BOUNDARY COORDINATES**

Note: User origin value specified.  
 Add 0.00 to X-values and 0.00 to Y-values listed.

6 Top Boundaries  
 61 Total Boundaries

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	.00	85.00	100.00	85.00	1
2	100.00	85.00	175.00	110.00	2
3	175.00	110.00	195.00	110.00	2
4	195.00	110.00	306.00	147.00	2
5	306.00	147.00	406.00	152.00	2
6	406.00	152.00	600.00	152.00	2
7	100.00	85.00	104.74	85.00	1
8	104.74	85.00	175.24	108.50	3
9	175.24	108.50	195.24	108.50	3
10	195.24	108.50	306.28	145.51	3
11	306.28	145.51	386.00	149.50	3
12	386.00	149.50	406.04	150.50	4
13	406.04	150.50	600.00	150.50	4
14	104.74	85.00	120.00	85.00	1
15	120.00	85.00	122.50	89.00	4
16	122.50	89.00	131.50	93.00	4
17	131.50	93.00	144.00	97.00	4
18	144.00	97.00	145.56	97.50	5
19	145.56	97.50	156.50	101.00	4
20	156.50	101.00	169.00	105.00	4
21	169.00	105.00	177.00	107.50	4
22	177.00	107.50	205.00	107.50	4
23	205.00	107.50	209.17	109.50	4
24	209.17	109.50	210.21	110.00	5
25	210.21	110.00	217.50	113.50	4
26	217.50	113.50	224.00	117.50	4
27	224.00	117.50	237.00	121.50	4
28	237.00	121.50	250.00	125.50	4
29	250.00	125.50	251.63	126.00	5
30	251.63	126.00	263.00	129.50	4
31	263.00	129.50	276.00	133.50	4
32	276.00	133.50	289.00	137.50	4
33	289.00	137.50	299.00	141.50	4
34	299.00	141.50	308.50	145.50	4
35	308.50	145.50	381.00	145.50	4
36	381.00	145.50	386.00	149.50	4
37	251.63	126.00	274.50	126.00	5
38	274.50	126.00	600.00	126.00	6
39	273.00	125.50	274.50	126.00	6
40	250.00	125.50	273.00	125.50	4
41	273.00	125.50	600.00	125.50	4
42	210.21	110.00	229.00	110.00	5
43	229.00	110.00	600.00	110.00	6
44	227.50	109.50	229.00	110.00	6
45	209.17	109.50	227.50	109.50	4

FLORIDA DEPARTMENT OF  
 ENVIRONMENTAL PROTECTION  
 JUL 23 2003  
 SOUTHWEST DISTRICT  
 TAMPA



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48	168.00	97.50	600.00	97.50	6
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52	120.00	85.00	138.00	76.00	1
53	.00	76.00	138.00	76.00	7
54	138.00	76.00	142.00	74.00	7
55	142.00	74.00	177.00	74.00	7
56	177.00	74.00	199.00	85.00	7
57	199.00	85.00	209.00	85.00	7
58	209.00	85.00	235.00	72.00	7
59	235.00	72.00	600.00	72.00	7
60	.00	70.00	600.00	70.00	8
61	.00	60.00	600.00	60.00	9

DRAFT

ISOTROPIC SOIL PARAMETERS

9 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param. (psf)	Pressure Constant (psf)	Piez. Surface No.
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2	105.0	110.0	.0	30.0	.00	.0	1
3	43.0	50.0	206.0	27.0	.00	.0	1
4	43.0	50.0	206.0	27.0	.00	.0	1
5	43.0	50.0	206.0	27.0	.00	.0	1
6	43.0	50.0	.0	14.0	.00	.0	1
7	110.0	120.0	.0	30.0	.00	.0	1
8	90.0	105.0	2250.0	.0	.00	.0	1
9	105.0	115.0	.0	32.0	.00	.0	1

1 PIEZOMETRIC SURFACE(S) HAVE BEEN SPECIFIED

Unit Weight of Water = 62.40

Piezometric Surface No. 1 Specified by 2 Coordinate Points

Point No.	X-Water (ft)	Y-Water (ft)
1	.00	80.00
2	600.00	80.00

BOUNDARY LOAD(S)

1 Load(s) Specified

Load No.	X-Left (ft)	X-Right (ft)	Intensity (lb/sqft)	Deflection (deg)
1	306.00	315.50	1603.4	.0

NOTE - Intensity Is Specified As A Uniformly Distributed Force Acting On A Horizontally Projected Surface.

A Critical Failure Surface Searching Method, Using A Random Technique For Generating Sliding Block Surfaces, Has Been Specified.

500 Trial Surfaces Have Been Generated.

2 Boxes Specified For Generation Of Central Block Base

Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	146.00	97.25	166.50	97.25	.25
2	281.00	97.25	330.00	97.25	.25

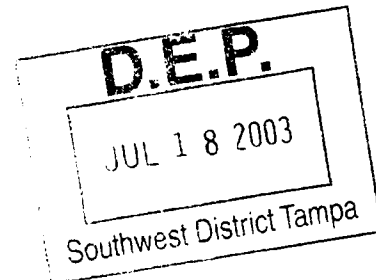
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 JUL 23 2003  
 SOUTHWEST DISTRICT  
 TAMPA

**SCS ENGINEERS**

July 18, 2003  
File No. 09199033.08

*C. SSAN*

Kim B. Ford, P.E.  
Solid Waste Section  
Division of Waste Management  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619



Subject: Hardee County Landfill - Operation Permit  
Pending Permit No.: 38414-007-SO, Hardee County

Dear Mr. Ford:

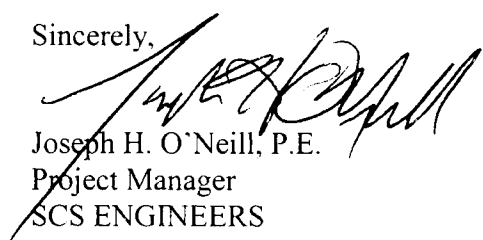
On behalf of Hardee County (County), SCS Engineers (SCS) would like to request an extension to respond to your request for additional information letter dated June 18, 2003 for the subject permit application. SCS and the County are developing plans for a proposed expansion to the current disposal area. The proposed expansion plans may include stormwater improvements or changes in operation filling patterns. Per our telephone conversation today, SCS would like to propose the following schedule for submitting responses:

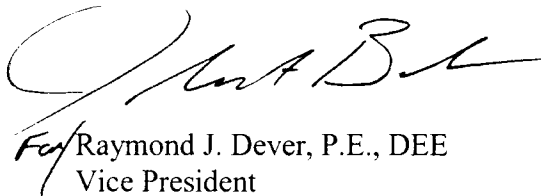
- On July 23, 2003, SCS will go to the FDEP Southwest District Office to review notes made by FDEP during the initial review of the application,
- On September 2, 2003, SCS will attend a meeting with FDEP to discuss the proposed expansion plans as well as the modifications to the current disposal area (if any),
- On September 30, 2003, SCS will submit the responses to the June 18, 2003 request for additional information, as well as the proposed expansion plans and stormwater improvements.

In addition, SCS would like to request a time and date to meet with you to provide you with an update to information collected for the County's expansion plans. Please forward a time and date at your convenience.

If you have any comments or questions, please call us at (813) 621-0080.

Sincerely,

  
Joseph H. O'Neill, P.E.  
Project Manager  
SCS ENGINEERS

  
Raymond J. Dever, P.E., DEE  
Vice President  
SCS ENGINEERS

JHO/RJD:jho

Cc: Janice Williamson, Hardee County

Offices Nationwide



Environmental Consultants

3012 U.S. Highway 301 North  
Suite 700  
Tampa, FL 33619-2242813 621-0080  
FAX 813 623-6757**SCS ENGINEERS**July 18, 2003  
File No. 09199033.08Kim B. Ford, P.E.  
Solid Waste Section  
Division of Waste Management  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619Subject: Hardee County Landfill - Operation Permit  
Pending Permit No.: 38414-007-SO, Hardee County

Dear Mr. Ford:

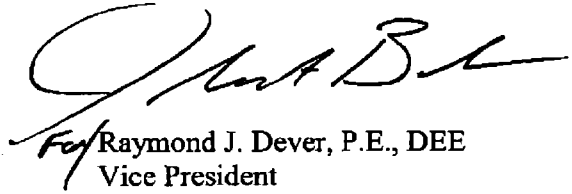
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Sincerely,

  
Joseph H. O'Neill, P.E.  
Project Manager  
SCS ENGINEERS  
Raymond J. Dever, P.E., DEE  
Vice President  
SCS ENGINEERS

JHO/RJD:jho

Cc: Janice Williamson, Hardee County

Offices Nationwide

7/21/03

□D3;15= (No Responses);13= (1 Response);14= (% Responses)

To: Solid Waste

UR  
KF  
↑  
file  
(print)

Close	Add Comment	Show docs related to...
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Incident #: SWP030715 - 4485

SWP 413 on 07/15 at 10:53 AM

Last Modified: 07/15 at 11:08 AM

County: Hardee

Methane Release

Incident Details

Incident Type:	Hazardous Materials
Incident Status:	Closed
Incident Severity:	Level 1
	1 - Report of a situation involving a material which may be hazardous that is handled locally with no protective actions.
Incident Occurred Date/Time:	07/15/2003 10:53 AM EDT
Caller:	Bill Muhlfeld
Caller Address:	
Callback #:	863-781-1381 Time of Call: 07/15/2003 10:53 AM EDT
Caller Represents:	Co.EM

Comments

Caller reports: a methane release into an electrical panel containment system at the county landfill. Local hazmat and recon teams have been sent in to the scene. No evacuations have been reported at this time.

Incident Location

On Scene Contact:	
On-Scene Phone #:	
Facility Name:	Hardee County Landfill
Facility Address:	685 Airport Rd.
Facility City:	Wauchula

Number Injured:	
Number of Fatalities:	
Number Missing:	
Evacuations/Shelters:	
Damage:	
File Attachment:	

Hazardous Materials Details (Items in RED are required for 304 reporting.)

Responsible Party:	county
Responsible Party Address:	
Responsible Party Phone:	
Materials Involved:	Gas
Case #:	
Section 304?	No

Container:	Other:
Container Size:	
Amount Released:	
Rate of Release:	
Cause of Release:	
Time Release Began:	
Time Discovered:	
Time Release Ended:	
Late Report Reason:	
Weather:	Temp: Wind Dir: Speed:
Potential Health Risk:	
Area(s) Involved:	Other:

Suzan  
LOAA

Hardee County Solid Waste Department  
685 Airport Road  
Wauchula, FL 33873  
(863) 773-5089  
Fax (863) 773-3907



**To:** Kim B. Ford **Fax:** (813) 744-6125

---

**From:** Janice Williamson, Director **Date:** 6/26/03

---

**Re:** Possible Methane Explosion **Pages:** 10

---

**CC:** SCS Engineers

---

- Urgent     For Review     Please Comment     Please Reply     Please Recycle



an incident report for your review. Please be assured that we have and will take over  
 on necessary to avoid any injury to the public, personnel or the solid waste systems. I'm  
 at you will have questions and comments so please feel free to contact me. In addition, this  
 incident was immediately reported to the Department of Environmental Protections through the  
 Emergency Management Department. We do appreciate the Departments' assistance in this  
 matter.

Thanks,  
 Janice

## HARDEE COUNTY SOLID WASTE DEPARTMENT

**INCIDENT SUMMARY**

DATE: June 19, 2003  
TIME: 11:40 A.M.

**DESCRIPTION OF INCIDENT:**

On the above date and time, I was contacted by two-way radio by Jerry Hutto, landfill operator. He reported that there had been an explosion in the electrical panel at the truck loading station. There were no personal injuries, no fire or smoke and apparently the only visible damage was that the door of the control panel was bowed. He described the incident as: Tanker Truck Operator, Stephen Wingo, had positioned the tanker to be loaded with leachate. When he struck the palm switch to start the pump he heard a loud explosion. There were worker from CBI inside tank two performing a routine cleaning of the tank and as they had pumping equipment running, Stephen was not sure where the noise came from. The workers inside the tank also heard the explosion and everyone quickly determined it was the electrical panel located at the loading station. Stephen immediately reported the event to the Crew leader, Jerry Hutto, who in turn reported it to the Director, Janice Williamson, who reported it to Emergency Management Director, Bill Muhlfeld and to Public Works Director, J.R. Prestridge.

**IMMEDIATE ACTIONS TAKEN:**

Emergency Management immediately came to the site to check for hazardous conditions that still may exist. Emergency Management Director, Bill Muhlfeld, took command of the evaluation. He coordinated his HAZMAT team and they conducted their evaluation. (See Emergency Management report). They cleared the area of having any hazardous conditions at that time. The area was roped off and no activities were allowed until further evaluations.

An Electrical Engineer from Hamm Engineering was brought in later that day to determine the cause of the explosion and to assess damages. All conduits were sealed with a putty sealer at the entry of the box and the box showed no signs of an explosion other than the slightly bowed door. The panel was operable and no particular damage was caused to the unit. He continued his evaluation and inspected the seals at the adjacent pump station that has a direct connection to the truck loading station. He reported that all seals were good. He further noted that the methane monitor on the pump station panel was reading 7% and that opening the panel did not lower the reading. (In the past, whenever the methane meter has registered any level, if the panel was opened, the readings went down.) The Electrical Engineer could not determine the cause of the explosion and recommended that we install new seals on the panel at the truck loading station and install vent fans on both panels.

**FURTHER ACTIONS:**

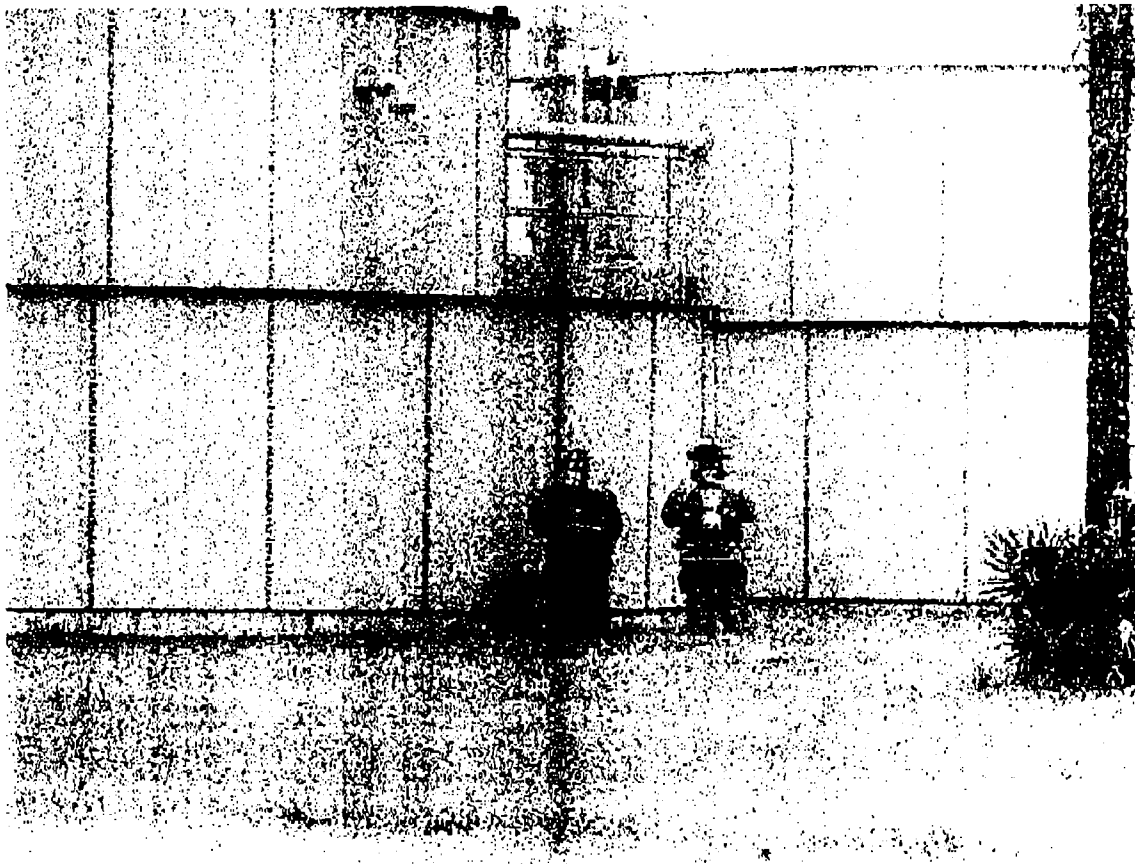
A Solid Waste gas specialist from SCS Engineers evaluated the site on June 21st to determine the reliability of the current, passive system. His initial assessment on the morning of June 21<sup>st</sup> indicated that the stationary meter on the pump station was giving false reading. He recommended that the meter be recalibrated. He further recommended that all conduits in that area receive new seals. He did report readings of methane from a control panel at the old wet well and a reading in a control panel at the maintenance barn and some reading from bar punches around the area.

On June the 23<sup>rd</sup>, the Emergency Management Director came out and re-calibrated the stationary meter and double checked area with a hand held meter. The area was clear and we were given the okay to resume pumping operations. We were further instructed to report any reading what-so-ever on the stationary meter.

**REMEDIAL ACTIONS PLANNED:**

1. A purchase order was issued to J.H. Ham Engineering, Inc. to furnish and install EYS seals on all electrical conduits located at the landfill. Work to be completed by July 4<sup>th</sup>.
2. A purchase order was issued to Fisher Scientific Co. for an additional Zoneguard Fixed Gas Detector to be stationed at the control panel at the truck loading facility. Instrument should be received and installed by July 15<sup>th</sup>.
3. A work order was requested from SCS Engineers for a Landfill Gas Remediation Plan/Design/Build Services as necessary.
4. A four-hour training course is being designed and tentatively scheduled for July the 13<sup>th</sup>. This course will be mandatory for all Hardee County Solid Waste Employees and will be offered to Solid Waste Employees of both Desoto and Highlands County. Preliminary plans for the course are being coordinated by Emergency Management Director, Bill Muhlfeld, Central Florida Regional Planning Council, Bert McKee, Solid Waste Director, Janice Williamson and SCS Engineers.

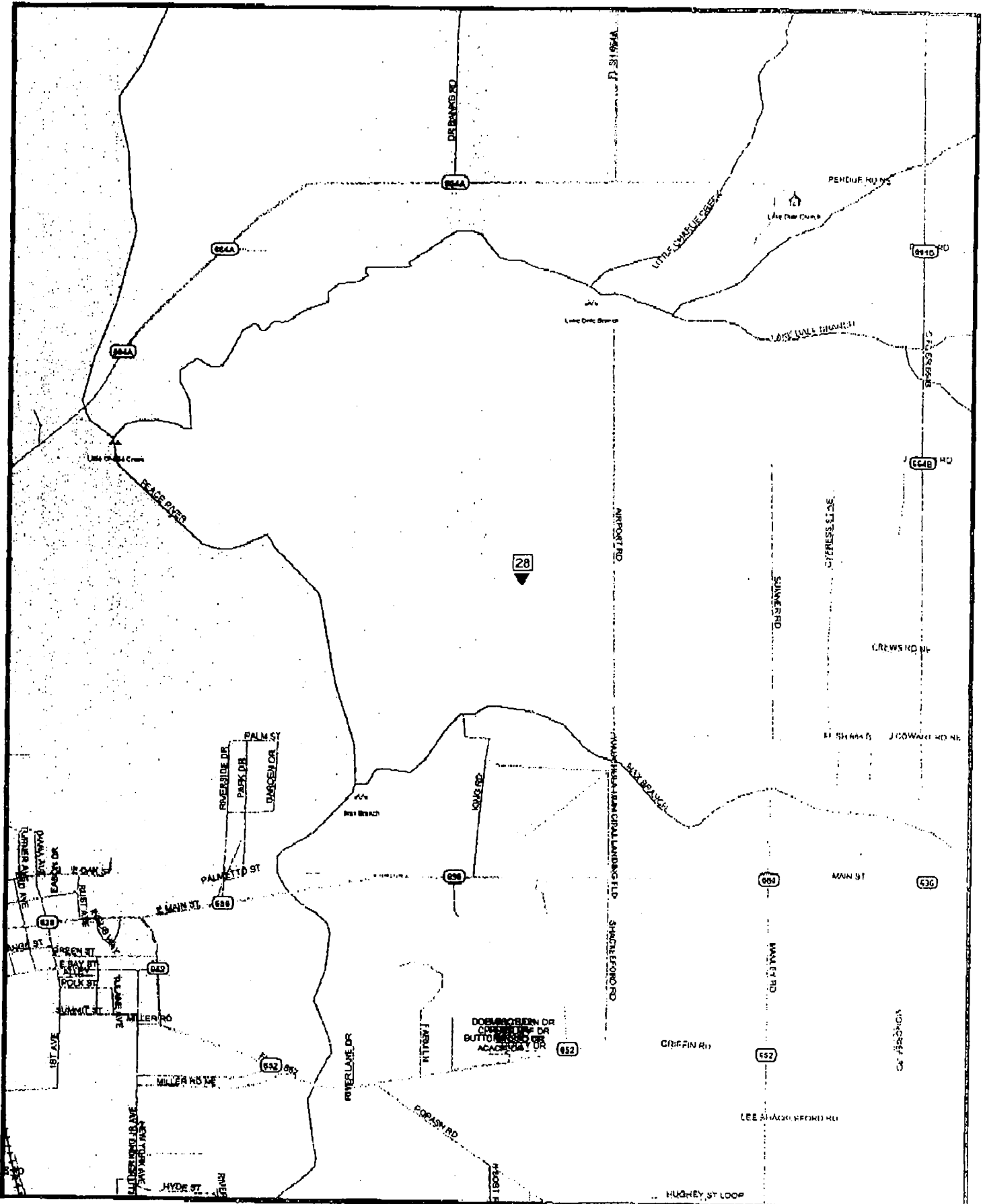




# **Possible Gas Leak at the Hardee County Landfill 685 Airport Road**

Office of Hardee County Emergency Management  
June 19, 2003

# Point to Point Directions



Generic Copyright

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## INCIDENT SUMMARY

Original dispatch: 1155 hrs, June 19, 2003  
Scene Secure: Approximately 1321 hrs, June 19, 2003  
Situation Found: Unknown type gas leak and explosion at the County landfill  
Patients treated: 0  
Patients Transported: 0

### Responding Agencies:

- Hardee County Fire/Rescue (2 units)
- Hardee County Emergency Management (1 unit)
- Hardee County Hazmat (1 unit)
- Hardee County Landfill employee (3)

### Notifications:

- Florida Department of Environmental Protection
- Florida State Warning Point

Total units on the scene: 4

At approximately 1155 hrs on Thursday, June 19, 2003, Emergency Management received a call from the landfill director requesting assistance for an explosion at the landfill. I instructed the landfill employee to continue to isolate the area and insure that no one enters the area. I made contact with the fire department and communications and requested that the fire department respond to the scene. I also responded to the scene.

Upon arrival, units were set up for information gathering. A two-man team entered the area and confirmed that an event did occur. The team reported back that they had no indications of an explosive environment. They were pulled from the area and the information was evaluated. A plan was formulated and executed.

A second evaluation was performed and it confirmed the initial findings. The team reported back to the command post and the scene was turned over to the director. It was recommended by command to close the area until it was determined what caused the explosion. The director agreed with the recommendation.

State Warning Point and DEP were notified. All agencies contacted agreed that the incident was properly handled and no further action on their part would be needed.

As of the time of this report, the control box is still out of service.

***** FDID	FL State	6/19/2003 Incident Date	28 Station	0 Incident Number	0 Exposure	NFIRS v. 1 Basic
---------------	-------------	----------------------------	---------------	----------------------	---------------	---------------------

Location  Address is on the Wildland Fire Module

Street Address: 685 Number/Milepost, Airport Prefix, Street or Highway, RD, Street Type, Suffix

Apt./Suite/Room: Wauchula City, FL State, 33873 Zip Code

Cross street or directions

<b>Incident Type</b> 240 Explosion (no fire), other <b>Aid Given or Received</b> None	<b>Dates &amp; Times</b> Alarm: 6/19/2003 11:55:00 Arrival: 6/19/2003 12:00:00 Controlled: 00:00:00 Last Unit: 6/19/2003 13:21:00	<b>Shifts &amp; Alarms</b> Shift Alm. Dist. Special Studies
Their FDID State Their Incident Number		

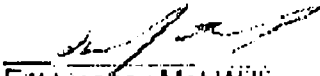

<b>Actions Taken</b> 42 Hazmat detection, monitoring, sampling, & analysis <b>Primary Action Taken (1)</b> 82 Notify other agencies. <b>Additional Action Taken (2)</b>  <b>Additional Action Taken (3)</b>	<b>Resources</b> <input checked="" type="checkbox"/> Apparatus or Personnel Form Used <table border="0"> <tr> <td></td> <td>Apparatus</td> <td>Personnel</td> </tr> <tr> <td>Suppression:</td> <td>0</td> <td>0</td> </tr> <tr> <td>EMS:</td> <td>0</td> <td>0</td> </tr> <tr> <td>Other:</td> <td>0</td> <td>0</td> </tr> </table> <input type="checkbox"/> Resource counts include aid received		Apparatus	Personnel	Suppression:	0	0	EMS:	0	0	Other:	0	0
	Apparatus	Personnel											
Suppression:	0	0											
EMS:	0	0											
Other:	0	0											
<b>Estimated Dollar Losses &amp; Values</b> <b>LOSSES</b> Property: 0 None <input checked="" type="checkbox"/> Contents: 0 <input checked="" type="checkbox"/> <b>PRE-INCIDENT VALUE:</b> Property: 0 <input checked="" type="checkbox"/> Contents: 0 <input checked="" type="checkbox"/>													

<b>Casualties</b> <input checked="" type="checkbox"/> None <table border="0"> <tr> <td></td> <td>Deaths</td> <td>Injuries</td> </tr> <tr> <td>Fire Service:</td> <td>0</td> <td>0</td> </tr> <tr> <td>Civilian:</td> <td>0</td> <td>0</td> </tr> </table>		Deaths	Injuries	Fire Service:	0	0	Civilian:	0	0	<b>Hazardous Materials Released</b> N None
	Deaths	Injuries								
Fire Service:	0	0								
Civilian:	0	0								
<b>Detector</b>	<b>Mixed Use Property</b>									

**Property Use**  
 919 Dump, sanitary landfill

<b>Person/Entity Involved</b>		Hardee County Landfill		(863)773-5089
		<b>Business name</b>		<b>Phone Number</b>
Mr., Ms., Mrs.	Janice	Williamson		
	<b>First Name</b>	<b>MI</b>	<b>Last Name</b>	<b>Suffix</b>
685	Airport			RD
<b>Number</b>	<b>Prefix</b>	<b>Street or Highway</b>		<b>Street Type</b>
		Wauchula		
<b>Post Office Box</b>	<b>Apt./Suite/Room</b>	<b>City</b>		
FL	33873			
<b>State</b>	<b>Zip Code</b>			

<b>Owner</b>		Hardee County Landfill		(863)773-5089
		<b>Business name</b>		<b>Phone Number</b>
Mr., Ms., Mrs.	Janice	Williamson		
	<b>First Name</b>	<b>MI</b>	<b>Last Name</b>	<b>Suffix</b>
685	Airport			RD
<b>Number</b>	<b>Prefix</b>	<b>Street or Highway</b>		<b>Street Type</b>
		Wauchula		
<b>Post Office Box</b>	<b>Apt./Suite/Room</b>	<b>City</b>		
FL	33873			
<b>State</b>	<b>Zip Code</b>			

<b>Authorization</b>			
<b>Officer in charge:</b>	Muhlfeld, William	<b>Signature:</b>	
	<b>Assignment</b>	6/19/2003	Emergency Mgt William Muhlfeld
		<b>Date</b>	
<b>Member making report:</b>	Muhlfeld, William	<b>Signature:</b>	
	<b>Assignment</b>	6/19/2003	Emergency Mgt William Muhlfeld
		<b>Date</b>	

*****	FL	6/19/2003	28	0	NFIRS - 9
FDID	State	Incident Date	Station	Incident Number	Exposure Apparatus

<b>Unit ID:</b> E-12	<b>Dispatched:</b> 6/19/2003 11:55:00	<b>Use:</b> Other
<b>Serial #:</b>	<b>Enroute:</b> 00:00:00	
<b>Type:</b> 11	<b>Arrival:</b> 6/19/2003 12:00:00	
Engine	<b>Clear:</b> 6/19/2003 13:21:00	
	<b>In Quarters:</b> 00:00:00	
<b>Actions Taken</b>		
1)		3)
2)		4)

Personnel ID	Name	Rank
Adler, John	Firefighter/EMT John Adler	Firefighter/EMT
Shepard, Rich	Firefighter/EMT Rich Shepard	Firefighter/EMT

<b>Unit ID:</b> EM-1	<b>Dispatched:</b> 6/19/2003 11:55:00	<b>Use:</b> Other
<b>Serial #:</b>	<b>Enroute:</b> 00:00:00	
<b>Type:</b> 931	<b>Arrival:</b> 6/19/2003 12:00:00	
Emergency Management	<b>Clear:</b> 6/19/2003 13:21:00	
	<b>In Quarters:</b> 00:00:00	
<b>Actions Taken</b>		
1)		3)
2)		4)

Personnel ID	Name	Rank
Muhlfeld, William	Emergency Mgt William Muhlfeld	Emergency Mgt

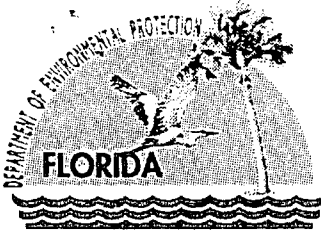
<b>Unit ID:</b> R-11	<b>Dispatched:</b> 6/19/2003 11:55:00	<b>Use:</b> Other
<b>Serial #:</b>	<b>Enroute:</b> 00:00:00	
<b>Type:</b> 76	<b>Arrival:</b> 6/19/2003 12:00:00	
ALS unit	<b>Clear:</b> 6/19/2003 13:21:00	
	<b>In Quarters:</b> 00:00:00	
<b>Actions Taken</b>		
1)		3)
2)		4)

Personnel ID	Name	Rank
Shiver, Robert	Firefighter/PM Robert Shiver	Firefighter/PM

****	FL	6/19/2003	28	0	NFIRS - 9
FDID	State	Incident Date	Station	Incident Number	Exposure Apparatus

Unit ID:	SQ-1	Dispatched:	6/19/2003 11:55:00	Use:	Other
Serial #:		Enroute:	00:00:00		
Type:	934	Arrival:	6/19/2003 12:00:00		
	Hazmat Truck	Clear:	6/19/2003 13:21:00		
		In Quarters:	00:00:00		
<b>Actions Taken</b>					
	1)		3)		
	2)		4)		

Personnel ID	Name	Rank
Newman, Wayne	Firefighter/EMT Wayne Newman	Firefighter/EMT



# Department of Environmental Protection

Jeb Bush  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

David B. Struhs  
Secretary

June 18, 2003

Ms. Janice Williamson  
Hardee County  
Solid Waste Department  
685 Airport Road  
Wauchula, FL 33873

**Re: Hardee County Landfill - Operation Permit  
Pending Permit No.: 38414-007-SO, Hillsborough County**

Dear Ms. Williamson:

This is to acknowledge receipt of your operation permit renewal application, received on May 19, 2003, to operate a class I 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 1st 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.

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

1. **62-701.300.** Revisions to Section D are requested as follows:
  - a) Section D.2. - To explain that yard trash and the leachate storage tanks are subject to the prohibitions and to describe compliance with the prohibitions.
  - b) Section D.11. - To explain that used oil will not be accepted for disposal.
2. **62-701.320(5)(b).** A description and timeframe for applying for a construction permit for expansion and for a closure permit are requested.

RAI-H

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3. **62-701.320(7)(d)1.** A cover page for the Engineering Report (just before the table of contents) signed and sealed by a professional engineer is requested.
4. **62-701.320(7)(f)6.** A comprehensive set of Record Drawings are requested for the entire previously approved stormwater management system are requested.
5. **62-701.320(15).** a) A list of all trained operators, and all trained spotters, including the hours of training completed by each is requested. b) A training plan with a list of courses to be attended and hours of training required for operators and spotters is requested.
6. **62-701.330(1)(c).** Documentation, or references to documents on file with the Department, to demonstrate that the landfill is "lined" are requested.
7. **62-701.330(3)(d) and (j).** Revisions to the operational drawings are requested to show the additional information listed below:
  - a) The typical liner system detail, including the bottom and side liners, leachate collection/conveyance system, waste limits, future final cover, and the adjacent stormwater conveyances;
  - b) The direction of filling for each working face disposal area;
  - c) The design details for the typical slopes and perimeter berms to be maintained to drain stormwater and to contain leachate in the vicinity of each working face disposal area;
  - d) Cross-sections to show lifts of waste as filling progresses including details for permanent terraces and permanent drainage devices;
  - e) Sheet 4 - to show the correct manhole numbers, and with the precise location of the perimeter liner, manholes, and leachate collection/conveyance system;
  - f) Sheet 5 - to show the slope of the terrace swale (at elevation +135 NGVD) with with the direction of flow, and the related drainage features to convey the stormwater down the slope, and to show passive gas vent typical cross-section details and locations on the final cover plan view;

- g) Sheet 8 - to show the top liner on the cover system detail, to include a note on the south slope partial reconstruction detail to ensure that asbestos will not be disturbed due to waste excavation, and to include a note on the typical waste place detail to describe the placement of loose waste over bales.
  - h) Sheet 9 - to include a note to describe that only clean soil fill will be used over intermediately covered areas as needed prior to the final grading of slopes and terraces.
8. **62-701.400(2)**. A description of planned Hardee County Landfill construction and closure at planned intervals throughout the design period of the landfill is requested.
9. **62-701.400(4)(a)**. Documentation to demonstrate that the entire existing leachate collection and removal system complies with each of the requirements in Rule 62-701.400(4)(a) is requested. Additionally, the following items are requested:
- a) A comprehensive inspection report as required by Specific Condition #17.g., signed and sealed by a professional engineer.
  - b) A drawing to scale showing all distances between manholes to match the distances indicated by Florida Jetclean Inc., or a an appropriate explanation for each discrepancy.
  - c) A drawing to scale showing the correct numbering for each manhole.
  - d) A corrected Florida Jetclean report to include the correct numbering for each manhole.
  - e) An explanation with conclusions and recommendations for each location of each pipe "separation" and "egg-shaped" distortion.
10. **62-701.400(6)(c)9**. Documentation to demonstrate that each leachate storage tank has been inspected as required, and that each complies with the requirements in Rule 62-701.400(6)(c) is requested. Additionally, the following items are requested:
- a) A comprehensive inspection report as required by Specific Condition #17.j., signed and sealed by a professional engineer.
  - b) Confirmation that the proposed repair materials are compatible with the original coatings.
  - c) The schedule for completing repairs and certification.

11. **62-701.400(9)**. Copies of all permits, related calculations, and record drawings for the entire stormwater management system are requested. Documents on file with the Department may be referenced rather than resubmitted.
12. **62-701.400(11)**. Documentation to demonstrate that the current landfill design provides an equivalent degree of protection for the environment as would a similar landfill whose bottom liner is not in contact with groundwater is requested.
13. **62-701.410(2)**. All related geotechnical reports are requested. Documents on file with the Department may be referenced rather than resubmitted.
14. **62-701.430**. Documentation to demonstrate that the vertical expansion from elevation +155 NGVD (based on previous geotechnical calculations) to elevation +164 NGVD (after final cover as noted on the proposed drawings) complies with each of the requirements in Rule 62-701.430 is requested.
15. **62-701.500(1)**. Revisions to Section L.1 are requested to describe or reference a training plan with the listed courses and hours of training for operators and spotters to demonstrate compliance with 62-701.320(15).
16. **62-701.500(2)**. Revisions to the Operations Plan are requested to include the document title and date on each page. Revisions to the Section entitled Background Information are requested as follows:
  - a) include section numbers by each subheading;
  - b) delete references to unrelated C&D debris disposal practices;
  - c) provide reference to the MRF operation plan on file with the Department rather than resubmit (this application does not include a review of the MRF operations plan which is permitted separately);
  - d) include a description for the storage of batteries, paint, used oil and other special wastes under cover with spill containment.
17. **62-701.500(2)(b)**. 1) Revisions to Section L.2.b. are requested for the following items:
  - a) to describe procedures for responding to spills.
  - b) to describe agreements with adjacent counties for the disposal of waste in the event that the facility must remain closed for more than 48 hours is requested.
  - c) to describe procedures for managing "hotloads".

18. **62-701.500(2)(c)**. Revisions to Section L.2.c. are requested to describe the following items:
  - a) procedures for the disposal of asbestos;
  - b) for inspection of each load and the procedures for the removal each type of unacceptable waste from the working face;
  - c) procedures for the disposal of contaminated soil.
19. **62-701.500(2)(f)**. Revisions to Section L.2.f. are requested to describe the procedures for the daily disposal of both loose waste and baled waste at one or two working faces.
20. **62-701.500(2)(j)**. Revision to Section L.2.j. is requested to include a procedures for inspecting the overfill protection system for each tank.
21. **62-701.500(6)**. Revisions to Section L.6 are requested to describe a loose waste disposal load checking program and procedures for managing all unacceptable waste and special wastes.
22. **62-701.500(7)(a)**. Revisions to Section L.7.a. are requested for the following items:
  - a) to describe a lift of bales not more than three high;
  - b) to provide a figure for the bale layout;
  - c) to describe compaction procedures for loose waste.
23. **62-701.500(7)(c)**. Revision to Section L.7.d. are requested for the following items:
  - a) to describe the typical minimum top slope to drain; .
  - b) to describe a lift of bales not more than three high;
  - c) to describe loose waste added to achieve the designed slopes.
24. **62-701.500(7)(d)**. Revisions to Section L.7.d. are requested to describe a berm around the working face to contain leachate, and one or two working faces.
25. **62-701.500(7)(e) and (f)**. Revisions to Sections L.7.e. and L.7.f. are requested to describe the initial cover as "6-inches of compacted cover material", and to describe all other proposed initial cover materials.

26. **62-701.500(7)(g)**. Revisions to Section L.7.g. are requested to describe the following items:
  - a) to describe the typical minimum top slope to drain;
  - b) to describe the construction of a berm around the working face to contain leachate;
  - c) to explain that soil with any waste cannot be used as intermediate cover, or anywhere outside of the bermed working face disposal area.
  
27. **62-701.500(7)(h)**. Revisions to Section L.7.h. are requested to describe a timeframe for applying for a closure permit and for completing closure, and to describe the areas that are already completely filled to match the proposed cross-sections.
  
28. **62-701.500(7)(j)**. Revisions to Section L.7.h. are requested to describe the removal of litter from outside of the working face within 24 hours.
  
29. **62-701.500(8)**. a) Revisions to Section L.8.a. are requested to describe the landfill performance criteria to demonstrate that all leachate is removed from the landfill. b) Revisions to Section L.8.b. are requested to describe the design of the existing leachate collection system and the method of filtering the contained surface leachate prior to pumping it to a manhole. c) Revisions to Section L.8.b. are requested to describe the tank and truck loading procedures and tank inspections.
  
30. **62-701.500(9) and 62-701.530**. Revisions to Section L.9. are requested for the following items:
  - a) to describe precautions to be taken when entering or servicing areas where dangerous gases may have accumulated;
  - b) to describe the gas monitoring location within buildings;
  - c) to reference the gas monitoring report form;
  - d) to provide a detail for the construction of the gas probes;
  - e) to describe the gas monitoring sampling procedures;
  - f) to describe the type of gas monitoring meter.

31. **62-701.500(10)**. Revisions to Section L.10. are requested a) to describe the entire stormwater system design and operation, and b) to provide references for all record drawings for the entire stormwater management system. Documents on file with the Department may be referenced rather than resubmitted.
32. **62-701.500(11)(f)**. Revisions to Section L.11.f. are requested to describe the removal of litter from outside of the working face within 24 hours.
33. **62-701.410, .500, and .510**. Responses to each of the items in Mr. John Morris' June 12, 2003 memorandum (attached) are requested. You may call Mr. Morris at (813) 744-6100, extension 336 to discuss the items in his memorandum.
34. **62-701.630**. Responses to each of the items in Mr. Steve Morgan's June 17, 2003 letter (attached) are requested. You may call Mr. Morgan at (813) 744-6100, extension 385 to discuss the items in his letter.

Please provide all responses that relate to engineering required for design and operation, signed and sealed by a professional engineer. All descriptions of operational procedures provided as part of responses should be included as revisions to the Operations Plan (Section L). All replacement pages should be numbered and include the document title with the revision date as part of the header or footer on each revised page. To expedite the review process, on one set of the revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be shaded (shadéd) or similar notation method may be used.

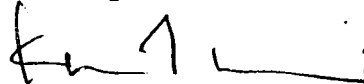
Ms. Janice Williamson  
Hardee County

June 18, 2003  
Page Eight

"NOTICE! Pursuant to the provisions of Section 120.600, F.S., if the Department does not receive a response to this request for information within 90 days of the date of this letter, the Department may issue a final order denying your application. You need to respond within 30 days after you receive this letter, responding to as many of the information requests as possible and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 30 days to develop, you should develop a specific time table for the submission of the requested information for Department review and consideration. Failure to comply with a time table accepted by the Department will be grounds for the Department to issue a Final Order of Denial for lack of timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

Please submit your response to this letter as one complete package with an original and two copies of all correspondence (with one copy sent to Ms. Susan Pelz). If you have any questions you may call me at (813) 744-6100, extension 382.

Sincerely,



Kim B. Ford, P.E.  
Solid Waste Section  
Division of Waste Management

kbf  
Attachments

cc: Ray Dever, P.E., SCS Engineers  
Susan Pelz, P.E., FDEP Tampa  
John Morris, P.G., FDEP Tampa  
Steve Morgan, FDEP Tampa

Flori Department of  
**Environmental Protection**

**Memorandum**

TO: Kim Ford, P.E.  
FROM: John R. Morris, P.G. JEM  
DATE: June 12, 2003  
SUBJECT: Hardee County Landfill  
Operating Permit Renewal Application, Pending Permit 38414-007-SO  
Environmental Monitoring Review Comments  
cc: Susan Pelz, P.E.

I have reviewed the permit application materials submitted to the Department in support of the referenced application for the Hardee County Landfill that was prepared by SCS Engineers on behalf of Hardee County, received May 19, 2003. My review focused on the hydrogeologic and environmental monitoring aspects of the renewal application. Please have the applicant address the following review comments. The information requests have been referenced to sections of the permit application and are also referenced to the sections of the supporting document where appropriate, as presented below:

**SECTION B – DISPOSAL FACILITY GENERAL INFORMATION**

1. **B.13.:** It is indicated that the property is recorded as a disposal site in the County Land Records. Please indicate if this has been done to complete the requirements of Rule 62-701.610(5), F.A.C. If so, please provide a certified copy of the County record including the legal description and a scale-drawn map for that part of the property that has been so recorded. If not, please submit a revised application form for this item that indicates a "No" response.

**SECTION L – LANDFILL OPERATION REQUIREMENTS (Rule 62-701.500, F.A.C.)**

*Landfill Operations Plan for Hardee County Landfill, prepared by SCS Engineers, dated May 16, 2003*

2. **L.8.c. – Procedures for Managing Leachate if Regulated as Hazardous Waste.** Please submit revisions to this section to address the requirements of Rule 62-701.510(6)(c)2, F.A.C.

3. **L.9 – Routine Gas Monitoring.** This section refers to Figure H-1 to present the locations of the perimeter gas probes and ambient gas monitoring location. Please submit a revised Figure H-1 in a black-and-white format no larger than 11x17 inches with larger identification numbers for the gas probes.

**SECTION M – WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS**

(Rule 62-701.510, F.A.C.)

*Attachment M-1 – Biennial Groundwater Monitoring Plan Evaluation, prepared by SCS Engineers, dated May 12, 2003*

**Section 3 – Water Quality Monitoring Data Findings**

4. Some of the results provided in Attachment A (Ground Water Quality Data Charts) and in Attachment B (Water Quality Trend Analyses) for the "period of record" (June 1999 through December 2002) appear to be inconsistent with the data provided by Hardee County for the semi-annual ground water sampling events. Please review the following items and submit revisions as appropriate:

- a. June 1999 - MW-2, turbidity @ 25.8 NTU
- b. Dec. 1999 - MW-2, turbidity @ 15.6 NTU
- c. June 2000 - MW-9, chromium @ 0.006 mg/L
- d. Dec. 2000 - MW-1, iron @ 10.2 mg/L
- e. Dec. 2001 - MW-9, ground water elevation @ 78.71 ft NGVD
- f. Dec. 2002 - MW-4, iron @ 8.95 mg/L

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5. Please submit revisions to reference the regulatory levels for the characteristic of toxicity as listed in 40 CFR Part 261.24.
6. Please submit revisions to indicate that field measurements of specific conductance were omitted from four of the eight sampling events during the "period of record" at wells MW-6 and MW-7.
7. Please submit revisions to the trend analysis of iron to reflect review comment Nos. 4.d. and 4.f.

#### **Section 4 – Groundwater Levels and Flow Assessment**

8. Please submit revisions to Table 4-1, Figure E-6 and Figure E-9 to reflect review comment No. 4.e.
9. The horizontal hydraulic gradient value used in the calculation of ground water flow velocity appears to represent the low end of the range of gradient values along the west and east sides of the landfill as presented on the contour maps in Attachment E. It appears that the hydraulic gradient ranged from about 0.003 to 0.01 ft/ft between June 1999 and December 2002. Please review and revise the gradient value and ground water flow velocity calculation as appropriate.

#### **Section 5 – Adequacy of the Water Quality Monitoring Locations and Sampling Frequency**

10. Please submit revisions to this section to indicate that the maximum ground water elevations presented in Table 2-2 indicate the well screen were submerged for all wells in the monitoring plan (MW-1, MW-2, MW-4, MW-5, MW-8 and MW-9).
11. It is indicated that analyses of ground water samples should be conducted for the parameters listed in EPA Method 8260 rather than those listed by 40 CFR Part 258, Appendix I. Please note that this proposed change is not consistent with Rule 62-701.510(8)(a), F.A.C., and does not address the metals that are listed in 40 CFR Part 258, Appendix I. Please submit revisions to this section that are consistent with the provided rule reference.

#### **Section 6 – Proposed Modifications/Recommendations to the Monitoring Program**

12. Please submit revisions to this section that reference Department Standard Operating Procedure (SOP) FS 2200 (Ground Water Sampling) and the criteria for field measured turbidity (<20 NTU) and dissolved oxygen (<20 % saturation) during well purging.
13. Please submit revisions to the proposed ground water parameters to delete reference to the parameters listed by EPA Method 8260 and replace with the parameters listed by 40 CFR Part 258, Appendix I.
14. Please submit revisions to this section to include proposed surface water parameters to be consistent with Rule 62-701.510(8)(b), F.A.C.

#### **Attachment M-2 – Water Quality and Leachate Monitoring Plan, Hardee County Landfill, prepared by SCS Engineers, dated May 16, 2003**

##### **Section 2.0 – Water Quality and Leachate Monitoring Network**

15. Please submit revisions to this section to indicate that surface water sampling shall be conducted unless no surface water is present at the designated sampling location (SW-2) for the entire semi-annual period. Please submit additional revisions to this section to indicate that Hardee County Solid Waste personnel shall prepare a daily log (excluding Sundays) of the occurrence of water in the creek at the downstream property boundary to document the inability to collect a surface water sample during dry periods.

**Section 3.0 – Water Quality and Leachate Monitoring Parameters**

16. Please submit revisions to this section to indicate that ground water samples shall be analyzed for parameters that are consistent with review comment No. 13.

17. Please submit revisions to this section to indicate that surface water samples shall be analyzed for total phosphates rather than total phosphorous.

**Section 4.0 – Sampling Methods**

18. Please submit revisions to this section to indicate that sampling and analyses shall be conducted using methods consistent with the Department's Standard Operating Procedures.

**SECTION N – SPECIAL WASTE HANDLING REQUIREMENTS** (Rule 62-701.520, F.A.C.)

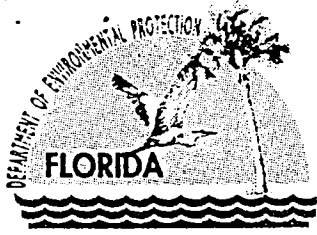
19. **N.4. – Procedures for Contaminated Soil Disposal.** Please submit revisions to this section of the supporting document to indicate that contaminated soil accepted at Hardee County Landfill may also be stored only within the bermed working face area and may be used as initial cover only within the bermed working face area, and not stockpiled outside the liner.

**SECTION O – GAS MANAGEMENT SYSTEM REQUIREMENTS** (Rule 62-701.530, F.A.C.)

20. **O.3.:** Please submit a revised application form for this item that references Section O of the supporting document.

21. Please submit revisions to Section O.3 of the supporting document to be consistent with the requirements of Rules 62-701.530(3)(a) and (3)(b), F.A.C.

jrm



Jeb Bush  
Governor

# Department of Environmental Protection

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

David B. Struhs  
Secretary

Ms. Janice Williamson, Superintendent  
Hardee County Solid Waste Department  
685 Airport Road  
Wauchula, Fl. 33873

June 17, 2003

RE: Hardee County Class I Landfill Financial Assurance Cost Estimates  
Pending Permit # 38414-007-SO, Hardee County

Dear Ms. Williamson:

This letter is to acknowledge receipt of the revised cost estimates dated May 16, 2003 (received May 19, 2003 as Attachment S-1 of Operations Permit Renewal Application, Hardee County Landfill, Hardee County, Florida), prepared by SCS Engineers. The cost estimates received May 19, 2003 are not approved. The following information is needed to fully evaluate the estimates submitted:

## Closing Costs

### **Stormwater Control System:**

The cost estimates for the storm water control system provided in this section only appear to address construction of the proposed storm water control system up to the elevation 110 ft. NGVD. of the landfill. Please provide cost estimates and supporting calculations for the remainder of the proposed storm water management system and revise the cost estimates in this section accordingly.

### **Professional Services:**

The assumption that it will require only two work months to complete closure construction appears to be optimistic. Please provide specific information and calculations of actual time to complete closure from a similar landfill closure project and the professional services hours spent on that project in support this assumption and revise this section accordingly.

## Long-term Care Costs

### **Gas Monitoring:**

The cost estimates in this section were based on quarterly monitoring of gas probes GP-1 through GP-9. The current gas monitoring program consists of gas probes GP-1 through GP-11. Please explain this discrepancy and revise the cost estimates in this section accordingly.

"More Protection, Less Process"

Printed on recycled paper.

**Leachate Collection/Treatment Systems Maintenance – Maintenance:**

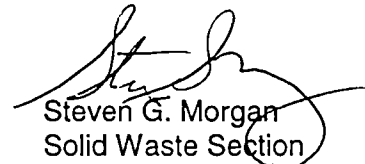
Please provide justification for the assumption that no maintenance of the leachate collection pipes, sumps/traps, lift station, or tanks will be required during the long-term care period or revise this section to include annual costs for leachate system maintenance.

**Leachate Collection/Treatment Systems Maintenance – Disposal:**

In accordance with Rule 62-701.630(3)(a), closure and long-term care costs estimates are based on "... the time period in the landfill operations when the extent and manner of its operation making closing most expensive." In the case of leachate generation rates during long-term care, the time of maximum generation rate is immediately upon completion of closure activities. A reasonable estimate of this generation rate corresponds to the actual per acre leachate generation rate for the previous year calculated for the total acreage to be closed. During the facility's long-term care period, as the average annual leachate generation rate decreases, long-term care costs for leachate disposal can be reduced accordingly. Please revise the leachate quantities and costs provided for long-term care accordingly.

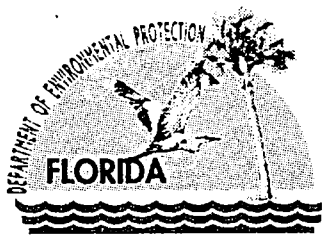
The Department requests that two copies of all information be provided to the Solid Waste Section, FDEP, and Tampa office within thirty (30) days of this notice. In order to expedite the review of this information, please forward all responses related financial assurance cost estimates directly to the undersigned. If you have any questions, you may contact me at (813) 744-6100 ext. 385.

Sincerely,

  
Steven G. Morgan  
Solid Waste Section  
Southwest District

SM/sgm

cc: Raymond J. Devers, P.E., DEE, Vice President, SCS Engineers, 3012 U.S. Highway 301 North, Suite 700,  
Tampa, Florida 33619  
Fred Wick, FDEP Tallahassee w/attachment  
Kim Ford, P.E., FDEP Tampa  
Susan Pelz, P.E., FDEP Tampa



Jeb Bush  
Governor

# Department of Environmental Protection

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*"More Protection, Less Process"*

*Printed on recycled paper.*

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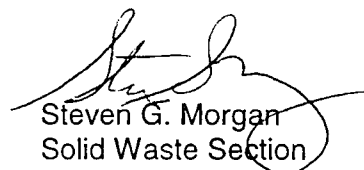
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The Department requests that two copies of all information be provided to the Solid Waste Section, FDEP, and Tampa office within thirty (30) days of this notice. In order to expedite the review of this information, please forward all responses related financial assurance cost estimates directly to the undersigned. If you have any questions, you may contact me at (813) 744-6100 ext. 385.

Sincerely,

  
Steven G. Morgan  
Solid Waste Section  
Southwest District

SM/sgm

cc: Raymond J. Devers, P.E., DEE, Vice President, SCS Engineers, 3012 U.S. Highway 301 North, Suite 700,  
Tampa, Florida 33619  
Fred Wick, FDEP Tallahassee w/attachment  
Kim Ford, P.E., FDEP Tampa  
Susan Pelz, P.E., FDEP Tampa

Florida Department of  
**Environmental Protection**

**Memorandum**

**TO:** Kim Ford, P.E.  
**FROM:** John R. Morris, P.G. JRM  
**DATE:** June 12, 2003  
**SUBJECT:** Hardee County Landfill  
Operating Permit Renewal Application, Pending Permit 38414-007-SO  
Environmental Monitoring Review Comments  
**cc:** Susan Pelz, P.E.

I have reviewed the permit application materials submitted to the Department in support of the referenced application for the Hardee County Landfill that was prepared by SCS Engineers on behalf of Hardee County, received May 19, 2003. My review focused on the hydrogeologic and environmental monitoring aspects of the renewal application. Please have the applicant address the following review comments. The information requests have been referenced to sections of the permit application and are also referenced to the sections of the supporting document where appropriate, as presented below:

**SECTION B – DISPOSAL FACILITY GENERAL INFORMATION**

1. **B.13.:** It is indicated that the property is recorded as a disposal site in the County Land Records. Please indicate if this has been done to complete the requirements of Rule 62-701.610(5), F.A.C. If so, please provide a certified copy of the County record including the legal description and a scale-drawn map for that part of the property that has been so recorded. If not, please submit a revised application form for this item that indicates a "No" response.

**SECTION L – LANDFILL OPERATION REQUIREMENTS** (Rule 62-701.500, F.A.C.)

*Landfill Operations Plan for Hardee County Landfill, prepared by SCS Engineers, dated May 16, 2003*

2. **L.8.c. – Procedures for Managing Leachate if Regulated as Hazardous Waste.** Please submit revisions to this section to address the requirements of Rule 62-701.510(6)(c)2, F.A.C.

3. **L.9 – Routine Gas Monitoring.** This section refers to Figure H-1 to present the locations of the perimeter gas probes and ambient gas monitoring location. Please submit a revised Figure H-1 in a black-and-white format no larger than 11x17 inches with larger identification numbers for the gas probes.

**SECTION M – WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS**

(Rule 62-701.510, F.A.C.)

*Attachment M-1 – Biennial Groundwater Monitoring Plan Evaluation, prepared by SCS Engineers, dated May 12, 2003*

**Section 3 – Water Quality Monitoring Data Findings**

4. Some of the results provided in Attachment A (Ground Water Quality Data Charts) and in Attachment B (Water Quality Trend Analyses) for the "period of record" (June 1999 through December 2002) appear to be inconsistent with the data provided by Hardee County for the semi-annual ground water sampling events.

Please review the following items and submit revisions as appropriate:

- a. June 1999 - MW-2, turbidity @ 25.8 NTU
- b. Dec. 1999 - MW-2, turbidity @ 15.6 NTU
- c. June 2000 - MW-9, chromium @ 0.006 mg/L
- d. Dec. 2000 - MW-1, iron @ 10.2 mg/L
- e. Dec. 2001 - MW-9, ground water elevation @ 78.71 ft NGVD
- f. Dec. 2002 - MW-4, iron @ 8.95 mg/L

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

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5. Please submit revisions to reference the regulatory levels for the characteristic of toxicity as listed in 40 CFR Part 261.24.

6. Please submit revisions to indicate that field measurements of specific conductance were omitted from four of the eight sampling events during the "period of record" at wells MW-6 and MW-7.

7. Please submit revisions to the trend analysis of iron to reflect review comment Nos. 4.d. and 4.f.

#### **Section 4 – Groundwater Levels and Flow Assessment**

8. Please submit revisions to Table 4-1, Figure E-6 and Figure E-9 to reflect review comment No. 4.e.

9. The horizontal hydraulic gradient value used in the calculation of ground water flow velocity appears to represent the low end of the range of gradient values along the west and east sides of the landfill as presented on the contour maps in Attachment E. It appears that the hydraulic gradient ranged from about 0.003 to 0.01 ft/ft between June 1999 and December 2002. Please review and revise the gradient value and ground water flow velocity calculation as appropriate.

#### **Section 5 – Adequacy of the Water Quality Monitoring Locations and Sampling Frequency**

10. Please submit revisions to this section to indicate that the maximum ground water elevations presented in Table 2-2 indicate the well screen were submerged for all wells in the monitoring plan (MW-1, MW-2, MW-4, MW-5, MW-8 and MW-9).

11. It is indicated that analyses of ground water samples should be conducted for the parameters listed in EPA Method 8260 rather than those listed by 40 CFR Part 258, Appendix I. Please note that this proposed change is not consistent with Rule 62-701.510(8)(a), F.A.C., and does not address the metals that are listed in 40 CFR Part 258, Appendix I. Please submit revisions to this section that are consistent with the provided rule reference.

#### **Section 6 – Proposed Modifications/Recommendations to the Monitoring Program**

12. Please submit revisions to this section that reference Department Standard Operating Procedure (SOP) FS 2200 (Ground Water Sampling) and the criteria for field measured turbidity (<20 NTU) and dissolved oxygen (<20 % saturation) during well purging.

13. Please submit revisions to the proposed ground water parameters to delete reference to the parameters listed by EPA Method 8260 and replace with the parameters listed by 40 CFR Part 258, Appendix I.

14. Please submit revisions to this section to include proposed surface water parameters to be consistent with Rule 62-701.510(8)(b), F.A.C.

Attachment M-2 – Water Quality and Leachate Monitoring Plan, Hardee County Landfill, prepared by SCS Engineers, dated May 16, 2003

#### **Section 2.0 – Water Quality and Leachate Monitoring Network**

15. Please submit revisions to this section to indicate that surface water sampling shall be conducted unless no surface water is present at the designated sampling location (SW-2) for the entire semi-annual period. Please submit additional revisions to this section to indicate that Hardee County Solid Waste personnel shall prepare a daily log (excluding Sundays) of the occurrence of water in the creek at the downstream property boundary to document the inability to collect a surface water sample during dry periods.



**Section 3.0 – Water Quality and Leachate Monitoring Parameters**

16. Please submit revisions to this section to indicate that ground water samples shall be analyzed for parameters that are consistent with review comment No. 13.

17. Please submit revisions to this section to indicate that surface water samples shall be analyzed for total phosphates rather than total phosphorous.

**Section 4.0 – Sampling Methods**

18. Please submit revisions to this section to indicate that sampling and analyses shall be conducted using methods consistent with the Department's Standard Operating Procedures.

**SECTION N – SPECIAL WASTE HANDLING REQUIREMENTS** (Rule 62-701.520, F.A.C.)

19. **N.4. – Procedures for Contaminated Soil Disposal.** Please submit revisions to this section of the supporting document to indicate that contaminated soil accepted at Hardee County Landfill may also be stored only within the bermed working face area and may be used as initial cover only within the bermed working face area, and not stockpiled outside the liner.

**SECTION O – GAS MANAGEMENT SYSTEM REQUIREMENTS** (Rule 62-701.530, F.A.C.)

20. **O.3.:** Please submit a revised application form for this item that references Section O of the supporting document.

21. Please submit revisions to Section O.3 of the supporting document to be consistent with the requirements of Rules 62-701.530(3)(a) and (3)(b), F.A.C.

jrm

**Morris, John R.**

---

**From:** Kenneth Guilbeault [kguilbeault@scsengineers.com]  
**Sent:** Wednesday, June 11, 2003 1:15 PM  
**To:** Morris, John R.  
**Subject:** Hardee County Biennial



HardeeBiennial.PDF

John,  
Bob Westly asked me to forward the MW-1 Summary Data Table for Hardee County.

<<HardeeBiennial.PDF>>

Ken Guilbeault  
SCS Engineers  
3012 U.S. Highway 301 North, Suite 700  
Tampa, Florida 33619  
813-621-0080 (Office)  
813-623-6757 (Fax)

KIM - FILE  
COPY

HARDEE COUNTY LANDFILL

MW-1 DATA SUMMARY										
Detection Well										
PARAMETER	MCL	UNITS	DATE OF SAMPLE COLLECTION							
			Jun-99	Dec-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02
<b>Inorganic Parameters:</b>										
Arsenic <sup>1</sup>	50	µg/L	<5.0	6	<5.0	<5.0	<5.0	13	<5.0	7
Barium <sup>1</sup>	2,000	µg/L	<20	<20	<20	20	<20	50	30	20
Cadmium <sup>1</sup>	5	µg/L	<2	<2	<2	<2	<2	<2	<2	<2
Chromium <sup>1</sup>	100	µg/L	5	<5.0	13	7	<5.0	11	<5.0	<5.0
Copper <sup>2</sup>	1,000	µg/L	10	<10	<10	<10	<10	10	<10	<10
Iron <sup>2</sup>	300	µg/L	7,930	8,820	8,610	1,020	7,510	13,900	5,370	8,710
Lead <sup>1</sup>	15	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	2	<1.0
Nickel <sup>1</sup>	100	µg/L	<10	<10	<10	<10	<10	<10	20	<30
Sodium <sup>1</sup>	160,000	µg/L	13,000	14,000	13,000	20,000	17,000	17,000	17,000	12,000
Vanadium <sup>1</sup>	49	µg/L	<100	<100	<100	<100	<100	<100	<100	<100
Zinc <sup>2</sup>	5,000	µg/L	4	7	9	10	6	9	11	2
Total Dissolved Solids <sup>2</sup>	500	mg/L	178	230	180	354	286	248	212	241
Chloride <sup>2</sup>	250	mg/L	32	32	35	56	41	38	39	41
Nitrogen, Nitrate <sup>1</sup>	10	mg/L	0.04	0.04	0.19	0.05	0.08	1.35	0.07	<0.02
Nitrite, Nitrogen	1	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01
Nitrate + Nitrite Nitrogen (NO <sub>2</sub> + NO <sub>3</sub> )	10	mg/L	0.04	0.04	0.19	0.05	0.08	1.35	0.08	<0.02
Nitrogen Ammonia (As N) <sup>3</sup>	2.8	mg/L	0.15	0.07	0.22	0.14	0.09	0.08	0.04	0.26
<b>Field Parameters:</b>										
Specific Conductance (Field)	NA	umho/cm	214	236	215	356	268	241	225	240
pH (Field) <sup>2</sup>	6.5-8.5	Unit	5.07	4.84	4.95	4.83	4.82	4.76	5.05	4.77
Temperature (Field)	NA	Deg C	25.1	24.2	27.4	23.6	24.8	26.1	26.8	21.6
Turbidity (Field)	NA	NTU	16.3	19.8	19.1	14.2	8.83	127	1.40	2.86
Dissolved Oxygen (Field)	NA	mg/L	3	5	6.2	2.2	4.2	5.4	7.2	1.8
<b>Organic Parameters:</b>										
Total Xylenes	10,000	µg/L	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<1.00

Notes:

MCL = Maximum Contaminant Level.

NA = Not Available.

--- = Not Tested.

Shaded = Sample result above the MCL.

<sup>1</sup> Parameter MCL is a Primary Drinking Water Standard (62-550 F.A.C.).

<sup>2</sup> Parameter MCL is a Secondary Drinking Water Standard (62-550 F.A.C.).

<sup>3</sup> Parameter MCL is a Groundwater Clean-up Target Level (62-777 F.A.C.).

Kim Ford

### Southwest District Permitting Application

New Site

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

Existing Site

Site ID:	38414-007
Project Name:	HARDEE COUNTY LF OPS RENEWAL
Type/Subcode:	50/01
Fee submitted:	\$ 100 <input checked="" type="checkbox"/> correct                      ( ) incorrect
SUMMARY = SMALL COUNTY WAIVER	
Total Fee Required \$	100      Need \$ 100      Refund \$ 0

Applicant Information

Name:	JANICE WILLIAMSON	
Role:	APPLICANT	
Company:	HARDEE COUNTY	
Address:	685 AIRPORT ROAD	
City:	WAOCHULA	Zip Code: 33873
Phone:	(863) 773-5089	

Fee verified by: K FORD

Application Assigned To: K FORD      Date: 5/20/03

Look for gray background on the front of this check, and the imageSafe® logo on back. If not present, do not cash.

**SCS ENGINEERS**

PHONE 813-621-0080  
3012 U.S. HIGHWAY 301 N., STE. 700  
TAMPA, FL 33619

5631

DATE 5/16/03

63-27631 FL  
28

PAY TO THE ORDER OF Florida Department of Environmental Protection

\$ 100.00

One hundred and no/100

DOLLARS

Security features are included. Details on back.

**Bank of America**



ACH/R/T 083100277

FOR 09199033.08

*Shawn Ols*

MP

GUARDIAN & SAFETY

42 US  
5/19

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
APPLICATION FOR A PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE  
A SOLID WASTE MANAGEMENT FACILITY

Please Type or Print

A. GENERAL INFORMATION

1. Type of facility (check all that apply):

- Disposal  
 Class I Landfill                       Ash Monofill  
 Class II Landfill                       Asbestos Monofill  
 Class III Landfill                       Industrial Solid Waste  
 Other Describe: \_\_\_\_\_

- Non-Disposal  
 Incinerator For Non-biomedical Waste  
 Waste to Energy Without Power Plant Certification  
 Other Describe: \_\_\_\_\_

NOTE: Waste Processing Facilities should apply on Form 62-701.900(4), FAC;  
Land Clearing Disposal Facilities should notify on Form 62-701.900(3), FAC;  
Compost Facilities should apply on Form 62-701.900(10), FAC; and  
C&D Disposal Facilities should apply on Form 62-701.900(6), FAC

2. Type of application:

- Construction  
 Operation  
 Construction/Operation  
 Closure

3. Classification of application:

- New     Substantial Modification  
 Renewal     Intermediate Modification  
 Minor Modification

4. Facility name: Hardee County Regional Landfill

5. DEP ID number: SO25-096551 County: Hardee

6. Facility location (main entrance): 685 Airport Road  
approximately one mile north of SR 636 Wauchula, Florida

7. Location coordinates:

Section: 35 Township: 33S Range: 25E  
Latitude: 27 ° 34 ' 10 " Longitude: 81 ° 47 ' 01 "

8. Applicant name (operating authority): Hardee County Solid Waste Department  
Mailing address: 685 Airport Road Wauchula FL 33873  
Street or P.O. Box City State Zip  
Contact person: Janice Williamson Telephone: ( 863 ) 773-5089  
Title: Solid Waste Director

E-Mail address (if available)

9. Authorized agent/Consultant: SCS Engineers  
Mailing address: 3012 U.S. Highway 301 North, Suite 700 Tampa FL 33619  
Street or P.O. Box City State Zip  
Contact person: Raymond J. Dever, P.E. Telephone: ( 813 ) 621-0080  
Title: Vice President

rdever@scsengineers.com  
E-Mail address (if available)

10. Landowner (if different than applicant): (same)  
Mailing address: \_\_\_\_\_  
Street or P.O. Box City State Zip  
Contact person: \_\_\_\_\_ Telephone: (     ) \_\_\_\_\_

E-Mail address (if available)

11. Cities, towns and areas to be served: Hardee County, including its municipalities

12. Population to be served:  
Current: 27,607 Five-Year Projection: 30,111

13. Date site will be ready to be inspected for completion: N/A

14. Expected life of the facility: \_\_\_\_\_ years

15. Estimated costs:  
Total Construction: \$ \_\_\_\_\_ Closing Costs: \$ \_\_\_\_\_

16. Anticipated construction starting and completion dates:  
From: \_\_\_\_\_ To: \_\_\_\_\_

17. Expected volume or weight of waste to be received:  
                   yds<sup>3</sup>/day 80 tons/day                    gallons/day

B. DISPOSAL FACILITY GENERAL INFORMATION

1. Provide brief description of disposal facility design and operations planned under this application:

Renewal of operating permit for Hardee County's Class I Landfill  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Facility site supervisor: Janice Williamson  
Title: Solid Waste Director Telephone: (863) 773-5089  
E-Mail address (if available) \_\_\_\_\_

3. Disposal area: Total 12.5 acres; Used 12.0 acres; Available 0.5 acres.

4. Weighing scales used:  Yes [ ] No

5. Security to prevent unauthorized use:  Yes [ ] No

6. Charge for waste received: \_\_\_\_\_ \$/yds<sup>3</sup> 62.50 \$/ton

7. Surrounding land use, zoning:

<input type="checkbox"/> Residential	<input type="checkbox"/> Industrial
<input checked="" type="checkbox"/> Agricultural	<input type="checkbox"/> None
<input type="checkbox"/> Commercial	<input type="checkbox"/> Other Describe: _____

8. Types of waste received:

<input checked="" type="checkbox"/> Residential	<input checked="" type="checkbox"/> C & D debris
<input checked="" type="checkbox"/> Commercial	<input checked="" type="checkbox"/> Shredded/cut tires
<input type="checkbox"/> Incinerator/WTE ash	<input checked="" type="checkbox"/> Yard trash
<input type="checkbox"/> Treated biomedical	<input type="checkbox"/> Septic tank
<input type="checkbox"/> Water treatment sludge	<input type="checkbox"/> Industrial
<input type="checkbox"/> Air treatment sludge	<input type="checkbox"/> Industrial sludge
<input checked="" type="checkbox"/> Agricultural	<input type="checkbox"/> Domestic sludge
<input checked="" type="checkbox"/> Asbestos	
<input checked="" type="checkbox"/> Other Describe: _____	<u>Non-hazardous contaminated soil</u>

9. Salvaging permitted: [ ] Yes  No

10. Attendant:  Yes [ ] No Trained operator:  Yes [ ] No

11. Spotters: Yes  No [ ] Number of spotters used: Varies

12. Site located in: [ ] Floodplain [ ] Wetlands  Other Uplands



CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

1. Applicant:

The undersigned applicant or authorized representative of Hardee County

Solid Waste Department is aware that statements made in this form and attached information are an application for a Operations Permit from the Florida Department of Environmental Protection and certifies that the information in this application is true, correct and complete to the best of his/her knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.

Janice Williamson  
Signature of Applicant or Agent  
Janice Williamson, Solid Waste Superintendent  
Name and Title (please type)  
E-Mail address (if available)

685 Airport Road  
Mailing Address  
Wauchula, FL 33873  
City, State, Zip Code  
(863) 773-5089  
Telephone Number

Date: \_\_\_\_\_

Attach letter of authorization if agent is not a governmental official, owner, or corporate officer.

2. Professional Engineer registered in Florida (or Public Officer if authorized under Sections 403.707 and 403.7075, Florida Statutes):

This is to certify that the engineering features of this solid waste management facility have been designed/examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and operation of the facility.

Raymond J. Dever  
Signature  
Raymond J. Dever, P.E., Vice President  
Name and Title (please type)  
43031  
Florida Registration Number  
(please affix seal)

SCS Engineers, 3012 U.S. Hwy 201 N., Suite 700  
Mailing Address  
Tampa, FL 33619  
City, State, Zip Code  
rdever@scsengineers.com  
E-Mail address (if available)  
(813) 621-0080  
Telephone Number

Date: 5/16/03



WASTE MANAGEMENT TECHNICAL SUPPORT  
ROUTING FORM

PERMITTED FACILITIES

To: STEVE  
From: km  
Date: 5/19/03  
Subject: HARDEE C LF RENEWAL COST EST.

Document Name: \_\_\_\_\_  
Revision Number 0 County: HARDEE  
Facility Name: \_\_\_\_\_  
Type of Facility: C S LF  
Permit Number: \_\_\_\_\_ Issue Date: \_\_\_\_\_

Copy of Permit attached: \_\_\_\_\_  
Document submitted in compliance with permit condition. \_\_\_\_\_

Document subject to permit timeclock. YES

Day 1: 5/19/03

Day 30: 6/18/03

PATS sheet attached: \_\_\_\_\_

Enforcement Case/CO/NOV/ associated with this site: \_\_\_\_\_

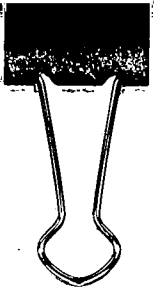
Files and related documents can be found ATTACHED & IN FILES

Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by JUNE 10.

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Module \_\_\_\_\_

Attachments



**ATTACHMENT S-1**  
**FINANCIAL ASSURANCE**

WASTE MANAGEMENT TECHNICAL SUPPORT  
ROUTING FORM

PERMITTED FACILITIES

To: John  
From: km  
Date: 5/19/03  
Subject: HARDEE Co LF Renewal

Document Name: \_\_\_\_\_  
Revision Number 0 County: HARDEE  
Facility Name: \_\_\_\_\_  
Type of Facility: C I LF  
Permit Number: \_\_\_\_\_ Issue Date: \_\_\_\_\_

Copy of Permit attached: \_\_\_\_\_

Document submitted in compliance with permit condition. \_\_\_\_\_

Document subject to permit timeclock. YES

Day 1: 5/19/03

Day 30: 6/18/03

PATS sheet attached: \_\_\_\_\_

Enforcement Case/CO/NOV/ associated with this site: \_\_\_\_\_

Files and related documents can be found ADMITTED in files

Please review and comment on the technical aspects of the attached document as you deem appropriate. In order to maintain progress with the permit review, please provide comments within 30 days or by JUNE 10.

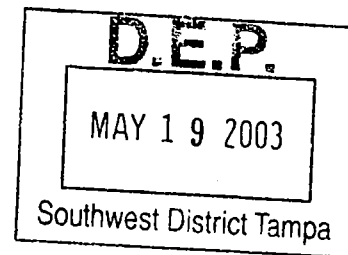
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Module \_\_\_\_\_

Attachments

**SCS ENGINEERS**

May 16, 2003  
File No. 09199033.08



Mr. Kim Ford  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, FL 33619

Subject: Operations Permit Renewal Application  
Hardee County Landfill – Permit No. 38414-002-SO  
Hardee County, Florida

Dear Mr. Ford:

On behalf of Hardee County (County), SCS Engineers (SCS) is pleased to submit the following documents to support the operation permit renewal of the Hardee County Landfill. The following documents are attached to this cover letter:

- Four copies of the Operations Permit Renewal Application.
- Biennial Groundwater Monitoring Plan Evaluation Report for the Hardee County Landfill. The document is contained within the Operations Permit Renewal Application (see Attachment M-1).
- Operations Permit Renewal Application fee of \$100 made payable to the Florida Department of Environmental Protection (FDEP).
- Videotapes (one copy of tapes 1 and 2) and corresponding report by Florida Jet Clean Inc. for the leachate collection lines.
- Leachate tank inspection reports:  
Hardee County has contacted the tank manufacturer regarding repair procedures for the tank areas with corrosion. The tank manufacturer has sent a proposal to the County for repairing the said corrosion. The County is currently in the process of finalizing approval of the proposal. Upon completion of the repairs, Hardee County will drain the other tank and proceed with the inspection of the remaining tank. A final repair and inspection schedule of the tanks will be forwarded to FDEP.



**Operations Permit Renewal Application  
Hardee County Landfill  
Hardee County, Florida**

**SCS ENGINEERS**

**Prepared for:**

Hardee County  
Board of County Commissioners  
412 West Orange Street  
Wauchula, FL 33873

**Prepared by:**

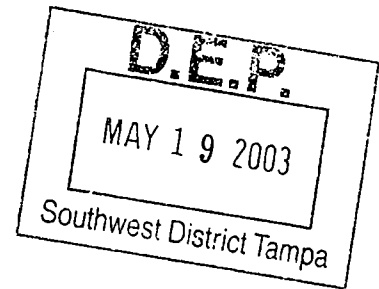
SCS Engineers  
3012 U.S. Highway 301 N., Suite 700  
Tampa, Florida 33619  
(813) 621-0080

File No. 09199033.08  
May 16, 2003

**SCS ENGINEERS**

May 16, 2003  
File No. 09199033.08

Mr. Kim Ford  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, FL 33619



Subject: Operations Permit Renewal Application  
Hardee County Landfill – Permit No. 38414-002-SO  
Hardee County, Florida

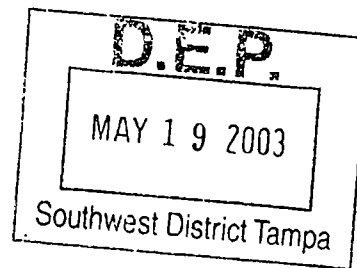
Dear Mr. Ford:

On behalf of Hardee County (County), SCS Engineers (SCS) is pleased to submit the following documents to support the operation permit renewal of the Hardee County Landfill. The following documents are attached to this cover letter:

- Four copies of the Operations Permit Renewal Application.
- Biennial Groundwater Monitoring Plan Evaluation Report for the Hardee County Landfill. The document is contained within the Operations Permit Renewal Application (see Attachment M-1).
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Mr. Kim Ford  
May 16, 2003  
Page 2



Please do not hesitate to contact us if you should have any questions regarding this letter.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Joe O'Neill".

Joseph H. O'Neill, P.E.  
Senior Project Engineer  
SCS Engineers

A handwritten signature in cursive script, appearing to read "Raymond J. Dever".

Raymond J. Dever, P.E., DEE  
Vice President  
SCS Engineers

JHO/RJD:lek

Attachments



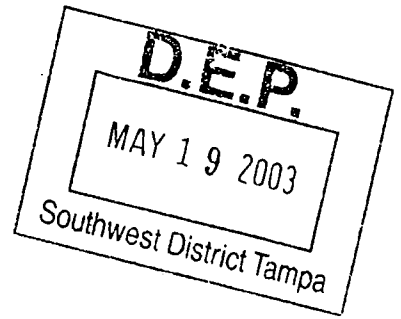


**OPERATIONS PERMIT RENEWAL APPLICATION**

**(SEE ATTACHED THREE-RING BINDER)**

**BIENNIAL GROUNDWATER MONITORING PLAN EVALUATION  
REPORT**

**(SEE ATTACHMENT M-1 WITHIN THE THREE-RING BINDER)**



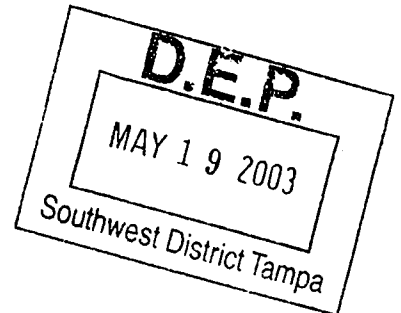
**LEACHATE COLLECTION LINE REPORT**

# FLORIDA JETCLEAN INC.

HIGH PRESSURE WATER JETTING  
VIDEO PIPELINE INSPECTION  
NO DIG POINT REPAIRS

37 WINDWARD ISLAND  
CLEARWATER, FL 33767-2322  
TEL: 800-226-8013 FAX: 727-442-2222

## HARDEE COUNTY LANDFILL LEACHATE COLLECTION SYSTEM MAINTENANCE - 2003 REPORT



All pipes jetcleaned fully without obstruction.

While sections of the pipe were submerged during inspection, this is common in leachate piping and as long as the camera passes through the submerged areas, it is reasonable to assume that pipe integrity exists.

The Video Log records line segment details.

FLORIDA JETCLEAN INC.  
37 WINDWARD ISLAND  
CLEARWATER FL 33767-2322  
TEL 800-226-8013

*[Handwritten signature]*  
4/21/03

# FLORIDA JETCLEAN INC.

---

HIGH PRESSURE WATER JETTING  
VIDEO PIPELINE INSPECTION  
NO DIG POINT REPAIRS

37 WINDWARD ISLAND  
CLEARWATER, FL 33767-2322  
TEL: 800-226-8013 FAX: 727-442-2222

## HARDEE COUNTY LANDFILL LEACHATE COLLECTION SYSTEM MAINTENANCE - 2003 JETCLEANING LOG

### 4/14/03 - 8" CORRUGATED HDPE

1. Manhole 3 toward Manhole 4	420'
2. Manhole 3 toward Manhole 2	389'
3. Manhole 4 toward Manhole 5	389'
4. Manhole 2 toward Manhole 1	445'
5. Manhole 1 toward Manhole 8	114'
6. Manhole 8 toward lift station	94'
7. Manhole 7 toward lift station	562'
8. Manhole 7 toward Manhole 6	146'
9. Manhole 6 toward Manhole 5	392'

# FLORIDA JETCLEAN INC.

HIGH PRESSURE WATER JETTING  
VIDEO PIPELINE INSPECTION  
NO DIG POINT REPAIRS

37 WINDWARD ISLAND  
CLEARWATER, FL 33767-2322  
TEL: 800-226-8013 FAX: 727-442-2222

## HARDEE COUNTY LANDFILL LEACHATE COLLECTION SYSTEM MAINTENANCE - 2003 VIDEO LOG

4/14/03 - 8" CORRUGATED HDPE

### TAPE 1

- |                               |      |   |
|-------------------------------|------|---|
| 1. Manhole 3 toward Manhole 4 | 420' | Submerged at mouth until 38'. 49' submerged until 58'. 135' submerged until 165'. 200' submerged until 205'. 326' submerged until 347'. 411' submerged until 418'. 420' Manhole 4.  |
| 2. Manhole 3 toward Manhole 2 | 237' | Submerged at mouth of pipe until 5'. 7' possible separation and roots. 30' submerged until 66'. 82' submerged until 90'. 117' submerged until 125'. 160' submerged until 162'. 169' submerged until 181'. 188' submerged until 192'. 201' submerged until 210'. 220' submerged until 230'. 237' possible separation. Will do reverse set-up. Video also in reverse. |
| 3. Manhole 2 toward Manhole 3 | 152' | 73' submerged until 80'. 85' submerged until 89'. 97' submerged until 106'. 112' submerged until 136'. 152' possible separation. See # 2 for reverse set-up. Video also in reverse.   |
| 4. Manhole 4 toward Manhole 5 | 388' | 144' submerged until 152'. 168' submerged until 170'. 182' leachate on lens. No visual until Manhole 5 at 388'. Video in reverse. Clear picture.  |

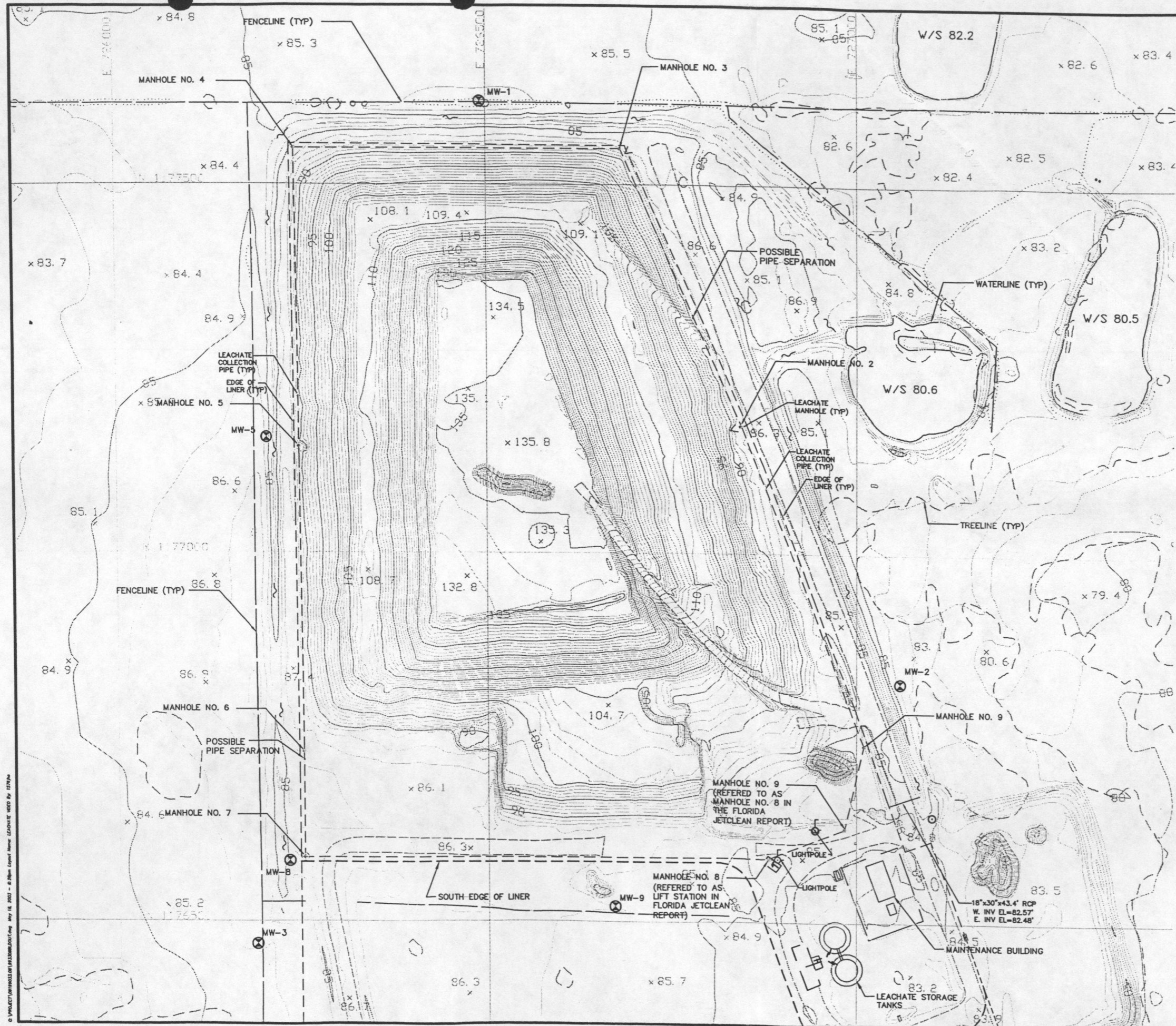
4/16/03

- |                               |      |   |
|-------------------------------|------|---|
| 5. Manhole 2 toward Manhole 1 | 445' | All video in reverse. 445' submerged until 30'. Brief picture at 55', 48' and 40'. 8' submerged until 3'. |
|-------------------------------|------|---|

6. Manhole 1 toward Manhole 8	114'	114' Manhole 8.
7. Manhole 8 toward lift station	94'	94' lift station
8. Manhole 7 toward lift station	562'	4' submerged until 20'. 60' submerged until 76'. 239' pipe egg-shaped. 268' submerged until 400'. 403' submerged until 417'. 424' submerged until 434'. 535' submerged until 537'. 562' lift station. Also in reverse.
9. Manhole 7 toward Manhole 6	132'	132' pipe separated. Will do reverse set-up.
10. Manhole 6 toward Manhole 7	18'	14' submerged until 16'. 18' pipe separated. See # 9.
11. Manhole 6 toward Manhole 5	392'	Submerged at mouth of pipe until 20'. 28' submerged until 38'. 48' submerged until 58'. 64' submerged until 103'. 129' submerged until 136'. 144' submerged until 168'. 175' submerged until 180'. 185' submerged until 204'. 215' submerged until 222'. 224' submerged until 245'. 260' submerged until 263'. 264' submerged until 323'. 324' submerged until 339'. Continue on Tape 2.

## TAPE 2

11. Manhole 6 toward Manhole 5	392'	All video in reverse from Manhole 5.
--------------------------------	------	--------------------------------------



**D.E.P.**  
MAY 19 2003  
Southwest District Tampa

NOT TO SCALE

- LEGEND**
- FENCELINE
  - VEGETATION
  - STORMWATER FLOW LINE
  - SPOT ELEVATION
  - INDEX CONTOUR
  - MONITORING WELL

1. VIDEO OF EXISTING LEACHATE COLLECTION SYSTEM CONDUCTED BY FLORIDA JETCLEAN, INC. FROM APRIL 14-16, 2003. (NOTE: MANHOLE NUMBER 9 WAS INCORRECTLY IDENTIFIED AS MANHOLE NO 8 AND MANHOLE NUMBER 8 WAS INCORRECTLY IDENTIFIED AS THE LIFT STATION IN THE FLORIDA JET CLEAN REPORT)
2. ELEVATIONS AND TOPOGRAPHIC INFORMATION SHOWN PROVIDED BY AERIAL SURVEY BY I.F. ROOKS & ASSOCIATES, INC. DATED 3/14/03. SCS AND I.F. ROOKS MAKE NO REPRESENTATION OR GUARANTEES PERTAINING TO EASEMENTS, RESERVATIONS, RIGHT-OF-WAYS, SETBACKS, PROPERTY LIMITS, AND OTHER SIMILAR MATTERS. UTILITIES ARE NOT SHOWN.
3. CONTROL POINTS FOR THE AERIAL SURVEY BASED UPON FLORIDA STATE PLANE, WEST ZONE NAD 1983 AND NGVD 1929.
4. MANHOLES, EDGE OF LINER, LEACHATE TANKS, DRAINAGE PIPES, MONITORING WELLS TAKEN FROM PBS&J DRAWINGS DATED FEBRUARY, 1999. REFER TO RECORD DRAWINGS FOR UPDATED INFORMATION.

*John A. Schmitt*  
MAY 16 2003  
02049

Florida Board of Professional Engineers  
Certificate No. 00004892

DRAWING TITLE <b>LEACHATE COLLECTION SYSTEM</b>	DATE	
	REV.	
	DESCRIPTION	
PROJECT TITLE <b>HARDEE COUNTY LANDFILL OPERATION PERMIT RENEWAL</b>	DATE	
CLIENT <b>HARDEE COUNTY BOARD OF COUNTY COMMISSIONERS</b>	DATE	
	SCALE	
DRAWING NO. <b>1</b> of 1	DATE	
	SCALE	
CADD FILE: 993308BLDOUT.DWG	DATE	
	SCALE	
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 3012 U.S. HWY. 301 NORTH, SUITE 706, TAMPA, FL 33619 PH (813) 837-0800 FAX (813) 837-0177 WWW.BITUMI.COM 091990333.08	DATE	
	SCALE	
DRAWING NO. <b>1</b> of 1	DATE	
	SCALE	



# **LEACHATE TANK INSPECTION REPORT**



2101 S. 21st Street, P.O. Box 996  
Parsons, KS 67357-0996 U.S.A.  
Phone: 620-421-0200 · Fax: 620-421-9122

April 6, 2003

Ms. Janice Williamson  
Hardee County Department of Solid Waste  
685 Airport Road  
Wauchula, FL 33873-8663

RE: 99-2229 (1999) Leachate Storage Tanks  
Eclipse / Omni Joint Venture, P.O. # 4005-H-0015

Dear Janice:

This report covers the inspection of two sets of tanks which were sold by A.O. Smith Engineered Storage Products Company to Eclipse / Omni Joint Venture. Tanks consists of an inner primary tank, 29.7' diameter by 16' tall with a flat steel floor and open top roof construction and an secondary containment tank, 47.59' diameter x 8.61' tall with an embedded base ring and open top roof construction. Tanks are identified as Tank 1 and Tank 2. Tank 1 was available for through inspection.

The secondary tanks or the outer tanks were available for through inspections and no significant defects were found with the outer tanks.

The inner tank on Tank 1 was empty and the inspection revealed minor problems with the interior of this tank. The defects are in the interior coating and will require field touch-up in accordance to Columbian TecTank's touch-up procedures that are attached. In particular it was noted that there are numerous scratches and gouges in the floor of this tank as well as some degradation the coating on the edges of the sidewall panels. Pictures are attached depicting these areas.

Other items of recommendation are to install fall protection opening guards at the three openings from the inter-connecting platform. Also the concrete landing at the base of the ladder needs to be repaired and the ladder anchored to this base.

One could assume that the same condition exists in Tank 2.

There are no deficiencies in these tanks that will result in loss of storage or spillage. Only minor coating repair work is required.

Sincerely

Bob Edwards  
Erection & Field Service Manager

Attachments a/s

Ec: C. Spears, A. Beyer

**ENGINEERING DATA Colurn n TecTank**

5400 Kansas Avenue P.O. Box 2907 Kansas City, KS 66110-2907 913-621-0000 Fax 913-621-2145  
2101 S. 21<sup>st</sup> Street P.O. Box 996 Parsons, KS 67357 620-421-0200 Fax 620-421-9122

**DESCRIPTION:** TRICO BOND 478 LOW TEMPERATURE TOUCH-UP PROCEDURES

Prepared by: PBV No. 1 of 1

Date: 12/00

**NO CURE BELOW 50°F**

**A. SURFACE PREPARATION**

1. Surface preparation for low temperature is even more important than normal.
2. Surface to be repaired must be dry and free of rust, oil, grease, or other surface soils. Remove oils with solvent followed by detergent wash and clear water rinse. Wash water-soluble soils with detergent wash and clear water rinse.
3. **Surface must be roughened.** Small areas should be sanded with 80 – 100 grit sandpaper or wire-brushed. All damaged coating must be removed and the edges of the existing coating must be roughened (feathered) to ensure good adhesion of touch-up to existing coating. Large areas must be sandblasted to SP-10 (Near-White Metal Blast). Keep areas to be touched-up as small as possible.
4. After preparation, blow off loose dust prior to coating.
5. Apply touch-up within eight hours following surface prep to avoid possibility of flash rust formation on cleaned surface. Do not leave overnight.

**B. SAFETY, MIXING, APPLICATION**

See individual sheets for specific information.

**C. CURING**

1. Touch-ups will take short-term exposure to temperatures below 50°F, but curing will not start until 50°F is reached.
2. **Materials can be force-cured by the application of heat from heat lamps, blowers, etc. Due to variations in other factors, the following cure schedules are only a guide and should not be considered exact.** Temperatures shown refer to the metal, not air temperature.

<b>APPROXIMATE CURE TIMES</b>	
<b>Metal Temperature</b>	<b>Trico Bond 478</b>
<b>50°F</b>	<b>15 Days</b>
<b>65°F</b>	<b>9 Days</b>
<b>80°F</b>	<b>7 Days</b>
<b>100°F</b>	<b>64 Hours</b>
<b>120°F</b>	<b>16 Hours</b>
<b>140°F</b>	<b>4 Hours</b>
<b>170°F</b>	<b>2 Hours</b>
<b>200°F</b>	<b>1 Hour</b>
<b>Max. Cure Temp.</b>	<b>400°F</b>

**DESCRIPTION:** TRICO BOND 478 TOUCH-UP PROCEDURES

Prepared by: PBV

No. 1 of 2 Date: 12/02

Base (920Y-927)

Curing Agent (700-C-525)

Flash Point: 80°F

Flash Point: 45°F

**A. SURFACE PREPARATION**

1. Surface to be repaired must be dry and free of rust, oil, grease, or other surface soils. Remove oils with solvent followed by detergent wash and clear water rinse. Wash water-soluble soils with detergent wash and clear water rinse.
2. **Surface must be roughened.** Small areas should be sanded with 80 -100-grit sandpaper or wire-brushed. All damaged coating must be removed and the edges of existing coating must be roughened (feathered) to ensure good adhesion of touch-up to existing coating. Large areas must be sandblasted to SP-10 (Near-White Metal Blast). Keep areas to be touched-up as small as possible.
3. After preparation, blow off loose dust prior to coating.
4. Apply touch-up within eight hours following surface prep to avoid possibility of flash rust formation on cleaned surface. Do not leave overnight.

**B. MIXING**

**Caution: Proper mixing of field touch-up coating is important for good application. Insufficient mixing may result in improper cure.**

1. Thoroughly stir base component to incorporate all settled pigment. Then completely mix one part curing agent with four parts base component. Allow to sit 30 minutes after mixing before using.
2. Do not mix more than will be used during pot life. Pot life is 4 hours maximum at 70 - 90°F or 2 hours maximum at 90 - 100°F.
3. Lack of thorough mixing will yield improper cure.

**C. APPLICATION**

1. Do not apply at temperatures below 50°F. Surface temperature must be at least 5°F above the dew point of the surrounding air.
2. Coating may be brushed applied.
3. DFT desired: 6 mils (10 mils wet). Feather out to zero at the edge of the roughened area. Will not bond to cured coating without roughening surface.
4. Recoating should be done within 24 hours at temperatures of 50 - 100°F to avoid roughening the surface again. Recoating can be done as soon as desired, provided it does not damage or lift previous coats, normally when dry to touch.
5. Dry-to-touch time is approximately one hour. Can be placed in service after seven days at 70°F metal temperature.

**DESCRIPTION:** TRICO BOND 478 TOUCH-UP PROCEDURES

Prepared by: PBV

No. 2 of 2 Date: 12/02

**D. COMMENTS**

Following these procedures will yield a touched-up area with properties very close to the original Trico-Bond 478 coating. The touch-up is supplied in partially filled containers (base component) to ensure proper mixing proportions. Surface preparation then becomes the major factor to ensure coating integrity.

**E. CURE TESTING**

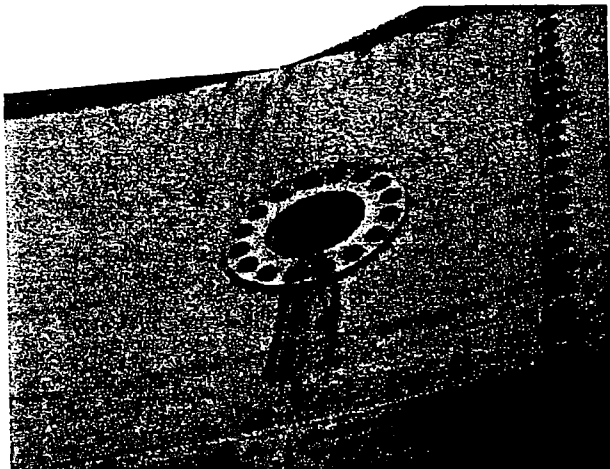
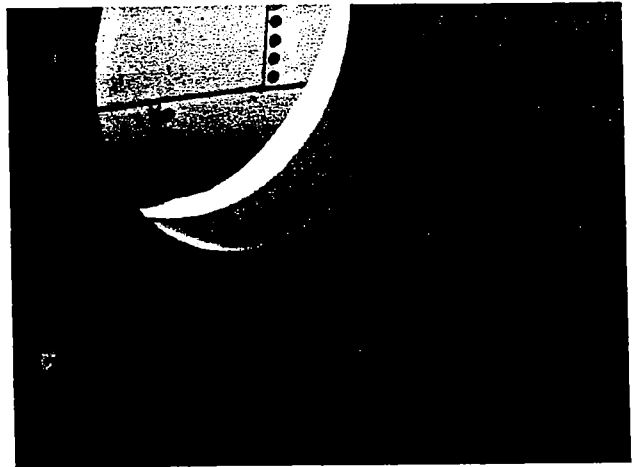
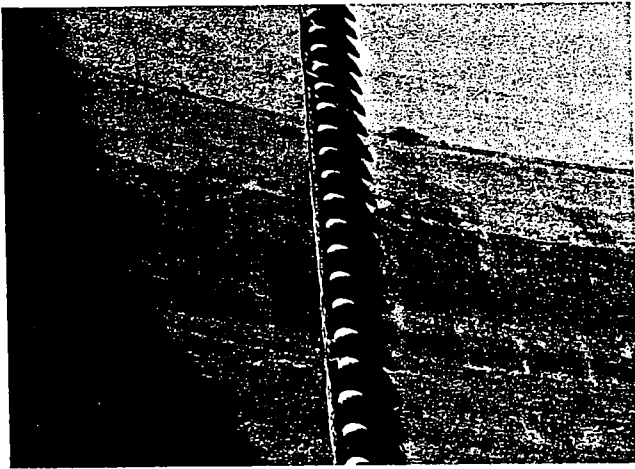
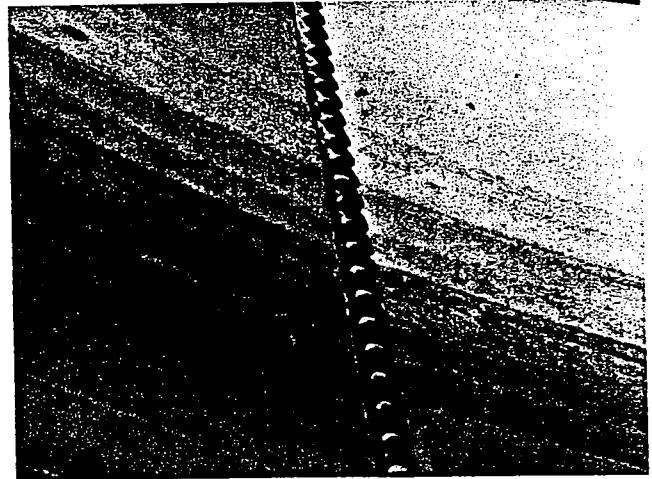
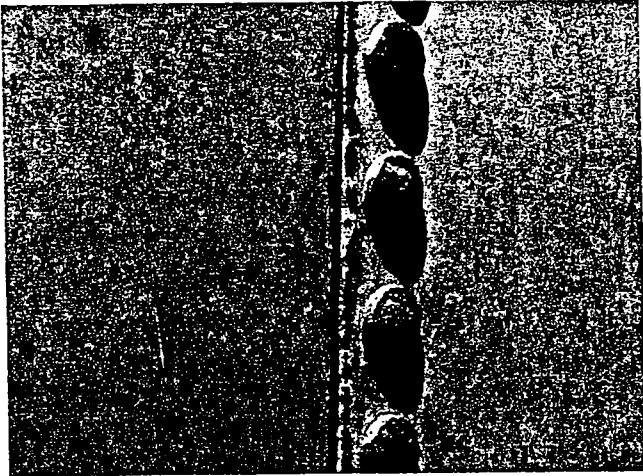
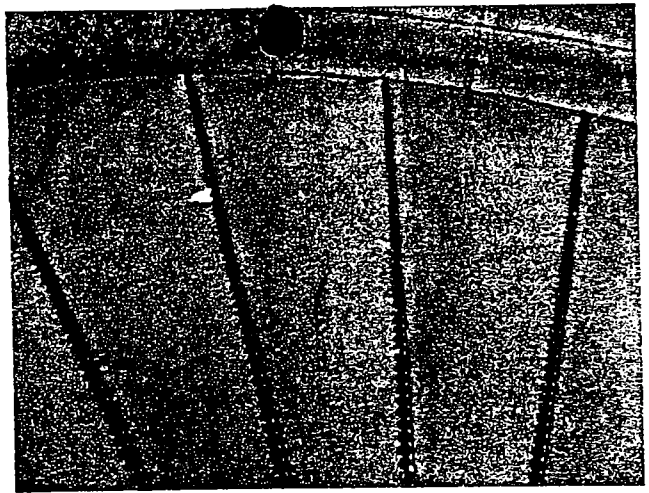
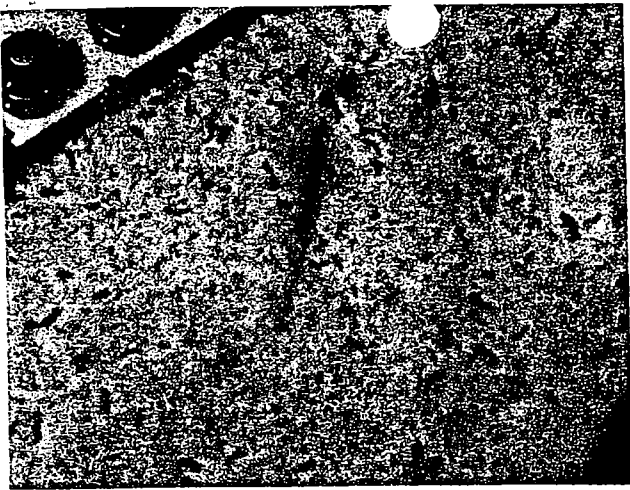
1. Apply touch-up to undamaged area following above procedures for testing.
2. Wrap cloth saturated with MEK around index finger and rub test area back and forth in a stroke 3 – 4 inches long, using moderate pressure.
3. Count each backward stroke, approximately one count every two seconds. Resaturate the cloth at 50 counts.
4. Coating is cured if 100 counts does not soften film. A small amount of color transfer to the cloth is allowed.

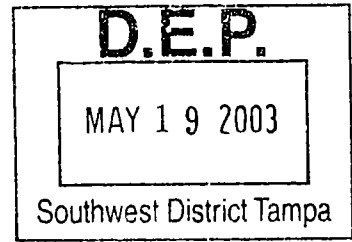
**F. SAFETY**

**For industrial use only**

1. **Warning! Flammable – flash point 23°F. Causes burn. Overexposure may cause allergic respiratory and skin reaction. Effects may be permanent. Vapor and spray mist harmful. Causes irritation. Contains amine compound and organic solvent. Keep away from heat, sparks, and flame. Vapors may cause flash fire. Keep containers closed when not in use. Use with adequate ventilation. Do not breathe vapors or spray mist. Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) while exposed. An air-line respirator (TC 19C NIOSH/MSHA) is recommended. A vapor/particulate respirator (TC 23C NIOSH/MSHA) may be appropriate where airborne monitoring demonstrates vapor levels below ten times the applicable exposure limits. Follow respirator manufacturer's directions for respirator use. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.**
2. **First Aid:** If affected by inhalation of vapor or spray mist, remove to fresh air. If breathing difficulty persists or occurs later, get medical attention and have label information available. In case of eye contact, flush immediately with plenty of water for 15 minutes and get medical attention; for skin, wash thoroughly with soap and water. If swallowed, get medical attention.
3. **Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain damage and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.**
4. The contents of this package may be blended with other components before use. Any mixture of components will have hazards of all components. Before opening the packages, read all warning labels and follow all precautions.
5. For further safety information, refer to a Material Safety Data Sheet for this product. If unavailable, contact The Valspar Corporation, 1101 Third Street South, Minneapolis, MN 55415, 612-332-7371, 24-Hour Medical Emergency, 888-345-5732.

**KEEP OUT OF REACH OF CHILDREN**



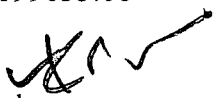


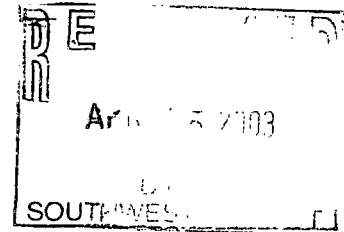
**OPERATIONS PERMIT RENEWAL APPLICATION FEE**

107

**SCS ENGINEERS**

April 25, 2003  
File No. 09199033.08

  
Mr. Kim Ford  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, FL 33619



Subject: Annual Topographic Survey, and  
Estimate of Remaining Capacity and Life of Site  
Hardee County Landfill – Permit No. 38414-002-SO  
Hardee County, Florida

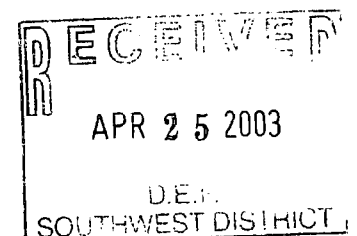
Dear Mr. Ford:

SCS Engineers (SCS) is pleased to submit the attached annual topographic survey of the Hardee County Landfill and estimates of remaining capacity and life of site, as described below. The survey (contained in Attachment A) and the estimates of remaining capacity and site life are being submitted in fulfillment of Specific Condition No. 11B of Operation Permit No. 38414-002-SO for the landfill.

### WASTE DISPOSAL PROJECTIONS

Hardee County (County) supplied SCS with historic waste disposal information for calendar year 2002. This information is provided in Attachment B and summarized in this section. As shown in the waste quantity report, contained in Attachment B, the amount of waste disposed in the Class I landfill area, approximately 20,052 tons, is the total amount of residential, commercial, and C&D waste material minus the quantity of waste recycled in the MRF.

SCS used the projected population estimation for 2002, of approximately 27,150 persons, prepared by the Florida Legislative Office of Economic and Demographic Research Office (FLOEDR) for Hardee County to estimate the waste quantity disposal rates. Using the population and tonnages disposed in the Class I landfill, SCS computed an annual waste disposal tonnage per capita of approximately 0.738 tons per person. The anticipated rate of population growth for Hardee County (estimated by the FLOEDR office) waste was used to project the disposal quantities for years 2003 and beyond. Table 1 was prepared to show the estimated projected waste disposal rates.





**TABLE 1. ANNUAL WASTE DISPOSAL IN CLASS I LANDFILL  
BASED ON POPULATION**

Year	Population <sup>1</sup>	Waste Disposed of in Class I Landfill (tons/yr) <sup>2</sup>
2002	27,152	20,051.17
2003	27,607	20,387.18
2004	28,178	20,808.85
2005	28,756	21,235.69
2006	29,270	21,615.27
2007	29,712	21,941.68
2008	30,111	22,236.33
2009	30,484	22,511.78
2010	30,866	22,793.88

<sup>1</sup> Source: Florida Legislative Office of Economic and Demographic Research

<sup>2</sup> Waste Quantity disposed in landfill (loose and baled) provided by Hardee County

### **ESTIMATED REMAINING DISPOSAL CAPACITY AND SITE LIFE**

For estimating the remaining disposal capacity and life of site, the final buildout, shown in Attachment A, Drawing No 2, was compared to the March 2003 topographic map to determine the available airspace. The gross available airspace is 119,700 cubic yards (CY). SCS estimated that 10 percent of that airspace would be used for cover material, leaving approximately 107,730 CY of airspace available for waste disposal.

SCS used an estimated in-place density for the waste material of approximately 43 pounds per cubic foot (pcf) or approximately 1100 pounds per cubic yard. This density is consistent with either baled waste or loose waste fill using dozers for compaction. Table 2 represents the available and consumed airspace on a yearly basis. The consumed airspace was estimated by converting the annual waste disposal quantity into pounds per year and dividing by the estimated in-place waste density.

**TABLE 2. AVAILABLE AND CONSUMED AIRSPACE**

Year	Waste Disposed of in Class I Landfill (tons/yr)	Airspace Consumed (CY)	Available Airspace (CY)
2002	20,051.17	34,541.21	107,730
2003	20,387.18	35,120.03	72,609.97
2004	20,808.85	35,846.42	36,763.55
2005	21,235.69	36,581.72	181.82
2006	21,615.27	37,235.60	-37,053.78
2007	21,941.68	37,797.89	-74,851.67
2008	22,236.33	38,305.47	-113,157.14
2009	22,511.78	38,779.98	-151,937.13
2010	22,793.88	39,265.94	-191,203.07

As shown in Table 2, the landfill will use the available airspace by the beginning of 2005. The estimated maximum remaining life is approximately 2.0 years. ✓

The site life estimates presented in Table 2, assume waste disposal above Elevation 135 with 3:1 sideslopes. Slope stability calculations will be provided to FDEP for the waste-filling configuration with the upcoming permit operations renewal application. The estimated amount of waste disposal airspace available from Elevation 135 to Elevation 161 is approximately 43,900 cubic yards. SCS subtracted the airspace above Elevation 135 to estimate available airspace on the lower portions of the landfill. Table 3 was prepared to show the estimated site life assuming disposal below Elevation 135. As shown in Table 3, the estimated site life below Elevation 135 will be consumed by September 2004. ✓

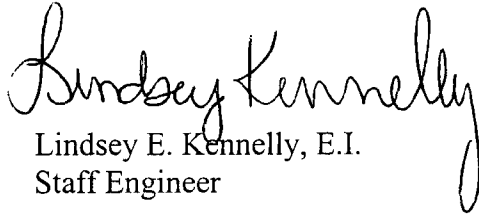
**TABLE 3. ESTIMATED SITE LIFE BELOW ELEVATION 135**

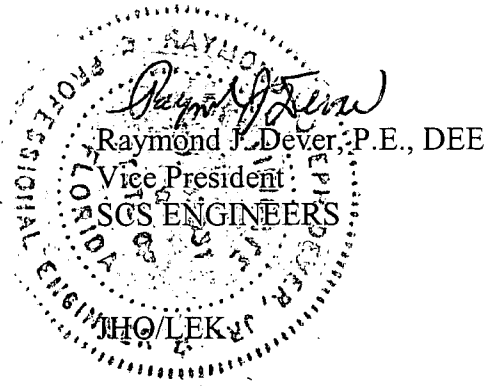
Year	Waste Disposed of in Class I Landfill (tons/yr) <sup>5</sup>	Airspace Consumed (CY)	Available Airspace (CY)
2002	20,051.17	34,541.21	63,813
2003	20,387.18	35,120.03	28,692.97
2004	20,808.85	35,846.42	-7,153.45
2005	21,235.69	36,581.72	-43,735.18
2006	21,615.27	37,235.60	-80,970.78
2007	21,941.68	37,797.89	-118,768.67
2008	22,236.33	38,305.47	-157,074.14
2009	22,511.78	38,779.98	-195,854.13
2010	22,793.88	39,265.94	-235,120.07

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April 25, 2003  
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Please do not hesitate to contact us if you should have any questions regarding this letter.

Very truly yours,

  
Lindsey E. Kennelly, E.I.  
Staff Engineer



Attachments

**ATTACHMENT A**  
**SURVEY**

RECEIVED  
APR 25 2003  
D.E.  
SOUTHWEST DISTRICT

**ATTACHMENT B**

**WASTE QUANTITY REPORT  
HARDEE COUNTY LANDFILL**

**WASTE QUANTITY REPORT 2002**

	RESIDENTIAL (tons)	COMMERCIAL (tons)	C&D DEBRIS (tons)	WOOD & YARD WASTE (tons)	SCRAP METAL (tons)	TIRES (tons)	TOTAL TONNAGE
Jan-02	739.30	688.17	472.95	100.51		7.32	2,008.25
Feb-02	685.10	629.85	316.25	166.50		7.66	1,805.36
Mar-02	689.85	621.37	903.55	179.72	55.27	10.20	2,459.96
Apr-02	744.58	663.16	454.65	150.87	44.13	9.80	2,067.19
May-02	798.65	602.78	281.22	67.67	44.47	11.85	1,806.64
Jun-02	816.20	537.28	279.13	124.63	11.64	12.90	1,781.78
Jul-02	762.11	511.68	286.83	158.15	46.21	12.96	1,777.94
Aug-02	662.28	545.70	259.59	103.65	51.87	7.90	1,630.99
Sep-02	669.19	453.88	303.10	79.40	50.53	10.42	1,566.52
Oct-02	734.35	537.39	232.32	98.15	39.36	15.97	1,657.54
Nov-02	740.83	631.19	189.37	67.10	66.98	10.07	1,705.54
Dec-02	869.09	723.66	88.63	67.93	48.58	7.67	1,805.56
TOTAL	8,911.53	7,146.11	4,067.59	1,364.28	459.04	124.72	22,073.27

	PROCESSED THROUGH MRF (tons)	MRF BYPASS (tons)	DISPOSED IN CLASS I <sup>1</sup> (tons)	RECYCLED THROUGH MRF (tons)	SCRAP METAL RECYCLED (tons)	WOOD/YARD WASTE PROCESSED (tons)	WASTE TIRES REMOVED FOR RECYCLING (tons)
Jan-02	1,030.08	870.34	1,892.27	8.15	0.00	0.00	6.27
Feb-02	685.01	946.19	1,618.07	13.13	0.00	757.22	7.52
Mar-02	1,058.19	1,156.58	2,191.82	22.95	291.08	0.00	6.10
Apr-02	495.03	1,367.36	1,851.21	11.18	0.00	0.00	6.29
May-02	5.08	1,677.57	1,682.65	0.00	0.00	0.00	14.85
Jun-02	0.00	1,632.61	1,629.47	3.14	0.00	0.00	10.18
Jul-02	0.00	1,560.62	1,559.28	1.34	0.00	0.00	11.24
Aug-02	0.00	1,467.57	1,467.57	0.00	0.00	819.55	2.87
Sep-02	732.11	694.06	1,426.17	0.00	0.00	0.00	17.10
Oct-02	888.13	615.93	1,502.81	1.25	276.74	0.00	7.88
Nov-02	1,139.30	422.09	1,561.39	0.00	0.00	0.00	19.10
Dec-02	1,256.11	425.27	1,668.46	12.92	0.00	0.00	7.31
TOTAL	7,289.04	12,836.19	20,051.17	74.06	567.82	1,576.77	116.71

<sup>1</sup> Disposed in Class I Total = Residential + Commercial + C&D - Recycled in MRF