

# Department of Environmental Protection

Jeb Bush Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

January 26, 2000

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

NOTICE OF PERMIT

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

Dear Ms. Williamson:

Attached is Modification #38414-003-SC to Construction Permit 38414-001-SC, issued pursuant to Section(s) 403.087(1), Florida Statutes. Since only the expiration date was modified, and in order to conserve resources, only Page 1 of 24 of modified Construction Permit 38414-001-SC is attached. Please replace the existing Page 1 of 24 with the attached page. Since Specific Condition #2.d. states that construction shall be "completed no later than October 1, 1999, or as otherwise approved by the Department," this condition was not changed, and the Department approves of the proposed completion date of June 30, 2000 by way of this letter. All other conditions of the existing permit remain unchanged and in effect.

Existing Expiration Date February 1, 2000

Modified Expiration Date
August 1, 2000

A person whose substantial interests are affected by this modification of permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, 3900 Commonwealth Blvd., Mail Station 35, Tallahassee, 32399-3000, within fourteen (14) days of receipt of this notice. Petitioner shall mail a copy-of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within fourteen (14) days shall constitute a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes.

The petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

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Hardee County So. a Waste Dept.
Ms. Janice Williamson, Superintendent

- (b) A statement of how and when each petitioner received notice of Department's action, or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends warrant reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C. Mediation is not available in this proceeding.

This modified permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rules 62-110 and 28-106, F.A.C. Upon timely filing of a petition or a request for an extension of time this transfer of permit will not be effective until further Order of the Department.

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

Hardee County Sol. . Waste Dept.
Ms. Janice Williamson, Superintendent

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Deborah A. Getzoff Director of Distric

t Management

Southwest District

DAG/sjp Attachment

Copies furnished to:

Hardee County Board of County Commissioners
Douglas Beason, OGC Tallahassee
Fred Wick, FDEP Tallahassee
Robert Butera, P.E., FDEP Tampa
Stephanie Petro, FDEP Tampa (Permit Notebook)

#### CERTIFICATE OF SERVICE

This undersigned duly designated deputy clerk hereby certifies that this **NOTICE OF PERMIT** and all copies were mailed before the close of business on Abt 2000 to the listed persons.

(date stamp)

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(10), Florida Statutes, with the designated Department, Clerk, receipt of which is hereby acknowledged.

Clerk

Date



## Department of Environmental Protection

Jeb Bush Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

#### PERMITTEE

Hardee County Board of
County Commissioners
Mr. J.R. Prestridge,
Solid Waste Superintendent
685 Airport Road
Wauchula, Fl 33873

#### PERMIT/CERTIFICATION

GMS ID No: 4025C30001
Permit No: 38414-001-SC
Date of Issue: 12/18/98
Expiration Date: 08/01/2000

County: Hardee Lat/Long: 27 34'10"N 81 47'01"W

Sec/Town/Rge: 35/33S/25E
Project: Hardee County
Class I Landfill
Construction

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-3, 62-4, 62-302, 62-330, 62-520, 62-522, and 62-701. The above named permittee is hereby authorized to perform the activities 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 construct site improvements at the Class I landfill (approximately 12.5 acres), referred to as the Hardee County Regional Landfill, subject to the specific and general conditions attached, located at 675 Airport Road, east of the City of Wauchula, Hardee County, Florida. The specific conditions attached are for the construction of:

- 1. Landfill liner and
- 2. Leachate collection and storage tanks system

#### General Information -Construction:

60 mil HDPE Geomembrane Seams:Shear - 120 ppi & FTB [ref. CQAP, Table 2-3]

Peel - 85 ppi & FTB [ref. CQAP, Table 2-3]

#### Replaces Permit No.: N/A, new

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

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Page, 1 of 24.

- 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 403-859 through 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 personal rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
- 4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- 5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- 6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

- 7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
  - (a) Have access to and copy any records that must be kept under conditions of the permit;
  - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
  - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

- 8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - (a) A description of and cause of noncompliance; and
  - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

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

- 9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- 10. The permittee agrees to comply with changes in Department rules and Florida Statues after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

- 11. This permit is transferable only upon Department approval in accordance with Rule 62-4.120 and 62-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- 12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
- 13. This permit also constitutes:
  - (a) Determination of Best Available Control Technology (BACT)
  - (b) Determination of Prevention of Significant Deterioration (PSD)
  - (c) Certification of compliance with State Water Quality Standards (Section 401, PL 92-500)
  - (d) Compliance with New Source Performance Standards
- 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.
- 16. In the case of an underground injection control permit, the following permit conditions also shall apply:
  - (a) All reports or information required by the Department shall be certified as being true, accurate and complete.
  - (b) Reports of compliance or noncompliance with, or any progress reports on, requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
  - (c) Notification of any noncompliance which may endanger health or the environment shall be reported verbally to the Department within 24 hours and again within 72 hours, and a final written report provided within two weeks.
    - 1. The verbal reports shall contain any monitoring or other information which indicate that any contaminant may endanger an underground source of drinking water and any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.
    - 2. The written submission shall contain a description of and a discussion of the cause of the noncompliance and, if it has not been corrected, the anticipated time the noncompliance is expected to continue, the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance, and all information required by Rule 62-28.230(4)(b), F.A.C.
  - (d) The Department shall be notified at least 180 days before conversion or abandonment of an injection well, unless abandonment within a lesser period of time is necessary to protect waters of the State.

- 17. The following conditions also shall apply to a hazardous waste racility permit.
  - (a) The following reports shall be submitted to the Department:
    - 1. Manifest discrepancy report. If a significant discrepancy in a manifest is discovered, the permittee shall attempt to rectify the discrepancy. If not resolved within 15 days after the waste is received, the permittee shall immediately submit a letter report, including a copy of the manifest, to the Department.
    - 2. Unmanifested waste report. The permittee shall submit an unmanifested waste report to the Department within 15 days of receipt of unmanifested waste.
    - 3. Biennial report. A biennial report covering facility activities during the previous calendar year shall be submitted by March 1 of each even numbered year pursuant to Chapter 62-730, F.A.C.
  - (b) Notification of any noncompliance which may endanger health or the environment, including the release of any hazardous waste that may endanger public drinking water supplies or the occurrence of a fire or explosion from the facility which could threaten the environment or human health outside the facility, shall be reported verbally to the Department within 24 hours, and a written report shall be provided within 5 days. The verbal report shall include the name, address, I.D. number, and telephone number of the facility, its owner or operator, the name and quantity of materials involved, the extent of any injuries, an assessment of actual or potential hazards, and the estimated quantity and disposition of recovered material. The written submission shall contain:
    - 1. A description and cause of the noncompliance.
    - 2. If not corrected, the expected time of correction, and the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
  - (c) Reports of compliance or noncompliance with, or any progress reports on, requirements in any compliance schedule shall be submitted no later than 14 days after each schedule date.
  - (d) All reports or information required by the Department by a hazardous waste permittee shall be signed by a person authorized to sign a permit application.

1. Landfill Designation. This site shall be classified as a Class I landfill and shall be operated in accordance with all applicable requirements of Chapters 62-3, 62-4, 62-302, 62-330, 62-520, 62-522, and 62-701, Florida Administrative Code (F.A.C.), and all applicable requirements of Department Rules.

#### 2. Permit Application Documentation.

- a. This permit is valid for <u>construction</u> of the liner system and leachate storage tanks system for the Class I landfill in accordance with Department rules, the conditions of this permit, and the reports, plans and other information, submitted by Post, Buckley, Schuh and Jernigan, Inc.(PBSJ) (or as otherwise noted) as follows:
  - 1) <u>Hardee County Regional Landfill, Application for Construction Permit</u>, dated June 26, 1997 (received June 27, 1997);
  - 2) Response to Request for Additional Information dated July 25, 1997 for the Application for Construction Permit, dated December 31, 1997 (received January 2, 1998);
  - 3) Response to Request for Additional Information dated January 30, 1998 for the Application for Construction Permit, dated April 24, 1998 (received April 27, 1998);
  - 4) Construction Quality Assurance Plan, dated June 1997 (received June 27, 1997), including pages dated April, June and December 1997, and February, March and April 1998;
  - 5) Technical Specifications, dated June 1997 (received June 27, 1997), including pages dated September and December 1997; February, March and April 1998; and Dewatering, Section 02140 revised October 16, 1998 (received October 30, 1998);
  - 6) The following Plan Sheets dated June 1997 (received June 27, 1997):
    - a) Sheet M-1, "Leachate Storage Tanks and Yard Piping Plan,"
    - b) Sheet M-2, "Submersible Leachate Pump Station Plan, Section and Details,"
    - c) Sheet M-6, "Miscellaneous Details,"
    - d) Sheet M-8, "Existing Leachate Pump Station Demolition Plan,"
    - e) Sheet E-1, "Leachate Storage Tanks Pump Station and Lift Station Electrical Plan,"
    - f) Sheet S-1, "General Notes,"

(Specific Condition #2.a(6) cont'd)

- g) Sheet S-2, "Truck Loading Facility and Pump Station Plan, Section and Details;"
- 7) The following Plan Sheets including revisions dated September 1997 (received January 2, 1998):
  - a) Sheet M-3, "Leachate Storage Tanks and Truck Loading Pump Station Plan,"
  - b) Sheet M-4, "Leachate Storage Tanks Sections and Details,"
  - c) Sheet M-5, "Truck Loading Facility and Pump Station Sections, Detail and Schedule,"
  - d) Sheet M-7, "Miscellaneous Details;"
- 8) The following Plan Sheets including revisions dated September 1997 and April 1998 (received April 27, 1998):
  - a) Sheet C-1, "Site Plan,"
  - b) Sheet C-2, "Construction Plan,"
  - c) Sheet C-3, "Leachate Storage Area Grading and Drainage," and
  - d) Sheet C-4, "Sections and Details;"
- 9) Sheet 5 of 5, including revisions April, June and August 1997, "Gas Management System and Miscellaneous Details at Closure" (received January 2, 1998); and
- 10) Information received via fax dated November 12, 1998 regarding the clay/geomembrane tie-in.
- b. Activities approved as part of this permit include construction of the landfill liner system, leachate collection and storage tanks system, groundwater monitoring wells, gas monitoring probes and related construction. This permit does not authorize the operation of the systems listed above.
- c. "Engineer" shall refer to the Engineer of Record as defined in the documents referenced in Specific Condition #2.a., above.
- d. The construction activities shall be completed in accordance with Department rules, the information listed in Specific Condition #2.a., above, and the conditions of this permit. The construction activities authorized by this permit shall be completed no later than October 1, 1999, or as otherwise approved by the Department.

- 3. **Permit Modifications.** Any construction not previously approved as part of this permit will require a separate Department permit unless the Department determines a permit modification to be more appropriate. 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.
- 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 Rule 62-701.330(3), F.A.C.

#### Pre-Construction Submittals.

- a. At least **thirty (30) days prior** to <u>initiation</u> of <u>any</u> construction activity, unless otherwise specified, the permittee shall submit the following information to the Department:
  - 1) A complete set of Plans, Specifications and CQA Plan to be used for construction which includes all changes (i.e., all additions, deletions, revisions to the plans previously approved by the Department). Significant changes in the plans, as determined by the Department, shall require a permit modification. All changes in the plans shall be noted on the plans and accompanied by a narrative indicating the change, the cause of the deviation, and a re-certification of the alternate design by the design engineer. These alternate designs shall be approved by the Department prior to construction. If no changes have been made to the construction plans, Specifications or CQA Plan, the permittee shall notify the Department in writing that no changes have been made, and re-submittal of these documents will not be required prior to construction.
    - 2) The role and name of the specific company/organization for each of the parties shown in Figure 1-1, CQA Plan.
- b. At least thirty (30) days prior to initiation of construction activities for the leachate storage tanks system, the permittee shall submit the following information to the Department:
  - 1) Calculations which verify the secondary containment capacity. [Specifications Sections 11200-1.04.A., 1.06.A.2. and 13200-1.04.C., 1.05.A.3.]

(Specific Condition #5.b. cont'd)

- 2) The method of anchoring the leachate storage tanks to the secondary containment. [Specification Sections 11200-1.04. and 13200-1.04.]
- 3) Details of the leachate storage tanks cathodic protection system. [Specification Sections 11200-1.04. and 13200-1.04.]
- c. At least ten (10) days prior to initiation of geomembrane liner installation, the permittee shall submit the following information to the Department:
  - 1) Installer's Quality Control Plan [Specification Section 02776-1.03.A.2(e)],
  - 2) Geomembrane Manufacturer's Material test results [Specification Section 02776-1.03.A.2(h)],
  - 3) Alternative seaming processes other than extrusion of fusion welding [Specification Section 02776-1.03.A.2(n)], and
  - 4) Booting details [Specification Section 02776-5.01.A.2(c)].
- 6. Pre-Construction Meeting Notification. Department Solid Waste Permitting staff shall be notified 72 hours before all pre-construction meetings. Prior to initiating construction activities, the permittee shall make arrangements for the Engineer of Record to meet on site and discuss all plan changes with Department Solid Waste Permitting Staff of the Southwest District Office. A copy of the minutes from the pre-construction conference shall be submitted to the Department within two (2) weeks of the conference.
- 7. Construction Schedule and Progress Report.
  - a. No later than one (1) week after the pre-construction conference, the owner or operator shall submit a construction schedule which includes estimated dates for each portion of the construction to the Department. The Engineer of Record or another qualified professional engineer shall make periodic inspections during construction to ensure that design integrity is maintained.

(Specific Condition #7. cont'd)

- b. An updated construction schedule and progress report shall be submitted to the Department monthly. The monthly progress report should be submitted in an appropriately labeled three-ring binder of sufficient size to store the monthly progress reports for the entire project. The monthly progress reports shall include, but not be limited to:
  - 1) A narrative explaining the status (and any delays) of major stages of the construction (i.e. liner, tank, piping, etc.),
  - 2) A summary of submittals and change order requests [Specification Section 01340-1.01.C.], and
  - 3) Color copies of photographs which are representative of the typical construction activities for the reporting period, and photographs which show major stages of construction such as the liner toe tie-in. [Specification Section 01380]

#### 8. Construction Tolerances.

- a. Sufficient spot elevations (grade shots) of the leachate collection trenches shall be recorded to demonstrate, at the 98% confidence level, that the leachate collection system has been constructed to the slopes and grades shown on Sheet C-2 [ref. SC#2.a(8)(b)]. In the event that the frequency required by the Specifications is not sufficient to provide this demonstration, additional spot elevations shall be taken. [Specification Section 02776-7.02.B.] This information shall be included with the Record Documents (see Specific Condition #13, below).
- b. As-built topographic surveys shall demonstrate that each liner component phase and leachate collection system was constructed within the tolerance (0.1 feet) required by the Drawings and Specifications. [Specification Sections 01050-1.04.B. and 02220-3.10.A.]
- c. As-built elevations of the geomembrane/clay tie-in (i.e. toe of the geomembrane) shall be taken. These elevations (grade shots) shall be taken a minimum of every 100 lineal feet of liner trench and at locations where the underlying clay abruptly changes elevation. In areas which exhibit inconsistent subsurface conditions, the grade shots shall be taken more frequently.

(Specific Condition #8. cont'd)

d. No later than 48 hours after completion of construction of the geomembrane subgrade, an as-built topographic survey shall be provided to the Engineer to verify conformance with the Drawings and Specifications. The geomembrane subgrade shall be accepted by the Liner Installer and Engineer in writing before placement of the geomembrane. [CQAP, Section 3.1.1., Specification Section 02776-5.01.B.2.]

#### 9. Construction Quality Assurance.

- a. Liner systems shall have a construction quality assurance plan to provide personnel with adequate information to achieve continuous compliance with the construction requirements. The Construction Quality Assurance Plan shall be in accordance with Rules 62-701.400(7) and (8), F.A.C., the CQA Plan [ref. SC#2.a(4)], and the conditions of this permit. The professional engineer or his designee shall be on-site at all times during construction (including liner system, and leachate collection and storage tanks system) to monitor construction activities.
- b. A complete set of construction drawings and shop drawings, which include daily additions, deletions and revisions, shall be maintained on-site at all times for reference. Drawings which show the locations of geomembrane panel seams and repairs shall be kept on-site at all times for reference.
- c. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to the land, surface water or groundwater outside the liner system or existing leachate ditch, except as provided in Specific Condition #21 of this permit, at any time during the construction activities.
- d. Unsatisfactory, defective or non-conforming work shall be reported to the Engineer and shall be corrected, or the reasons for not correcting the work shall be recorded and maintained onsite for reference and inspections. [CQAP 1.2.7.5.b. page 1-11] Documentation of the corrections or reasons for not correcting the work shall be submitted with the Record Documents required by Specific Condition #13.

(Specific Condition #9. cont'd)

- e. Construction activities such as geomembrane seaming, QA/QC testing of the geomembrane or soil materials, surveying, etc. shall not be carried out in non-daylight hours without prior Department approval. If these activities will be conducted during nighttime hours, the Department shall be notified at least 1 week in advance to allow for Department observation. This notification shall include a description of the methods which will be used to provide adequate illumination to ensure that the quality of the construction is not compromised. [Specification Section 02776-5.01.D.8(d)]
- f. The liner trench excavation bottom shall be maintained free from standing water. [Specification Section 02220-3.01.B.3.] Except for the stormwater management system construction, no construction, including pipe laying, shall be allowed in water. Groundwater shall be maintained at least 12 inches below excavations. In the event that it appears that the excavation is being impacted by groundwater, the contractor shall take the corrective actions necessary to demonstrate that the groundwater is at least 12 inches below the bottom of the excavation. [Specification Section 02220-3.03.C.]
- g. Hydrostatic leak testing of the solid wall piping and manholes shall be completed prior to backfilling around the structures. [CQAP Section 5.4., Specification Sections 03800-3.02.B. and 15050-3.10.D.]
- h. The Site Specific Health and Safety Plan shall be kept onsite for reference and inspections. [Specification Section 01030-1.03.]
- i. Explosives shall not be used in this construction project without prior Department approval. [Specification Section 02220-1.01.B.3.]
- j. Sandbags or other temporary anchoring devices shall be removed prior to placement of materials (e.g. select common fill, clay backfill) over the geomembrane. [Specification Sections 02776-5.01.C.3(d)(5) and 5.01.D.11(f)]
- k. Where sod is used over lined areas, pegging of sod shall not damage the liner. [Specification Section 02934-3.03.C.]
- 1. All exterior painting shall be done only in dry weather. [Specification Section 09900-3.04.A.]

(Specific Condition #9. cont'd)

m. At least one (1) week prior to the field holiday testing of the tank, the Department shall be notified to allow for observation. [Specification Sections 11200-3.01.E. and 13200-3.01.B.4.]

#### 10. Geosynthetic Materials and HDPE Piping.

- The permittee shall ensure that the clay layer which the geomembrane is keyed into is consistent with the clayey material described in the permit application [ref. SC#2.a(1), Appendix C and SC#2.a(2), Attachment G]. The geomembrane shall be keyed into clay material at an elevation no higher than +70 feet NGVD. [ref. SC#2.a(1), Appendix C] If the Contractor excavates to this depth and ties the geomembrane liner into a clayey material consistent with that shown in the boring logs referenced in this Specific Condition, then permeability testing will not be required. If the material which is encountered at this elevation is not consistent with the green to gray clay shown in the boring logs, the permittee shall ensure that the Contractor excavates to a depth sufficient to tie the geomembrane into a clay layer consistent with that shown in the boring logs. Department shall be notified immediately if the Contractor discovers that the clay material is not present at the expected elevation. If this is the case, the Department may require additional documentation or testing to ensure that the geomembrane has been sufficiently tied into the clay layer.
- b. The geomembrane shall be keyed a minimum of 1.5 feet into the clay layer in all locations. [Specification Section 02776-5.01.B.1.]
- c. Written acceptance of the subgrade by the geomembrane installer shall be provided to the Engineer prior to placement of the geomembrane on the subgrade. [Specification Section 02776-5.01.B.]
- d. The procedure used to temporarily bond adjacent geomembrane panels together shall not damage the geomembrane. [Specification Section 02776-5.01.D.3(b)]
- e. Geomembrane seaming activities shall only be conducted during daylight hours and within the weather requirements of the Specifications, unless otherwise specifically approved by the Department. [Specification Sections 02776-5.01.0.3(c), 5.01.D.6. and 5.01.D.8(d)]

(Specific Condition #10. cont'd)

- f. Conformance testing for the geosynthetic materials shall be in accordance with the CQAP Table 3-2, and Specification Sections 02550-2.03.B., 02776-2.02.B.4. and 02776-4.01. The geomembrane material shall meet the requirements listed in Specification Table 02776-A.
- g. The construction methods used shall minimize wrinkles. Excessive wrinkles shall be removed, and the areas repaired. Areas where wrinkles are removed shall be repaired and re-tested in accordance with the <u>Specifications</u> and <u>CQA Plan</u>. [CQAP Section 4.2.4.5., Specification Section 02776-5.01.C.3(d)(6) and 5.01.D.11(f)]
- h. The liner system shall not be damaged by excessive traffic. [Specification Section 02776-5.01.D.5(a)]
- i. Destructive tests of the geomembrane seams shall be taken at random locations, at a frequency of one test location per 500 feet of seam. [CQAP Section 4.2.3.1., Specification Section 02776-5.01.D.10(b)]
- j. Geomembrane seams which are field tested "by hand", and appear to acceptable, shall <u>also</u> be tested by tensiometer to verify the adequacy of the weld. [Specification Section 02776-5.01.D(10) (e), CQAP Section 4.2.3.2.]
- k. Geomembrane seams shall meet the requirements of Specification Section 02776, Table 02776-B. Destructive tests conducted on the geomembrane field seams shall demonstrate that the actual shear strength is at least 90 percent of the yield strength of the geomembrane, and failure is outside of the seam area. Five samples shall be taken for strength testing. All of the samples shall meet the requirements for each test method (peel and shear) listed in Table 02776-B. The strength results shall not be averaged. [Specification Section 02776-5.01.D.7(b), 5.01.D.10(f)]
- 1. During the construction of, and until the geomembrane is placed on, the geomembrane subgrade, the subgrade shall be inspected **daily** for signs of desiccation, excessive moisture, or other damage. In the event that the condition of the subgrade deteriorates, corrective actions shall be implemented **immediately**. Washouts or erosion of the geomembrane subgrade shall repaired immediately. [Specification Section 02776-5.01.B.5.]

(Specific Condition #10. cont'd)

- m. No geomembrane shall be placed in an area of the geomembrane subgrade that has become softened by precipitation or desiccated and cracked due to lack of moisture. No standing water or excessive moisture shall be allowed on the area to be lined before the geomembrane installation. [Specification Sections 02776-5.01.B.1. and 5.01.C.3(c)]
- n. HDPE pipe or fittings shall not be dropped during loading, unloading or placement. [Specification Section 02730-1.03.B.2.]
- o. Under no circumstances shall pipe be laid in water, and no pipe shall be laid when trench or weather conditions are unsuitable for such work. [Specification Section 02730-3.02.A.]

#### 11. Soil Materials.

- a. Soil materials, specified in Specification Section 02220, shall not include materials which were previously used for daily or intermediate cover or for berms around the working face of the landfill.
- b. Soil materials which contact the liner (above or below) shall not contain any sharp or granular objects exceeding 1/4-inch in diameter. [ref. SC#2.a(3), page 14; Specification Sections 02220-2.01.C and 02776-5.01.B.1.]
- c. The clay backfill (above the toe of the liner) shall be compacted to a minimum of 90% Standard Proctor density. [Specification Section 02220, Table 02220-A; CQAP Section 4.1.1.]
- d. Each layer of material being compacted (e.g. clay backfill and geomembrane subgrade) shall have a uniform moisture content and adequate compaction. [Specification Section 02220-3.06.B.2. and Table 02220-A]
- e. Crushed rock or gravel shall not be used to reinforce the geomembrane trench subgrade bottom (tie-in area) which may have become mucky as a result of construction activities. [Specification Section 02220-3.05 B.]
- 12. Laboratory and Field Testing Requirements. Field and laboratory testing during the construction activities shall be conducted by a qualified testing laboratory, independent of the manufacturer or installer, representing the owner. A qualified field technician representing the owner shall provide full time, on-site inspection during construction. The field technician shall work under the supervision of a professional engineer registered in the State of Florida with experience in landfill liner construction.

13. Certification of Construction Completeness. Within sixty (60) days after all specified construction has been completed, and prior to the operation of the leachate storage tanks system, the following activities shall be completed:

- a. The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer in charge of construction and quality assurance to the Department for approval, and shall arrange for Department representatives to inspect the construction in the company of the permittee, the engineer, and the facility operator.
- b. The owner or operator shall submit Record Drawings/Documents showing all changes (i.e. all additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations).
- c. The owner or operator shall submit a narrative indicating all changes in plans, the cause of the deviations, and certification of the Record Drawings/Documents by the Engineer to the Department.
- d. The Groundwater Monitoring System requirements listed in Specific Condition #20 shall be complete.
- e. The professional engineer in charge of construction quality assurance shall submit to the Department a final report to verify conformance with the plans and specifications in accordance with Rule 62-701.400(7) and (8), F.A.C.
- f. The permittee shall request a modification of Operation Permit 38414-002-SO to allow operation of the leachate storage tanks system. This request shall be submitted with the Certification of Construction Completion.

#### 14. Record Drawings/Documents.

- a. The Record Documents shall demonstrate that the geomembrane was sufficiently keyed into a clay layer with material properties consistent with the clayey materials described in the PSI Geotechnical Report [ref. SC#2.a(1), Appendix C, Table 1 and SC#2.a(2), Attachment G].
- b. The Record Drawings/Documents referenced in Specific Condition #13, above, shall include, but not be limited to, the following information:
  - 1) All anchor trenches,

(Specific Condition #14.b. cont'd)

- 2) Documentation described in Specific Conditions #8 and #9.d.,
- 3) As-built invert elevations for the leachate collection pipes, as listed on Sheet C-2 of the Drawings [Specification Section 01050-1.04.B.],
- 4) As-built elevations of the liner/clay tie-in (i.e. toe of the liner) required by Specific Condition #8.c.,
- 5) The "Daily Record of Work Progress" [CQAP Section 6, Attachment A],
- 6) Meeting Minutes from monthly progress meetings [Specification Section 01200-1.03.], and
- 7) As-built drawings showing the geomembrane panel installation layout. [Specification Section 02776-1.03.A(2)(1)] These drawings shall show the locations of fabricated and field seams, actual sampling and repair locations, and panel designations.
- 15. **Control of Access.** During construction, access to, and use of, the facility shall be controlled as required by Rule 62-701.500(5), F.A.C.
- 16. Control of Nuisance Conditions. The permittee shall be responsible for the control of odors and fugitive particulates arising from this construction. 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. The owner or operator shall control disease vectors so as to protect the public health and welfare.

#### 17. Facility Maintenance and Repair.

a. On or prior to the one-year anniversary date of initial use of the leachate storage tanks system, the manufacturer's authorized representative shall make a visual inspection of the tank interior coating and appurtenances; tank exterior coating and appurtenances; and the immediate area surrounding the tank. A written summary of this inspection shall be filed with the tank owner and the tank manufacturer. [Specification Sections 11200-3.05.A. and 13200-3.06.A.] The permittee shall submit a copy of the written report to the Department no later than thirty (30) days after receipt of the report from the tank manufacturer's authorized representative.

(Specific Condition #17.a cont'd)
In the event that deficiencies are noted by the tank inspector, a schedule for corrective measures shall be submitted to the Department within fifteen (15) days of the owner's receipt of the written inspection report. The corrective measures shall be completed within sixty (60) days of the date of the inspector's report, or as otherwise approved by the Department.

- b. In the event of damage to any portion of the landfill site facilities or failure of any portion of the landfill systems, the permittee shall **immediately (within 24 hours)** notify the Department of Environmental Protection explaining such occurrence and remedial measures to be taken and time needed for repairs. Written detailed notification shall be submitted to the Department within seven (7) days following the occurrence.
- c. In the event that any portion of the groundwater monitoring system is damaged, remedial measures shall be completed within sixty (60) days of the written notification specified in Specific Condition #17.b. above, unless otherwise approved by the Department.
- d. In the event that the stormwater or 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 #17.b. above, unless otherwise approved by the Department.
- 18. Stormwater System Management. The landfill shall continue to 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.
- 19. Gas, Leachate Surface Water and Ground Water Quality Monitoring. All gas, leachate, surface water and ground water monitoring shall be conducted in accordance with Permit No. 38414-002-SO.
- 20. Ground Water Monitoring Well and Gas Probe Construction. Monitoring wells MW-8 and MW-9 shall be constructed, and the following information submitted prior to the Certification of Construction Completion required by Specific Condition #13:

FERMIT NO.: 38414-001-SC Liner and Leachate Storage Tanks

#### SPECIFIC CONDITIONS:

(Specific Condition #20. cont'd)

a. Documentation of the following for each well installed:

Well Identification
Aquifer monitored
Screen type and slot size
Screen length
Screen diameter
Elevation at top of casing
Elevation at ground surface

Boring (Lithology) Log
Total depth of well
Casing diameter
Casing type and length
Well seal and filter
pack type and thickness
SWFWMD construction

permit No.

- b. Within one week of well completion and development, each new well shall be sampled for the parameters listed in Rule 62-701.510(8)(a) and (d), F.A.C., to establish initial ground water quality for that well. Results of the sampling shall be submitted to DEP prior to the Certification of Construction Completion required by Specific Condition #13.
- c. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitoring wells (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, the Universal Transverse Mercator coordinates, and 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 number, 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. Approved locations for MW-8, MW-9, P-15, and P-16 are shown on Figure 3-1 (attached) [ref. SC#2.a(1), Appendix D].
- d. Piezometers P-15 and P-16, shall be constructed, and the information described in Specific Conditions #20.a., and #20.c. (above) shall be submitted prior to the Certification of Construction Completion required by Specific Condition #13.
- e. All field and laboratory work done in connection with routine groundwater monitoring shall be conducted by a firm possessing a Generic Quality Assurance Plan or a Comprehensive Quality Assurance Plan approved by the Department in accordance with Chapter 62-160, F.A.C. The Quality Assurance Plan must specifically address the sampling and analytical work that is required by the permit. The approved Quality Assurance Plan shall be followed by all persons collecting or analyzing samples related to this permit.

(Specific Condition #20. cont'd)

- f. All water quality monitoring analysis shall be reported on the Department's Groundwater Monitoring Report Form 62-522.900(2). The Sampling Report shall include the items listed in Rule 62-701.510(9)(a), F.A.C. The results shall be sent to the Solid Waste Section, Department of Environmental Protection. Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8313.
- g. Gas Probes GP-1 through GP-9 are shown on Sheet 5 of 5 in the Plan Sheets entitled, "Gas Management System and Miscellaneous Details at Closure," [ref. SC#2.a(9)]. These probes shall be constructed, and the information described in Specific Conditions #20.a., and #20.c. (above), as appropriate, shall be submitted prior to the Certification of Construction Completion required by Specific Condition #13.
- 21. Management of Dewatering Fluids. Dewatering fluids from the trench excavation shall be either:
  - a. Managed as leachate and disposed of at a permitted wastewater treatment facility, if the fluid chemistry is the same as the site's leachate (no additional testing required) or;
  - b. Discharged to an on-site reinfiltration pond, if initial testing of the ground waters (i.e. dewatering fluids) to be removed indicates that it will not present a violation of ground water quality standards in excess of the background water quality, AND reinfiltration is conducted under the Department-approved plan which specifies sampling parameters, frequency, discharge rate and other pertinent information.
  - c. In the event that the option described in Specific Condition #21.b. (see also Option 1, Specification Section 02140-3.02.A.2.), is used, within 30 days of implementation, a leachate management plan shall be submitted to the Department for approval. This plan shall include, but not be limited to, sampling parameters, frequencies, discharge rate and other pertinent information. In no case shall use of the reinfiltration pond cause a violation of Department water quality standards.
- 22. **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.

- 23. **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.
- 24. **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.

Executed in Tampa, Florida

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Richard D. Garrity, Ph.D.

Director of District Management

Southwest District

PERMIT NO.: 38414-001-SC Liner and Leachate Storage Tanks

#### ATTACHMENT 1

SPECIFIC CONDITION	SUBMITTAL DUE DATE	REQUIRED ITEM
2.d.	No later than October 1, 1999	Complete Construction
4.	180 days prior to expiration	Apply for permit renewal
5.a.	30 days prior to construction	Submit complete plans and specifications, noting changes; CQA Figure 1-1
5.b.	30 days prior to initiation of tank system construction	Submit tank anchorage details, cathodic protection details, secondary containment calculations
5.c.	10 days prior to liner installation	Submit Installer's QC Plan, GM mfg. material test results, alternative seaming procedures, boot details
6.	72 hours prior to meeting	Notification of pre- construction meetings
6.	2 weeks after meeting	Submit minutes of pre- construction meeting
7.a.	1 week after pre- construction meeting	Submit construction schedule
7.b.	Monthly	Update construction schedule and progress report
9.e.	1 week prior to initiation	Notify of night activities
9.m.	1 week prior to testing	Notify of holiday testing
10.	Immediately (within 24 hours)	Notify if clay layer is not found at the expected elevation

#### ATTACHMENT 1 (cont'd)

SPECIFIC CONDITION	SUBMITTAL DUE DATE	REQUIRED ITEM
13.	Within 60 days after construction is complete	Submit Certification of Construction Completion, Arrange for inspection, submit Record Documents, submit narrative describing all deviations, submit final report, request modification to Operation Permit
17.a.	No later than 30 days after completion	Submit tank mfg. inspection report
17.a.	Within 15 days of owner's receipt of inspection report	Submit schedule for corrective measures
17.a	Within 60 days of inspection report	Complete corrective measures
17.b.	Within 24 hours of occurrence	Notify the Department of damage to any portion of the landfill, groundwater monitoring or tanks systems
17.c.	Within 60 days of notification	Complete repairs to groundwater monitoring system
17.d.	Within 30 days of notification	Implement corrective actions to stormwater or leachate management systems
20.	Prior to submittal of Certification Documents	Groundwater monitoring system requirements complete
21.	Within 30 days of implementation	Submit leachate management plan for reinfiltration pond



## Department of **Environmental Protection**

Lawton Chiles Governor

Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretar,

December 18, 1998

CERTIFIED MAIL RETURN RECEIPT REQUESTED

#### NOTICE OF PERMIT

Hardee County Board of County Commissioners Mr. J.R. Prestridge, Solid Waste Superintendent 685 Airport Road Wauchula, Fl. 33873

Hardee County Regional Landfill, Liner & Tank Permit No.: 38414-001-SC, Hardee County

Dear Mr. Prestridge:

Enclosed is Permit Number 38414-001-SC, issued pursuant to Section(s) 403.087(1), Florida Statutes.

Any party to the Order (permit) has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT ENVIRONMENTAL PROTECTION

Richard D. Garrity, Ph.D. Director of District Management

Southwest District

Hardee County Board of County Commission Mr. J.R. Prestridge, Solid Waste Superintendent Permit No.: 38414-001-SC

Page Two

#### CERTIFICATE OF SERVICE

This undersigned duly designated deputy clerk hereby certifies that this **NOTICE OF PERMIT** and all copies were mailed before the close of business on <u>DEC. 18, 1998</u> to the listed persons.

date stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(10), Florida Statutes, with the designated Department, Clerk, receipt of which is hereby acknowledged.

MAR. Slack,
Clerk

RDG/sjp Attachment Copies furnished to:

Elected Officials Notification List
Hardee County Board of County Commissioners
Janice Williamson, Hardee Co., 685 Airport Road, Wauchula, Fl. 33873
David Deans, P.E., PBSJ, 1560 Orange Ave., Ste. 700,
Winter Park, Fl. 32789
Douglas Beason, OGC Tallahassee

Robert Butera, P.E., FDEP Tampa Danielle Nichols, FDEP Tampa (Permit Notebook)

Payment | Site | Facility | rartY | Reports | ----- Permitting Application Site Name: HARDEE COUNTY REGIONAL LANDFILL (LF1) Site #: 0038414 County: HARDEE Comments: N RPAs: N # Cases: 0 -----Project ------Permit #:0038414-003-SC Project #:003 Received:18-JAN-2000 CRA#: Permit Office: SWD (DISTRICT) Agency Action: Issued Project Name: HARDEE CONSTRUCTION TX
Type/Sub/Des: SC /TX TIME EXTENSION Desc: COE #: Logged: 25-JAN-2000 Issued: 26-JAN-2000 Expires: **01-AUG-2000** OGC: 0.00 Fee Recd: Dele: Override: SMALL CO. WAIV Role: APPLICANT Begin: 25-JAN-2000 End: Name: WILLIAMSON, JANICE Company: HARDEE COUNTY SOLID WASTE DEPT. Addr: 675 AIRPORT ROAD City: WAUCHULA State: FL Zip: 33873- Country: U.S.A. Phone: 941-773-5089 Fax: 941-773-3907 Processor: PELZ S Y Active: 25-JAN-2000 Inactive: Enter date application was received. DD-MON-YYYY Count: \*1 <Replace>

### FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMITTING APPLICATION PROJECT EVENT SUMMARY REPORT

7 27-JAN-00

Site Name: HARDEE COUNTY REGIONAL LANDFILL (LF1)

County: HARDEE

PROJECT -----

Permit Office: SWD (DISTRICT)

Project #: 60479 Agency Action: Issued

CRA Reference #:

Project name: HARDEE CONSTRUCTION TX Desc:
Type/Sub/Req: SC/TX / New Permit Application

Fee: \$000.00 Realized: Dele: Override: SMALL CO. WAIV

----- PROJECT EVENTS -----

Begin Date Prd Due Date Receive Request 20-JAN-2000 2 22-JAN-2000 000 Sufficient Fee 20-JAN-2000 Fee Verification Completeness Review 20-JAN-2000 30 19-FEB-2000 000 Complete 20-JAN-2000 <sup>9</sup> Determine Agency Action 20-JAN-2000 90 19-APR-2000 000 Issue 26-JAN-2000 Issue Final Permit 26-JAN-2000 14 09-FEB-2000 000 Issued 26-JAN-2000 ISSUE PERMIT 1 27-JAN-2000 000 Issued 26-JAN-2000 26-JAN-2000 STOP CLOCK . 26-JAN-2000 1 27-JAN-2000 000 Done 26-JAN-2000

perMits | Events | Payment | Site | Facility | partY | Reports | ------ Permitting Application "Site Name: HARDEE COUNTY REGIONAL LANDFILL (LF1) Site #: 0038414 Comments: Y RPAs: N # Cases: 0 County: HARDEE ------Project -----Permit #:0038414-001-SC Project #:001 Received:27-JUN-1997 CRA#:5004 Permit Office: SWD (DISTRICT) Agency Action: Issued Project Name: HARDEE CO LEACHATE TANK/LINER Desc: Tank & Liner Type/Sub/Des: SC /08 OTHER COE #: Logged: 01-JUL-1997 Issued: 18-DEC-1998 Expires: 01-FEB-2000 OGC: 100.00 Fee Recd: 100.00 Dele: Override: SMALL CO. WAIV Role: APPLICANT Begin: 01-JUL-1997 End: Name: PRESTRIDGE, J.R. Company: HARDEE COUNTY SOLID WASTE DEPT Addr: 675 AIRPORT RD City: WAUCHULA State: FL Zip: 33873- Country: U.S.A. Phone: 941-773-5089 Fax: Processor: PELZ S Y Active: 01-JUL-1997 Inactive: Enter date application was received. DD-MON-YYYY Count: \*1 <Replace> FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION 21-DEC-98 PERMITTING APPLICATION PROJECT EVENT SUMMARY REPORT Site Name: HARDEE COUNTY REGIONAL LANDFILL (LF1) County: HARDEE ------ PROJECT ----------------

Permit Office: SWD (DISTRICT)

CRA Reference #: 5004 Agency Action: Issued

Project #: 5004

Project name: HARDEE CO LEACHATE TANK/LINER Desc: Tank & Liner

Type/Sub/Req: SC/08 / New Permit Application

Expires: 18-DEC-2003

Fee: \$100.00 Realized: \$100.00 Dele:

Override: SMALL CO. WAIV

----- PROJECT EVENTS -----

Event	Begin Date	Prd Due Date	Rmn Status	. End Date
Receive Request	27-JUN-1997	1 28-JUN-1997	000 Done	27-JUN-1997
Fee Verification	27-JUN-1997	2 29-JUN-1997	000 Sufficient Fee	27-JUN-1997
Completeness Review	27-JUN-1997	30 27-JUL-1997	000 Incomplete	25-JUL-1997
Awaiting Additional Information	25-JUL-1997	45 08-SEP-1997	000 Received	02-JAN-1998
Completeness Review	02-JAN-1998	30 01-FEB-1998	000 Incomplete	30-JAN-1998
Awaiting Additional Information	30-JAN-1998	84 24-APR-1998	000 Received	27-APR-1998
Completeness Review	27-APR-1998	30 27-MAY-1998	000 Complete	27-APR-1998
Determine Agency Action	27-APR-1998	219 02-DEC-1998	000 Issue	19-NOV-1998
Mail Public Notice of Intent to Applicant and Others	19-NOV-1998	10 29-NOV-1998	000 Done	19-NOV-1998
Date of Publication	19-NOV-1998	999 14-AUG-2001	000 Published	04-DEC-1998
Issue Final Permit	04-DEC-1998	14 18-DEC-1998	000 Issued	18-DEC-1998
ISSUE PERMIT	18-DEC-1998	1 19-DEC-1998	000 Issued	18-DEC-1998
STOP CLOCK	18-DEC-1998	1 19-DEC-1998	000 Done	18-DEC-1998
STOP CLOCK	19-NOV-1998	1.20-NOV-1998	000 Done	19-NOV-1998
RESET CLOCK	30-JAN-1998	1 31-JAN-1998	000 Done	30-JAN-1998
RESET CLOCK	25-JUL-199 <b>7</b>	1 26-JUL-1997	000 Done	25-JUL-1997

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Permit Office: SWD_(DISTRICT) Project Name: HARDEE_CO_REGINAL_LANDFILL_ Type/Sub/Des: SC/08_ OTHER	COE #:
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Role: APPLICANT   Begin: 01-JUL-1997	7 End:
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Addr: 675_AIRPORT_RD_	TT 7 - 22072
	FL Zip: 33873 Country: U.S.A
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### Memorandum

## Florida Department of Environmental Protection

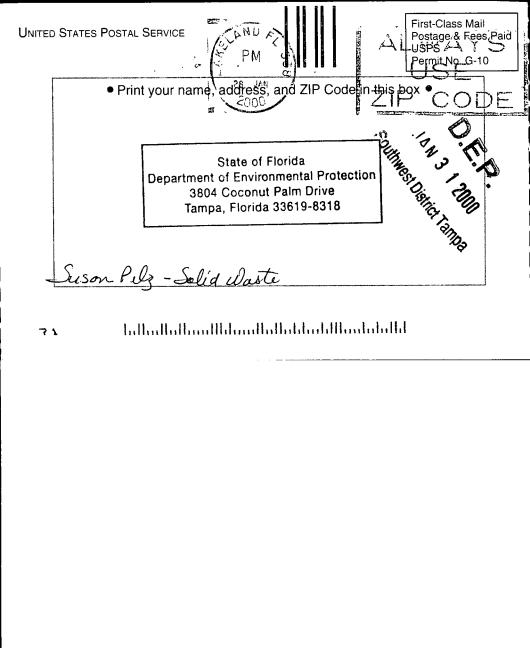
#### PERMIT COVER MEMO

FERMIT COVER MEMO
TO: _x Deborah A. Getzoff, Director of District Management
William Kutash Robert Butera, P.E. B. Color, Susan Pelz, P.E. A. Color, DATE: January 25, 2000
Mod. #38414-003-SC to FILE NAME: Hardee Co. LF-Liner & Tank PROGRAM: Solid Waste  Mod. #38414-003-SC to PERMIT #: 38414-001-SC COUNTY: Hardee
TYPE OF PERMIT ACTION: X ISSUE DENY X MODIFY  TRANSFER OWNER NOD  PUBLIC NOTICE INTENT TO ISSUE
PUBLIC NOTICE PERIOD CLOSED? PETITION FILED?
<b>PERMIT SUMMARY:</b> This modification extends the expiration date of the existing construction permit. The permit is for construction of a leachate storage tanks system, and liner for the fourth side of the landfill. The liner will be a 60 mil HDPE geomembrane tied into in-situ clay bottom "liner".
PROFESSIONAL RECOMMENDATION: X APPROVE DENY
<b>EVALUATION SUMMARY:</b> The applicant has provided sufficient information to demonstrate compliance with Department Rules.
Application received - January 18, 2000 Application complete - January 18, 2000. Department processing time - 8 days (to 01-25-00). Total processing time - 8 days (to 01-25-00).

DAY 90/30 FOR THIS ACTION IS: ASAP by February 1, 2000

	Mod Permit #.	70411-003-	50 L	2711/11/11/11	
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1-26-2000





# Department of Environmental Protection

Jeb Bush Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

January 26, 2000

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

NOTICE OF PERMIT

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

Dear Ms. Williamson:

Attached is Modification #38414-003-SC to Construction Permit 38414-001-SC, issued pursuant to Section(s) 403.087(1), Florida Statutes. Since only the expiration date was modified, and in order to conserve resources, only Page 1 of 24 of modified Construction Permit 38414-001-SC is attached. Please replace the existing Page 1 of 24 with the attached page. Since Specific Condition #2.d. states that construction shall be "completed no later than October 1, 1999, or as otherwise approved by the Department," this condition was not changed, and the Department approves of the proposed completion date of June 30, 2000 by way of this letter. All other conditions of the existing permit remain unchanged and in effect.

Existing Expiration Date February 1, 2000

Modified Expiration Date
August 1, 2000

A person whose substantial interests are affected by this modification of permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, 3900 Commonwealth Blvd., Mail Station 35, Tallahassee, 32399-3000, within fourteen (14) days of receipt of this notice. Petitioner shall mail a copy-of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within fourteen (14) days shall constitute a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes.

The petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

"More Protection, Less Process"

Hardee County Solic Waste Dept.
Ms. Janice Williamson, Superintendent

- (b) A statement of how and when each petitioner received notice of Department's action, or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends warrant reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C. Mediation is not available in this proceeding.

This modified permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rules 62-110 and 28-106, F.A.C. Upon timely filing of a petition or a request for an extension of time this transfer of permit will not be effective until further Order of the Department.

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

.od. #38414-003-SC to
Permit No:38414-001-SC
Page 3

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Deborah A. Getzoff

Director of District Management

Southwest District

DAG/sjp Attachment

Copies furnished to:

Hardee County Board of County Commissioners Douglas Beason, OGC Tallahassee Fred Wick, FDEP Tallahassee Robert Butera, P.E., FDEP Tampa Stephanie Petro, FDEP Tampa (Permit Notebook)

#### CERTIFICATE OF SERVICE

This undersigned duly designated deputy clerk hereby certifies that this **NOTICE OF PERMIT** and all copies were mailed before the close of business on (date stamp)

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(10), Florida Statutes, with the designated Department, Clerk, receipt of which is hereby acknowledged.

Clerk

Date



# Department of Environmental Protection

Jeb Bush Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

#### PERMITTEE

Hardee County Board of
County Commissioners
Mr. J.R. Prestridge,
Solid Waste Superintendent
685 Airport Road

685 Airport Road Wauchula, Fl 33873

#### PERMIT/CERTIFICATION

GMS ID No: 4025C30001
Permit No: 38414-001-SC
Date of Issue: 12/18/98
Expiration Date: 08/01/2000

County: Hardee Lat/Long: 27 34 10 N 81 47 01 W

Construction

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-3, 62-4, 62-302, 62-330, 62-520, 62-522, and 62-701. The above named permittee is hereby authorized to perform the activities 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 construct site improvements at the Class I landfill (approximately 12.5 acres), referred to as the Hardee County Regional Landfill, subject to the specific and general conditions attached, located at 675 Airport Road, east of the City of Wauchula, Hardee County, Florida. The specific conditions attached are for the construction of:

- 1. Landfill liner and
- 2. Leachate collection and storage tanks system

#### General Information -Construction:

60 mil HDPE Geomembrane Seams:Shear - 120 ppi & FTB [ref. CQAP, Table 2-3]

Peel - 85 ppi & FTB [ref. CQAP, Table 2-3]

Hydraulic Conductivity:

Filter Aggregate: min. 1 x 10-3 cm/sec [ref. CQAP, 2.1.1.4.] Drainage Sand: min. 1 x 10-3 cm/sec [ref. CQAP, 2.1.1.5.]

Clay layer: max. 4.3 x 10-7 cm/sec [ref. SC#2.a(1), App. C; SC#2.a(2), Att. G].

#### Replaces Permit No.: N/A, new

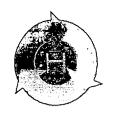
This permit contains compliance items summarized in **Attachment 1** that shall be complied with and submitted to the Department by the dates noted. If the compliance dates are not met and submittals are not received by the Department on the dates noted, enforcement action may be initiated to assure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

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Page, 1 of 24.



SOUTHWEST DISTRICT



Hardee County Solid Waste Department

January 14, 2000

Solid Waste Section

Ms. Susan J. Pelz, P.E. Florida Department of Environmental Protection Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

RE:

Permit No. 38414-001-SC Hardee County Landfill Construction Improvements



Hardee County requests an extension to the above referenced construction permit. The contractor has completed the construction of the liner and leachate collection system except for a small section in the north west corner of the project where we encountered unexpected poor condition of the existing liner. Work on erection of the leachate storage tanks is underway. In order to complete all construction and address the liner connection issue in the northwest corner of the project, we are requesting the Department modify the above referenced permit as follows:

- 1. Modify Specific Condition 2.d to require all construction to complete by June 30, 2000;
- 2. Extend the expiration date of the permit from February 1, 2000 until August 1,2000

Also attached for your use in processing our modification is Hardee County's request for a permit fee reduction and reduce permit fee of \$100.00.

Thank you for your consideration of our request. Please do not hesitate to call me with any questions or comments you may have regarding this matter.

very Truly Yours,

Janice Williamson, Solid Waste Superintendent

Printed on recycled paper

### HARDEE COUNTY BOARD OF COUNTY COMMISSIONERS

412 West Orange Street Room A-203, Courthouse Annex Wauchula, Florida 33873-2867 (941)773-9430 \* (941)773-6952 \* Fax (941)773-0958

January 11, 2000

Department of Environmental Protection Solid Waste Section Attention: Bob Butera 3804 Coconut Palm Drive Tampa, Florida 33619-8318

Re: Permit Fee Reduction

Dear Mr. Butera:

Pursuant to the Florida Law 94-278, Hardee County is requesting a permit fee reduction.

Hardee County is currently at 8.75 mills and Florida law states that millage greater than eight mills would justify a permit fee reduction or waiver to be granted on the basis of hardship. Hardee County certifies that the cost of the permit processing fee is a fiscal hardship due to the fact that ad valorem operating millage is greater than eight mills.

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

Sincerely,

Gary Oden, County Manager Hardee County, Florida

Gaus Odm

GO/sd

permit fee reduction011100





### Hardee County

CAROLYN J. COKER PROPERTY APPRAISER

1999 MILLAGE RATES BY TAXING AUTHORITY

TAXING AUTHORITY .	MILLAGE EATS
BCC	.008750
SCHOOL BOARD State Local Total	.006391 <u>.002760</u> .009151
WATER MANAGEMENT SWFWMD Peace River Basin Total	.000422 .000195 .000617
INDIGENT HEALTH CARE	.000620
BOWLING GREEN	.008000
WAUCHULA	.005020
ZOLFO SPRINGS	.009112
TOTALS FOR PROPERTY OWNERS IN:	
Unincorporated County	.019138
Bowling Green	.025138
Wauchula	.024158
Zolfo Springs	.028250

January 20, 2000

Suson, Nord Royan your this for your

Janice Williamson, 675 Airport RD. Hardee Co Bd Co Comm 412 W. Orange Street Room A203 Wauchula FL 33873 2867

Dear Sir/Madam:

Your check number 4495 for \$100.00 is being returned for the following reason(s):

- \* No fee required for service. Your application and/or request will be processed.
- \* Other: Small County Waiver

\* Certified Receipt # 2352608 4/9

Checks should be made payable to the Department of Environmental Protection.

For more program specific information, please contact the following:

EFFS TWOSEFUL

Susan Pelz Phone: 813-744-61012x7 386

Department of Environmental Protection Southwest District Office



HARDEE CO BD OF COMMISSIONERS

412 W ORANGE ST ROOM A203 WAUCHULA, FL 33873-2867

Accounts Payable

First National Bank Wauchula FL 33873

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\*\*\*\* ONE HUNDRED AND 00/100 DOLLARS

TO THE DEPT. ENVIRONMENTAL PROTECTION ORDER 3804 COCONUT PALM DRIVE OF TAMPA, FL

Authorized Signatures

### SOUTHWEST DISTRIC. FDEP

### Solid Waste Program Permitting Application

New Site

Site Name:	
Site Address:	
County:	
Type/Subcode:	
	Existing Site
Site ID:	38414-003
Project Name:	Hardee Construction TX
Type/Subcode:	
Fee Submitted:	\$ /00 ( ) correct ( ) incorrect
Fee Refund \$	/00 Fee Request \$
	Related Party Small County Waiven
Role:	Applicant
Name:	Tanke Williamson
Company:	Handee County Solid Waste Dept.
Street:	675 Ainport Rd
City:	Warchela
Zip Code:	33873
Phone:	941-773-5089 FAX 941-773-3907
<u> </u>	
Distribution Date:	- <i>1 1</i>
Fee Checked By:	PELZ Date: 1/20/00



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412 W ORANGE ST ROOM A203 WAUCHULA, FL 33873-2867 Accounts Payable

PAY

\*\*\*\* ONE HUNDRED AND 00/100 DOLLARS

TO THE DEPT ENVIRONMENTAL PROTECTION ORDER 3804 COCONUT PALM DRIVE

TAMPA, FL

\_ional Bank :

63-670

631 Wauchula FL 33873

Check Date Check No. Amount 01/12/00 4495 \$100.00

#4495# #063106705# 010952#

Vendor No: 3122 DEPT. ENVIRONMENTAL PROTECTION Account No:

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HARDEE CO BD OF COMMISSIONERS

Check#

4495

TOTAL

\$100.00

### PBSJ TRANSMITTAL

TO Susan Pe	elz, P.E.	1 1	1/28	DATE		December 20, 1999
FDEP - S	District		JOB N	Ο.	07-862.39	
				RE		Hardee County
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Copy of L	etter	c	hange Order	Specifi	cations	See Below
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1	-	-	December	8, 1999 Mo	nthly Pro	ogress Meeting Minutes
1	-	-	Construction			
1	-	-	December	8, 1999 Mo	nthly Co	nstruction Schedule
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If enclosures are not as noted, kindly notify us at once.

see bondupat

## PBSJ TRANSMITTAL

TO Susan Pe	elz, P.E.	2 11/0	/ <b>)</b> 	DATE	November 15, 1999
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				RE	Hardee County
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1	-	-		on Progress Pho	
1	-	-	November	3, 1999 Monthly	Construction Schedule
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See Brand Report





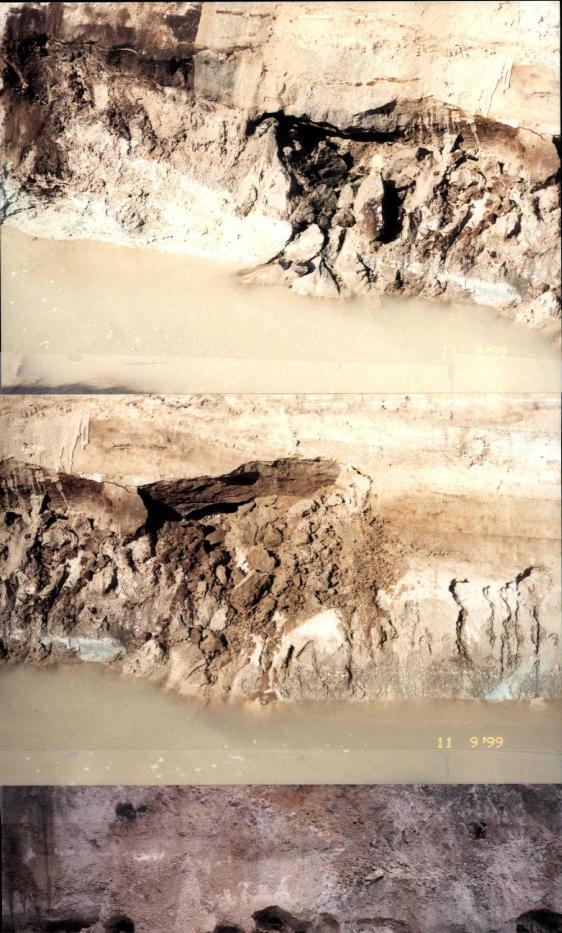






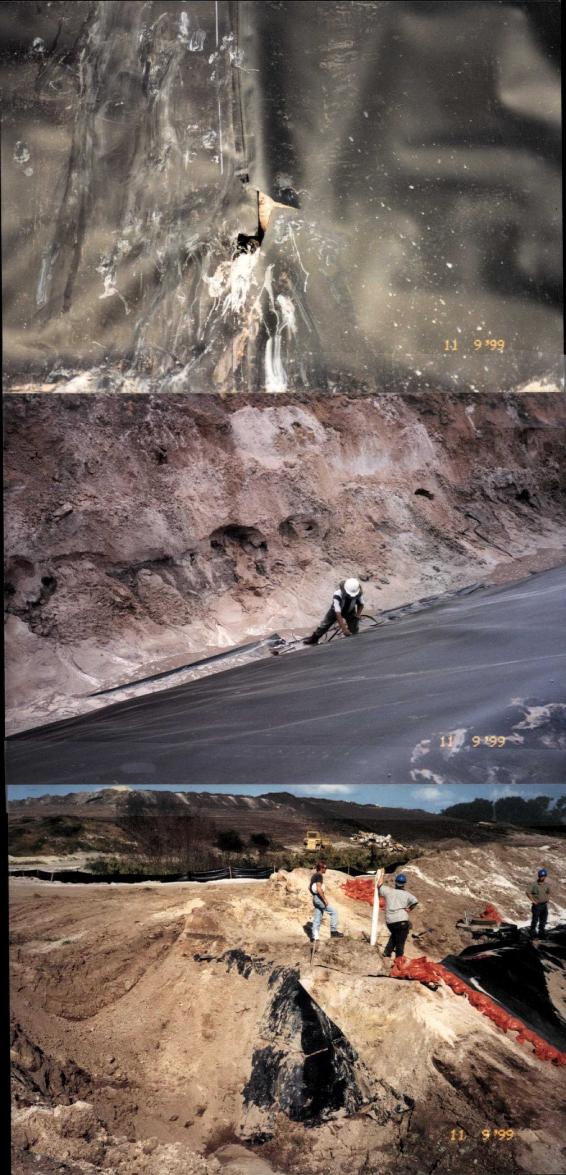
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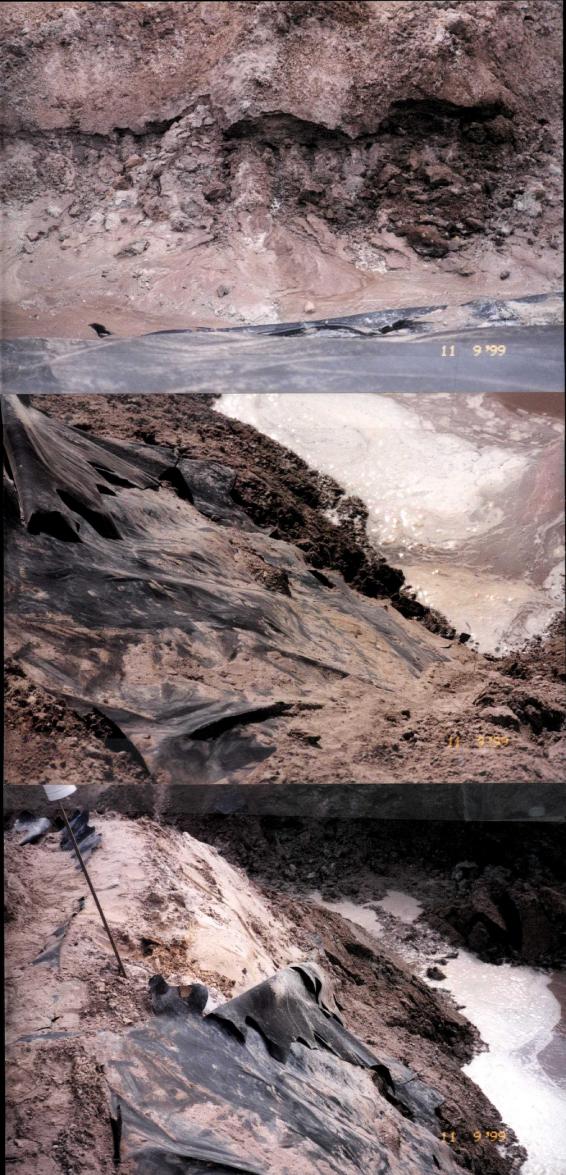




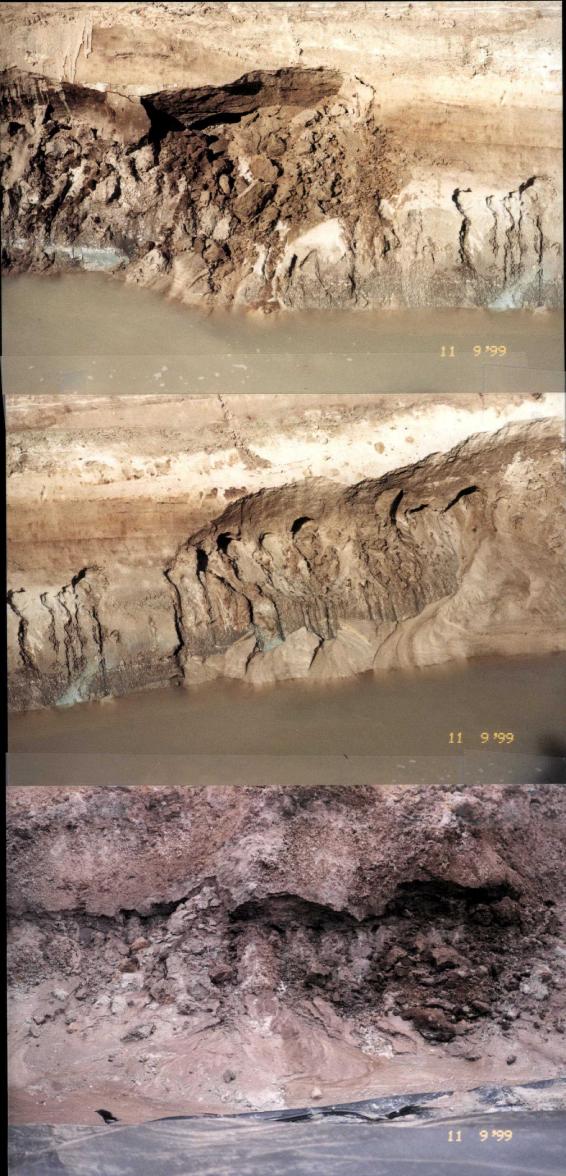




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HARDEE COUNTY
11/9/99 SJP, SGM, MSP



### PBSJ TRANSMITTAL

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1	-	-	Construction			
1	-	ļ <del>-</del>				action Schedule
11	-	<b>-</b>	October 25,	1999 Monthi	y Cons	truction Schedule
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(Sec Bornd Regart)

### PBSJ TRANSMITTAL

U.E.P.

OCT 20 1999

TO Susan P	elz, P.E.	B 11	1/20	DATE	Octobenile 1999
FDEP -	Southwest [	Distric	t	JOB NO.	07-862.39
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1	10/19/99	1		Progress Photo	
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SIGNED	Jeff Wild, I	P.E.	(for Dave Dear	ns, P.E.)	
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( see Board Report)



An employee-owned company

October 13, 1999

Ms. Susan J. Pelz, P.E., Solid Waste Section Florida Department of Environmental Protection 3804 Coconut Palm Drive Tampa, FL 33619



Re: Hardee County Landfill - Lateral Expansion and Leachate Storage Tank Facility FDEP Permit No. 38414-001-SC

#### Dear Susan:

In accordance with specific condition no. 5b of the referenced permit, please find attached the following information from the Contractor:

- 1. A letter addressing the secondary containment capacities.
- 2. Anchoring details for the leachate storage tanks signed and sealed by a Florida Professional Engineer.
- 3. A letter addressing leachate storage tank cathodic protection.

As you requested in our recent telephone conversation, PBS&J has attached actual tank volume calculations signed and sealed by a Florida Professional Engineer.

From the attached information, you can see that the leachate tank manufacturer, A.O. Smith, is recommending not using cathodic protection with their specific tank coating system. PBS&J has investigated this request and also recommends not installing cathodic protection in conjunction with this particular coating system.

The proposed exterior coating system is a multiple coat, epoxy/urethane system using an inorganic zinc primer. The zinc-rich primer substitutes for additional zinc anodes, and we concur that the risk of potential coating disbondment outweighs the potential benefits of additional zinc anodes in this particular application.

Susan, our timely approval of the above and attached information is greatly appreciated. If you have any questions on this information, please contact me at 800-284-5182, ext. 350.

Craig A Contain P.E.
Senior Project Manager
Attachment

c: Janice Williamson, Hardee County Steve Moore, Omni/Eclipse Dave Deans, P.E., PBS&J



Parsons, KS 67357-0996 U.S.A. 316-421-0200 Phone, 316-421-9122 Fax

Hardee County landfill-lateral Expansion and Leachate Storage tank Facility

Dear, FDEP

We are providing primary tanks with a 29'-8 1/2" inside diameter and secondary containment tanks with a 41'-7 1/8" inside diameter. Calculations are based on a depth of 15'-1 3/16" for the primary tanks which calculates to 78,300 gallons. The calculations on the secondary tanks are based on a depth of 8'-7 1/16" which calculates to 87,300 gallons. These calculations for the secondary tanks are 111 percent of the primary tank.

We design the tanks to wind and seismic for the location specified. Anchoring is not required for the primary tanks.

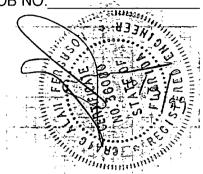
We do not recommend or use cathodic protection. In are experience with cathodic protection it will do more harm to the coating than good. In most cases cathodic protection results in premature coating failure.

**Project Coordinator** 



SUBJECT: Hardee County Landfill

JOB NO:



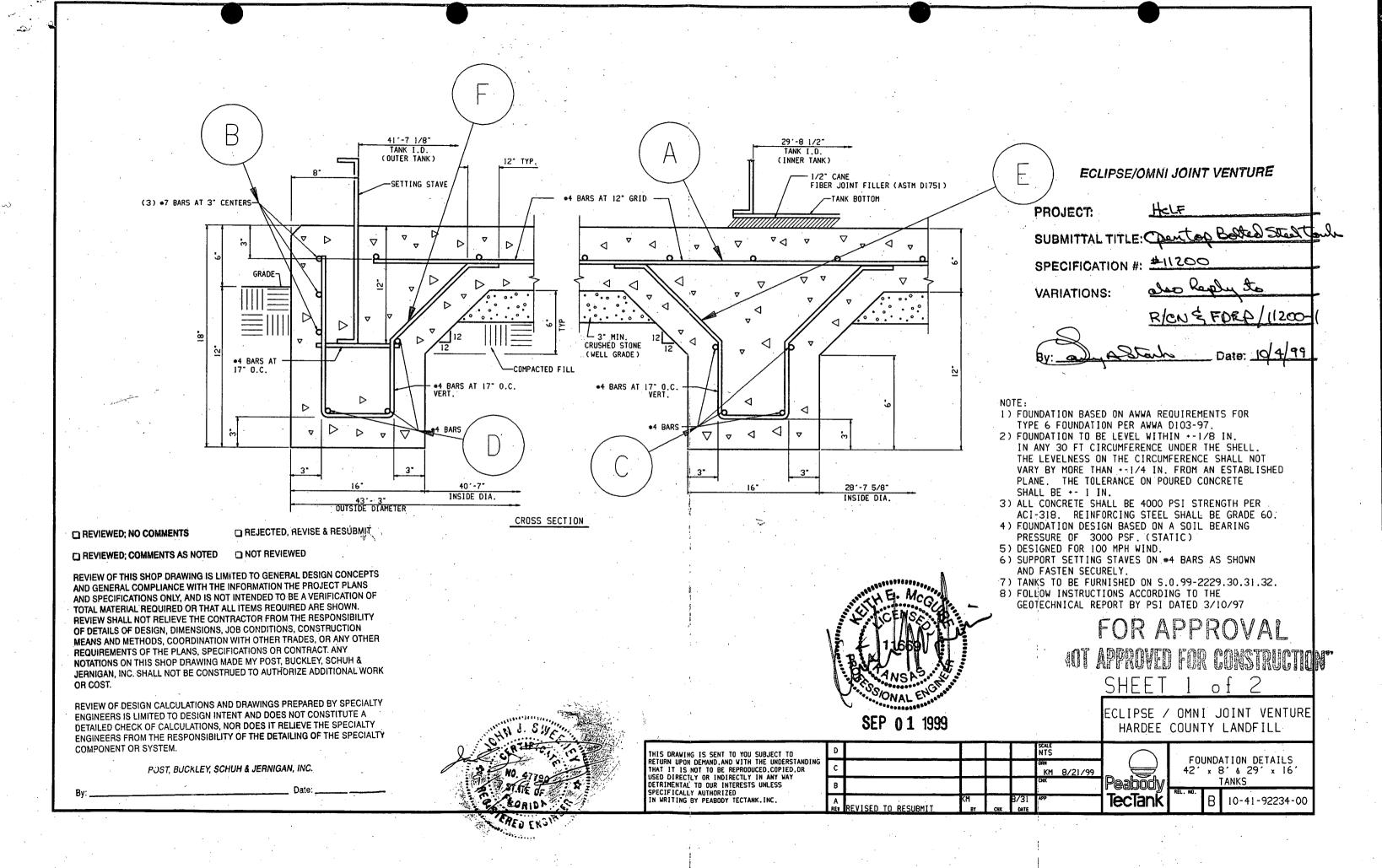
Danuter= 
$$29'-8'/2''(1)$$
 =  $29.708'(D)$   
Dipth =  $15'-13/16''(1)$  =  $15.099'(H)$ 

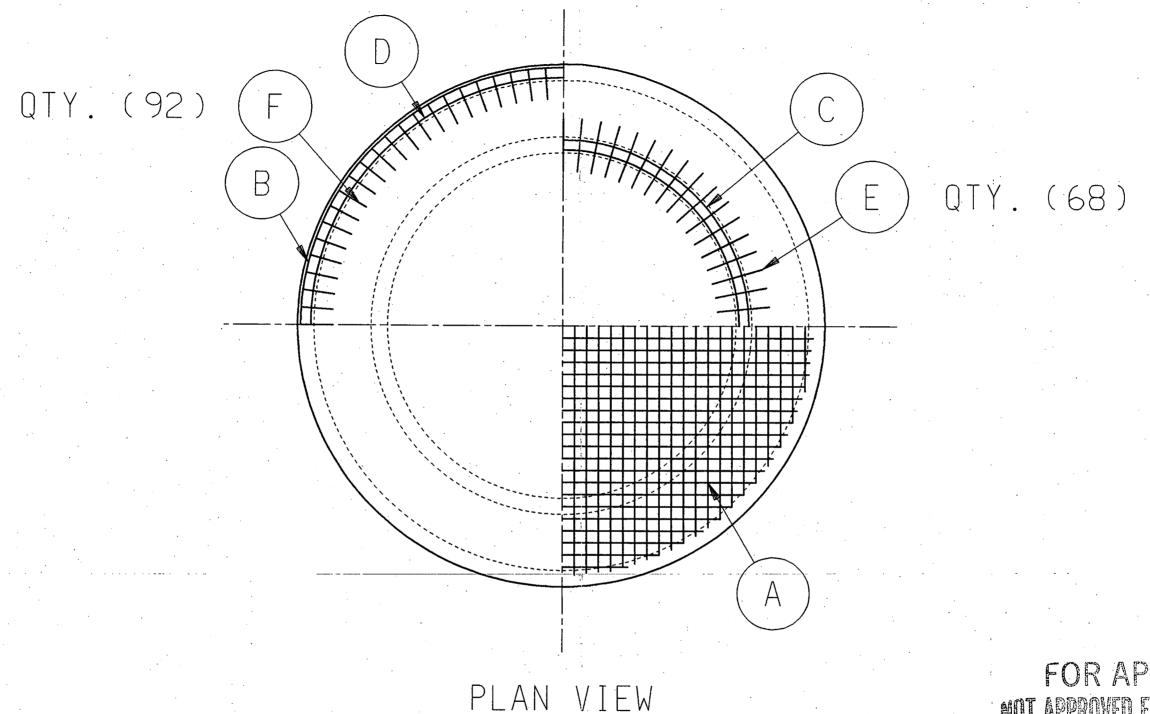
$$Volume = \frac{\pi D^2 H}{4} = (3.14)(29.708)^2(15.099)$$

# -31,013

$$= 11,665+3 \times 7.485 \sqrt{6+3} = 87,2525 - 1005$$

III Containment Ratio





# FOR APPROVAL NOT APPROVED FOR CONSTRUCTION

SHEET 2 of 2

ECLIPSE / OMNI JOINT VENTURE HARDEE COUNTY LANDFILL

THIS DRAWING IS SENT TO YOU SUBJECT TO
RETURN UPON DEMAND, AND WITH THE UNDERSTANDING
THAT IT IS NOT TO BE REPRODUCED. COPIED. OR
USED DIRECTLY OR INDIRECTLY IN ANY WAY
DETRIMENTAL TO OUR INTERESTS UNLESS
SPECIFICALLY AUTHORIZED

A REV REVISED TO RESUBMIT

BY CKX

SCALE
NTS

CC

CR

B

CKM
8/21/99

CKX

B

A REVISED TO RESUBMIT
BY CKX
DATE

Peabody TecTank FOUNDATION DETAILS 42′x 8′& 29′x 16′ TANKS

B 10-41-92234-00

#### Florida Department of

### **Environmental Protection**

#### **Southwest District**

**FAX TRANSMITTAI** 

**DATE: October 13, 1999** 

TO:

Janice Williamson - Hardee Co.

Craig Ferguson, P.E. - PBSJ Phone: (407) 647-7275

Phone: (941) 773-5089 (941) 773-3907 Fax:

Fax: (407) 647-0624

FROM:

Susan Pelz, P.E.

Phone: (813) 744-6100 ext 386

Fax: (813) 744-6125

TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET -1-

Hardee County Landfill Construction, Permit No.: 38414-001-SC **SUBJECT:** 

Specific Condition #5.b., PBSJ letter dated October 13, 1999 (received via fax

October 13, 1999)

The Department has reviewed the above-referenced submittal. Please submit the following with the original of the letter:

- Signed and sealed secondary containment calculations for the proposed tank configuration; and
- 2. Signed and sealed tank anchoring details.

Based on receipt of these items, the Department does not object to the contractor moving forward with the tank installation/construction.

If you have any questions, you may contact me at the phone number listed above.

- weed & contain calcs
signed & seated

- need puchoning defails
signed & sealed

Date Post-It® Fax Note 7671 Co./Dept. Co. Phone # Fax#

October 13, 1999

Ms. Susan J. Pelz, P.E., Solid Waste Section Florida Department of Environmental Protection 3804 Coconut Palm Drive Tampa, FL 33619

Re: Hardee County Landfill - Lateral Expansion and Leachate Storage Tank Facility **FDEP Permit No. 38414-001-SC** 

Dear Susan:

In accordance with specific condition no. 5b of the referenced permit, please find attached the following information from the Contractor:

1. A letter addressing the secondary containment capacities.

2. Anchoring details for the leachate storage tanks signed and sealed by a Florida Professional Engineer.

3. A letter addressing leachate storage tank cathodic protection.

From the attached information, you can see that the leachate tank manufacturer, A.O. Smith, is recommending not using cathodic protection with their specific tank coating system. PBS&J has investigated this request and also recommends not installing cathodic protection in conjunction with this particular coating system.

The proposed coating system is a multiple coat, epoxy/urethane system using an inorganic zinc primer. The zinc-rich primer substitutes for additional zinc anodes, and we concur that the risk of potential cathodic coating delamination outweighs the potential benefits of additional zinc anodes in this particular application.

Susan, our timely approval of the above and attached information is greatly appreciated. If you have any questions on this information, please contact me at 800-284-5182, ext. 350.

Sincerely,

Craig A. Ferguson, P.E. Senior Project Manager

Attachment

c: Janice Williamson, Hardee County Steve Moore, Omni/Eclipse

Dave Deans, P.E., PBS&J

CAP/bw/W:\COMMON\W&WWATER\HARDEE\CORRESPOLE1013.DOC Last Revised 10/13/99 9:14 AM

Parsons, KS 67357-0996 U.S.A. 316-421-0200 Phone, 316-421-9122 Fax

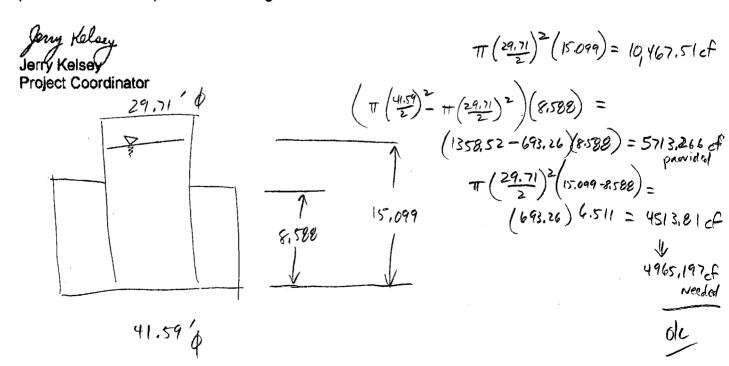
Hardee County landfill-lateral Expansion and Leachate Storage tank Facility

Dear, FDEP

We are providing primary tanks with a 29'-8 1/2" inside diameter and secondary containment tanks with a 41'-7 1/8" inside diameter. Calculations are based on a depth of 15'-1 3/16" for the primary tanks which calculates to 78,300 gallons. The calculations on the secondary tanks are based on a depth of 8'-7 1/16" which calculates to 87,300 gallons. These calculations for the secondary tanks are 111 percent of the primary tank.

We design the tanks to wind and seismic for the location specified. Anchoring is not required for the primary tanks.

We do not recommend or use cathodic protection. In are experience with cathodic protection it will do more harm to the coating than good. In most cases cathodic protection results in premature coating failure.



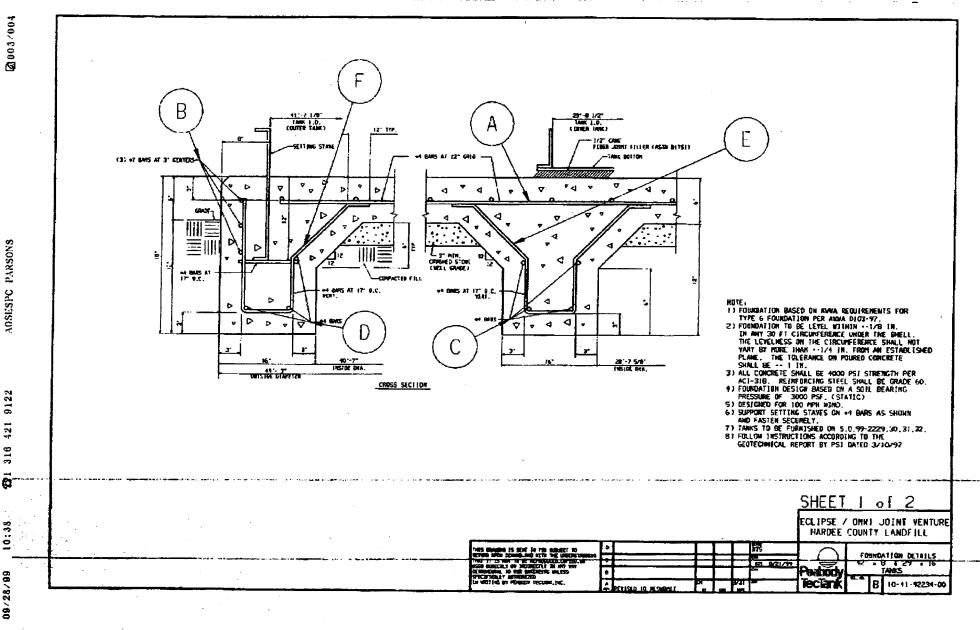
IPSE

TO: F'

: 39

9-28-99

03





An employee-owned company

September 3, 1999

Ms. Susan J. Pelz, P.E. Solid Waste Section FDEP - Southwest District 3804 Coconut Palm Drive Tampa, FL 33619

Re: Hardee County Class I Landfill

Permit No. 38414-001-SC

Leachate Collection System Modification

Dear Ms. Pelz:

The contractor has proposed that we modify the leachate collection system design to eliminate the use of the existing pump station in the system. He proposes to move manhole number eight about 120 feet further east, up-size the manhole from a 4-foot diameter to an 8-foot diameter manhole, and use this manhole as the pump station. See Figure 1 (dated September 3, 1999).

This proposal is attractive to the County because it eliminates the need for coordinating leachate pumping and transport facilities while the existing pump station would be out of service. The contractor finds this attractive because the proposed new pump station is further away from the existing dewatering ditch, and reduces the construction challenges associated with being so close to this body of water.

We propose to approve this modification to the design, note this change in our certification report, and reflect the design details on the record drawings to be submitted at the end of construction. We are requesting your agreement to this change, and to our proposed method of reporting the details to the department.

We look forward to your favorable response to our request. The contractor is standing by waiting for our direction on this matter.

Very truly yours,

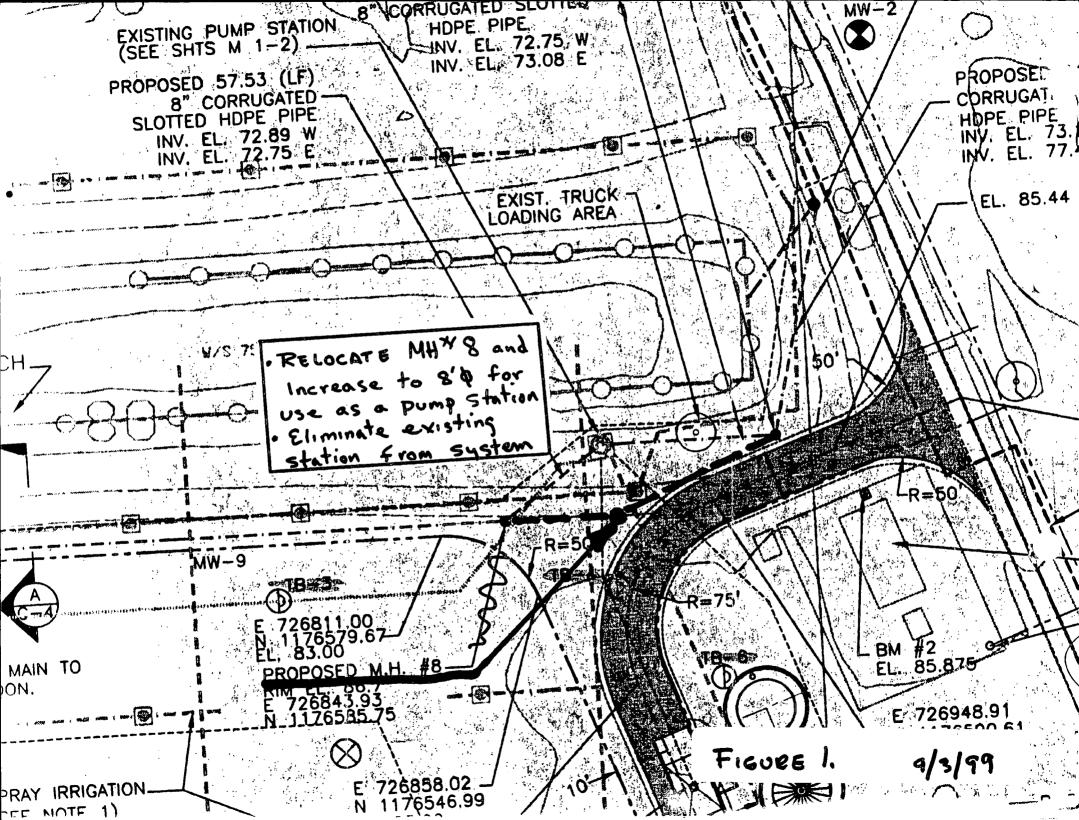
David E. Deans, P.E. Senior Vice President

c: J. Williamson, Hardee County

07-862.39

Enclosure

G:\ENV\COMMON\WASTEMAN\HARDEE\PERMIT\PELZ9039.WPD



D.E.P.

SEP 1 0 1999

Southwest District Tampa

groups that previous

#### Florida Department of

### **Environmental Protection**

#### **Southwest District**

#### **FAX TRANSMITTAL**

DATE: September 7, 1999



TO:

Janice Williamson – Hardee Co.

Phone: (941) 773-5089

Fax: (941) 773-3907

David Deans, P.E. - PBSJ

Phone: (407) 647-7275

Fax: (407) 647-8945

FROM:

Susan Pelz, P.E

Phone: (813) 744-6100 ext 386

Fax: (813) 744-6125

TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET

-3-

**SUBJECT:** Hardee County Landfill Construction, Permit No.: 38414-001-SC

Leachate collection system modification, PBSJ letter dated September 3, 1999

(received via fax September 7, 1999), attached for reference

The Department has reviewed the above-referenced submittal, and <u>does not object</u> to your proposed modification and reporting, subject to the following:

- 1. The design of the lift station (including the pumps) shall be substantially equivalent to the design previously approved. The pumps shall adequately manage the expected leachate flows.
- 2. The slopes of the leachate collection piping to the new lift station (MH #8) shall be no less (flatter) than the slopes previously approved by the Department for this project.

If you have any questions, you may contact me at the phone number listed above.



September 3, 1999

Ms. Susan J. Pelz, P.E. Solid Waste Section FDEP - Southwest District 3804 Coconut Palm Drive Tampa, FL 33619

Re:

Hardce County Class I Landfill
Permit No. 38414-001-SC
Leachate Collection System Modification

Dear Ms. Pelz:

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We propose to approve this modification to the design, note this change in our certification report, and reflect the design details on the record drawings to be submitted at the end of construction. We are requesting your agreement to this change, and to our proposed method of reporting the details to the department.

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Very truly yours,

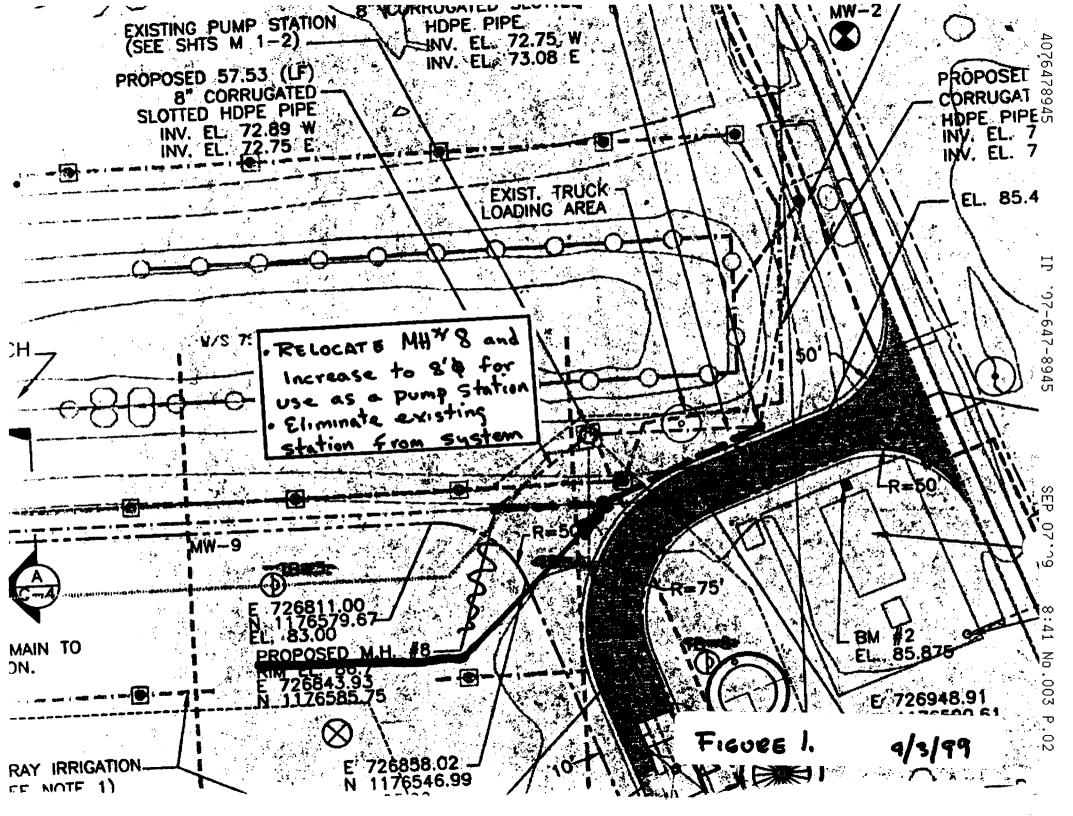
David E. Deans, P.E. Senior Vice President

c: J. Williamson, Hardee County

07-862.39

Enclosure

G:VENY/COMMONWASTEMAN/HARDEE/PERMIT/PELZ9039, WPD



WASTE MGT TAMPA SWD

∡:8137446125

#### Transmit Conf.Report

P. 1

Sep 7 1999 11:20

Telephone Number	Mode	Start	Time	Pages	Result	Note
819417733907	NORMAL	7,11:16	4'29"	3	0 K	

## Florida Department of **Environmental Protection**

**Southwest District** 

### **FAX TRANSMITTAL**

DATE: September 7, 1999

TO:

Janice Williamson - Hardee Co.

David Deans, P.E. - PBSJ

Phone: (941) 773-5089

Phone: (407) 647-7275

Fax: (941) 773-3907

(407) 647-8945 Fax:

FROM:

Susan Pelz, P.E. Phone: (813) 744-6100 ext 386

Fax: (813) 744-6125

TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET

-3-

**SUBJECT:** 

Hardee County Landfill Construction, Permit No.: 38414-001-SC

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(received via fax September 7, 1999), attached for reference

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- The slopes of the leachate collection piping to the new lift station (MH #8) shall be no 2. less (flatter) than the slopes previously approved by the Department for this project.

If you have any questions, you may contact me at the phone number listed above.

WASTE MGT TAMPA SWD

:8137446125

#### Transmit Conf.Report

P.1

Sep 7 1999 11:28

Telephone Number	Mode	Start	Time	Pages	Result	Note
814076478945	NORMAL	7,11:24	3'43"	3	* 0 K	

## Florida Department of **Environmental Protection**

**Southwest District** 

#### FAX TRANSMITTAL

DATE: September 7, 1999

TO:

Janice Williamson - Hardee Co.

David Deans, P.E. - PBSJ

Phone: (941) 773-5089

Phone: (407) 647-7275

Fax: (941) 773-3907

(407) 647-8945

FROM:

Susan Pelz, P.E. Phone: (813) 744-6100 ext 386

Fax: (813) 744-6125

TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET

-3-

SUBJECT:

Hardee County Landfill Construction, Permit No.: 38414-001-SC

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If you have any questions, you may contact me at the phone number listed above.

#### INTEROFFICE MEMORANDUM

Date:

30-Aug-1999 12:44pm

From:

Deans, David E.

DEDeans@pbsj.com

Dept: Tel No:

'Susan Pelz, FDEP'

( Susan.Pelz@dep.state.fl.us)

( hcswd@hardee.4ez.com )

Subject: Hardee County Update

'Janice Williamson'

Susan.

To:

CC:

The contractor is still not ready to begin construction. They are proposing a modification to the leachate collection system which we believe has merit, but have just received the details on today. After our review and agreement, we will forward this to you for discussion.

We rejected their first dewatering plan a month ago and do not yet have a resubmittal Their first submittal was not in accordance with the contract documents, was not what the county was paying for, and was not what FDEP approved.

The original schedule was also rejected. I am holding up their pay application No. 2 until they provide an acceptable upodated schedule. We are now talking about breaking ground in October. When I have the approved schedule we need to review it against all the dates in the permit and see where we stand.

The contractor is under contract to finish in 270 days from notice to proceed. I believe that gave them more than enough time to finish. They are using up some of the schedule "fat" getting started, but right now I believe they are still safe to finish within that time.

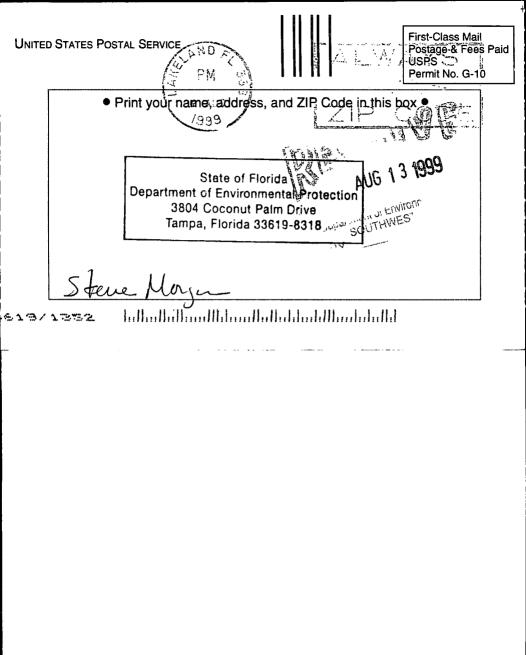
I was also informed today of a "survey bust". The contractor's surveyor does not tie in to the on-site bench marks. There could be a 2-foot bust. I am waiting for a letter informing me of this, and of the details, so we can chase this down. I hope it's a coordination issue. Otherwise this would require a rechecking of the design to be sure we're tied in properly and we have water flowing down hill. I am taking this very seriously, and will let you know if there's a real problem here.

I will put you on a weekly e-mail reporting schedule, even if there's not much to report. Sorry to be so long since the last report - I've been holding out for something of substance to say.

I'll write each Monday with the prior week's news.

David E. Deans, P.E. Senior Vice President

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your RETURN ADDRESS completed on the reverse	<ul> <li>Write "Return Receipt Requested"</li> <li>The Return Receipt will show to widelivered.</li> </ul>	2. Restricted Delivery  Consult postmaster for fee.					
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# Department of Environmental Protection

Jeb Bush Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

David B. Struhs Secretary

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

AUG 1 1 1989

Janice Williamson, Director Department of Solid Waste 685 Airport Road Wauchula, FL 33783

RE: Permit Renewal, Hardee County Leachate TK & Constr. Permit #0038414-001-SC.

Dear Ms. Williamson:

A review of Department files indicates that the above referenced permit expires on February 1, 2000.

Specific Condition #4 of permit #0038414-001-SC states, "Prior to 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."

Due to the complexities involved in designing, constructing and operating a solid waste management facility, and the possibility that standards and/or regulations applicable to your facility may have changed, preparation of a complete permit application can be a rather involved and time consuming process.

Therefore, the Department recommends that if you have not already done so, you begin the preparation of your application for permit renewal for the above referenced facility. Also, since permit fees have changed, you should contact this office prior to submittal of your application to assure that the current fee is included.

(next page)

Should you have any questions or require any assistance, please do not hesitate to contact Susan Pelz at (813) 744-6100, ext 386.

Sincerely,

Steven G. Morgan/

Section Supervisor

Solid Waste Compliance/Enforcement

Southwest District

cc: Robert Butera Susan Pelz

#### INTEROFFICE MEMORANDUM

Date:

21-Jul-1999 02:37pm

From:

Deans, David E.

DEDeans@pbsj.com

Dept: Tel No:

To:

'Susan Pelz, FDEP'

( Susan.Pelz@dep.state.fl.us)

Subject: Hardee County Landfill

Susan,

The notice to proceed on this project was issued on July 1, 1999.

We are now in the shop drawing review stage. The project schedule submitted at the june 18 preconstruction conference is being redone by the contractor to show the actual NTP date with project milestones tied to that date. I expect that re-submittal by early next week. Your copy will be forwarded upon receipt and approval.

The contractor has moved his construction trailers on site, but does not expect to turn a shovel of dirt until around August 15. He needs to get his shop drawing approvals, order materials and get delivery on site before any of that happens.

Our first "formal" monthly report will be issued in August at the time of the monthly pay estimate. Photos will be provided as noted in your last e-mail.

Let me know if I can fill you in on anything else.

Dave

# PBSJ TRANSMITTAL

TO Ms. Susan Pelz  FDEP - Southwest District				DATE	July 14, 1999 07-862.36			
				JOB NO.				
3804 Coconut Palm Drive				RE	Hardee County			
Tampa, F	FL 33619							
WE ARE SE! the following item		)U 🏻	Enclosed [	Under Separate	Cover			
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			Leachate Sto	orage Tank Faci	lity.			
THESE ARE	TRANSM	ITTED	As Checked B	selow:				
☐ For Appro	val		☐ Approved as s	ubmitted	Resubmit copies for approval			
■ For Your Use ☐ Approved as n			☐ Approved as n	oted	Resubmit copies for distribution			
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If enclosures are not as noted, kindly notify us at once.

(See Bornd Agants)

#### INTEROFFICE MEMORANDUM

**Date:** 12-Jul-1999 01:06pm

From: Susan Pelz TPA

PELZ\_S

Dept: Southwest District Office

**Tel No:** (813) 744-6100 ext. 386

To: david deans ( dedeans@pbsj.com )

CC: Robert Butera TPA ( BUTERA\_R )

Subject: Hardee Co. construction

I got the message you left on my voicemail. When was the Notice to proceed issued? On the "formal" monthly reports, please include (copies of) photographs of critical and "typical" activities which occurred during the reporting period. Please note the direction of the view, and include the date of the photograph.

I have reviewed the Pre-construction Meeting Minutes (dated June 30, 1999) and have no comments.

When will you send me a current (estimated) contractor's schedule?

Thanks.



An employee-owned company

June 30, 1999

Ms. Susan Pelz III
Florida Department of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, FL 33619

RE:

Hardee County Permit No. 38414-001-SC

Specific Condition No. 6 and 7

Pre-Construction Meeting Notification

Construction Schedule and Progress Report



In accordance with the above referenced permit condition, please find enclosed a copy of the preconstruction meeting minutes. During that meeting we discussed issuing a Notice to Proceed to the contractor by the end of the day. This did not occur. Instead, the Clerk of the County determined that the contract would have to go before the Board of County Commissioners at their July 1, 1999 meeting before the County could execute the agreement and Notice could be issued.

Therefore, we are delaying compliance with Specific Condition No. 7 until the Board has taken final action, the County has executed the agreement, and we have a Notice to Proceed date. I will keep you informed weekly via e-mail of project progress beginning July 1, 1999.

Please call me if you have any questions or comments regarding the meeting minutes or the project schedule.

Very truly yours,

David E. Deans, P.E.

Senior Vice President

Enclosure

G:\ENV\COMMON\WASTEMAN\HARDEE\CONST\DEP63099.WPD

c: J. Williamson, Hardee County K. Callahan, PBS&J 07-862.36

# HARDEE COUNTY LANDFILL PRE CONSTRUCTION MEETING Friday, June 18, 1999

Name	Company	Phone/Fax
Nick de Zavodow	•	941-644-7082 0-941/644-7082 3-941/646-0296
Gan Jordan Gerald A. Pet-s	Eclipse/Omni Eclipse/Omai	• •
Rodney Wlank STEVE MORGAN	Ardaman & Assoc FORF- SW	941-573-0858 (813) 744-6100 X385
Susan Pela	FDEP-SW	813-744-6100 x 386
Janice Williamson Dunesa Carver	Hardee Co. Narcke Co	941-773-5089 941-773-5089
Bobby Penner	PBSFJ	352.498 5019
Dave Deans Kevin Callahan	PBS\$J PBS\$J	407-647-7275 407-339.7275

# Hardee County Landfill Lateral Expansion and Leachate Storage Tank Facility

#### PRECONSTRUCTION MEETING

Friday, June 18, 1999

#### **AGENDA**

- 1. Preliminary project schedule:
  - a) Submit to Engineer for review a minimum of ten (10) days prior to meeting date.
- 2. Critical work sequencing: Relationships and coordination with other contracts and/or work and continuing landfill operation.
- 3. Major equipment deliveries and priorities.
- 4. Project coordination and control.
- 5. Procedures and processing of:
  - a) Field decisions.
  - b) Proposal requests.
  - c) Submittals.
  - d) change orders.
  - e) Applications for payment.
- 6. Submittal of Shop Drawings.
- 7. Adequacy of distribution of Contract Documents.
- 8. Procedures for maintaining Record Documents.
- 9. Use of premises:
  - a) Office, work and storage areas.
  - b) Owner's requirements.
  - c) Access and traffic control.
- 10. Construction facilities, controls and construction aids.
- 11. Temporary utilities.
- 12. Safety and first aid procedures.
- 13. Check of required Bond and Insurance certifications.
- 14. Completion time for contract and liquidated damages.
- 15. Request for extension of contract time.
- 16. Request for a weekly job meeting for all involved.
- 17. Security procedures.
- 18. Procedures for making partial payments.
- 19. Guarantee on completed work.
- 20. Equipment to be used.
- 21. Staking of work.
- 22. Project inspection.
- 23. Labor requirements.



- 24. Laboratory testing of material requirements.
- 25. Inventory of material stored on site provisions.
- 26. Requirements of railroads, highway departments, and other organizations.
- 27. Rights-of-way and easements.
- 28. Housekeeping procedures.
- 29. Liquidated damages.
- 30. Posting of signs.
- 31. Pay request submittal dates.
- 32. Equal opportunity requirements.
- 33. Permits.

G:\ENV\COMMON\WASTEMAN\HARDEE\CONST\AGENDA.WPD

# Hardee County Landfill Lateral Expansion and Leachate Storage Tank Facility Minutes of Preconstruction Meeting Friday, June 18, 1999

#### Attending:

Kevin Callahan, PBS&J Construction Services
Bobby Pinner, PBS&J Construction Services
David Deans, PBS&J, Inc.
Gerald Petro, Eclipse/Omni
Nick deZavodow, Eclipse/Omni
Pam Jordan, Eclipse/Omni
Janice Williamson, Hardee County
Teresa Carver, Hardee County
Rodney Mank, Ardaman & Associates
Susan Pelz, FDEP
Steve Morgan, FDEP

- 1. Description of the Project: This is the construction of the geosynthetic liner to connect to the existing liner and the construction of a leachate collection system, two leachate storage tanks and a truck loading facility and associated piping.
- 2. Project Time: This is a contract 240 days to substantial completion plus 30 days to final completion for a total of 270 days. There is a 42-day, 6-week window for the construction of the liner and leachate collection system and a 15 consecutive weekday window for the construction of the synthetic liner.
- 3. Liquidated Damages for this Project: \$1,000/day from substantial completion; \$300/day from final completion; and \$1,000/day for every day past the inspection window periods.
- 4. Notice to Proceed: Has not been issued yet. County intent was to have the Contract Documents signed today and the Notice to Proceed issued by close of business.
- 5. Preliminary Project Schedule: Submitted by the Contractor for review. No other contractors will be working on site, but the County will be operating the landfill and the general public will be coming in. Therefore, the Contractor will have to coordinate with the County. There will be a maintenance of traffic requirement so that the County and the public can get up to the landfill itself.
- 6. Major Equipment Deliveries and Priorities: The longest lead items will likely be the pumps and the tanks. The County has elected to stay with the base bid, the painted tank.



- 7. Project Coordination Control: This is an existing active landfill and there will be times when the County has to have access to certain parts of the site. The Contractor and the County will need to coordinate on a daily basis as required. Processing of field decisions will be done as long as they do not involve any time or money for issues that can be resolved in the field and are not a deviation from the plans. If issues involve any kind of time extension or any kind of money, they will need to be put into writing and formally submitted. The County may initiate a proposal request if there is something they want to change.
- 8. Submittals: Submittals are to be sent to Dave Deans at the PBS&J Winter Park address.
- 9. Change Orders: Any change orders coming up will be initiated from the Winter Park office and they will be submitted to the County for review and approval.
- 10. Billing Schedule: The contract calls for the billing to be submitted within 10 days after the close of the month. The final billing schedule will be submitted by the Contractor after the Engineer has reviewed the scheduled of values submitted by the Contractor.
- 11. Record Drawings: The County has a requirement to submit a significant amount of as-built information to DEP. Therefore, the Contractor will need to keep record drawings current and accurate as the project progresses. This information will become part of the construction certification to get permission from FDEP to operate the landfill. Therefore, the record data collection is a permitting issue.

The Contractor expressed concern about making sure that the plastic barrier is tied in to the clay layer. The borings indicate that the clay layer is irregular, and he is concerned that after they start exposing the clay layer, they may all of a sudden lose it or it's down at 30 or 40 feet. He's looking ahead to try to keep away from any shutdowns at the operational level, and thought they could do some exploratory work to expose the clay liner in a number of places to develop a real good idea where it is before they start the actual excavation.

The six week period wouldn't start until after this exploratory work is done. Then Bobby Pinner will come on site and will start the real construction.

- 12. Use of the Premises, Offices, Work and Storage Areas: Contractor will need to bring their own facilities on site. The Contractor is planning to bring two trailers in.
- 13. Temporary Utilities: The Contractor will need to provide for drinking water and sanitary facilities. There is a transformer located at the east end of the ditch alongside the access road.
- 14. Site Specific Safety Plan: The Contractor submitted this plan for review. The Engineer expressed concern that this is a landfill and there is a huge pile of solid waste out there that generates methane and hydrogen sulphide. The Contractor should be aware of these circumstances and that gasses might settle down in the bottom of trenches, Trench safety procedures and confined space entry procedures must be followed.



- Job Meetings: For the six weeks when all the underground work is being done, the Engineer and the Contractor will get together to work out what makes sense for a meeting schedule. At least once a month there will be a meeting to review and discuss what has been done and how things are going on the job.
- 16. Security: The landfill site is a locked facility when not in operation. The Contractor needs to make arrangements with the County on how to make a double lock on the gate so that they can get their people and equipment in earlier in the morning than the landfill opens for business. The general public uses this facility. People bring in things in pickup trucks and private vehicles, so the Contractor will need to have a secured area over by their construction for all their property, whether onsite materials, stored equipment or other items. The Contractor will be responsible for his own property.
- 17. Procedures for Partial Payments: If the Contractor has material stored on site which he wants to get paid for, with a copy of the invoice, that will be considered.
  - For the liner material stored on site, we will require the conformance testing results before making it eligible for payment as stored material.
- 18. Layout and Stationing of the Work: The Contractor is responsible for all surveying and the gathering of record drawing data.
- 19. Project Inspection: Bobby Pinner is going to be on site full time when all the underground work is being done. Once the Contractor completes that six-week period, we are going to have one of the County's employees serve as the County's representative on site, and PBS&J will be making periodic visits to inspect the construction of the tank and the pump station system. The County's employee will have full access to PBS&J and we can come down any time there is a problem or an issue that needs to be addressed.
- 20. Labor Requirements: This is not a federally-funded project and there are no special labor requirements.
- 21. Laboratory Testing: We will have to schedule Ardaman at least 24 hours in advance. Most of the testing should happen within the six week period. There will be some additional testing when the concrete slab for the storage tank is being constructed. We are also providing liner CQA services for this project so when the liner is being installed, we will have a liner inspector out there in addition to Bobby, who will be following the CQA plan that we have for liner installation. We will be pulling liner seam samples and sending them off to our lab for destructive testing. The liner cannot be covered until we have verification back that the welds have passed.
- 22. Inventory of Stored Materials: This is related to the partial payments.
- 23. Underground Utilities: There is a force main from the baler facility to the leachate pond. The drawings show this line is to be tied into the new pump station. There's also a water line on the east side of the existing road as shown drawing on C-2.



#### 24. Other Discussions:

- The dewatering plan was submitted by the Contractor for review. The actual volume of water to be managed will not be known until they start pumping and draw down the water table.
- The secondary containment calculations for the tanks need to be submitted to FDEP.
- FDEP requested a copy of our response to the Contractor regarding his question on the gradation on the filter media.

The Engineer and the Contractor will coordinate on the locations on the photos to be taken so we get good quality photos and have a good photographic record of the site.

G:\ENV\COMMON\WASTEMAN\HARDEE\CONST\MINUTES.WPD



RB H

## Hardee County Landfill Lateral Expansion and Leachate Storage Tank Facility

10:00-

#### PRECONSTRUCTION MEETING

Friday, June 18, 1999

#### **AGENDA**

1	Droliminary project school.de.
1.	Preliminary project schedule:  a) submit to Engineer for review a minimum of ten (10) days prior to meeting
	<ul> <li>a) submit to Engineer for review a minimum of ten (10) days prior to meeting date.</li> </ul>
2.	Critical work sequencing: Relationships and coordination with other contracts and/or
۵.	work and continuing landfill operation.
3.	Major equipment deliveries and priorities.
4.	Project coordination and control.
5.	Procedures and processing of:
	a) Field decisions.
	b) Proposal requests.
	c) Submittals.
	d) Change orders.
	e) Applications for payment.
6.	Submittal of Shop Drawings.
7.	Adequacy of distribution of Contract Documents.
8.	Procedures for maintaining Record Documents.
9.	Use of premises:
	a) Office, work and storage areas Contractor will have 2 tragilers
	b) Owner's requirements.
	c) Access and traffic control.
10.	Construction facilities, controls and construction aids.
11.	Temporary utilities.
12.	Safety and first aid procedures.
13.	Check of required Bond and Insurance certifications.
14.	Completion time for contract and liquidated damages.
15.	Request for extension of contract time.
16.	Request for a weekly job meeting for all involved.
17.	Security procedures. LF 730 <sub>A</sub> -
18.	Procedures for making partial payments.
19.	Guarantee on completed work.
20.	Equipment to be used.
21.	Staking of work.
22. 23.	Project inspection.
23. 24.	Labor requirements.
24. 25.	Laboratory testing of material requirements. — Andaman
43.	Inventory of material stored on site provisions.

26. Requirements of railroads, highway departments, and other organizations.
27. Rights-of-way and easements.
28. Housekeeping procedures.
29. Liquidated damages.
30. Posting of signs.

31. Pay request submittal dates. 18 p.f. mo

32. Equal opportunity requirements.

33. Permits. - electrical

#### HARDEE COUNTY **BOARD OF COUNTY COMMISSIONERS** 412 WEST ORANGE STREET. ROOM A-203

**WAUCHULA, FLORIDA 33873** 941/773-6952 or 941/773-9430 Fax 941/773-0958

Minor L. Bryant - Dist. I 773-9131 C. N. Timmerman - Dist. II 1685 St. Rd. 62 Bowling Green, FL 33834

773-0237 P. O. Box 1709 Wauchula, FL 33873

Gordon R. Norris - Dist. III 735-0792 E. Milton Lanier - Dist. IV 735-1372 1645 Paula Drive Wauchula, FL 33873

6894 Lanier Road Zolfo Springs, FL 33890

Walter B. Olliff, Jr. - Dist V 773-4478 P. O. Box 874 Wauchula, Fl 33873

#### 1999 SCHEDULE OF REGULAR MEETINGS

<u>First Quarter</u>				Second Quarter						
January	14	2	28		A	April	08	2	22	
February	11	2.	5		N	Мау	06	2	20	
March	11	2:	5		J	une	03	1	7	
Third Quarter					Fourth Quarter					
July	0	1	15	29	O	ctober	0′	7	21	
August	1.	2	26		No	ovembe	er 0	4		
September	0	9	23		De	ecembe	r 02	2	16	30

Meetings begin at 8:30 a.m.

Chairman - Gordon R. Norris Vice-Chairman - Minor L. Bryant

County Manager Gary Oden 773-9430 Asst. County Manager J. R. Prestridge 773-5089

County Attorney Gary Vorbeck 494-5757

Bobby Perner - PBSJ RPR (Resident Project Agreesentative) 240 days to subst. +30 to Final = 260 days total NTP (Notice to Proceed) won't be issued intil changes to contract Are reviewed & appar by Harder Co (maybe today) Contractor gave PBSI preliminary schedule
Contractor will be devatining to frattic on west side -- if too wet, it proffice may need to go on west side - liver will cut reass east road so it will be closed for a short time Critical equipment -- les piping & MH first

(-denotering first then LCS piping & MH)

- tanks - base bid (painted tanks) - pumps no trust delivery commitment Field decision--No time on & , No divigtion - contractor can do -if time & on dev - contractor submit to PBSJ = Contractor will submit to PBSJ & Onl (submittals today) PBSS will dwelg conformed does after contract new approved - will pravide to Confronte

Contractor wants to de some explonation, work

- to find actual elevations of clay layer

to Avoid delays the from clay layer dipping

down (notification acquit 5th.a) Dring indergnand Activities (buks); No weekly meeting
- Daily construction logs (contractor) - hasn't gove the INTO on lines yet (Comprise ?) LF site superintendent will be ON site to inspect tank & MH and installation (unking under Debus supervision)

Bobby will be ensite during liver & Les (6 w/cs) \* Contractor (not summe of liver (QA)

- Dave Deans explained they will have CQA person during
liver installation Leachafe live From MRF--see Drw 3 of 16 (C-2) Dewatering Plan - Submitted to PBSJ today

- centrate and discussed well point spacing.

- not planning to do re-infetration

- temporary lived pand to pump downtering lighteds

Excounting & Brilefill of line-- Comanco wants to mobilize once Contractor spor that's today Comogsted Pipe Submittal-Excavation & Backfill Geotextite (gnarel waap) MH, MH drw \* Problem w/ gradation on filter aggregate gradation Fla Agrastone - Mosele tranks instead of glass lived

Mobilizing as (bringing travilers) Next Tuesday

estant dewatering & then 4 wks to start truck



June 15, 1999



Ms. Susan J. Pelz, P.E. Solid Waste Section
FDEP - Southwest District
3804 Coconut Palm Drive
Tampa, FL 33619

Re: Hardee County Class I Landfill

Permit No. 38414-001-SC

Notification of Preconstruction Meeting

Dear Ms. Pelz:

In accordance with Specific Condition No. 6 of the above-referenced permit, a preconstruction meeting for this project is tentatively scheduled for June 18, 1999 in Hardee County. The location and time of this meeting are still pending. As soon as these arrangements are made, I will notify you by fax.

Also, I will call you to discuss the need to meet on site since there were no significant plan changes from the permit drawings approved by the Department.

Very truly yours,

David E. Deans, P.E.

Senior Vice President

c: J. Williamson, Hardee County

07-862.35

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# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

# CONVERSATION RECORD

nate 4/20/99	Subject States of construction
ime //50	Permit No.
1 JR / SANice	County
Representing	
[ ] Phoned Me [ ] Was	Called [ ] Scheduled Meeting [ ] Unscheduled Meeting
Other Individuals Involved in Conve	ersation/Meeting
15p left message	•
Summary of Conversation/Meeting	
- states of construction	√ >
- went out &	bid
- MAG pick con	structor in vext was month on so
- hald we was a	nutlict between engineer &
Contes	Attorney over terms of contrast
- bidders must	- submit bid by
the pre-	bid conference
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5/20 ANA	and bid
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(continue on another	Signature
sheet, if necessary)	PET
	Title
PA-01	

1/96 pap

# Memorandum

# Florida Department of Environmental Protection

#### PERMIT COVER MEMO

	TO: _x RICK GARRITY, Director of District Management
	FROM/THROUGH:
for	William Kutash Kh IN R, Robert Butera, P.E. WILLS, SUPERVISOR SUPERVISOR ENGINEER
	DATE: December 18, 1998
	FILE NAME: Hardee Co. LF-Liner & Tank PROGRAM: Solid Waste COUNTY: Hardee
	TYPE OF PERMIT ACTION: X ISSUE DENY MODIFY TRANSFER OWNER NOD PUBLIC NOTICE INTENT TO ISSUE
	PUBLIC NOTICE PERIOD CLOSED? YES-12/18/98 PETITION FILED? NO
	<b>PERMIT SUMMARY:</b> This permit is for construction of a leachate storage tanks system, and liner for the fourth side of the landfill. The liner will be a 60 mil HDPE geomembrane tied into in-situ clay bottom "liner".
	PROFESSIONAL RECOMMENDATION: X APPROVE DENY
	<b>EVALUATION SUMMARY:</b> The applicant has provided sufficient information to demonstrate compliance with Department Rules. Several meetings were held with the applicant during permit processing and after the application was deemed complete, to negotiate acceptable conditions to both the operation and construction permits.
	Application received - June 27, 1997.  Application complete - April 27, 1998.  Department processing time - 266 days (to 11-19-98).  Total processing time - 512 days (to 11-19-98).
	Intent - 11-19-98, Waiver expires 12-3-98, clock stopped w/14 days remaining? Proof of Publication Rec'd - 12-04-98 Application Active - 12-18-98 (14 days remaining?)

DAY 90/30 FOR THIS ACTION IS: TODAY

	' Permits	38414-00	1-SC	
se side?	SENDER:  Complete items 1 and/or 2 for addition Complete items 3, 4a, and 4b.  Print your name and address on the	onal services.		I also wish to receive the following services (for an extra fee):
/ers	card to you.  Attach this form to the front of the mailpiece, or on the back if space does not  1. [			1. Addressee's Address
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First-Class Mail United States Postal SERVICE Rostage & Fees Paid USPS\_\_ Permit No. G-10 ● Print your name address, and ZIP Code in this box ● 3804 Coconut Palm Drive иератиные SOUTHWEST DISTRICT **41**9/1352



# Department of Environmental Protection

Lawton Chiles Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretary

December 18, 1998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

NOTICE OF PERMIT

Hardee County Board of County Commissioners Mr. J.R. Prestridge, Solid Waste Superintendent 685 Airport Road Wauchula, Fl. 33873

RE: Hardee County Regional Landfill, Liner & Tank Permit No.: 38414-001-SC, Hardee County

Dear Mr. Prestridge:

Enclosed is Permit Number 38414-001-SC, issued pursuant to Section(s) 403.087(1), Florida Statutes.

Any party to the Order (permit) has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Richard D. Garrity, Ph.D.

Director of District Management

Southwest District

Hardee County Board of County Commission
Mr. J.R. Prestridge, Solid Waste Superintendent
Permit No.: 38414-001-SC

Page Two

#### CERTIFICATE OF SERVICE

This undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on <a href="DEC.18,1998">DEC.18,1998</a> to the listed persons.

date stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(10), Florida Statutes, with the designated Department, Clerk, receipt of which is hereby acknowledged.

> MANUL SINGLA Clerk

Copies furnished to:

RDG/sjp Attachment

Elected Officials Notification List
Hardee County Board of County Commissioners
Janice Williamson, Hardee Co., 685 Airport Road, Wauchula, Fl. 33873
David Deans, P.E., PBSJ, 1560 Orange Ave., Ste. 700,
Winter Park, Fl. 32789

Douglas Beason, OGC Tallahassee Robert Butera, P.E., FDEP Tampa Danielle Nichols, FDEP Tampa (Permit Notebook)



# Department of Environmental Protection

Lawton Chiles Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretary

#### PERMITTEE

Hardee County Board of
County Commissioners
Mr. J.R. Prestridge,
Solid Waste Superintendent
685 Airport Road
Wauchula, Fl 33873

#### PERMIT/CERTIFICATION

GMS ID No: 4025C30001

Permit No: 38414-001-SC

Date of Issue: 12/18/1998

Expiration Date: 02/01/2000

County: Hardee Lat/Long: 27 34 10 N 81 47 01 W

Sec/Town/Rge: 35/33S/25E
Project: Hardee County
Class I Landfill
Construction

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-3, 62-4, 62-302, 62-330, 62-520, 62-522, and 62-701. The above named permittee is hereby authorized to perform the activities 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 construct site improvements at the Class I landfill (approximately 12.5 acres), referred to as the Hardee County Regional Landfill, subject to the specific and general conditions attached, located at 675 Airport Road, east of the City of Wauchula, Hardee County, Florida. The specific conditions attached are for the construction of:

- 1. Landfill liner and
- 2. Leachate collection and storage tanks system

#### General Information -Construction:

60 mil HDPE Geomembrane Seams:Shear - 120 ppi & FTB [ref. CQAP, Table 2-3]
Peel - 85 ppi & FTB [ref. CQAP, Table 2-3]

Hydraulic Conductivity:

Filter Aggregate: min. 1 x 10-3 cm/sec [ref. CQAP, 2.1.1.4.] Drainage Sand: min. 1 x 10-3 cm/sec [ref. CQAP, 2.1.1.5.]

Clay layer: max. 4.3 x 10-7 cm/sec [ref. SC#2.a(1), App. C; SC#2.a(2), Att. G].

#### Replaces Permit No.: N/A, new

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

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Page 1 of 24.

#### 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 403-859 through 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 personal 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.

Hardee County BOCC Mr. J.R. Prestridge, SW Superintendent

#### 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 Statues 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.

#### GENERAL CONDITIONS:

- 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.
- 16. In the case of an underground injection control permit, the following permit conditions also shall apply:
  - (a) All reports or information required by the Department shall be certified as being true, accurate and complete.
  - (b) Reports of compliance or noncompliance with, or any progress reports on, requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
  - (c) Notification of any noncompliance which may endanger health or the environment shall be reported verbally to the Department within 24 hours and again within 72 hours, and a final written report provided within two weeks.
    - 1. The verbal reports shall contain any monitoring or other information which indicate that any contaminant may endanger an underground source of drinking water and any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.
    - 2. The written submission shall contain a description of and a discussion of the cause of the noncompliance and, if it has not been corrected, the anticipated time the noncompliance is expected to continue, the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance, and all information required by Rule 62-28.230(4)(b), F.A.C.
  - (d) The Department shall be notified at least 180 days before conversion or abandonment of an injection well, unless abandonment within a lesser period of time is necessary to protect waters of the State.

#### GENERAL CONDITIONS:

- 17. The following conditions also shall apply to a hazardous waste racility permit.
  - (a) The following reports shall be submitted to the Department:
    - 1. Manifest discrepancy report. If a significant discrepancy in a manifest is discovered, the permittee shall attempt to rectify the discrepancy. If not resolved within 15 days after the waste is received, the permittee shall immediately submit a letter report, including a copy of the manifest, to the Department.
    - 2. Unmanifested waste report. The permittee shall submit an unmanifested waste report to the Department within 15 days of receipt of unmanifested waste.
    - 3. Biennial report. A biennial report covering facility activities during the previous calendar year shall be submitted by March 1 of each even numbered year pursuant to Chapter 62-730, F.A.C.
  - (b) Notification of any noncompliance which may endanger health or the environment, including the release of any hazardous waste that may endanger public drinking water supplies or the occurrence of a fire or explosion from the facility which could threaten the environment or human health outside the facility, shall be reported verbally to the Department within 24 hours, and a written report shall be provided within 5 days. The verbal report shall include the name, address, I.D. number, and telephone number of the facility, its owner or operator, the name and quantity of materials involved, the extent of any injuries, an assessment of actual or potential hazards, and the estimated quantity and disposition of recovered material. The written submission shall contain:
    - 1. A description and cause of the noncompliance.
    - 2. If not corrected, the expected time of correction, and the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
  - (c) Reports of compliance or noncompliance with, or any progress reports on, requirements in any compliance schedule shall be submitted no later than 14 days after each schedule date.
  - (d) All reports or information required by the Department by a hazardous waste permittee shall be signed by a person authorized to sign a permit application.

- 1. Landfill Designation. This site shall be classified as a Class I landfill and shall be operated in accordance with all applicable requirements of Chapters 62-3, 62-4, 62-302, 62-330, 62-520, 62-522, and 62-701, Florida Administrative Code (F.A.C.), and all applicable requirements of Department Rules.
- 2. Permit Application Documentation.
  - a. This permit is valid for construction of the liner system and leachate storage tanks system for the Class I landfill in accordance with Department rules, the conditions of this permit, and the reports, plans and other information, submitted by Post, Buckley, Schuh and Jernigan, Inc. (PBSJ) (or as otherwise noted) as follows:
    - 1) Hardee County Regional Landfill, Application for Construction Permit, dated June 26, 1997 (received June 27, 1997):
    - 2) Response to Request for Additional Information dated July 25, 1997 for the Application for Construction Permit, dated December 31, 1997 (received January 2, 1998);
    - 3) Response to Request for Additional Information dated January 30, 1998 for the Application for Construction Permit, dated April 24, 1998 (received April 27, 1998);
    - 4) Construction Quality Assurance Plan, dated June 1997 (received June 27, 1997), including pages dated April, June and December 1997, and February, March and April 1998;
    - 5) Technical Specifications, dated June 1997 (received June 27, 1997), including pages dated September and December 1997; February, March and April 1998; and Dewatering, Section 02140 revised October 16, 1998 (received October 30, 1998);
    - 6) The following Plan Sheets dated June 1997 (received June 27, 1997):
      - a) Sheet M-1, "Leachate Storage Tanks and Yard Piping Plan,"
      - b) Sheet M-2, "Submersible Leachate Pump Station Plan, Section and Details,"
      - c) Sheet M-6, "Miscellaneous Details,"
      - d) Sheet M-8, "Existing Leachate Pump Station Demolition Plan,"
      - e) Sheet E-1, "Leachate Storage Tanks Pump Station and Lift Station Electrical Plan,"
      - f) Sheet S-1, "General Notes,"

(Specific Condition #2.a(6) cont'd)

- g) Sheet S-2, "Truck Loading Facility and Pump Station Plan, Section and Details;"
- 7) The following Plan Sheets including revisions dated September 1997 (received January 2, 1998):
  - a) Sheet M-3, "Leachate Storage Tanks and Truck Loading Pump Station Plan,"
  - b) Sheet M-4, "Leachate Storage Tanks Sections and Details,"
  - c) Sheet M-5, "Truck Loading Facility and Pump Station Sections, Detail and Schedule,"
  - d) Sheet M-7, "Miscellaneous Details;"
- 8) The following Plan Sheets including revisions dated September 1997 and April 1998 (received April 27, 1998):
  - a) Sheet C-1, "Site Plan,"
  - b) Sheet C-2, "Construction Plan,"
  - c) Sheet C-3, "Leachate Storage Area Grading and Drainage," and
  - d) Sheet C-4, "Sections and Details;"
- 9) Sheet 5 of 5, including revisions April, June and August 1997, "Gas Management System and Miscellaneous Details at Closure" (received January 2, 1998); and
- 10) Information received via fax dated November 12, 1998 regarding the clay/geomembrane tie-in.
- b. Activities approved as part of this permit include construction of the landfill liner system, leachate collection and storage tanks system, groundwater monitoring wells, gas monitoring probes and related construction. This permit does not authorize the operation of the systems listed above.
- c. "Engineer" shall refer to the Engineer of Record as defined in the documents referenced in Specific Condition #2.a., above.
- d. The construction activities shall be completed in accordance with Department rules, the information listed in Specific Condition #2.a., above, and the conditions of this permit. The construction activities authorized by this permit shall be completed no later than October 1, 1999, or as otherwise approved by the Department.

Hardee County BOCC Mr. J.R. Prestridge, SW Superintendent

#### SPECIFIC CONDITIONS:

- 3. Permit Modifications. Any construction not previously approved as part of this permit will require a separate Department permit unless the Department determines a permit modification to be more appropriate. 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.
- 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 Rule 62-701.330(3), F.A.C.
- 5. Pre-Construction Submittals.
  - a. At least thirty (30) days prior to <u>initiation</u> of <u>any</u> construction activity, unless otherwise specified, the permittee shall submit the following information to the Department:
    - 1) A complete set of Plans, Specifications and CQA Plan to be used for construction which includes all changes (i.e., all additions, deletions, revisions to the plans previously approved by the Department). Significant changes in the plans, as determined by the Department, shall require a permit modification. All changes in the plans shall be noted on the plans and accompanied by a narrative indicating the change, the cause of the deviation, and a re-certification of the alternate design by the design engineer. These alternate designs shall be approved by the Department prior to construction. If no changes have been made to the construction plans, Specifications or CQA Plan, the permittee shall notify the Department in writing that no changes have been made, and re-submittal of these documents will not be required prior to construction.
      - 2) The role and name of the specific company/organization for each of the parties shown in Figure 1-1, CQA Plan.
  - b. At least thirty (30) days prior to initiation of construction activities for the leachate storage tanks system, the permittee shall submit the following information to the Department:
    - 1) Calculations which verify the secondary containment capacity. [Specifications Sections 11200-1.04.A., 1.06.A.2. and 13200-1.04.C., 1.05.A.3.]

(Specific Condition #5.b. cont'd)

- 2) The method of anchoring the leachate storage tanks to the secondary containment. [Specification Sections 11200-1.04. and 13200-1.04.]
- 3) Details of the leachate storage tanks cathodic protection system. [Specification Sections 11200-1.04. and 13200-1.04.]
- c. At least ten (10) days prior to initiation of geomembrane liner installation, the permittee shall submit the following information to the Department:
  - 1) Installer's Quality Control Plan [Specification Section 02776-1.03.A.2(e)],
  - 2) Geomembrane Manufacturer's Material test results [Specification Section 02776-1.03.A.2(h)],
  - 3) Alternative seaming processes other than extrusion of fusion welding [Specification Section 02776-1.03.A.2(n)], and
  - 4) Booting details [Specification Section 02776-5.01.A.2(c)].
- 6. Pre-Construction Meeting Notification. Department Solid Waste Permitting staff shall be notified 72 hours before all pre-construction meetings. Prior to initiating construction activities, the permittee shall make arrangements for the Engineer of Record to meet on site and discuss all plan changes with Department Solid Waste Permitting Staff of the Southwest District Office. A copy of the minutes from the pre-construction conference shall be submitted to the Department within two (2) weeks of the conference.
- 7. Construction Schedule and Progress Report.
  - a. No later than one (1) week after the pre-construction conference, the owner or operator shall submit a construction schedule which includes estimated dates for each portion of the construction to the Department. The Engineer of Record or another qualified professional engineer shall make periodic inspections during construction to ensure that design integrity is maintained.

(Specific Condition #7. cont'd)

- b. An updated construction schedule and progress report shall be submitted to the Department monthly. The monthly progress report should be submitted in an appropriately labeled three-ring binder of sufficient size to store the monthly progress reports for the entire project. The monthly progress reports shall include, but not be limited to:
  - 1) A narrative explaining the status (and any delays) of major stages of the construction (i.e. liner, tank, piping, etc.).
  - 2) A summary of submittals and change order requests [Specification Section 01340-1.01.C.], and
  - 3) Color copies of photographs which are representative of the typical construction activities for the reporting period, and photographs which show major stages of construction such as the liner toe tie-in. [Specification Section 01380]

#### 8. Construction Tolerances.

- a. Sufficient spot elevations (grade shots) of the leachate collection trenches shall be recorded to demonstrate, at the 98% confidence level, that the leachate collection system has been constructed to the slopes and grades shown on Sheet C-2 [ref. SC#2.a(8)(b)]. In the event that the frequency required by the Specifications is not sufficient to provide this demonstration, additional spot elevations shall be taken. [Specification Section 02776-7.02.B.] This information shall be included with the Record Documents (see Specific Condition #13, below).
- b. As-built topographic surveys shall demonstrate that each liner component phase and leachate collection system was constructed within the tolerance (0.1 feet) required by the Drawings and Specifications. [Specification Sections 01050-1.04.B. and 02220-3.10.A.]
- c. As-built elevations of the geomembrane/clay tie-in (i.e. toe of the geomembrane) shall be taken. These elevations (grade shots) shall be taken a minimum of every 100 lineal feet of liner trench and at locations where the underlying clay abruptly changes elevation. In areas which exhibit inconsistent subsurface conditions, the grade shots shall be taken more frequently.

(Specific Condition #8. cont'd)

d. No later than 48 hours after completion of construction of the geomembrane subgrade, an as-built topographic survey shall be provided to the Engineer to verify conformance with the Drawings and Specifications. The geomembrane subgrade shall be accepted by the Liner Installer and Engineer in writing before placement of the geomembrane. [CQAP, Section 3.1.1., Specification Section 02776-5.01.B.2.]

#### 9 Construction Quality Assurance.

- a. Liner systems shall have a construction quality assurance plan to provide personnel with adequate information to achieve continuous compliance with the construction requirements. The Construction Quality Assurance Plan shall be in accordance with Rules 62-701.400(7) and (8), F.A.C., the CQA Plan [ref. SC#2.a(4)], and the conditions of this permit. The professional engineer or his designee shall be on-site at all times during construction (including liner system, and leachate collection and storage tanks system) to monitor construction activities.
- b. A complete set of construction drawings and shop drawings, which include daily additions, deletions and revisions, shall be maintained on-site at all times for reference. Drawings which show the locations of geomembrane panel seams and repairs shall be kept on-site at all times for reference.
- c. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to the land, surface water or groundwater outside the liner system or existing leachate ditch, except as provided in Specific Condition #21 of this permit, at any time during the construction activities.
- d. Unsatisfactory, defective or non-conforming work shall be reported to the Engineer and shall be corrected, or the reasons for not correcting the work shall be recorded and maintained onsite for reference and inspections. [CQAP 1.2.7.5.b. page 1-11] Documentation of the corrections or reasons for not correcting the work shall be submitted with the Record Documents required by Specific Condition #13.

(Specific Condition #9. cont'd)

- e. Construction activities such as geomembrane seaming, QA/QC testing of the geomembrane or soil materials, surveying, etc. shall not be carried out in non-daylight hours without prior Department approval. If these activities will be conducted during nighttime hours, the Department shall be notified at least 1 week in advance to allow for Department observation. This notification shall include a description of the methods which will be used to provide adequate illumination to ensure that the quality of the construction is not compromised. [Specification Section 02776-5.01.D.8(d)]
- f. The liner trench excavation bottom shall be maintained free from standing water. [Specification Section 02220-3.01.B.3.] Except for the stormwater management system construction, no construction, including pipe laying, shall be allowed in water. Groundwater shall be maintained at least 12 inches below excavations. In the event that it appears that the excavation is being impacted by groundwater, the contractor shall take the corrective actions necessary to demonstrate that the groundwater is at least 12 inches below the bottom of the excavation. [Specification Section 02220-3.03.C.]
- g. Hydrostatic leak testing of the solid wall piping and manholes shall be completed prior to backfilling around the structures. [CQAP Section 5.4., Specification Sections 03800-3.02.B. and 15050-3.10.D.]
- h. The Site Specific Health and Safety Plan shall be kept onsite for reference and inspections. [Specification Section 01030-1.03.]
- i. Explosives shall not be used in this construction project without prior Department approval. [Specification Section 02220-1.01.B.3.]
- j. Sandbags or other temporary anchoring devices shall be removed prior to placement of materials (e.g. select common fill, clay backfill) over the geomembrane. [Specification Sections 02776-5.01.C.3(d)(5) and 5.01.D.11(f)]
- k. Where sod is used over lined areas, pegging of sod shall not damage the liner. [Specification Section 02934-3.03.C.]
- 1. All exterior painting shall be done only in dry weather. [Specification Section 09900-3.04.A.]

- (Specific Condition #9. cont'd)
  - m. At least one (1) week prior to the field holiday testing of the tank, the Department shall be notified to allow for observation. [Specification Sections 11200-3.01.E. and 13200-3.01.B.4.]

#### 10. Geosynthetic Materials and HDPE Piping.

- The permittee shall ensure that the clay layer which the geomembrane is keyed into is consistent with the clayey material described in the permit application [ref. SC#2.a(1), Appendix C and SC#2.a(2), Attachment G]. The geomembrane shall be keyed into clay material at an elevation no higher than +70 feet NGVD. [ref. SC#2.a(1), Appendix C] If the Contractor excavates to this depth and ties the geomembrane liner into a clayey material consistent with that shown in the boring logs referenced in this Specific Condition, then permeability testing will not be required. If the material which is encountered at this elevation is not consistent with the green to gray clay shown in the boring logs, the permittee shall ensure that the Contractor excavates to a depth sufficient to tie the geomembrane into a clay layer consistent with that shown in the boring logs. Department shall be notified immediately if the Contractor discovers that the clay material is not present at the expected If this is the case, the Department may require additional documentation or testing to ensure that the geomembrane has been sufficiently tied into the clay layer.
- b. The geomembrane shall be keyed a minimum of 1.5 feet into the clay layer in all locations. [Specification Section 02776-5.01.B.1.]
- c. Written acceptance of the subgrade by the geomembrane installer shall be provided to the Engineer prior to placement of the geomembrane on the subgrade. [Specification Section 02776-5.01.B.]
- d. The procedure used to temporarily bond adjacent geomembrane panels together shall not damage the geomembrane. [Specification Section 02776-5.01.D.3(b)]
- e. Geomembrane seaming activities shall only be conducted during daylight hours and within the weather requirements of the Specifications, unless otherwise specifically approved by the Department. [Specification Sections U2770-5.U1.C.3(C), 5.U1.D.6. and 5.01.D.8(d)]

(Specific Condition #10. cont'd)

- f. Conformance testing for the geosynthetic materials shall be in accordance with the CQAP Table 3-2, and Specification Sections 02550-2.03.B., 02776-2.02.B.4. and 02776-4.01. The geomembrane material shall meet the requirements listed in Specification Table 02776-A.
- g. The construction methods used shall minimize wrinkles. Excessive wrinkles shall be removed, and the areas repaired. Areas where wrinkles are removed shall be repaired and re-tested in accordance with the <u>Specifications</u> and <u>CQA Plan</u>. [CQAP Section 4.2.4.5., Specification Section 02776-5.01.C.3(d)(6) and 5.01.D.11(f)]
- h. The liner system shall not be damaged by excessive traffic. [Specification Section 02776-5.01.D.5(a)]
- i. Destructive tests of the geomembrane seams shall be taken at <a href="mailto:random">random</a> locations, at a frequency of one test location per 500 feet of seam. [CQAP Section 4.2.3.1., Specification Section 02776-5.01.D.10(b)]
- j. Geomembrane seams which are field tested "by hand", and appear to acceptable, shall also be tested by tensiometer to verify the adequacy of the weld. [Specification Section 02776-5.01.D(10)(e), CQAP Section 4.2.3.2.]
- k. Geomembrane seams shall meet the requirements of Specification Section 02776, Table 02776-B. Destructive tests conducted on the geomembrane field seams shall demonstrate that the actual shear strength is at least 90 percent of the yield strength of the geomembrane, and failure is outside of the seam area. Five samples shall be taken for strength testing. All of the samples shall meet the requirements for each test method (peel and shear) listed in Table 02776-B. The strength results shall not be averaged. [Specification Section 02776-5.01.D.7(b), 5.01.D.10(f)]
- During the construction of, and until the geomembrane is placed on, the geomembrane subgrade, the subgrade shall be inspected daily for signs of desiccation, excessive moisture, or other damage. In the event that the condition of the subgrade deteriorates, corrective actions shall be implemented immediately. Washouts or erosion of the geomembrane subgrade shall repaired immediately. [Specification Section 02776-5.01.B.5.]

(Specific Condition #10. cont'd)

- m. No geomembrane shall be placed in an area of the geomembrane subgrade that has become softened by precipitation or desiccated and cracked due to lack of moisture. No standing water or excessive moisture shall be allowed on the area to be lined before the geomembrane installation. [Specification Sections 02776-5.01.B.1. and 5.01.C.3(c)]
- n. HDPE pipe or fittings shall not be dropped during loading, unloading or placement. [Specification Section 02730-1.03.B.2.]
- o. Under no circumstances shall pipe be laid in water, and no pipe shall be laid when trench or weather conditions are unsuitable for such work. [Specification Section 02730-3.02.A.]

#### 11. Soil Materials.

- a. Soil materials, specified in Specification Section 02220, shall not include materials which were previously used for daily or intermediate cover or for berms around the working face of the landfill.
- b. Soil materials which contact the liner (above or below) shall not contain any sharp or granular objects exceeding 1/4-inch in diameter. [ref. SC#2.a(3), page 14; Specification Sections 02220-2.01.C and 02776-5.01.B.1.]
- c. The clay backfill (above the toe of the liner) shall be compacted to a minimum of 90% Standard Proctor density. [Specification Section 02220, Table 02220-A; CQAP Section 4.1.1.]
- d. Each layer of material being compacted (e.g. clay backfill and geomembrane subgrade) shall have a uniform moisture content and adequate compaction. [Specification Section 02220-3.06.B.2. and Table 02220-A]
- e. Crushed rock or gravel shall not be used to reinforce the geomembrane trench subgrade bottom (tie-in area) which may have become mucky as a result of construction activities.

  [Specification Section 02220-3.05 P]
- 12. Laboratory and Field Testing Requirements. Field and laboratory testing during the construction activities shall be conducted by a qualified testing laboratory, independent of the manufacturer or installer, representing the owner. A qualified field technician representing the owner shall provide full time, on-site inspection during construction. The field technician shall work under the supervision of a professional engineer registered in the State of Florida with experience in landfill liner construction.

- 13. Certification of Construction Completeness. Within sixty (60) days after all specified construction has been completed, and prior to the operation of the leachate storage tanks system, the following activities shall be completed:
  - a. The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer in charge of construction and quality assurance to the Department for approval, and shall arrange for Department representatives to inspect the construction in the company of the permittee, the engineer, and the facility operator.
  - b. The owner or operator shall submit Record Drawings/Documents showing all changes (i.e. all additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations).
  - c. The owner or operator shall submit a narrative indicating all changes in plans, the cause of the deviations, and certification of the Record Drawings/Documents by the Engineer to the Department.
  - d. The Groundwater Monitoring System requirements listed in Specific Condition #20 shall be complete.
  - e. The professional engineer in charge of construction quality assurance shall submit to the Department a final report to verify conformance with the plans and specifications in accordance with Rule 62-701.400(7) and (8), F.A.C.
  - f. The permittee shall request a modification of Operation Permit 38414-002-SO to allow operation of the leachate storage tanks system. This request shall be submitted with the Certification of Construction Completion.

#### 14. Record Drawings/Documents.

- a. The Record Documents shall demonstrate that the geomembrane was sufficiently keyed into a clay layer with material properties consistent with the clayer materials described in the PSI Geotechnical Report [ref. SC#2.a(1), Appendix C, Table 1 and SC#2.a(2), Attachment G).
- b. The Record Drawings/Documents referenced in Specific Condition #13, above, shall include, but not be limited to, the following information:
  - 1) All anchor trenches,

(Specific Condition #14.b. cont'd)

- 2) Documentation described in Specific Conditions #8 and #9.d.,
- 3) As-built invert elevations for the leachate collection pipes, as listed on <u>Sheet C-2</u> of the Drawings [Specification Section 01050-1.04.B.],
- 4) As-built elevations of the liner/clay tie-in (i.e. toe of the liner) required by Specific Condition #8.c.,
- 5) The "Daily Record of Work Progress" [CQAP Section 6, Attachment A],
- 6) Meeting Minutes from monthly progress meetings [Specification Section 01200-1.03.], and
- 7) As-built drawings showing the geomembrane panel installation layout. [Specification Section 02776-1.03.A(2)(1)] These drawings shall show the locations of fabricated and field seams, actual sampling and repair locations, and panel designations.
- 15. Control of Access. During construction, access to, and use of, the facility shall be controlled as required by Rule 62-701.500(5), F.A.C.
- 16. Control of Nuisance Conditions. The permittee shall be responsible for the control of odors and fugitive particulates arising from this construction. 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. The owner or operator shall control disease vectors so as to protect the public health and welfare.

#### 17. Facility Maintenance and Repair.

a. On or prior to the one-year anniversary date of initial use of the leachate storage tanks system, the manufacturer's authorized representative shall make a visual inspection of the tank interior coating and appurtenances; tank exterior coating and appurtenances; and the immediate area surrounding the tank. A written summary of this inspection shall be filed with the tank owner and the tank manufacturer. [Specification Sections 11200-3.05.A. and 13200-3.06.A.] The permittee shall submit a copy of the written report to the Department no later than thirty (30) days after receipt of the report from the tank manufacturer's authorized representative.

(Specific Condition #17.a cont'd)
In the event that deficiencies are noted by the tank inspector, a schedule for corrective measures shall be submitted to the Department within fifteen (15) days of the owner's receipt of the written inspection report. The corrective measures shall be completed within sixty (60) days of the date of the inspector's report, or as otherwise approved by the Department.

- b. In the event of damage to any portion of the landfill site facilities or failure of any portion of the landfill systems, the permittee shall immediately (within 24 hours) notify the Department of Environmental Protection explaining such occurrence and remedial measures to be taken and time needed for repairs. Written detailed notification shall be submitted to the Department within seven (7) days following the occurrence.
- c. In the event that any portion of the groundwater monitoring system is damaged, remedial measures shall be completed within sixty (60) days of the written notification specified in Specific Condition #17.b. above, unless otherwise approved by the Department.
- d. In the event that the stormwater or 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 #17.b. above, unless otherwise approved by the Department.
- 18. Stormwater System Management. The landfill shall continue to 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.
- 19. Gas, Leachate Surface Water and Ground Water Quality Monitoring. All gas, leachate, surface water and ground water monitoring shall be conducted in accordance with Permit No. 38414-002-SO.
- Monitoring wells MW-8 and MW-9 shall be constructed, and the following information submitted prior to the Certification of Construction Completion required by Specific Condition #13:

(Specific Condition #20. cont'd)

a. Documentation of the following for each well installed:

Well Identification
Aquifer monitored
Screen type and slot size
Screen length
Screen diameter
Elevation at top of casing
Elevation at ground surface

Boring (Lithology) Log
Total depth of well
Casing diameter
Casing type and length
Well seal and filter
pack type and thickness
SWFWMD construction

permit No.

- b. Within one week of well completion and development, each new well shall be sampled for the parameters listed in Rule 62-701.510(8)(a) and (d), F.A.C., to establish initial ground water quality for that well. Results of the sampling shall be submitted to DEP prior to the Certification of Construction Completion required by Specific Condition #13.
- c. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitoring wells (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, the Universal Transverse Mercator coordinates, and 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 number, 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. Approved locations for MW-8, MW-9, P-15, and P-16 are shown on Figure 3-1 (attached) [ref. SC#2.a(1), Appendix D].
- d. Piezometers P-15 and P-16, shall be constructed, and the information described in Specific Conditions #20.a., and #20.c. (above) shall be submitted prior to the Certification of Construction Completion required by Specific Condition #13.
- e. All field and laboratory work done in connection with routine groundwater monitoring shall be conducted by a firm possessing a Generic Quality Assurance Plan or a Comprehensive Quality Assurance Plan approved by the Department in accordance with Chapter 62-160, F.A.C. The Quality Assurance Plan must specifically address the sampling and analytical work that is required by the permit. The approved Quality Assurance Plan shall be followed by all persons collecting or analyzing samples related to this permit.

(Specific Condition #20. cont'd)

- f. All water quality monitoring analysis shall be reported on the Department's Groundwater Monitoring Report Form 62-522.900(2). The Sampling Report shall include the items listed in Rule 62-701.510(9)(a), F.A.C. The results shall be sent to the Solid Waste Section, Department of Environmental Protection Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8313.
- g. Gas Probes GP-1 through GP-9 are shown on Sheet 5 of 5 in the Plan Sheets entitled, "Gas Management System and Miscellaneous Details at Closure," [ref. SC#2.a(9)]. These probes shall be constructed, and the information described in Specific Conditions #20.a., and #20.c. (above), as appropriate, shall be submitted prior to the Certification of Construction Completion required by Specific Condition #13.
- 21. Management of Dewatering Fluids. Dewatering fluids from the trench excavation shall be either:
  - a. Managed as leachate and disposed of at a permitted wastewater treatment facility, if the fluid chemistry is the same as the site's leachate (no additional testing required) or;
  - b. Discharged to an on-site reinfiltration pond, if initial testing of the ground waters (i.e. dewatering fluids) to be removed indicates that it will not present a violation of ground water quality standards in excess of the background water quality, AND reinfiltration is conducted under the Department-approved plan which specifies sampling parameters, frequency, discharge rate and other pertinent information.
  - c. In the event that the option described in Specific Condition #21.b. (see also Option 1, Specification Section 02140-3.02.A.2.), is used, within 30 days of implementation, a leachate management plan shall be submitted to the Department for approval. This plan shall include, but not be limited to, sampling parameters, frequencies, discharge rate and other pertinent information. In no case shall use of the reinfiltration pond cause a violation of Department water quality standards.
- 22. **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.

Hardee County BOCC Mr. J.R. Prestridge, SW Superintendent

SPECIFIC CONDITIONS:

- 23. 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.
- 24. **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.

Executed in Tampa, Florida

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Richard D. Garrity, Ph.D.

Director of District Management

Southwest District

ERMIT NO.: 38414-001-SC Liner and Leachate Storage Tanks

#### ATTACHMENT 1

SPECIFIC CONDITION	SUBMITTAL DUE DATE	REQUIRED ITEM
2.d.	No later than October 1, 1999	Complete Construction
4.	180 days prior to expiration	Apply for permit renewal
5.a.	30 days prior to construction	Submit complete plans and specifications, noting changes; CQA Figure 1-1
5.b.	30 days prior to initiation of tank system construction	Submit tank anchorage details, cathodic protection details, secondary containment calculations
5.c.	10 days prior to liner installation	Submit Installer's QC Plan, GM mfg. material test results, alternative seaming procedures, boot details
6	72 hours prior to meeting	Notification of pre- construction meetings
6.	2 weeks after meeting	Submit minutes of pre- construction meeting
7.a.	1 week after pre- construction meetin	Submit construction schedule
7.b.	Monthly	Update construction schedule and progress report
9.e.	1 week prior to initiation	Notify of night activities
9.m.	1 week prior to testing	Notify of holiday testing
10.	Immediately (within 24 hours)	Notify if clay layer is not found at the expected elevation

# ATTACHMENT 1 (cont'd)

SPECIFIC CONDITION	SUBMITTAL DUE DATE	REQUIRED ITEM
13.	Within 60 days after construction is complete	Submit Certification of Construction Completion, Arrange for inspection, submit Record Documents, submit narrative describing all deviations, submit final report, request modification to Operation Permit
17.a.	No later than 30 days after completion	Submit tank mfg. inspection report
17.a.	Within 15 days of owner's receipt of inspection report	Submit schedule for corrective measures
17.a	Within 60 days of inspection report	Complete corrective measures
17.b.	Within 24 hours of occurrence	Notify the Department of damage to any portion of the landfill, groundwater monitoring or tanks systems
17.c.	Within 60 days of notification	Complete repairs to groundwater monitoring system
17.d.	Within 30 days of notification	Implement corrective actions to stormwater or leachate management systems
20.	Prior to submittal of Certification Documents	Groundwater monitoring system requirements complete
21.	Within 30 days of implementation	Submit leachate management plan for reinfiltration pond

# AFFIDAVI F PUBLICATION

# The Herald-Advocate

STATE	OF.	FLUI	UDA,
COUNT	Y O	F HA	RDEE

Published Weekly at Wauchula, Florida
STATE OF FLORIDA, COUNTY OF HARDEE  Before the undersigned authority personally appeared who on oath says he is the of The Herald-Advocate, a news paper published at Wauchula, in Hardee County, Florida; that the attached copy of
advertisement, being a Notice
in the matter of Proposed agency action on Permit application
in the Court, was published in said newspaper in the issues of $11.26.1998$
Affiant further says that the said Herald-Advocate is a newspaper published at Wauchula, in said Hardee County, Florida, and that the said newspaper has heretofore been continuously published in said Hardee County, Florida, each week and has been entered as second class mail matter at the post office in Wauchula, in said Hardee County, Florida, for a period of one year next preceding the publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.
Sworn to and subscribed before me this 30 day of Markenster  A. D. 19 GV.  There There are the description
Notary Public
My Commission Expires 45 / 19 - 19 - 19

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

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of Intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding,

Any person may elect to pursue phone number of each petitioner, the mediation by reaching a mediation agreement with all parties to the proceeding (which include the applicant, the Department, and any person who has filed a timely and sufficient petition for a hearing) and by showing how the substantial interests of each mediating party are affected by the Department's action or proposed action. The agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Taliahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a peti-

- (a) The agreement to mediate must include the following: the names, addresses, and telephone numbers of any persons who may attend the mediation:
- (b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time:
- (c) The agreed allocation of the costs and fees associated with the mediation;
- (d) The agreement of the parties on the confidentiality of discussions and documents introduced during media-
- (e) The date, time, and place of the first mediation session, or a deadline remain available for disposition of the for holding the first session, if no dispute, and the notice will specify mediator has yet been chosen;
- (f) The name of each party's representative who shall have authority to \$ settle or recommend settlement; and

(g) Either an explanation of how the substantial interests of each mediating party will be affected by action or proposed action the addressed in this notice of intent or a statement clearly identifying the petition for hearing that each party has already filed, and incorporating it by reference.

Show out

Theresa V. Cimmino blommission # CC 739052 S. Expiras June 15, 2002 BONDED THRU BONDED THRU

(h) the signatures of all parties or their authorized representatives.

As provided in section 120.573 of the Florida Statutes, the timely agreement of all parties to mediate will toll tions 120.569 and 120.57 for request- Florida 33619-8318. ing and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the dispute. administrative Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above, and must therefore file their petitions within fourteen days of receipt of this notice of intent. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under sections 120.569 and 120.57 the deadlines that then will apply for challenging the agency action and electing remedies under those two t а u t

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

The Department gives notice of its intent to issue a permit to Hardes County Board of County Commissioners, Solid Waste Department, Mr. J.R. Prestridge, Solic Waste Superintendent, who applied on June 27, 1997 to the Departmen of Environmental Protection for a per mit to construct site improvements to a Class I Landfill and a leachate stor age tanks system located at the Hardee County Regional Landfill, 67! Airport Road, Wauchula, Harde County, Florida.

Persons whose substantial interest: are affected by the Department's pro posed permitting decision may peti tion for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forti below, and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road Twin Towers Office Building Taliahassee, Florida 32399-2400 within fourteen (14) days of publica tion of this notice. Failure to file a request for hearing within this time period shall constitute a waiver any right such person may have to request an administrative determina tion (hearing) under Section 120.57 Florida Statutes.

The petition shall contain the follow ing information:

Failure to petition or request media-  $\pi$ tion within the allowed time frame constitutes a waiver of any right such person has to request a hearing Section 120.57. Fiorida Statutes, and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 62-103.155, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, the time limitations imposed by sec- at 3804 Coconut Palm Drive, Tampa,

11:26c

RECEIVED CCC 0 + 1583 D E P

Susan,
Os par request, provid of
publication for intent to
issue permit. Please cold
if you nood anything elso.
Thanks

### Memorandum

# Florida Department of Environmental Protection

PERMIT COVER MEMO					
TO: RICK GARRITY, Director of District Management					
FROM/THROUGH:					
William Kutash , ENVIRONMENTAL ADMINISTRATOR Robert Butera, P.E. / 1/19/98 SUPERVISOR Susan Pelz, P.E. / 1/19/98 , ENGINEER					
DATE: November 19, 1998					
FILE NAME: Hardee Co. LF-Liner & Tank PERMIT #:38414-001-SC COUNTY: Hardee					
TYPE OF PERMIT ACTION: X ISSUE DENY MODIFY TRANSFER OWNERNOD PUBLIC NOTICE X INTENT TO ISSUE					
PUBLIC NOTICE PERIOD CLOSED? PETITION FILED?					
<b>PERMIT SUMMARY:</b> This permit is for construction of a leachate storage tanks system, and liner for the fourth side of the landfill. The liner will be a 60 mil HDPE geomembrane tied into in-situ clay bottom "liner".					
PROFESSIONAL RECOMMENDATION: X APPROVE DENY					
<b>EVALUATION SUMMARY:</b> The applicant has provided sufficient information to demonstrate compliance with Department Rules. Several meetings were held with the applicant during permit processing and after the application was deemed complete, to negotiate acceptable conditions to both the operation and construction permits.					
Application received - June 27, 1997. Application complete - April 27, 1998. Department processing time - 266 days (to 11-19-98). Total processing time - 512 days (to 11-19-98).					
DAY 90/30 FOR THIS ACTION IS: ASAP - by November 23, 1998.  (Waiver expires 12-02-98)					

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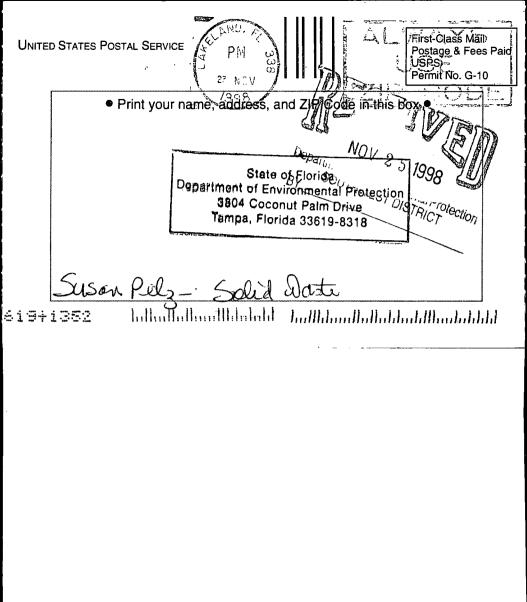
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Thank you for using Return Receipt Service



### THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

November 19, 1998

In the matter of an Application for Permit by:

DEP File No.

38414-001-SC, Hardee County

Hardee County Board of County Commissioners Mr. J.R. Prestridge, Solid Waste Superintendent 685 Airport Road Wauchula, Fl. 33873

#### INTENT TO ISSUE

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

The applicant, Mr. J.R. Prestridge, Solid Waste Superintendent, who applied on June 27, 1997, to the Department of Environmental Protection for a permit to construct site improvements to a Class I Landfill and a leachate storage tanks system located at the Hardee County Regional Landfill, 675 Airport Road, Wauchula, Hardee County, Florida.

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

The Department intends to issue this permit based on its belief that reasonable assurances have been provided to indicate that the proposed project will not adversely impact water quality and the proposed project will comply with appropriate provisions of Chapters 62-4, 62-301, 62-330, 62-520, 62-522, and 62-701, F.A.C., subject to the specific conditions attached in the permit. Pursuant to Section 403.815, Florida Statutes and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on Permit Application. The notice must be published one time only within thirty (30) days of receipt of this intent in the legal ad section of a newspaper of general circulation in the area affected. Proof of publication must be provided to the Department within seven (7) days of publication of the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit. The Department will issue the permit with the attached conditions unless petition for administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, Florida Statutes.

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

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

A petition must contain the following information:

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

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Any person may elect to pursue mediation by reaching a mediation agreement with all parties to the proceeding (which include the applicant, the Department, and any person who has filed a timely and sufficient petition for a hearing) and by showing how the substantial interests of each mediating party are affected by the Department's action or proposed action. The agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

- The agreement to mediate must include the following:
- (a) The names, addresses, and telephone numbers of any persons who may attend the mediation;
- (b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time;
- (c) The agreed allocation of the costs and fees associated with the mediation;
- (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation;
- (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen;

- (f) The name of each party's representative who shall have authority to settle or recommend settlement; and
- (g) Either an explanation of how the substantial interests of each mediating party will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that each party has already filed, and incorporating it by reference.
- (h) The signatures of all parties or their authorized representatives.

As provided in section 120.573 of the Florida Statutes, the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above, and must therefore file their petitions within fourteen days of receipt of this notice of intent. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under sections 120.569 and 120.57 remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Richard D. Garkity, Ph.D.

Director of District Management

Southwest District

RDG/sjp Attachments

Copies furnished to:

Hardee County Notification List
Janice Williamson, Hardee County Solid Waste Dept.,
685 Airport Road, Wauchula, Fl. 33873

Douglas Beason, FDEP OGC Tallahassee William Kutash, Waste Program Administrator, FDEP Tampa Robert Butera, P.E., FDEP Tampa

#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on November 19, 1998 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,

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

(Clerk)

(Date)

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

The Department gives notice of its intent to issue a permit to Hardee County Board of County Commissioners, Solid Waste Department, Mr. J.R. Prestridge, Solid Waste Superintendent, who applied on June 27, 1997 to the Department of Environmental Protection for a permit to construct site improvements to a Class I Landfill and a leachate storage tanks system located at the Hardee County Regional Landfill, 675 Airport Road, Wauchula, Hardee County, Florida.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below, and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period shall constitute a waiver any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of Department's action, or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Any person may elect to pursue mediation by reaching a - mediation agreement with all parties to the proceeding (which include the applicant, the Department, and any person who has filed a timely and sufficient petition for a hearing) and by showing how the substantial interests of each mediating party are affected by the Department's action or proposed action. The agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

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- (c) The agreed allocation of the costs and fees associated with the mediation;
- (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation;
- (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen;
- (f) The name of each party's representative who shall have authority to settle or recommend settlement; and

- (g) Either an explanation of how the substantial interests of each mediating party will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that each party has already filed, and incorporating it by reference.
- (h) The signatures of all parties or their authorized representatives.

As provided in section 120.573 of the Florida Statutes, the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such-a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above, and must therefore file their petitions within fourteen days of receipt of this notice of intent. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under sections 120.569 and 120.57 remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

Failure to petition or request mediation within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes, and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 62-103.155, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.



## Department of **Environmental Protection**

Lawton Chiles Governor

Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretary

#### PERMITTEE

Hardee County Board of County Commissioners Mr. J.R. Prestridge, Solid Waste Superintendent 685 Airport Road Wauchula, Fl 33873



#### PERMIT/CERTIFICATION

GMS ID No: 4025C30001 Permit No: 38414-001-SC

Date of Issue:

02/01/2000 Expiration Date:

County: Hardee Lat/Long: 27 34'10"N 81 47'01"W

Construction

Sec/Town/Rge: 35/33S/25E Project: Hardee County Class I Landfill

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-3, 62-4, 62-302, 62-330, 62-520, 62-522, and 62-701. The above named permittee is hereby authorized to perform the activities 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 construct site improvements at the Class I landfill (approximately 12.5 acres), referred to as the Hardee County Regional Landfill, subject to the specific and general conditions attached, located at 675 Airport Road, east of the City of Wauchula, Hardee County, Florida. The specific conditions attached are for the construction of:

- Landfill liner and 1.
- Leachate collection and storage tanks system

#### General Information -Construction:

60 mil HDPE Geomembrane Seams: Shear - 120 ppi & FTB [ref. CQAP, Table 2-3] Peel - 85 ppi & FTB [ref. CQAP, Table 2-3] Hydraulic Conductivity:

Filter Aggregate: min. 1 x 10-3 cm/sec [ref. CQAP, 2.1.1.4.] Drainage Sand: min. 1 x 10-3 cm/sec [ref. CQAP, 2.1.1.5.] Clay layer: max.  $4.3 \times 10-7 \text{ cm/sec}$  [ref. SC#2.a(1), App. C; SC#2.a(2), Att. G].

#### Replaces Permit No.: N/A, new

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

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Page 1 of 24.

#### 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 403-859 through 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 personal 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 Statues 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.

#### GENERAL CONDITIONS:

- 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.
- 16. In the case of an underground injection control permit, the following permit conditions also shall apply:
  - (a) All reports or information required by the Department shall be certified as being true, accurate and complete.
  - (b) Reports of compliance or noncompliance with, or any progress reports on, requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
  - (c) Notification of any noncompliance which may endanger health or the environment shall be reported verbally to the Department within 24 hours and again within 72 hours, and a final written report provided within two weeks.
    - 1. The verbal reports shall contain any monitoring or other information which indicate that any contaminant may endanger an underground source of drinking water and any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.
    - 2. The written submission shall contain a description of and a discussion of the cause of the noncompliance and, if it has not been corrected, the anticipated time the noncompliance is expected to continue, the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance, and all information required by Rule 62-28.230(4)(b), F.A.C.
  - (d) The Department shall be notified at least 180 days before conversion or abandonment of an injection well, unless abandonment within a lesser period of time is necessary to protect waters of the State.

#### GENERAL CONDITIONS:



- 17. The following conditions also shall apply to a hazardous waste facility permit.
  - (a) The following reports shall be submitted to the Department:
    - 1. Manifest discrepancy report. If a significant discrepancy in a manifest is discovered, the permittee shall attempt to rectify the discrepancy. If not resolved within 15 days after the waste is received, the permittee shall immediately submit a letter report, including a copy of the manifest, to the Department.
    - 2. Unmanifested waste report. The permittee shall submit an unmanifested waste report to the Department within 15 days of receipt of unmanifested waste.
    - 3. Biennial report. A biennial report covering factlity activities during the previous calendar year shall be submitted by March 1 of each even numbered year pursuant to Chapter 62-730, F.A.C.
  - (b) Notification of any noncompliance which may endanger health or the environment, including the release of any hazardous waste that may endanger public drinking water supplies or the occurrence of a fire or explosion from the facility which could threaten the environment or human health outside the facility, shall be reported verbally to the Department within 24 hours, and a written report shall be provided within 5 days. The verbal report shall include the name, address, I.D. number, and telephone number of the facility, its owner or operator, the name and quantity of materials involved, the extent of any injuries, an assessment of actual or potential hazards, and the estimated quantity and disposition of recovered material. The written submission shall contain:
    - 1. A description and cause of the noncompliance.
    - 2. If not corrected, the expected time of correction, and the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
  - (c) Reports of compliance or noncompliance with, or any progress reports on, requirements in any compliance schedule shall be submitted no later than 14 days after each schedule date.
  - (d) All reports or information required by the Department by a hazardous waste permittee shall be signed by a person authorized to sign a permit application.



#### SPECIFIC CONDITIONS:

1. Landfill Designation. This site shall be classified as a Class I landfill and shall be operated in accordance with all applicable requirements of Chapters 62-3, 62-4, 62-302, 62-330, 62-520, 62-522, and 62-701, Florida Administrative Code (F.A.C.), and all applicable requirements of Department Rules.

#### 2. Permit Application Documentation.

- a. This permit is valid for <u>construction</u> of the liner system and leachate storage tanks system for the Class I landfill in accordance with Department rules, the conditions of this permit, and the reports, plans and other information, submitted by Post, Buckley, Schuh and Jernigan, Inc.(PBSJ) (or as otherwise noted) as follows:
  - 1) Hardee County Regional Landfill, Application for
    Construction Permit, dated June 26, 1997 (received June 27,
    1997);
  - 2) Response to Request for Additional Information dated July 25, 1997 for the Application for Construction Permit, dated December 31, 1997 (received January 2, 1998);
  - 3) Response to Request for Additional Information dated January 30, 1998 for the Application for Construction Permit, dated April 24, 1998 (received April 27, 1998);
  - 4) Construction Quality Assurance Plan, dated June 1997 (received June 27, 1997), including pages dated April, June and December 1997, and February, March and April 1998;
  - 5) <u>Technical Specifications</u>, dated June 1997 (received June 27, 1997), including pages dated September and December 1997; February, March and April 1998; and Dewatering, Section 02140 revised October 16, 1998 (received October 30, 1998);
  - 6) The following Plan Sheets dated June 1997 (received June 27, 1997):
    - a) Sheet M-1, "Leachate Storage Tanks and Yard Piping Plan,"
    - b) Sheet M-2, "Submersible Leachate Pump Station Plan, Section and Details,"
    - c) Sheet M-6, "Miscellaneous Details,"
    - d) Sheet M-8, "Existing Leachate Pump Station Demolition Plan,"
    - e) Sheet E-1, "Leachate Storage Tanks Pump Station and Lift Station Electrical Plan,"
    - f) Sheet S-1, "General Notes,"

#### SPECIFIC CONDITIONS:



(Specific Condition #2.a(6) cont'd)

- g) Sheet S-2, "Truck Loading Facility and Pump Station Plan, Section and Details;"
- 7) The following Plan Sheets including revisions dated September 1997 (received January 2, 1998):
  - a) Sheet M-3, "Leachate Storage Tanks and Truck Loading Pump Station Plan,"
  - b) Sheet M-4, "Leachate Storage Tanks Sections and Details,"
  - c) Sheet M-5, "Truck Loading Facility and Pump Station Sections, Detail and Schedule,"
  - d) Sheet M-7, "Miscellaneous Details;"
- 8) The following Plan Sheets including revisions dated September 1997 and April 1998 (received April 27, 1998):
  - a) Sheet C-1, "Site Plan,"
  - b) Sheet C-2, "Construction Plan,"
  - c) Sheet C-3, "Leachate Storage Area Grading and Drainage," and
  - d) Sheet C-4, "Sections and Details;"
- 9) Sheet 5 of 5, including revisions April, June and August 1997, "Gas Management System and Miscellaneous Details at Closure" (received January 2, 1998); and
- 10) Information received via fax dated November 12, 1998 regarding the clay/geomembrane tie-in.
- b. Activities approved as part of this permit include construction of the landfill liner system, leachate collection and storage tanks system, groundwater monitoring wells, gas monitoring probes and related construction. This permit does not authorize the operation of the systems listed above.
- c. "Engineer" shall refer to the Engineer of Record as defined in the documents referenced in Specific Condition #2.a., above.
- d. The construction activities shall be completed in accordance with Department rules, the information listed in Specific Condition #2.a., above, and the conditions of this permit. The construction activities authorized by this permit shall be completed no later than October 1, 1999, or as otherwise approved by the Department.

#### SPECIFIC CONDITIONS:



- 3. **Permit Modifications.** Any construction not previously approved as part of this permit will require a separate Department permit unless the Department determines a permit modification to be more appropriate. 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.
- 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 Rule 62-701.330(3), F.A.C.

#### 5. Pre-Construction Submittals.

- a. At least **thirty (30) days prior** to <u>initiation</u> of <u>any</u> construction activity, unless otherwise specified, the permittee shall submit the following information to the Department:
  - 1) A complete set of Plans, Specifications and CQA Plan to be used for construction which includes all changes (i.e., all additions, deletions, revisions to the plans previously approved by the Department). Significant changes in the plans, as determined by the Department, shall require a permit modification. All changes in the plans shall be noted on the plans and accompanied by a narrative indicating the change, the cause of the deviation, and a re-certification of the alternate design by the design engineer. These alternate designs shall be approved by the Department prior to construction. If no changes have been made to the construction plans, Specifications or CQA Plan, the permittee shall notify the Department in writing that no changes have been made, and re-submittal of these documents will not be required prior to construction.
  - 2) The role and name of the specific company/organization for each of the parties shown in Figure 1-1, CQA Plan.
- b. At least thirty (30) days prior to initiation of construction activities for the leachate storage tanks system, the permittee shall submit the following information to the Department:
  - 1) Calculations which verify the secondary containment capacity. [Specifications Sections 11200-1.04.A., 1.06.A.2. and 13200-1.04.C., 1.05.A.3.]

#### SPECIFIC CONDITIONS:



(Specific Condition #5.b. cont'd)

- 2) The method of anchoring the leachate storage tanks to the secondary containment. [Specification Sections 11200-1.04. and 13200-1.04.]
- 3) Details of the leachate storage tanks cathodic protection system. [Specification Sections 11200-1.04. and 13200-1.04.]
- c. At least ten (10) days prior to initiation of geomembrane liner installation, the permittee shall submit the following information to the Department:
  - 1) Installer's Quality Control Plan [Specification Section 02776-1.03.A.2(e)],
  - 2) Geomembrane Manufacturer's Material test results [Specification Section 02776-1.03.A.2(h)],
  - 3) Alternative seaming processes other than extrusion of fusion welding [Specification Section 02776-1.03.A.2(n)], and
  - 4) Booting details [Specification Section 02776-5.01.A.2(c)].
- 6. **Pre-Construction Meeting Notification.** Department Solid Waste Permitting staff shall be notified **72 hours** before all preconstruction meetings. Prior to initiating construction activities, the permittee shall make arrangements for the Engineer of Record to meet on site and discuss all plan changes with Department Solid Waste Permitting Staff of the Southwest District Office. A copy of the minutes from the pre-construction conference shall be submitted to the Department within two **(2)** weeks of the conference.
- 7. Construction Schedule and Progress Report.
  - a. No later than one (1) week after the pre-construction conference, the owner or operator shall submit a construction schedule which includes estimated dates for each portion of the construction to the Department. The Engineer of Record or another qualified professional engineer shall make periodic inspections during construction to ensure that design integrity is maintained.

#### SPECIFIC CONDITIONS:



(Specific Condition #7. cont'd)

- b. An updated construction schedule and progress report shall be submitted to the Department **monthly.** The monthly progress report should be submitted in an appropriately labeled three-ring binder of sufficient size to store the monthly progress reports for the entire project. The monthly progress reports shall include, but not be limited to:
  - 1) A narrative explaining the status (and any delays) of major stages of the construction (i.e. liner, tank, piping, etc.),
  - 2) A summary of submittals and change order requests [Specification Section 01340-1.01.C.], and
  - 3) Color copies of photographs which are representative of the typical construction activities for the reporting period, and photographs which show major stages of construction such as the liner toe tie-in. [Specification Section 01380]

#### 8. Construction Tolerances.

- a. Sufficient spot elevations (grade shots) of the leachate collection trenches shall be recorded to demonstrate, at the 98% confidence level, that the leachate collection system has been constructed to the slopes and grades shown on Sheet C-2 [ref. SC#2.a(8)(b)]. In the event that the frequency required by the Specifications is not sufficient to provide this demonstration, additional spot elevations shall be taken. [Specification Section 02776-7.02.B.] This information shall be included with the Record Documents (see Specific Condition #13, below).
  - b. As-built topographic surveys shall demonstrate that each liner component phase and leachate collection system was constructed within the tolerance (0.1 feet) required by the Drawings and Specifications. [Specification Sections 01050-1.04.B. and 02220-3.10.A.]
  - c. As-built elevations of the geomembrane/clay tie-in (i.e. toe of the geomembrane) shall be taken. These elevations (grade shots) shall be taken a minimum of every 100 lineal feet of liner trench and at locations where the underlying clay abruptly changes elevation. In areas which exhibit inconsistent subsurface conditions, the grade shots shall be taken more frequently.

#### SPECIFIC CONDITIONS:



(Specific Condition #8. cont'd)

d. No later than 48 hours after completion of construction of the geomembrane subgrade, an as-built topographic survey shall be provided to the Engineer to verify conformance with the Drawings and Specifications. The geomembrane subgrade shall be accepted by the Liner Installer and Engineer in writing before placement of the geomembrane. [CQAP, Section 3.1.1., Specification Section 02776-5.01.B.2.]

#### 9. Construction Quality Assurance.

- a. Liner systems shall have a construction quality assurance plan to provide personnel with adequate information to achieve continuous compliance with the construction requirements. The Construction Quality Assurance Plan shall be in accordance with Rules 62-701.400(7) and (8), F.A.C., the CQA Plan [ref. SC#2.a(4)], and the conditions of this permit. The professional engineer or his designee shall be on-site at all times during construction (including liner system, and leachate collection and storage tanks system) to monitor construction activities.
- b. A complete set of construction drawings and shop drawings, which include daily additions, deletions and revisions, shall be maintained on-site at all times for reference. Drawings which show the locations of geomembrane panel seams and repairs shall be kept on-site at all times for reference.
- c. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to the land, surface water or groundwater outside the liner system or existing leachate ditch, except as provided in Specific Condition #21 of this permit, at any time during the construction activities.
- d. Unsatisfactory, defective or non-conforming work shall be reported to the Engineer and shall be corrected, or the reasons for not correcting the work shall be recorded and maintained onsite for reference and inspections. [CQAP 1.2.7.5.b. page 1-11] Documentation of the corrections or reasons for not correcting the work shall be submitted with the Record Documents required by Specific Condition #13.

#### SPECIFIC CONDITIONS: '



(Specific Condition #9. cont'd)

- e. Construction activities such as geomembrane seaming, QA/QC testing of the geomembrane or soil materials, surveying, etc. shall not be carried out in non-daylight hours without prior Department approval. If these activities will be conducted during nighttime hours, the Department shall be notified at least 1 week in advance to allow for Department observation. This notification shall include a description of the methods which will be used to provide adequate illumination to ensure that the quality of the construction is not compromised. [Specification Section 02776-5.01.D.8(d)]
- f. The liner trench excavation bottom shall be maintained free from standing water. [Specification Section 02220-3.01.B.3.] Except for the stormwater management system construction, no construction, including pipe laying, shall be allowed in water. Groundwater shall be maintained at least 12 inches below excavations. In the event that it appears that the excavation is being impacted by groundwater, the contractor shall take the corrective actions necessary to demonstrate that the groundwater is at least 12 inches below the bottom of the excavation. [Specification Section 02220-3.03.C.]
- g. Hydrostatic leak testing of the solid wall piping and manholes shall be completed prior to backfilling around the structures. [CQAP Section 5.4., Specification Sections 03800-3.02.B. and 15050-3.10.D.]
- h. The Site Specific Health and Safety Plan shall be kept onsite for reference and inspections. [Specification Section 01030-1.03.]
- i. Explosives shall not be used in this construction project without prior Department approval. [Specification Section 02220-1.01.B.3.]
- j. Sandbags or other temporary anchoring devices shall be removed prior to placement of materials (e.g. select common fill, clay backfill) over the geomembrane. [Specification Sections 02776-5.01.C.3(d)(5) and 5.01.D.11(f)]
- k. Where sod is used over lined areas, pegging of sod shall not damage the liner. [Specification Section 02934-3.03.C.]
- 1. All exterior painting shall be done only in dry weather. [Specification Section 09900-3.04.A.]

#### SPECIFIC CONDITIONS:

(Specific Condition #9. cont'd)

m. At least one (1) week prior to the field holiday testing of the tank, the Department shall be notified to allow for observation. [Specification Sections 11200-3.01.E. and 13200-3.01.B.4.]

#### 10. Geosynthetic Materials and HDPE Piping.

- The permittee shall ensure that the clay layer which the geomembrane is keyed into is consistent with the clayey material described in the permit application [ref. SC#2.a(1), Appendix C and SC#2.a(2), Attachment G]. The geomembrane shall be keyed into clay material at an elevation no higher than +70 feet NGVD. [ref. SC#2.a(1), Appendix C] If the Contractor excavates to this depth and ties the geomembrane liner into a clayey material consistent with that shown in the boring logs referenced in this Specific Condition, then permeability testing will not be required. If the material which is encountered at this elevation is not consistent with the green to gray clay shown in the boring logs, the permittee shall ensure that the Contractor excavates to a depth sufficient to tie the geomembrane into a clay layer consistent with that shown in the boring logs. Department shall be notified immediately if the Contractor discovers that the clay material is not present at the expected elevation. If this is the case, the Department may require additional documentation or testing to ensure that the geomembrane has been sufficiently tied into the clay layer.
- b. The geomembrane shall be keyed a minimum of 1.5 feet into the clay layer in all locations. [Specification Section 02776-5.01.B.1.]
- c. Written acceptance of the subgrade by the geomembrane installer shall be provided to the Engineer prior to placement of the geomembrane on the subgrade. [Specification Section 02776-5.01.B.]
- d. The procedure used to temporarily bond adjacent geomembrane panels together shall not damage the geomembrane. [Specification Section 02776-5.01.D.3(b)]
- e. Geomembrane seaming activities shall only be conducted during daylight hours and within the weather requirements of the Specifications, unless otherwise specifically approved by the Department. [Specification Sections 02776-5.01.C.3(c), 5.01.D.6. and 5.01.D.8(d)]

#### SPECIFIC CONDITIONS:

(Specific Condition #10. cont'd)

- f. Conformance testing for the geosynthetic materials shall be in accordance with the CQAP Table 3-2, and Specification Sections 02550-2.03.B., 02776-2.02.B.4. and 02776-4.01. The geomembrane material shall meet the requirements listed in Specification Table 02776-A.
- g. The construction methods used shall minimize wrinkles. Excessive wrinkles shall be removed, and the areas repaired. Areas where wrinkles are removed shall be repaired and re-tested in accordance with the <u>Specifications</u> and <u>CQA Plan</u>. [CQAP Section 4.2.4.5., Specification Section 02776-5.01.C.3(d)(6) and 5.01.D.11(f)]
- h. The liner system shall not be damaged by excessive traffic. [Specification Section 02776-5.01.D.5(a)]
- i. Destructive tests of the geomembrane seams shall be taken at <u>random</u> locations, at a frequency of one test location per 500 feet of seam. [CQAP Section 4.2.3.1., Specification Section 02776-5.01.D.10(b)]
- j. Geomembrane seams which are field tested "by hand", and appear to acceptable, shall <u>also</u> be tested by tensiometer to verify the adequacy of the weld. [Specification Section 02776-5.01.D(10)(e), CQAP Section 4.2.3.2.]
- k. Geomembrane seams shall meet the requirements of Specification Section 02776, Table 02776-B. Destructive tests conducted on the geomembrane field seams shall demonstrate that the actual shear strength is at least 90 percent of the yield strength of the geomembrane, and failure is outside of the seam area. Five samples shall be taken for strength testing. All of the samples shall meet the requirements for each test method (peel and shear) listed in Table 02776-B. The strength results shall not be averaged. [Specification Section 02776-5.01.D.7(b), 5.01.D.10(f)]
- 1. During the construction of, and until the geomembrane is placed on, the geomembrane subgrade, the subgrade shall be inspected **daily** for signs of desiccation, excessive moisture, or other damage. In the event that the condition of the subgrade deteriorates, corrective actions shall be implemented **immediately**. Washouts or erosion of the geomembrane subgrade shall repaired immediately. [Specification Section 02776-5.01.B.5.]

#### SPECIFIC CONDITIONS:

MATT

(Specific Condition #10. cont'd)

- m. No geomembrane shall be placed in an area of the geomembrane subgrade that has become softened by precipitation or desiccated and cracked due to lack of moisture. No standing water or excessive moisture shall be allowed on the area to be lined before the geomembrane installation. [Specification Sections 02776-5.01.B.1. and 5.01.C.3(c)]
- n. HDPE pipe or fittings shall not be dropped during loading, unloading or placement. [Specification Section 02730-1.03.B.2.]
- o. Under no circumstances shall pipe be laid in water, and no pipe shall be laid when trench or weather conditions are unsuitable for such work. [Specification Section 02730-3.02.A.]

#### 11. Soil Materials.

- a. Soil materials, specified in Specification Section 02220, shall not include materials which were previously used for daily or intermediate cover or for berms around the working face of the landfill.
- b. Soil materials which contact the liner (above or below) shall not contain any sharp or granular objects exceeding 1/4-inch in diameter. [ref. SC#2.a(3), page 14; Specification Sections 02220-2.01.C and 02776-5.01.B.1.]
- c. The clay backfill (above the toe of the liner) shall be compacted to a minimum of 90% Standard Proctor density. [Specification Section 02220, Table 02220-A; CQAP Section 4.1.1.]
- d. Each layer of material being compacted (e.g. clay backfill and geomembrane subgrade) shall have a uniform moisture content and adequate compaction. [Specification Section 02220-3.06.B.2. and Table 02220-A]
- e. Crushed rock or gravel shall not be used to reinforce the geomembrane trench subgrade bottom (tie-in area) which may have become mucky as a result of construction activities.
  [Specification Section 02220-3.05.B.]
- 12. Laboratory and Field Testing Requirements. Field and laboratory testing during the construction activities shall be conducted by a qualified testing laboratory, independent of the manufacturer or installer, representing the owner. A qualified field technician representing the owner shall provide full time, on-site inspection during construction. The field technician shall work under the supervision of a professional engineer registered in the State of Florida with experience in landfill liner construction.

Hardee County BOCC Mr. J.R. Prestridge, SW Superintendent

#### SPECIFIC CONDITIONS:

- 13. Certification of Construction Completeness. Within sixty (60) days after all specified construction has been completed, and prior to the operation of the leachate storage tanks system, the following activities shall be completed:
  - a. The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer in charge of construction and quality assurance to the Department for approval, and shall arrange for Department representatives to inspect the construction in the company of the permittee, the engineer, and the facility operator.
  - b. The owner or operator shall submit Record Drawings/Documents showing all changes (i.e. all additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations).
  - c. The owner or operator shall submit a narrative indicating all changes in plans, the cause of the deviations, and certification of the Record Drawings/Documents by the Engineer to the Department.
  - d. The Groundwater Monitoring System requirements listed in Specific Condition #20 shall be complete.
  - e. The professional engineer in charge of construction quality assurance shall submit to the Department a final report to verify conformance with the plans and specifications in accordance with Rule 62-701.400(7) and (8), F.A.C.
  - f. The permittee shall request a modification of Operation Permit 38414-002-SO to allow operation of the leachate storage tanks system. This request shall be submitted with the Certification of Construction Completion.

#### 14. Record Drawings/Documents.

- a. The Record Documents shall demonstrate that the geomembrane was sufficiently keyed into a clay layer with material properties consistent with the clayey materials described in the PSI Geotechnical Report [ref. SC#2.a(1), Appendix C, Table 1 and SC#2.a(2), Attachment G].
- b. The Record Drawings/Documents referenced in Specific Condition #13, above, shall include, but not be limited to, the following information:
  - 1) All anchor trenches,

#### SPECIFIC CONDITIONS:

(Specific Condition #14.b. cont'd)

- 2) Documentation described in Specific Conditions #8 and #9.d.,
- 3) As-built invert elevations for the leachate collection pipes, as listed on <u>Sheet C-2</u> of the Drawings [Specification Section 01050-1.04.B.],
- 4) As-built elevations of the liner/clay tie-in (i.e. toe of the liner) required by Specific Condition #8.c.,
- 5) The "Daily Record of Work Progress" [CQAP Section 6, Attachment A],
- 6) Meeting Minutes from monthly progress meetings [Specification Section 01200-1.03.], and
- 7) As-built drawings showing the geomembrane panel installation layout. [Specification Section 02776-1.03.A(2)(1)] These drawings shall show the locations of fabricated and field seams, actual sampling and repair locations, and panel designations.
- 15. **Control of Access.** During construction, access to, and use of, the facility shall be controlled as required by Rule 62-701.500(5), F.A.C.
- 16. Control of Nuisance Conditions. The permittee shall be responsible for the control of odors and fugitive particulates arising from this construction. 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. The owner or operator shall control disease vectors so as to protect the public health and welfare.

#### 17. Facility Maintenance and Repair.

a. On or prior to the one-year anniversary date of initial use of the leachate storage tanks system, the manufacturer's authorized representative shall make a visual inspection of the tank interior coating and appurtenances; tank exterior coating and appurtenances; and the immediate area surrounding the tank. A written summary of this inspection shall be filed with the tank owner and the tank manufacturer. [Specification Sections 11200-3.05.A. and 13200-3.06.A.] The permittee shall submit a copy of the written report to the Department no later than thirty (30) days after receipt of the report from the tank manufacturer's authorized representative.

Hardee County BOCC Mr. J.R. Prestridge, SW Superintendent

#### SPECIFIC CONDITIONS:



(Specific Condition #17.a cont'd)
In the event that deficiencies are noted by the tank inspector, a schedule for corrective measures shall be submitted to the Department within fifteen (15) days of the owner's receipt of the written inspection report. The corrective measures shall be completed within sixty (60) days of the date of the inspector's report, or as otherwise approved by the Department.

- b. In the event of damage to any portion of the landfill site facilities or failure of any portion of the landfill systems, the permittee shall **immediately (within 24 hours)** notify the Department of Environmental Protection explaining such occurrence and remedial measures to be taken and time needed for repairs. Written detailed notification shall be submitted to the Department within seven (7) days following the occurrence.
- c. In the event that any portion of the groundwater monitoring system is damaged, remedial measures shall be completed within sixty (60) days of the written notification specified in Specific Condition #17.b. above, unless otherwise approved by the Department.
- d. In the event that the stormwater or 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 #17.b. above, unless otherwise approved by the Department.
- 18. Stormwater System Management. The landfill shall continue to 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.
- 19. Gas, Leachate Surface Water and Ground Water Quality Monitoring. All gas, leachate, surface water and ground water monitoring shall be conducted in accordance with Permit No. 38414-002-SO.
- 20. Ground Water Monitoring Well and Gas Probe Construction. Monitoring wells MW-8 and MW-9 shall be constructed, and the following information submitted prior to the Certification of Construction Completion required by Specific Condition #13:

Hardee County BOCC Mr. J.R. Prestridge, SW Superintendent

PERMIT NO.: 38414-001-SC Liner and Leachate Storage Tanks

#### SPECIFIC CONDITIONS:

(Specific Condition #20. cont'd)

a. Documentation of the following for each well installed:

Well Identification
Aquifer monitored
Screen type and slot size
Screen length
Screen diameter
Elevation at top of casing
Elevation at ground surface

Boring (Lithology) Log
Total depth of well
Casing diameter
Casing type and length
Well seal and filter
pack type and thickness
SWFWMD construction

permit No.

- b. Within one week of well completion and development, each new well shall be sampled for the parameters listed in Rule 62-701.510(8)(a) and (d), F.A.C., to establish initial ground water quality for that well. Results of the sampling shall be submitted to DEP prior to the Certification of Construction Completion required by Specific Condition #13.
- c. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitoring wells (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, the Universal Transverse Mercator coordinates, and 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 number, 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. Approved locations for MW-8, MW-9, P-15, and P-16 are shown on Figure 3-1 (attached) [ref. SC#2.a(1), Appendix D].
- d. Piezometers P-15 and P-16, shall be constructed, and the information described in Specific Conditions #20.a., and #20.c. (above) shall be submitted <u>prior to</u> the Certification of Construction Completion required by Specific Condition #13.
- e. All field and laboratory work done in connection with routine groundwater monitoring shall be conducted by a firm possessing a Generic Quality Assurance Plan or a Comprehensive Quality Assurance Plan approved by the Department in accordance with Chapter 62-160, F.A.C. The Quality Assurance Plan must specifically address the sampling and analytical work that is required by the permit. The approved Quality Assurance Plan shall be followed by all persons collecting or analyzing samples related to this permit.

#### SPECIFIC CONDITIONS:



(Specific Condition #20. cont'd)

- f. All water quality monitoring analysis shall be reported on the Department's Groundwater Monitoring Report Form 62-522.900(2). The Sampling Report shall include the items listed in Rule 62-701.510(9)(a), F.A.C. The results shall be sent to the Solid Waste Section, Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8313.
- g. Gas Probes GP-1 through GP-9 are shown on Sheet 5 of 5 in the Plan Sheets entitled, "Gas Management System and Miscellaneous Details at Closure," [ref. SC#2.a(9)]. These probes shall be constructed, and the information described in Specific Conditions #20.a., and #20.c. (above), as appropriate, shall be submitted prior to the Certification of Construction Completion required by Specific Condition #13.
- 21. Management of Dewatering Fluids. Dewatering fluids from the trench excavation shall be either:
  - a. Managed as leachate and disposed of at a permitted wastewater treatment facility, if the fluid chemistry is the same as the site's leachate (no additional testing required) or;
  - b. Discharged to an on-site reinfiltration pond, if initial testing of the ground waters (i.e. dewatering fluids) to be removed indicates that it will not present a violation of ground water quality standards in excess of the background water quality, AND reinfiltration is conducted under the Department-approved plan which specifies sampling parameters, frequency, discharge rate and other pertinent information.
  - c. In the event that the option described in Specific Condition #21.b. (see also Option 1, Specification Section 02140-3.02.A.2.), is used, within 30 days of implementation, a leachate management plan shall be submitted to the Department for approval. This plan shall include, but not be limited to, sampling parameters, frequencies, discharge rate and other pertinent information. In no case shall use of the reinfiltration pond cause a violation of Department water quality standards.
- 22. **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.

Hardee County BOCC Mr. J.R. Prestridge, SW Superintendent PERMIT NO.: 38414-001-SC Liner and Leachate Storage Tanks

#### SPECIFIC CONDITIONS:



- 23. **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.
- 24. **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.

Executed in Tampa, Florida

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Richard D. Garrity, Ph.D. Director of District Management Southwest District

## ATTACHMENT 1

SPECIFIC CONDITION	SUBMITTAL DUE DATE	REQUIRED ITEM
2.d.	No later than October 1, 1999	Complete Construction
4.	180 days prior to expiration	Apply for permit renewal
5.a.	30 days prior to construction	Submit complete plans and specifications, noting changes; CQA Figure 1-1
5.b.	30 days prior to initiation of tank system construction	Submit tank anchorage details, cathodic protection details, secondary containment calculations
5.c.	10 days prior to liner installation	Submit Installer's QC Plan, GM mfg. material test results, alternative seaming procedures, boot details
6.	72 hours prior to meeting	Notification of pre- construction meetings
6.	2 weeks after meeting	Submit minutes of pre- construction meeting
7.a.	1 week after pre- construction meetin	Submit construction schedule
7.b.	Monthly	Update construction schedule and progress report
9.e.	1 week prior to initiation	Notify of night activities
9.m.	1 week prior to testing	Notify of holiday testing
10.	Immediately (within 24 hours)	Notify if clay layer is not found at the expected elevation

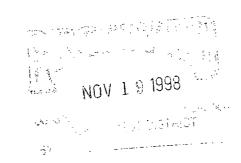
PERMIT NO.: 38414-001-SC Liner and Leachate Storage Tanks

#### ATTACHMENT 1 (cont'd)

	, ' '*	an .
SPECIFIC CONDITION	SUBMITTAL DUE DATE	REQUIRED
13.	Within 60 days after construction is complete	Submit Certification of Construction Completion, Arrange for inspection, submit Record Documents, submit narrative describing all deviations, submit final report, request modification to Operation Permit
17.a.	No later than 30 days after completion	Submit tank mfg. inspection report
17.a.	Within 15 days of owner's receipt of inspection report	Submit schedule for corrective measures
17.a.	Within 60 days of inspection report	Complete corrective measures
17.b.	Within 24 hours of occurrence	Notify the Department of damage to any portion of the landfill, groundwater monitoring or tanks systems
17.c.	Within 60 days of notification	Complete repairs to groundwater monitoring system
17.d.	Within 30 days of notification	Implement corrective actions to stormwater or leachate management systems
20.	Prior to submittal of Certification Documents	Groundwater monitoring system requirements complete
21.	Within 30 days of implementation	Submit leachate management plan for reinfiltration pond



November 17, 1998



Ms. Susan J. Pelz, P.E. Solid Waste Section FDEP - Southwest District 3804 Coconut Palm Drive Tampa, FL 33619

Re: Hardee County Class I Landfill

Pending Permit No. 38414-001-SC Proposed Liner Tie-in to Clay Layer

Dear Ms. Pelz:

Enclosed for your approval is our proposed liner tie-in plan which was faxed to you on November 12, 1998. In accordance with your request in your November 17, 1998 fax transmittal to me, I have signed and sealed this plan as the engineer who prepared it. Also, I have discussed your revisions to Specific Condition #10 of the proposed permit with Hardee County, and we find the revised language acceptable to the County.

We appreciate your cooperation in working through this detail to minimize unnecessary and costly work on the part of the County. Please call me if you have any questions or comments regarding the enclosed plan.

Very truly yours,

David E. Deans, P.E.

Senior Vice President

G:\ENV\COMMON\WASTEMAN\HARDEE\PER\\IIT\PELZ1117.WPD

07-862.35

Enclosure

c: J. R. Prestridge, Hardee County 07-862.35

(See Board Aport)



Fax: 407 / 647-8945

## **TELECUPY TRANSMISSION**

**ENVIRONMENTAL SERVICES - Winter Park** 

Watts: 800 / 284-518	32	Job Number:	07-862.35
DATE:	November 12, 1998		
	Susan Pelz, P. E.	17.50	
	FDEP - Tampa	NOV 19 1998	
	813-744-6125	TAMPA	
ORIGINATOR:	Dave Deans	OFF	ICE: PBS&J - Winter Park
Transmit Date / Ti	mo ·		
	OF PAGES BEING SENT (	(including cover sheet):	2
Remarks:	Susan,		
Please see the attac	ched geologic fence diagra	m. I am proposing that the b	ottom of the liner be keyed into
			This would provide the 1.5 feet of
		· · · · · · · · · · · · · · · · · · ·	believe that the lower depth to
			t elevation 72.0. At boring location 4

we are very close to having the 1.5 foot of key - within three tenths of a foot. This still gives us 1.2 feet of cover over the liner. Since there is already about 2,200 feet of liner existing that was installed to the clay layer 10-15 feet below ground surface, I see no environmental benefit gained by excavating 25 feet to elevation 60.0 to install the last 400 feet of liner. The leachate collection system adjacent to this new liner will be installed below the water table. I believe that the functional benefit that the LCS provides to the water table elevation in this area mitigates the "risk" of local variations in the consistency or depth of the clay. Please call me Monday to discuss this proposal.

If you have any trouble receiving this transmission,

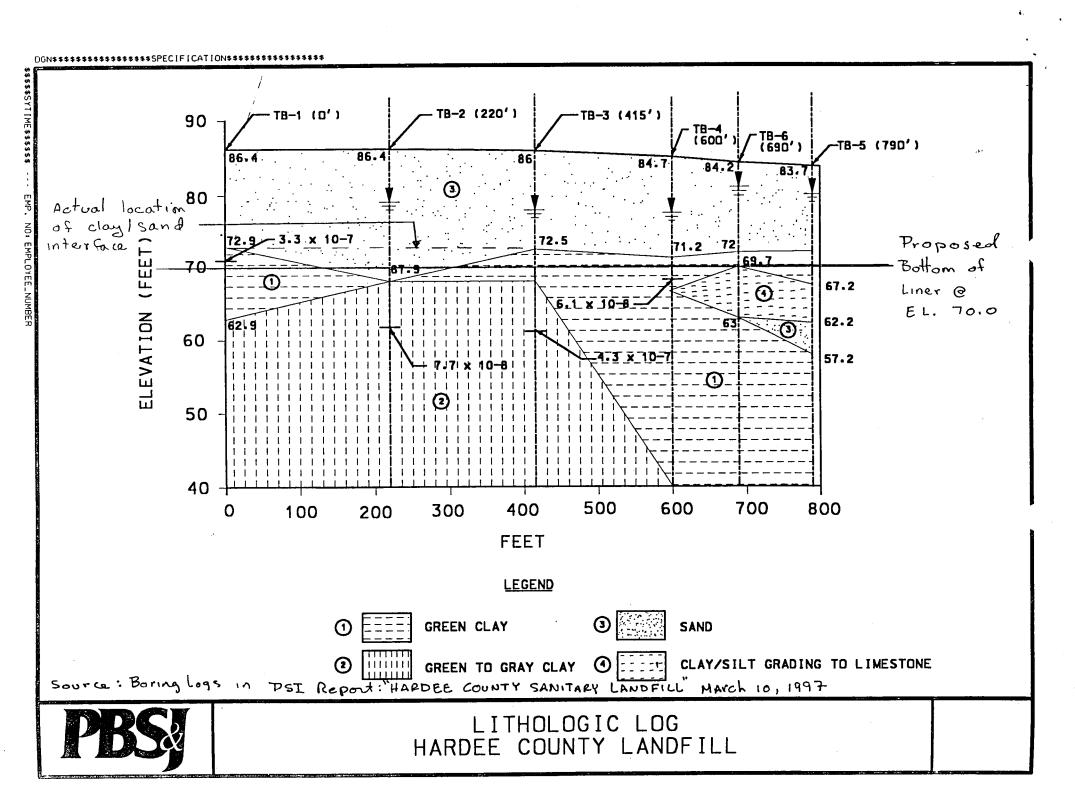
please call

Marlene Vanderdrift

EXT. 381 at

c: J. R. Prestridge Hardee County 1560 Orange Ave, Suite 700, TELEPHONE: 407/647-7275 FAX: 407/647-0624

Winter Park, FL 32789



## November 17, 1998

The following Liner Tie-in to Clay Plan, consisting of a telecopy transmission cover sheet and attached figure entitled "Lithologic Log, Hardee County Landfill" to Susan Pelz, P.E. at FDEP-Tampa on November 12, 1998 was prepared by the undersigned or prepared under his supervision

David E. Deans, P.E.

Senior Vice President

Florida P.E. # 31095

#### Florida Department of

### **Environmental Protection**



#### **FAX TRANSMITTAL**

DATE: November 17, 1998

PAXE D

TO: J.R. Prestridge - Hardee County

Phone: 941-773-5089 Fax: 941-773-3907 Maureen Mauriello/David Deans - PBSJ

Phone: 407-647-7275 Fax: 407-647-8945

FROM:

Susan Pelz. P.E.

Phone: (813) 744-6100 ext 386

Fax: (813) 744-6125

TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET -3-

SUBJECT: Hardee County Landfill - Liner tie-in to clay

PBSJ fax dated November 12, 1998

The Department has reviewed your fax referenced above.

- 1. Please provide a hard copy of this information which bears the original signature and seal of the engineer who prepared it.
- 2. Attached are revised Specific Conditions #10.a. and #10.b. of construction permit 38414-001-SC, which have been revised based on the information submitted in your fax. Please be reminded that in the event that the clay layer is not encountered at the expected elevation, the Contractor must excavate to sufficiently tie the liner in (minimum of 1.5 feet of clay tie-in-Specific Condition #10.b.) and must take sufficient grade shots to document the liner tie-in (Specific Condition #8.c.).

We will be sending out the Intent to Issue this week with the attached conditions (and conditions faxed to you on October 20, 1998). I will let you know when the Intent goes out so you can publish the required notice. If you have any questions, you may contact me at the phone number listed above.

(Specific Condition #7. cont'd)

- b. An updated construction schedule and progress report shall be submitted to the Department **monthly.** The monthly progress report should be submitted in an appropriately labeled threering binder of sufficient size to store the monthly progress reports for the entire project. The monthly progress reports shall include, but not be limited to:
  - 1) A narrative explaining the status (and any delays) of major stages of the construction (i.e. liner, tank, piping, etc.),
  - 2) A summary of submittals and change order requests [Specification Section 01340-1.01.C.], and
  - 3) Color copies of photographs which are representative of the typical construction activities for the reporting period, and photographs which show "special construction." major stages of construction such as the liner toe tie-in. [Specification Section 01380]

#### 8. Construction Tolerances.

- a. Sufficient spot elevations (grade shots) of the leachate collection trenches shall be recorded to demonstrate, at the 98% confidence level, that the leachate collection system has been constructed to the slopes and grades shown on Sheet C-2 [ref. SC#2.a(8)(b)]. In the event that the frequency required by the Specifications is not sufficient to provide this demonstration, additional spot elevations shall be taken. [Specification Section 02776-7.02.B.] This information shall be included with the Record Documents (see Specific Condition #13, below).
- b. As-built topographic surveys shall demonstrate that each liner component phase and leachate collection system was constructed within the tolerance (0.1 feet) required by the Drawings and Specifications. [Specification Sections 01050-1.04.B. and 02220-3.10.A.]
- c. As-built elevations of the liner/clay tie-in (i.e. toe of the liner) shall be taken. These elevations (grade shots) shall be taken a minimum of every 100 lineal feet of liner trench and at locations where the underlying clay abruptly changes elevation. In areas which exhibit inconsistent subsurface conditions, the grade shots shall be taken more frequently.

(Specific Condition #9. cont'd)

m. At least one (1) week prior to the field holiday testing of the tank, the Department shall be notified to allow for observation. [Specification Sections 11200-3.01.E. and 13200-3.01.B.4.]

#### 10. Geosynthetic Materials and HDPE Piping.

- The permittee shall ensure that the clay layer which the geomembrane is keyed into is consistent with the clayey material described in the permit application [ref. SC#2.a(1), Appendix C and SC#2.a(2), Attachment G]. The geomembrane shall be keyed into clay material at a mininimum depth of 25 feet below land surface or at an elevation no higher than +70 feet NGVD.7 whichever is lower. [ref. SC#2.a(1), Appendix C] Contractor excavates to this depth and ties the geomembrane liner into a clayey material consistent with that shown in the boring logs, then permeability testing will not be required. the material which is encountered at this elevation is not consistent with the <del>clayey material</del> green to gray clay shown in the boring logs, the permittee shall ensure that the Contractor excavates to a depth sufficient to tie the geomembrane into a clay layer consistent with that shown in the boring logs. Department shall be notified immediately if the Contractor discovers that the clayey material is not present at the expected elevation. If this is the case, the Department may require additional documentation or testing to ensure that the geomembrane has been sufficiently tied into the clay layer. Sufficient tests shall be conducted to demonstrate that the clayey material which the geomembrane is actually keyed into has similar properties, including hydraulic conductivity, to the materials described in Table 1 (Appendix C, SC#2.a(1)). These test results shall be submitted as part of the Record Documents required by Specific Condition #13.
- b. The geomembrane shall be keyed a <u>minimum</u> of 1.5 feet into the clay layer *in all locations*. [Specification Section 02776-5.01.B.1.]
- c. Written acceptance of the subgrade by the geomembrane installer shall be provided to the Engineer prior to placement of the geomembrane on the subgrade. [Specification Section 02776-5.01.B.]
- d. The procedure used to temporarily bond adjacent geomembrane panels together shall not damage the geomembrane. [Specification Section 02776-5.01.D.3(b)]
- e. Geomembrane seaming activities shall <u>only</u> be conducted during daylight hours and within the weather requirements of the

#### Transmit Confirmation Report

No. 006

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#### Transmit Confirmation Report

No. 007

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Date Time Mode Norm

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Fax: 407 / 647-8945 Watts: 800 / 284-5182

# TELECOPY TRANSMISSION

**ENVIRONMENTAL SERVICES - Winter Park** 

Watts: 800 / 284-518	32 Jo	ob Number: _	07-862.35
nate.	November 12, 1998		
DATE			
SENDING TO:	Susan Polz, P. E.		
OFFICE:	FDEP - Tampa		
FAX#	813-744-6125		
ORIGINATOR:	Dave Deans		OFFICE: PBS&J - Winter Park
Transmit Date / 11	lme:		
TOTAL NUMBER	OF PAGES BEING SENT (including	g cover sheet):	2
Remarks:	Susan,		
	ched geologic fence diagram. I am r	proposing that t	he bottom of the liner be keyed into
the clay at elevation	70.0, approximately 13 feet below th	ne ground surfa	ice. This would provide the 1.5 feet of
key into the clay laye	er at boring locations 1,3,5 and 6. At	t boring location	12, I believe that the lower depth to
clay at this location i	is an annomoly - the clay interface is	more likely at a	about elevation 72.0 At boring location 4
we are very close to	having the 1.5 foot of key - within th	ree tenths of a	foot. This still gives us 1.2 feet of cover
over the liner. Since	there is already about 2,200 feet o	f liner existing t	that was installed to the clay layer 10-15
feet below ground s	urface, I see no environmental bene	fit gained by ex	cavating 25 feet to elevation 60.0 to
install the last 400 fe	et of liner. The leachate collection :	system adjacen	t to this new liner will be installed below
the water table. I be	elieve that the functional benefit that	the LCS provid	es to the water table elevation in this
area initigates the "r	risk" of local variations in the consiste	ency or depth o	f the clay. Please call me Monday to
discuss this propose	al.		
	If you have any troub	le recelving th	is transmission,

c: J. R. Prestridge Hardee County 1560 Orange Ave, Suite 700, Winter Park, FL 32789 TELEPHONE: 407/647-7275 FAX: 407/647-0624

**EXT. 381** 

please call

Marlene Vanderdrift

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

#### CONVERSATION RECORD

Date	Subject into for constr. permit
Time	Permit No.
M <i>SR Prestridge</i> Representing	County
[] Phoned Me [] W	as Called [ ] Scheduled Meeting [ ] Unscheduled Meeti
Summary of Conversation/Meeting  MANEN'T GOTTON  HE WILL CALL DA  Soup. Dave Deans called & left	Submitted which was exacted on 11/6 wid Deans & Find out states message on um (800-284-5182) message on Dare Dean's vm
(continue on another	Signature
sheet, if necessary)	Title

1/96 pap



October 28, 1998

Ms. Susan J. Pelz, P.E. Solid Waste Section Southwest District 3804 Coconut Palm Drive Tampa, FL 33619

Re:

Hardee County Class I Landfill Pending Permit No. 38414-001-SC Revised Dewatering Specification 02140

Dear Ms. Pelz:

Enclosed for your approval is the revised dewatering specification for the above-referenced project. This specification has been revised to set the prime method of disposal of the dewatering fluid to be trucking of the water to a WWTP for disposal, with on-site storage in a temporary pond constructed for this purpose as a back up option.

Please call me if you have any questions or comments regarding the enclosed specification.

Very truly yours,

David E. Deans, P.E.

Danid E. Deans

Sr. Vice President

G:\ENV\COMMON\WASTEMAN\HARDEE\PERMIT\PELZ1028.WPD

Enclosure

C:

OCT 3 # 1998

J. R. Prestridge, Hardee County

#### **SECTION 02140**

#### **DEWATERING**

#### PART 1 - GENERAL

#### 1.01 DESCRIPTION

A. Scope of Work: The work to be performed under this section shall include furnishing all equipment and labor necessary to remove storm or subsurface waters from excavation and lined areas in accordance with the requirements set forth herein and as shown on the Drawings.

#### 1.02 QUALITY ASSURANCE

A. The dewatering of any excavation or lined areas and the disposal of the water shall be in strict accordance with the latest revision of all local, state and federal government rules and regulations.

#### 1.03 SUBMITTALS

A. The Contractor shall submit a detailed dewatering plan to the Engineer for review. Review shall be for general information only. The Contractor shall remain responsible for the adequacy and safety of the methods. The dewatering plan shall describe the procedures and schedule to be followed and include the types and capacities of equipment proposed to be used. The testing parameters and frequencies, if required shall be included. The Contractor's dewatering plan will be reviewed by the Florida Department of Environmental Protection (FDEP). The dewatering plan shall be approved by FDEP prior to construction:

#### PART 2 - PRODUCTS (Not Applicable)

#### PART 3 - EXECUTION

#### 3.01 DEWATERING

A. The Contractor shall provide adequate equipment for the removal of storm or subsurface waters which may accumulate in the excavation or on the lined areas.

- B. If subsurface water or ponding is encountered, the Contractor shall utilize suitable equipment to adequately dewater the excavation or lined areas so that it will be dry for continuation of work. A well point system or other Engineer-approved dewatering method shall be utilized, if necessary, to maintain the construction area in a dry condition for preparation of the lined areas for construction or trench bottoms for pipe placement.
- C. Dewatering by trench pumping will not be permitted if migration of fine grained natural material from bottom, side walls, or bedding material will occur.
- D. In the event that satisfactory dewatering cannot be accomplished due to subsurface conditions or where dewatering could damage existing structures, the Contractor shall obtain the Engineer's approval of wet trench construction before resuming work.

#### 3.02 DISPOSAL

A The Owner has two alternatives options for the disposal of dewatering activities. The Contractor shall be informed of the selected alternative when the Notice to Proceed is given, preferred option is contained in the base bid. Should site conditions require additional storage capacity, Option 1 may be exercised at the Owner's choice.

#### 1 ----Alternative | Base Bid

a. Water shall be pumped to the existing dewatering ditch. Contractor shall monitor and record the flow into the dewatering ditch. Contractor shall be responsible for the transportation and disposal of all water pumped into the dewatering ditch by the Contractor at the Wachula Waste Water Treatment plant or other permitted facility.

#### 2. Alternative 2 Option I

a. Contractor shall construct a temporary reinfiltration pond in the location shown on Sheet C-1 of the Construction Drawings. Fill material for the pond berms shall be obtained from the Owner's onsite borrow source. Excavation and transport of the fill material shall be coordinated with the Owner. Pond berms shall be a minimum of four (4) feet in height and no steeper that 2 horizontal to 1 vertical (2.1). Excavation and compaction shall be in accordance with Section 02220.

- Ab. Water shall be pumped into this temporary pond. to the pond temporary storage area from the lined areas, trench or other excavation. shall be disposed of in storm sewers, canals or suitable disposal pits having adequate capacity. tested by the Contractor in the field, in the presence of the Engineer's on-site representative, to determine if the water can be discharged to the adjacent borrow area. The Contractor shall give the Engineer's representative two-hour notice when testing will be conducted. The flow into the pond shall be monitored and recorded.
- An initial testing of the subsurface water shall be conducted in the vicinity of the excavation prior to construction. The following is a partial list for the proposed initial testing, the final list of parameters will be determined by FDEP during approval of the Contractor's dewatering plan;

Parameter	Maximum Containment Level (mg/l)
Antimony	0.006
Arsenic	<del>0:05</del>
Barium	2
- Beryllium	0.004
<u>Cadmium</u>	0.00 <del>5</del>
Chromium	<del></del>
	0.2
Fluoride	4:0
Lead	<del>0:015</del>
Mercury	0.002
Nickel Nickel	0.1
	—————————————————————————————————————
- Nitrate	
Nitrite	1 (as N)
Selenium	<del>0.05</del>
Sodium	<del>160</del>
Thallium	0.002

#### Testing parameters are listed below:

1 maneter 220Bites 2
(A) (B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C
Chloride Z50 mg/L
Chorac 250 mg/2
Specific Conductance 200 damage and
W&XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

d. After initial testing those parameters that were above detection limits will continued to be sampled along with Nitrate, Nitrite and Sodium.

The preliminary testing frequency is twice per day (at the beginning and end of the work day). The testing frequency may be decreased depending on the results of the testing and the requirements of FDEP water (approximately one volume of the County leachate hauling vehicle) temporary storage area. The costs for testing shall be at the Contractor's expense.

If testing reveals results within acceptable levels of listed parameters, the Contractor shall discharge the water from the temporary storage area to the County's adjacent borrow area by method submitted to and accepted by the Engineer. Energy dissipation, and turbidity and sediment control of the waters discharged into the borrow area shall be included in the discharge method submitted:

If testing reveals results are not within listed parameters, At the County's option, the Contractor shall contact the County immediately and arrange for removal and hauling of the water to the County's leachate treatment facility for treatment. Additional dewatering shall be conducted in accordance with Alternative 1— dispose of the water in this pond in the same manner as contained in 3.02A.1.a.

Upon completion of the dewatering operation, the 60 mil HDPE geomembrane shall be disposed in the active disposal area at no cost to the Contractor. The area shall be graded and restored to its pre-construction grades, including sod installation.

- B. The Contractor is responsible for acquiring at no cost to the County or Engineer, all permits required to discharge the water and shall protect waterways from turbidity or silting during the operation.
- C. In areas where adequate water disposal sites are not available, partially back-filled trenches may be used only when the Contractor's plan for trench disposal is approved in writing by the Engineer. The Contractor's plan shall include temporary culverts, barricades and other protective measures to prevent damage to property or injury to any person or persons.
- BD: No flooding of roadways, driveways or private property will be permitted. Engines driving dewatering pumps shall be equipped with residential type mufflers. Where practical and feasible, electrical "drops" should be used in lieu of portable generators.
- Stormwater from any construction areas shall not be allowed to enter the adjacent active or inactive solid waste disposal areas.

END OF SECTION

### FAX TRANSMOTTAL



### HARDEE COUNTY

SOLID WASTE DEPARTMENT
MATERIAL RECOVERY FACILITY
685 AIRPORT ROAD
WAUCHULA, FL 33873

,
10/27/98
DEP
SUSAN PELZ
J.R. PRESTRIDGE
:
WAIVER FOR EXTENSION
813-744-8125
2

COMMENTS:
SUSAN,
ATTACHED IS THE SIGNED 90 DAY WAIVER.
PLEASE LET US KNOW IF YOU NEED ANYTHING
ELSE.
THANKS,
J.R.

PLEASE DELIVER THESE PAGES TO THE INDIVIDUAL NAMED ABOVE. IF YOU HAVE ANY DIFFICULTY

RECEIVING THIS TRANSMISSION OR IF PAGES ARE MISSING OR ILLEGIBLE, PLEASE CALL (941) 773-5089

AND SPEAK WITH JANICE.

HAPPY HALLOWEEN



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

38414-002-50

License (Permit, Certification) Application No. 38414 - 001-5C

Applicant's Name: Hander G BOXC, 5R Prestridge

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 Regulation 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 Regulation.

This waiver shall expire on the 2 day of December 1998.

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

Signature

1.1

J. R. Prestridge Hame (Please Type or Pront)

Revised April, 1990

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

#### CONVERSATION RECORD

Permit No.
County
Telephone No. 94/->>3 -5089
[ ] Scheduled Meeting [ ] Unscheduled Meeting
Meeting Dave Deans, JR Meshridge
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to 27ft ble will cost an additional
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Title PR 1



# Department of Environmental Protection

Lawton Chiles Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretary

FAX TRANSMITTAL SHEET
10/26/98
Date
TO:
Phone: $941-773-5089$ Fax: $941-773-3907$
FROM: SUSAN Pelz
Phone: (813) 744-6100 ext 386 Fax: (813)744-6125
TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET 5
SUBJECT: Wriver of 90-day Clock.
I have Also Attached the Notice that you need to
publish. Don't publish until I call you
And let you know that "Intent to Issue" has
publish. Don't publish until I call you and let you know that "Intent to Issue" has gove out. I need into (as discussed today on phone)
No later than 11/6 so I can send Intent
ort on 11/9 or 11/10. I will need proof of
publication ASAP (fax copy of Newspaper section
is ok - then tollow with notarized Affidavit)
to stant the clock. We will issue as soon
As 14-day petition period ends - but we have
to have proof of publication to start the
14-da chack
CALL if you have any grestions.

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

	38414-002-50
License (Permit, Certification) Application No.	38414-001-SC
Applicant's Name: Handee Co BOCC, JR Pace	
With regard to the above referenced application hereby with full knowledge and understanding rights under Sections 120.60(2) and 403.0876, waives the right to have the application appropriate the State of Florida Department of Environg within the 90 day time period prescribed by lamade freely and voluntarily by the application knowledge, and without any pressure or comployed by the State of Florida Department Regulation.	Florida Statutes, roved or denied by nmental Regulation w. Said waiver is icant, with full percion by anyone
This waiver shall expire on the day of	December 1998.
The undersigned is authorized to make this w the applicant.	aiver on behalf of
Signature	

Name (Please Type or Print)

#### Transmit Confirmation Report

No.

Receiver

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# Department of Environmental Protection

Lawton Chiles Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell .

FAX TRANSMITTAL SHEET
10/20/98 (436)
Date /
TO: JR/JANICE
Phone: $941-773-5089$ Fax: $941-773-3907$
FROM: Sustand Pelz
Phone: (813) 744-6100 ext 386 Fax: (813)744-6125
TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET 5
SUBJECT: Construction Parait 38414-001-5C
Attached are conditions I revised as  A result of our meeting. Dave Deans  Sent A newised Dematering Spec for  my review - it looks ok.
A result of our neeting, Dave Deans
sext A newised Dewatering Spec for
my nuiew - it looks ok.
Please give me your comments ASAP.
7,715
Waiven expines 10/30/90 - I'm some permit
leave 14 days for actitioning period -
leave 14 days for petitioning period -  We may need another warver for that.  I'll let yor know.
I'll let you know.

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 Rule 62-701.330(3), F.A.C.

#### 5. Pre-Construction Submittals.

- a. At least **thirty (30) days prior** to <u>initiation</u> of <u>any</u> construction activity, unless otherwise specified, the permittee shall submit the following information to the Department:
  - 1) A complete set of Plans, Specifications and CQA Plan to be used for construction which includes all changes (i.e., all additions, deletions, revisions to the plans previously approved by the Department). Significant changes in the plans, as determined by the Department, shall require a permit modification. All changes in the plans shall be noted on the plans and accompanied by a narrative indicating the change, the cause of the deviation, and a re-certification of the alternate design by the design engineer. These alternate designs shall be approved by the Department prior to construction. If no changes have been made to the construction plans, Specifications or CQA Plan, the permittee shall notify the Department in writing that no changes have been made, and re-submittal of these documents will not be required prior to construction.
  - 2) The Dewatering Plan [Specification Section 02140]. The Dewatering Plan shall describe which alternative [Specification Section 02140 3.02.A.] will be used, and include the sampling/analysis parameters and frequencies, discharge rate and other pertinent information. Construction shall not begin until the Dewatering Plan has been approved by the Department.
  - 3) The role and name of the specific company/organization for each of the parties shown in Figure 1-1, CQA Plan.
- b. At least thirty (30) days prior to initiation of construction activities for the leachate storage tanks system, the permittee shall submit the following information to the Department:
  - 1) Calculations which verify the secondary containment capacity. [Specifications Sections 11200-1.04.A., 1.06.A.2. and 13200-1.04.C., 1.05.A.3.]

(Specific Condition #7. cont'd)

- b. An updated construction schedule and progress report shall be submitted to the Department **monthly.** The monthly progress report should be submitted in an appropriately labeled three-ring binder of sufficient size to store the monthly progress reports for the entire project. The monthly progress reports shall include, but not be limited to:
  - 1) A narrative explaining the status (and any delays) of major stages of the construction (i.e. liner, tank, piping, etc.),
  - 2) A summary of submittals and change order requests [Specification Section 01340-1.01.C.], and
  - 3) Color copies of photographs which are representative of the typical construction activities for the reporting period, and photographs which show "special construction." major stages of construction such as the liner toe tie-in. [Specification Section 01380]

#### 8. Construction Tolerances.

- a. Sufficient spot elevations (grade shots) of the leachate collection trenches shall be recorded to demonstrate, at the 98% confidence level, that the leachate collection system has been constructed to the slopes and grades shown on <a href="Sheet C-2">Sheet C-2</a> [ref. SC#2.a(8)(b)]. In the event that the frequency required by the Specifications is not sufficient to provide this demonstration, additional spot elevations shall be taken. [Specification Section 02776-7.02.B.] This information shall be included with the Record Documents (see Specific Condition #13, below).
- b. As-built topographic surveys shall demonstrate that each liner component phase and leachate collection system was constructed within the tolerance (0.1 feet) required by the Drawings and Specifications. [Specification Sections 01050-1.04.B. and 02220-3.10.A.]
- c. As-built elevations of the liner/clay tie-in (i.e. toe of the liner) shall be taken. These elevations (grade shots) shall be taken a minimum of every 100 lineal feet of liner trench and at locations where the underlying clay abruptly changes elevation. In areas which exhibit inconsistent subsurface conditions, the grade shots shall be taken more frequently.

(Specific Condition #9. cont'd)

m. At least one (1) week prior to the field holiday testing of the tank, the Department shall be notified to allow for observation. [Specification Sections 11200-3.01.E. and 13200-3.01.B.4.]

#### 10. Geosynthetic Materials and HDPE Piping.

- The permittee shall ensure that the clay layer which the geomembrane is keyed into is consistent with the clayey material described in the permit application [ref. SC#2.a(1), Appendix C and SC#2.a(2), Attachment G]. The geomembrane shall be keyed into clay material at a minimum depth of 25 feet below land surface or at an elevation no higher than +70 feet NGVD, whichever is lower. [ref. SC#2.a(1), Appendix C] If the Contractor excavates to this depth and ties the geomembrane liner into a clayey material consistent with that shown in the boring logs, then permeability testing will not be required. If the material which is encountered at this elevation is not consistent with the clayey material shown in the boring logs, Hy  $\mathcal{C}$  the permittee shall ensure that the Contractor excavates to a depth sufficient to tie the geomembrane into a clay layer consistent with that shown in the boring logs. The Department shall be notified immediately if the Contractor discovers that the clayer material is not present at the expected elevation. If this is the case, the Department may require additional documentation or testing to ensure that the geomembrane has been sufficiently tied into the clay layer. Sufficient tests shall be conducted to demonstrate that the clayey material which the geomembrane is actually keyed into has similar properties, including hydraulic conductivity, to the materials described in Table 1 (Appendix C, SC#2.a(1)).—These-test-results shall be submitted as part of the Record Documents required by Specific Condition #13. in all locations.
  - b. The geomembrane shall be keyed a minimum of 1.5 feet into the clay layer. [Specification Section 02776-5.01.B.1.]
  - c. Written acceptance of the subgrade by the geomembrane installer shall be provided to the Engineer prior to placement of the geomembrane on the subgrade. [Specification Section 02776-5.01.B.]
  - d. The procedure used to temporarily bond adjacent geomembrane panels together shall not damage the geomembrane. [Specification Section 02776-5.01.D.3(b)]
  - e. Geomembrane seaming activities shall <u>only</u> be conducted during daylight hours and within the weather requirements of the

green to -

- 21. Management of Dewatering Fluids. Dewatering fluids from the trench excavation shall be either:
  - a. Managed as leachate and disposed of at a permitted wastewater treatment facility, if the fluid chemistry is the same as the site's leachate (no additional testing required) or;
  - b. Discharged to an on-site reinfiltration pond, if initial testing of the ground waters (i.e. dewatering fluids) to be removed indicates that it will not present a violation of ground water quality standards in excess of the background water quality, AND reinfiltration is conducted under the Department-approved plan which specifies sampling parameters, frequency, discharge rate and other pertinent information.
  - c. In the event that the option described in Specific Condition #21.b. (see also Option 1, Specification Section 02140-3.02.A.2.), is used, within 30 days of implementation, a leachate management plan shall be submitted to the Department for approval. This plan shall include, but not be limited to, sampling parameters, frequencies, discharge rate and other pertinent information. required by Specific Condition #5.a(2), above.
- 22. **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.
- 23. **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.

24. **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.

Executed in Tampa, Florida

**BEST AVAILABLE COPY** 

WASTE MGT TAMPA SWDIST TEL:813-744-6125

Oct 20 98 16:36

Transmit Confirmation Report

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1560 Orango Ave, Suite 700, Winter Park, Florida 32789 TELEPHONE: 407/647-7275 FAX: 407/647-8945

#### Transmit Confirmation Report

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Receiver Transmitter

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Mode Norm

02 0K Pages Result

# **MEMO**

To:

From:

Susan Pelz, P.E.

David E. Deans, P.E. 2

Subject:

Hardee County Dewatering Specification 02140

Date:

October 16, 1998

We have revised the Dewatering specification referenced above to make Alternative 1 of "Section 3.02 Disposal" the prime method of disposal to be utilized by the contractor. If this option gets overwhelmed (ie the dewatering water is discharged into the leachate trench at a faster rate than the WWTP can receive the water, and the storage capacity of the trench is reached before construction is completed), then the County would exercise the option of constructing the on-site temporary pond and storing the dewatering water there.

If the County has to exercise the option of the temporary pond, the County will assume responsibility for the ultimate disposal of the water in the pond. This would eliminate placing an undefined testing and disposal responsibility on the contractor. The County can more cost effectively manage this, since the ultimate disposal method utilized for this water will not be determined until after the County provides the Department with an analysis of the water in the pond.

Please review the revised specification and see if it now meets the objectives of the Department. Call me with any questions or comments you may have. Once the details are worked out, we will submit the final revision for Department approval.

Thanks for your assistance in bringing this matter to a successful conclusion.

G:\ENV\COMMON\WASTEMAN\HARDEE\PRRMIT\FDEP1016.WPD

c: 07-862.35



#### SECTION 02140

#### DEWATERING

#### PART 1 - GENERAL

#### 1.01 DESCRIPTION

A. Scope of Work: The work to be performed under this section shall include furnishing all equipment and labor necessary to remove storm or subsurface waters from excavation and lined areas in accordance with the requirements set forth herein and as shown on the Drawings.

#### 1.02 QUALITY ASSURANCE

A. The dewatering of any excavation or lined areas and the disposal of the water shall be in strict accordance with the latest revision of all local, state and federal government rules and regulations.

#### 103 SUBMITTALS

A. The Contractor shall submit a detailed dewatering plan to the Engineer for review. Review shall be for general information only. The Contractor shall remain responsible for the adequacy and safety of the methods. The dewatering plan shall describe the procedures and schedule to be followed and include the types and capacities of equipment proposed to be used. The testing parameters and frequencies, if required shall be included. The Contractor's dewatering plan will be reviewed by the Florida Department of Environmental Protection (FDEP). The dewatering plan shall be approved by FDEP prior to construction:

#### PART 2 - PRODUCTS (Not Applicable)

#### PART 3 - EXECUTION

#### 3.01 DEWATERING

A. The Contractor shall provide adequate equipment for the removal of storm or subsurface waters which may accumulate in the excavation or on the lined areas.

02140 - 1

G/ENV/COMMON/WASTEMAN/HARDEE/BIDSPECS/02140.DEP

Revised 10/16/98

- B. If subsurface water or ponding is encountered, the Contractor shall utilize suitable equipment to adequately dewater the excavation or lined areas so that it will be dry for continuation of work. A well point system or other Engineer-approved dewatering method shall be utilized, if necessary, to maintain the construction area in a dry condition for preparation of the lined areas for construction or trench bottoms for pipe placement.
- C. Dewatering by trench pumping will not be permitted if migration of fine grained natural material from bottom, side walls, or bedding material will occur.
- D. In the event that satisfactory dewatering cannot be accomplished due to subsurface conditions or where dewatering could damage existing structures, the Contractor shall obtain the Engineer's approval of wet trench construction before resuming work.

#### 3.02 DISPOSAL

The Owner has two alternatives options for the disposal of dewatering activities. The Contractor shall be informed of the selected alternative when the Notice to Proceed is given: preferred option is contained in the base bid. Should site conditions require additional storage capacity, Option 1 may be exercised at the Owner's choice.

#### 1. Alternative 1Base Bid

a. Water shall be pumped to the existing dewatering ditch: Contractor shall monitor and record the flow into the dewatering ditch. Contractor shall be responsible for the transportation and disposal of all water pumped into the dewatering ditch by the Contractor at the Wachula Waste Water Treatment plant or other permitted facility.

#### 2. Alternative 2 Option 1

Contractor shall construct a temporary reinfiltration pond in the location shown on Sheet C-1 of the Construction Drawings. Fill material for the pond berms shall be obtained from the Owner's on-site borrow source. Excavation and transport of the fill material shall be coordinated with the Owner. Pond berms shall be a minimum of four (4) feet in height and no steeper that 2 horizontal to 1 vertical (2:1). Excavation and compaction shall be in accordance with Section 02220.

- Ab. Water Stall be pumped into this temporary pond to the pond temporary storage area from the lined areas, trench or other excavation, shall be disposed of in storm sewers, canals or suitable disposal pits having adequate capacity. tested by the Contractor in the field, in the presence of the Engineer's on site representative, to determine if the water can be discharged to the adjacent borrow area The Contractor shall give the Engineer's representative two-hour notice when testing will be conducted. The flow into the pond shall be monitored and recorded:
- An initial testing of the subsurface water shall be conducted in the vicinity of the excavation prior to construction. The following is a partial list for the proposed unitial testing, the final list of parameters will be determined by FDEP during approval of the Contractor's dewatering plan:

Param		Maximum G	ontainment:Level (mg/l)
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#### Testing parameters are listed below:

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The preliminary testing frequency is twice per day (at the beginning and end of the work day). The testing frequency may be decreased depending on the results of the testing and the requirements of TDEP: water (approximately one volume of the County leachare hauling vehicle) temporary storage area. The costs for testing shall be at the Contractor's expense:

If testing reveals results within acceptable levels of listed parameters, the Contractor shall discharge the water from the temporary storage area to the County's adjacent borrow area by method submitted to and accepted by the Engineer. Energy dissipation, and turbidity and sediment control of the waters discharged into the borrow area shall be included in the discharge method submitted:

If testing reveals results are not within listed parameters, At the County's option, the Contractor shall contact the County immediately and arrange for removal and hapling of the water to the County's leachate treatment facility for freatment. Additional dewatering shall be conducted in accordance with Alternative 1. dispose of the water in this pond in the game manner as contained in 3.02%, Is as

Upon completion of the dewatering operation, the 60 mil HDPB geomembrane shall be disposed in the active disposal area at no cost to the Contractor. The area shall be graded and restored to its pre-construction grades, including sod installation.

- B. The Contractor is responsible for acquiring at no cost to the County or Engineer, all permits required to discharge the water and shall protect waterways from turbidity or silting during the operation.
- In areas where adequate water disposal sites are not available, partially back-filled trenches may be used only when the Contractor's plan for trench disposal is approved in writing by the Engineer. The Contractor's plan shall include temporary culverts, barricades and other protective measures to prevent damage to property or injury to any person or persons.
- B.D. No flooding of roadways, driveways or private property will be permitted. Engines driving dewatering pumps shall be equipped with residential type mufflers. Where practical and feasible, electrical "drops" should be used in lieu of portable generators.
- Stormwater from any construction areas shall not be allowed to enter the adjacent active or inactive solid waste disposal areas.

END OF SECTION

02140 - 4

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

#### CONVERSATION RECORD

Date $\frac{10/15-98}{}$	Subject Handee
Time 242	Permit No.
	County
M David DeAus	Telephone No.
Representing	
[ ] Phoned Me [ ] Was	Called [ ] Scheduled Meeting [ ] Unscheduled Meeting
Other Individuals Involved in Conv	versation/Meeting
Summary of Conversation/Meeting	
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PA-01 1/96 pap



Name

TPA-02 04/93

# Florida Department of Environmental Regulation

Southwest District

Lawton Chiles, Governor

3804 Coconut Palm Dr.

813-744-6100

Tampa, Florida 33619 Virginia Wetherell, Secretary

Telephone

DATE:	9/22/98	
TIME:	1:04.	
SÜBJECT:	Handee Co	

#### <u>ATTENDEES</u>

Affiliation

		•
Susan Pelz	FDEP	813-744-6100 x 386
J. R. Prestridge	HArdre co	941-7735089
BOB BUTERA	HArdee co.	941-7739430
BOB BUTERA	FOFF	813-741-6100 X451
<u> </u>		
	<u> </u>	
	1	

9/22/98 Handee 6 Op/Liver & Tank Reviewed Opolanit changes. - Agreement Construction Permit Permuspility of clay -- Need to know if clay is ok before therein is
opened up; don't want to open to trunch the
tests & wait for results -expect clay e el +71 (25 Ft deep)

-if go a At least As deep As bonings show clay

then don't have to test -if No clay at that el. then go degen.
- And will key in min. of 18" #IDE Geomembrane shall be keyed into clay material

I A minimum depth of 25 Feet Brom, sinfine

At AN elevation NO higher than el. +70 As shown is

The boning logs [ ]. In the event that clay

IS NOT found at this elevation, ..., Daugtering Plan

Se # 5, a(2) SC # 21

County intends on harling offsite - newsed section 02140 On-site Representives

PE on "designee" onsite - most of the fine is not PE,

bt is enzacen on technician

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

38414-002-50

License (Permit, Certification) Application No. 38414-001-5C

Applicant's Name: Hander Co BOCC, JR Prestridge

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 pepartment of Environmental Regulation 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 Regulation.

This waiver shall expire on the 30th day of October 1998.

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

J.R. Prestridge (Please Type or Print)

Revised April, 1990



# Department of Environmental Protection

Lawton Chiles Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell .

FAX TRANSMITTAL SHEET
9/1/98
TO: Date
Phone: $941-773-5089$ Fax: $941-773-3907$
FROM: Susker Pelz
Phone: (813) 744-6100 ext $386$ Fax: (813) 744-6125
TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET
SUBJECT: Please sign at Hacked waiver and Actual
SUBJECT: Please sign at tracked waiver and Return to me (Fax de). The meeting is sheduled for 9/22/98 at 1:00 pm at our office.
for 9/22/98 At 1:00 pm At an office.
We look Forward to meeting with you ther.

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

Applicant's Name: Hander Co Bocc, JR Prestridge

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Signature

Name (Please Type or Print)

#### Transmit Confirmation Report

No.

Receiver

006 819417733907 WASTE MGT TAMPA SWDIST Sep 01 98 14:00 01'51 Norm Transmitter Date Time

Mode

Pages Result

### **FAX TRANSMITTAL**

\*\*\*\*\*\*\*\*\*\*\*\*\*

HARDEE COUNTY
SOLID WASTE DEPARTMENT
MATERIAL RECOVERY FACILITY
P.O. BOX 246 / 665 AIRPORT ROAD
WAUCHULA, FLORIDA 33873

9/22/98 1:00p

DATE:

8-13-98

TO:
SUSSON PELZ
FROM:
J.R. Prestridge.
COPIES TO:
SUBJECT: PBS & J. Comments
on Droft Permits
FAX NUMBER:
813-744-6185
NUMBER OF PAGES:
(Including this sheet)
5



PLEASE DELIVER THESE PAGES TO THE INDIVIDUAL NAMED ABOVE. IF YOU HAVE ANY DIFFICULTY RECEIVING THIS TRANSMISSION OR IF PAGES ARE MISSING OR ILLEGIBLE, PLEASE CALL (941) 773-5089 AND SPEAK WITH JANICE.

### Мемо

To:

J. R. Prestridge

From:

David E. Deans, P.E.

Subject:

Review Comments on Draft Operating Permit

Date:

August 12, 1998

At your request we have reviewed the Draft Operating Permit of the Harden County Class I Landfill, and based on our conversation of August 11, 1998 where you relayed to us the issues you have arleady discussed or resolved with FDBP, we have the following remaining comments on the Specific Conditions of the permit:

- 1. S.C.15.b. states that runoff outside the bermed area will not be considered stormwater if it flows over any area that has "not been intermediately covered...and stabilized". This could mean one of two things, stabilized against erosion, or stabilized as defined in 62.701.200(109) which refers to biological activity. This meaning should be clarified. Runoff from bare soil (intermediate cover) should not be considered leachate.
- 2. S.C.17,j.(2) is a construction issue, not an operations issue. This same requirement is contained in your construction permit for the teachate management system, and therefore is redundant and should be deleted from this permit. You related to me that FDEP wants this in the operating permit because the construction permit will have expired by the time this inspection is due. In this case, FDEP should remove this requirement from the construction permit and leave it in the operating permit.
- 3. S.C.23. Requires partial closure "as you go" and not when the landfill is completed. This permit requirement goes beyond the requirements in the rule, and should be considered carefully before being accepted by Hardee County. Partial closure of the landfill would reduce leachate generation, but would be more expensive to mobilize a contractor several times for closure of smaller portions of the landfill. Since this landfill has a liner and leachate collection system in place, there is no compelling environmental reason to expedite the closure of a part of this landfill. The money saved on leachate management may be less than the cost to mobilize a contractor for two smaller closures rather than one larger closure.
- 4. S.C.38 requires an "...assessment of the effectiveness of the existing landfill design and operation..."
  There is no requirement in the Rule to make this assessment, and a detailed assessment of the design was made during the permitting process. This requirement is redundant to that process, and should be deleted from this permit. Should contamination be detected by the groundwater monitoring system, there are other rules in place to address this matter.

Please call me with any questions or comments you may have regarding the above discussion relating to the draft permit to operate your landfill.

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### MEMO

To:

J. R. Prestridge

From:

David E. Deans, P.E

Subject:

Review Comments on Draft Construction Permit

Date:

August 13, 1998

At your request we have reviewed the Draft Construction Permit for the Hardee County Class 1 Landfill. The Specific Conditions of the permit were reviewed and we have the following

1. FDEP has taken many of the time dependant requirements contained in the language of the contract between the County and the general contractor and have made them conditions of the permit. The intent of these certain requirements of the contract being made time dependant is to provide the County with leverage to keep the construction project moving forward in the general sequence necessary for successful completion, and to prevent the contractor from shipping to the site material or equipment which will not meet the project specifications.

Often a contractor will meet the spirit of these requirements even if he is late by a few hours or days. Where such tardiness in not of consequence to the overall flow of the job, there is no penalty or liability to the contractor (at the County's sole discretion). By making these same requirements a condition of the environmental construction permit, several things have changed. The County, as permittee, is liable for the Contractor's non-performance and could be found in violation of the construction permit. The County also has lost the discretion to waive the submittal deadline requirements for non-critical items, and a cooperative spirit between the County and the contractor is significantly dampened.

For instance, when this permit is finally issued, the FDEP will have already approved the plans and specifications which show a certain amount of secondary containment for the leachate storage tanks. The County wants assurance from the tank supplier that the County will get that capacity for the specific tank they will supply, and the County is therefore requesting that the supplier provide shop drawings demonstrating this. Specific Condition 5.b.1, of the environmental construction permit is now requiring that this same information be submitted to FDEP 30 days before construction begins. Miss this deadline and you're in violation of the permit, regardless of its impact, or lack thereof, to the overall construction process.

This requirement is placed on an item that IDEP has already approved, and will be certified by your construction engineer of record at the completion of construction. These types of requirements for submittal to the FDEP are redundant to the permitting process just completed, will slow down the construction process and will cost the County more during construction. These requirements also place the County at risk of violating their permit over items which will not have an immediate or direct impact to the environment. Submittals to FDEP required by this

SUCH AS.

J. R. Prestridge Page 2 August 13, 1998

permit which in our opinion are redundant, costly and unnecessary are SC5.b.1; SC5.b.2; SC5.b.3; SC7.a; SC7.b; SC8.d; and SC20.b.

- SC,7,b,3 requires photographs which show "special construction" and references the 2. construction specifications, section 01380. This section does not refer to special construction. The Department should clarify what additional construction they want recorded in addition to that which is covered under section 01380.
- SC.8.a. is requiring the County to develop a sampling protocol for determining that the léachate collection system is constructed to the slopes and grades shown on the plans to "the 98% confidence level". What this means is that the next spot elevation to be taken after all others have been recorded (regardless of the number of measurements taken) would, with 98% probability, demonstrate the constructed leachate collection system elevation to be in accordance with the design plans for the system. To demonstrate this, a statistical analysis of the test results (elevation measurements) will have to be run in the field to determine if this criteria is met, and additional data may need to be collected to meet this statistical requirement. Since construction tolerances are already specified in the design documents, this additional proof seems redundant, and will add to the construction cost and may delay construction completion as well.
- SC.9.a, requires that the professional engineer or his designee be on-site at all times during 4. construction. This is an unnecessary, burdensome requirement on the County and will add to the cost of construction. While we agree with the Department that items buried or covered over during the construction process (IE. Liner, pipe, reinforcing steel) needs to be inspected before covering, and in some cases thiring the covering process, we disagree with this requirement being applied to all construction activities. Many construction activities can be inspected after the construction process is complete, and can be modified easily if necessary. Therefore, it is not necessary for an inspector to be present as the work progresses, and to require this places an unnecessary cost burden on the County. - such 15 ?
- SC.10.a. requires soil testing to demonstrate that the synthetic liner is keyed into the clay 5. layer which forms the bottom liner for this landfill. The geotechnical engineers who prepared the soils reports for this project have stated that this clay layer is a visually distinct layer from the overlying sandy soils. Requiring soils testing to demonstrate that the liner is keyed into this layer is an expense and time delay to the project that, in our opinion, is not justified. The hydraulic conductivity tests referenced in this special condition can take 30 days to run, thus delaying the construction completion of this part of the work. Perhaps the Department would accept keying the liner an additional foot deeper into this layer as an alternative to the expensive and time consuming testing requirement.
- Many of the special conditions of the permit are restatements of the requirements in the specifications or contract documents for this project which were submitted as part of the permit

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HARDEE COUNTY 5 AUG 1: PAGE 05 14:19 No.UU2 Y.J4

J. R. Prestridge Page 3 August 13, 1998

application process. I would encourage you to seek legal advice regarding what additional risk or liability the County is under to have these requirements that the County places on the contractor be so specifically stated in an environmental construction permit.

Please call me with any questions or comments you may have regarding the above discussions relating to the draft permit for construction of your landfill improvements.

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PAGE 01

### **FAX TRANSMITTAL**

HARDEE COUNTY
SOLID WASTE DEPARTMENT
MATERIAL RECOVERY FACILITY
P.O. BOX 246 / 605 AIRPORT ROAD
WAUCHULA, FLORIDA 33673

TO: DEP
Sugar Petz
FROM:
J. R. Predicidge
COPIES TO:
SUBJECT:
White
FAX NUMBER:
813-744-6135
NUMBER OF PAGES:
(Including this sheet)

PLEASE DELIVER THESE PAGES TO THE INDIVIDUAL NAMED ABOVE. IF YOU HAVE ANY DIFFICULTY RECEIVING THIS TRANSMISSION OR IF PAGES ARE MISSING OR ILLEGIBLE, PLEASE CALL (941) 773-5089 AND SPEAK WITH JANICE.

PHONE: (941) 773-5089 \* FAX: (941) 773-3907

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

38414-001-SC

License (Permit, Certification) Application No.5 38414-002-50

Applicant's Name: Handes Co. BOCC - JR. Parshidge

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 Regulation 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 Regulation.

This waiver shall expire on the 11th day of Sentember 1998.

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

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J.R. Prestridge, S. W. Superintendent
Name (Please Type or Print)

Revised April, 1990



### Department of Environmental Protection

Lawton Chiles Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretary

FW MRID

FAX TRANSMITTAL SHEET
7/17/93
Date
TO: JANICE JR
Phone: $941-773-5089$ Fax: $941-773-3907$
FROM: Susan Pelz
Phone: (813) 744-6100 ext <u>386</u> Fax: (813)744-6125
TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET 21
SUBJECT: Construction Panit 38414-001-5C
Attached one don't specific Conditions for
Attached one don't specific Conditions for the Construction Permit. Please give me your
comments ASAP (phone or in uniting).
If you would like additional time to review &
comment, please signs the Attached
Waiver And send back to me by end of
Tresday 7/21/98 (Fax ok). If you don't want
A waiver then we will sent out Intent to Issue
Wed (7/22) Next week according including
MAFT permits us connectly uniter, Remember,
you will still need to publish before final permit
you will still need to publish before final permit is issued. Please call me if you have any questions.

#### Transmit Confirmation Report

003 No.

Receiver

819417733907 WASTE MGT TAMPA SWDIST Jul 17 98 13:10 21'28 Transmitter Date

Time Mode Norm

21 OK Pages Result

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

License (Permit, Certification) Application No.5 38414-002-50

38414-001-SC

Applicant's Name: Handee Co. BOCC - SR. Prestridge
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 Regulation 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 Regulation.
This waiver shall expire on the 11th day of September 1998.
The undersigned is authorized to make this waiver on behalf of the applicant.
Signature

Name (Please Type or Print)

#### PERMITTEE

Hardee County Board of County Commissioners Mr. J.R. Prestridge, Solid Waste Superintendent 685 Airport Road Wauchula, Fl 33873

#### PERMIT/CERTIFICATION

GMS ID No: 4025C30001 Permit No: 38414-001-SC

Date of Issue: Expiration Date: County: Hardee Lat/Long: 27 34'10"N 81 47'01"W

Sec/Town/Rge: 35/33S/25E Hardee County Project:

Class I Landfill operation Construction

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-3, 62-4, 62-302, 62-330, 62-520, 62-522, and 62-701. The above named permittee is hereby authorized to perform the activities 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 construct site improvements at the Class I landfill (approximately 12.5 acres), referred to as the Hardee County Regional Landfill, subject to the specific and general conditions attached, located at 675 Airport Road, east of the City of Wauchula, Hardee County, The specific conditions attached are for the construction Florida. of:

- Landfill liner and 1.
- Leachate collection and storage tanks system

General Information -Construction:

60 mil HDPE Geomembrane Seams: Shear - 120 ppi & FTB [ref. CQAP, Table 2-3] Peel - 85 ppi & FTB [ref. CQAP, Table 2-3]

Hydraulic Conductivity: Filter Aggregate: min. 1 x 10-3 cm/sec [ref. CQAP, 2.1.1.4.] Drainage Sand: min. 1 x 10-3 cm/sec [ref. CQAP, 2.1.1.5.] Clay layer: max. 4.3 x 10-7 cm/sec [ref. SC#2.a(1), App. C; SC#2.a(2), Att. G].

#### Replaces Permit No.: N/A, new

This permit contains compliance items summarized in Attachment 1 that shall be complied with and submitted to the Department by the dates 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.

Page 1 of 24.

PERMIT NO.: 38414-001-SC Liner and Leachate Storage Tanks

### DRAFT

#### SPECIFIC CONDITIONS:

1. **Landfill Designation.** This site shall be classified as a Class I landfill and shall be operated in accordance with all applicable requirements of Chapters 62-3, 62-4, 62-302, 62-330, 62-520, 62-522, and 62-701, Florida Administrative Code (F.A.C.), and all applicable requirements of Department Rules.

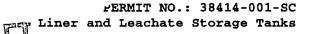
#### 2. Permit Application Documentation.

- a. This permit is valid for <u>construction</u> of the liner system and leachate storage tanks system for the Class I landfill in accordance with Department rules, the conditions of this permit, and the reports, plans and other information, submitted by Post, Buckley, Schuh and Jernigan, Inc.(PBSJ) (or as otherwise noted) as follows:
  - 1) Hardee County Regional Landfill, Application for Construction Permit, dated June 26, 1997 (received June 27, 1997);
  - 2) Response to Request for Additional Information dated July 25, 1997 for the Application for Construction Permit, dated December 31, 1997 (received January 2, 1998);
  - 3) Response to Request for Additional Information dated January 30, 1998 for the Application for Construction Permit, dated April 24, 1998 (received April 27, 1998);
  - 4) <u>Construction Quality Assurance Plan</u>, dated June 1997 (received June 27, 1997), including pages dated April, June and December 1997, and February, March and April 1998;
  - 5) <u>Technical Specifications</u>, dated June 1997 (received June 27, 1997), including pages dated September and December 1997, and February, March and April 1998;
  - 6) The following Plan Sheets dated June 1997 (received June 27, 1997):
    - a) Sheet M-1, "Leachate Storage Tanks and Yard Piping Plan,"
    - b) Sheet M-2, "Submersible Leachate Pump Station Plan, Section and Details,"
    - c) Sheet M-6, "Miscellaneous Details,"
    - d) Sheet M-8, "Existing Leachate Pump Station Demolition Plan,"
    - e) Sheet E-1, "Leachate Storage Tanks Pump Station and Lift Station Electrical Plan,"
    - f) Sheet S-1, "General Notes,"
    - g) Sheet S-2, "Truck Loading Facility and Pump Station Plan, Section and Details;"



(Specific Condition #2.a. cont'd)

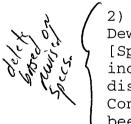
- 7) The following Plan Sheets including revisions dated September 1997 (received January 2, 1998):
  - a) Sheet M-3, "Leachate Storage Tanks and Truck Loading Pump Station Plan,"
  - b) Sheet M-4, "Leachate Storage Tanks Sections and Details,"
  - c) Sheet M-5, "Truck Loading Facility and Pump Station Sections, Detail and Schedule,"
  - d) Sheet M-7, "Miscellaneous Details;"
- 8) The following Plan Sheets including revisions dated September 1997 and April 1998 (received April 27, 1998):
  - a) Sheet C-1, "Site Plan,"
  - b) Sheet C-2, "Construction Plan,"
  - c) Sheet C-3, "Leachate Storage Area Grading and Drainage," and
  - d) Sheet C-4, "Sections and Details."
- 9) Sheet 5 of 5, including revisions April, June and August 1997, "Gas Management System and Miscellaneous Details at Closure" (received January 2, 1998).
- b. Activities approved as part of this permit include construction of the landfill liner system, leachate collection and storage tanks system, groundwater monitoring wells, gas monitoring probes and related construction. This permit does not authorize the operation of the systems listed above.
- c. "Engineer" shall refer to the Engineer of Record as defined in the documents referenced in Specific Condition #2.a., above.
- d. The construction activities shall be completed in accordance with Department rules, the information listed in Specific Condition #2.a., above, and the conditions of this permit. The construction activities authorized by this permit shall be completed no later than **October 1, 1999**, or as otherwise approved by the Department.
- 3. **Permit Modifications.** Any construction not previously approved as part of this permit will require a separate Department permit unless the Department determines a permit modification to be more appropriate. 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.



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 Rule 62-701.330(3), F.A.C.

#### 5. Pre-Construction Submittals.

- a. At least **thirty (30) days prior** to <u>initiation</u> of <u>any</u> construction activity, unless otherwise specified, the permittee shall submit the following information to the Department:
  - A complete set of Plans, Specifications and CQA Plan 1) to be used for construction which includes all changes (i.e., all additions, deletions, revisions to the plans previously approved by the Department). Significant changes in the plans, as determined by the Department, shall require a permit modification. All changes in the plans shall be noted on the plans and accompanied by a narrative indicating the change, the cause of the deviation, and a re-certification of the alternate design by the design engineer. These alternate designs shall be approved by the Department prior to construction. If no changes have been made to the construction plans, Specifications or CQA Plan, the permittee shall notify the Department in writing that no changes have been made, and re-submittal of these documents will not be required prior to construction.



- 2) The Dewatering Plan [Specification Section 02140]. The Dewatering Plan shall describe which alternative [Specification Section 02140-3.02.A.] will be used, and include the sampling/analysis parameters and frequencies, discharge rate and other pertinent information. Construction shall not begin until the Dewatering Plan has been approved by the Department.
- 3) The role and name of the specific company/organization for each of the parties shown in Figure 1-1, COA Plan.
- b. At least thirty (30) days prior to initiation of construction activities for the leachate storage tanks system, the permittee shall submit the following information to the Department:
  - 1) Calculations which verify the secondary containment capacity. [Specifications Sections 11200-1.04.A., 1.06.A.2. and 13200-1.04.C., 1.05.A.3.]



(Specific Condition #5.b. cont'd)

- 2) The method of anchoring the leachate storage tanks to the secondary containment. [Specification Sections 11200-1.04. and 13200-1.04.]
- 3) Details of the leachate storage tanks cathodic protection system. [Specification Sections 11200-1.04. and 13200-1.04.]
- c. At least ten (10) days prior to initiation of geomembrane liner installation, the permittee shall submit the following information to the Department:
  - 1) Installer's Quality Control Plan [Specification Section 02776-1.03.A.2(e)],
  - 2) Geomembrane Manufacturer's Material test results [Specification Section 02776-1.03.A.2(h)],
  - 3) Alternative seaming processes other than extrusion of fusion welding [Specification Section 02776-1.03.A.2(n)], and
  - 4) Booting details [Specification Section 02776-5.01.A.2(c)].
- 6. **Pre-Construction Meeting Notification.** Department Solid Waste Permitting staff shall be notified **72 hours** before all preconstruction meetings. Prior to initiating construction activities, the permittee shall make arrangements for the Engineer of Record to meet on site and discuss all plan changes with Department Solid Waste Permitting Staff of the Southwest District Office. A copy of the minutes from the pre-construction conference shall be submitted to the Department **within two (2) weeks** of the conference.
- 7. Construction Schedule and Progress Report.
  - a. **No later than one (1) week** after the pre-construction conference, the owner or operator shall submit a construction schedule which includes estimated dates for each portion of the construction to the Department. The Engineer of Record or another qualified professional engineer shall make periodic inspections during construction to ensure that design integrity is maintained.

liver /clay tie-in

#### SPECIFIC CONDITIONS:



(Specific Condition #7. cont'd)

- b. An updated construction schedule and progress report shall be submitted to the Department **monthly.** The monthly progress report should be submitted in an appropriately labeled threering binder of sufficient size to store the monthly progress reports for the entire project. The monthly progress reports shall include, but not be limited to:
  - 1) A narrative explaining the status (and any delays) of major stages of the construction (i.e. liner, tank, piping, etc.),
  - 2) A summary of submittals and change order requests [Specification Section 01340-1.01.C.], and
  - 3) Color copies of photographs which are representative of the typical construction activities for the reporting period, and photographs which show \*\*special construction."

    [Specification Section 01380] "Main stages of construction."

#### 8. Construction Tolerances.

- a. Sufficient spot elevations (grade shots) of the leachate collection trenches shall be recorded to demonstrate, at the 98% confidence level, that the leachate collection system has been constructed to the slopes and grades shown on Sheet C-2 [ref. SC#2.a(8)(b)]. In the event that the frequency required by the Specifications is not sufficient to provide this demonstration, additional spot elevations shall be taken. [Specification Section 02776-7.02.B.] This information shall be included with the Record Documents (see Specific Condition #13, below).
- b. As-built topographic surveys shall demonstrate that each liner component phase and leachate collection system was constructed within the tolerance (0.1 feet) required by the Drawings and Specifications. [Specification Sections 01050-1.04.B. and 02220-3.10.A.]
- c. As-built elevations of the liner/clay tie-in (i.e. toe of the liner) shall be taken. These elevations (grade shots) shall be taken a minimum of every 100 lineal feet of liner trench and at locations where the underlying clay abruptly changes elevation. In areas which exhibit inconsistent subsurface conditions, the grade shots shall be taken more frequently.



(Specific Condition #8. cont'd)

d. **No later than 48 hours after** completion of construction of the geomembrane subgrade, an as-built topographic survey shall be provided to the Engineer to verify conformance with the Drawings and Specifications. The geomembrane subgrade shall be accepted by the Liner Installer and Engineer in writing before placement of the geomembrane. [CQAP, Section 3.1.1., Specification Section 02776-5.01.B.2.]

#### 9. Construction Quality Assurance.

- a. Liner systems shall have a construction quality assurance plan to provide personnel with adequate information to achieve continuous compliance with the construction requirements. The Construction Quality Assurance Plan shall be in accordance with Rules 62-701.400(7) and (8), F.A.C., the CQA Plan [ref. SC#2.a(4)], and the conditions of this permit. The professional engineer or his designee shall be on-site at all times during construction (including liner system, and leachate collection and storage tanks system) to monitor construction activities.
- b. A complete set of construction drawings and shop drawings, which include daily additions, deletions and revisions, shall be maintained on-site at all times for reference. Drawings which show the locations of geomembrane panel seams and repairs shall be kept on-site at all times for reference.
- c. Leachate shall not be deposited, injected, dumped, spilled, leaked, or discharged in any manner to the land, surface water or groundwater outside the liner system or existing leachate ditch, except as provided in Specific Condition #21 of this permit, at any time during the construction activities.
- d. Unsatisfactory, defective or non-conforming work shall be reported to the Engineer and shall be corrected, or the reasons for not correcting the work shall be recorded and maintained onsite for reference and inspections. [CQAP 1.2.7.5.b. page 1-11] Documentation of the corrections or reasons for not correcting the work shall be submitted with the Record Documents required by Specific Condition #13.



(Specific Condition #9. cont'd)

- e. Construction activities such as geomembrane seaming, QA/QC testing of the geomembrane or soil materials, surveying, etc. shall not be carried out in non-daylight hours without prior Department approval. If these activities will be conducted during nighttime hours, the Department shall be notified at least 1 week in advance to allow for Department observation. This notification shall include a description of the methods which will be used to provide adequate illumination to ensure that the quality of the construction is not compromised. [Specification Section 02776-5.01.D.8(d)]
- f. The liner trench excavation bottom shall be maintained free from standing water. [Specification Section 02220-3.01.B.3.] Except for the stormwater management system construction, no construction, including pipe laying, shall be allowed in water. Groundwater shall be maintained at least 12 inches below excavations. In the event that it appears that the excavation is being impacted by groundwater, the contractor shall take the corrective actions necessary to demonstrate that the groundwater is at least 12 inches below the bottom of the excavation. [Specification Section 02220-3.03.C.]
- g. Hydrostatic leak testing of the solid wall piping and manholes shall be completed prior to backfilling around the structures. [CQAP Section 5.4., Specification Sections 03800-3.02.B. and 15050-3.10.D.]
- h. The Site Specific Health and Safety Plan shall be kept onsite for reference and inspections. [Specification Section 01030-1.03.]
- i. Explosives shall not be used in this construction project without prior Department approval. [Specification Section 02220-1.01.B.3.]
- j. Sandbags or other temporary anchoring devices shall be removed prior to placement of materials (e.g. select common fill, clay backfill) over the geomembrane. [Specification Sections 02776-5.01.C.3(d)(5) and 5.01.D.11(f)]
- k. Where sod is used over lined areas, pegging of sod shall not damage the liner. [Specification Section 02934-3.03.C.]
- 1. All exterior painting shall be done only in dry weather. [Specification Section 09900-3.04.A.]



(Specific Condition #9. cont'd)

m. At least one (1) week prior to the field holiday testing of the tank, the Department shall be notified to allow for observation. [Specification Sections 11200-3.01.E. and 13200-3.01.B.4.]

#### 10. Geosynthetic Materials and HDPE Piping.

- a. The permittee shall ensure that the clay layer which the geomembrane is keyed into is consistent with the clayey material described in the permit application [ref. SC#2.a(1), Appendix C and SC#2.a(2), Attachment G]. Sufficient tests shall be conducted to demonstrate that the clayey material which the geomembrane is actually keyed into has similar properties, including hydraulic conductivity, to the materials described in Table 1 (Appendix C, SC#2.a(1)). These test results shall be submitted as part of the Record Documents required by Specific Condition #13.
- b. The geomembrane shall be keyed a minimum of 1.5 feet into the clay layer. [Specification Section 02776-5.01.B.1.]
- c. Written acceptance of the subgrade by the geomembrane installer shall be provided to the Engineer prior to placement of the geomembrane on the subgrade. [Specification Section 02776-5.01.B.]
- d. The procedure used to temporarily bond adjacent geomembrane panels together shall not damage the geomembrane. [Specification Section 02776-5.01.D.3(b)]
- e. Geomembrane seaming activities shall <u>only</u> be conducted during daylight hours and within the weather requirements of the Specifications, unless otherwise <u>specifically</u> approved by the Department. [Specification Sections 02776-5.01.C.3(c), 5.01.D.6. and 5.01.D.8(d)]
- f. Conformance testing for the geosynthetic materials shall be in accordance with the CQAP Table 3-2, and Specification Sections 02550-2.03.B., 02776-2.02.B.4. and 02776-4.01. The geomembrane material shall meet the requirements listed in Specification Table 02776-A.
- g. The construction methods used shall minimize wrinkles. Excessive wrinkles shall be removed, and the areas repaired. Areas where wrinkles are removed shall be repaired and re-tested in accordance with the <u>Specifications</u> and <u>CQA Plan</u>. [CQAP Section 4.2.4.5., Specification Section 02776-5.01.C.3(d)(6) and 5.01.D.11(f)]



(Specific Condition #10. cont'd)

- h. The liner system shall not be damaged by excessive traffic. [Specification Section 02776-5.01.D.5(a)]
- i. Destructive tests of the geomembrane seams shall be taken at  $\underline{\text{random}}$  locations, at a frequency of one test location per 500 feet of seam. [CQAP Section 4.2.3.1., Specification Section 02776-5.01.D.10(b)]
- j. Geomembrane seams which are field tested "by hand", and appear to acceptable, shall <u>also</u> be tested by tensiometer to verify the adequacy of the weld. [Specification Section 02776-5.01.D(10) (e), CQAP Section 4.2.3.2.]
- k. Geomembrane seams shall meet the requirements of Specification Section 02776, Table 02776-B. Destructive tests conducted on the geomembrane field seams shall demonstrate that the actual shear strength is at least 90 percent of the yield strength of the geomembrane, and failure is outside of the seam area. Five samples shall be taken for strength testing. All of the samples shall meet the requirements for each test method (peel and shear) listed in Table 02776-B. The strength results shall not be averaged. [Specification Section 02776-5.01.D.7(b), 5.01.D.10(f)]
- 1. During the construction of, and until the geomembrane is placed on, the geomembrane subgrade, the subgrade shall be inspected **daily** for signs of desiccation, excessive moisture, or other damage. In the event that the condition of the subgrade deteriorates, corrective actions shall be implemented **immediately**. Washouts or erosion of the geomembrane subgrade shall repaired immediately. [Specification Section 02776-5.01.B.5.]
- m. No geomembrane shall be placed in an area of the geomembrane subgrade that has become softened by precipitation or desiccated and cracked due to lack of moisture. No standing water or excessive moisture shall be allowed on the area to be lined before the geomembrane installation. [Specification Sections 02776-5.01.B.1. and 5.01.C.3(c)]
- n. HDPE pipe or fittings shall not be dropped during loading, unloading or placement. [Specification Section 02730-1.03.B.2.]
- o. Under no circumstances shall pipe be laid in water, and no pipe shall be laid when trench or weather conditions are unsuitable for such work. [Specification Section 02730-3.02.A.]



#### 11. Soil Materials.

- a. Soil materials, specified in Specification Section 02220, shall not include materials which were previously used for daily or intermediate cover or for berms around the working face of the landfill.
- b. Soil materials which contact the liner (above or below) shall not contain any sharp or granular objects exceeding 1/4-inch in diameter. [ref. SC#2.a(3), page 14; Specification Sections 02220-2.01.C and 02776-5.01.B.1.]
- c. The clay backfill (above the toe of the liner) shall be compacted to a minimum of 90% Standard Proctor density. [Specification Section 02220, Table 02220-A; CQAP Section 4.1.1.]
- d. Each layer of material being compacted (e.g. clay backfill and geomembrane subgrade) shall have a uniform moisture content and adequate compaction. [Specification Section 02220-3.06.B.2. and Table 02220-A]
- e. Crushed rock or gravel shall not be used to reinforce the geomembrane trench subgrade bottom (tie-in area) which may have become mucky as a result of construction activities. [Specification Section 02220-3.05.B.]
- 12. Laboratory and Field Testing Requirements. Field and laboratory testing during the construction activities shall be conducted by a qualified testing laboratory, independent of the manufacturer or installer, representing the owner. A qualified field technician representing the owner shall provide full time, on-site inspection during construction. The field technician shall work under the supervision of a professional engineer registered in the State of Florida with experience in landfill liner construction.
- 13. Certification of Construction Completeness. Within sixty (60) days after all specified construction has been completed, and prior to the operation of the leachate storage tanks system, the following activities shall be completed:
  - a. The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer in charge of construction and quality assurance to the Department for approval, and shall arrange for Department representatives to inspect the construction in the company of the permittee, the engineer, and the facility operator.



(Specific Condition #13. cont'd)

- b. The owner or operator shall submit Record Drawings/Documents showing all changes (i.e. all additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations).
- c. The owner or operator shall submit a narrative indicating all changes in plans, the cause of the deviations, and certification of the Record Drawings/Documents by the Engineer to the Department.
- d. The Groundwater Monitoring System requirements listed in Specific Condition #20 shall be complete.
- e. The professional engineer in charge of construction quality assurance shall submit to the Department a final report to verify conformance with the plans and specifications in accordance with Rule 62-701.400(7) and (8), F.A.C.
- f. The permittee shall request a modification of Operation Permit 38414-002-SO to allow operation of the leachate storage tanks system. This request shall be submitted with the Certification of Construction Completion.

#### 14. Record Drawings/Documents.

- a. The Record Documents shall demonstrate that the geomembrane was sufficiently keyed into a clay layer with material properties consistent with the clayey materials described in the PSI Geotechnical Report [ref. SC#2.a(1), Appendix C, Table 1 and SC#2.a(2), Attachment G].
- b. The Record Drawings/Documents referenced in Specific Condition #13, above, shall include, but not be limited to, the following information:
  - 1) All anchor trenches,
  - 2) Documentation described in Specific Conditions #8 and #9.d.,
  - 3) As-built invert elevations for the leachate collection pipes, as listed on <u>Sheet C-2</u> of the Drawings [Specification Section 01050-1.04.B.],
  - 4) As-built elevations of the liner/clay tie-in (i.e. toe of the liner) required by Specific Condition #8.c.,
  - 5) The "Daily Record of Work Progress" [CQAP Section 6, Attachment A],

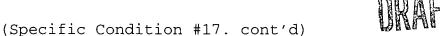


(Specific Condition #14.b. cont'd)

- 6) Meeting Minutes from monthly progress meetings [Specification Section 01200-1.03.], and
- 7) As-built drawings showing the geomembrane panel installation layout. [Specification Section 02776-1.03.A(2)(1)] These drawings shall show the locations of fabricated and field seams, actual sampling and repair locations, and panel designations.
- 15. **Control of Access.** During construction, access to, and use of, the facility shall be controlled as required by Rule 62-701.500(5), F.A.C.
- 16. Control of Nuisance Conditions. The permittee shall be responsible for the control of odors and fugitive particulates arising from this construction. 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. The owner or operator shall control disease vectors so as to protect the public health and welfare.

#### 17. Facility Maintenance and Repair.

On or prior to the one-year anniversary date of initial use of the leachate storage tanks system, the manufacturer's authorized representative shall make a visual inspection of the tank interior coating and appurtenances; tank exterior coating and appurtenances; and the immediate area surrounding the tank. A written summary of this inspection shall be filed with the tank owner and the tank manufacturer. [Specification Sections 11200-3.05.A. and 13200-3.06.A.] The permittee shall submit a copy of the written report to the Department no later than thirty (30) days after receipt of the report from the tank manufacturer's authorized representative. In the event that deficiencies are noted by the tank inspector, a schedule for corrective measures shall be submitted to the Department within fifteen (15) days of the owner's receipt of the written inspection report. The corrective measures shall be completed within sixty (60) days of the date of the inspector's report, or as otherwise approved by the Department.



b. In the event of damage to any portion of the landfill site facilities or failure of any portion of the landfill systems, the permittee shall **immediately (within 24 hours)** notify the Department of Environmental Protection explaining such occurrence and remedial measures to be taken and time needed for

repairs. Written detailed notification shall be submitted to the Department within seven (7) days following the occurrence.

c. In the event that any portion of the groundwater monitoring system is damaged, remedial measures shall be completed **within sixty (60) days** of the written notification specified in Specific Condition #17.b. above, unless otherwise approved by the Department.

- d. In the event that the stormwater or 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 #17.b. above, unless otherwise approved by the Department.
- 18. **Stormwater System Management.** The landfill shall continue to 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.
- 19. Gas, Leachate Surface Water and Ground Water Quality Monitoring. All gas, leachate, surface water and ground water monitoring shall be conducted in accordance with Permit No. 38414-002-SO.
- 20. Ground Water Monitoring Well and Gas Probe Construction. Monitoring wells MW-8 and MW-9 shall be constructed, and the following information submitted prior to the Certification of Construction Completion required by Specific Condition #13:



(Specific Condition #20. cont'd)

a. Documentation of the following for each well installed:

Well Identification
Aquifer monitored
Screen type and slot size
Screen length
Screen diameter
Elevation at top of casing
Elevation at ground surface

Boring (Lithology) Log
Total depth of well
Casing diameter
Casing type and length
Well seal and filter
pack type and thickness
SWFWMD construction

permit No.

- b. Within one week of well completion and development, each new well shall be sampled for the parameters listed in Rule 62-701.510(8)(a) and (d), F.A.C., to establish initial ground water quality for that well. Results of the sampling shall be submitted to DEP prior to the Certification of Construction Completion required by Specific Condition #13.
- c. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitoring wells (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, the Universal Transverse Mercator coordinates, and 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 number, 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. Approved locations for MW-8, MW-9, P-15, and P-16 are shown on Figure 3-1 (attached) [ref. SC#2.a(1), Appendix D].
- d. Piezometers P-15 and P-16, shall be constructed, and the information described in Specific Conditions #20.a., and #20.c. (above) shall be submitted <u>prior to</u> the Certification of Construction Completion required by Specific Condition #13.
- e. All field and laboratory work done in connection with routine groundwater monitoring shall be conducted by a firm possessing a Generic Quality Assurance Plan or a Comprehensive Quality Assurance Plan approved by the Department in accordance with Chapter 62-160, F.A.C. The Quality Assurance Plan must specifically address the sampling and analytical work that is required by the permit. The approved Quality Assurance Plan shall be followed by all persons collecting or analyzing samples related to this permit.



(Specific Condition #20. cont'd)

- f. All water quality monitoring analysis shall be reported on the Department's Groundwater Monitoring Report Form 62-522.900(2). The Sampling Report shall include the items listed in Rule 62-701.510(9)(a), F.A.C. The results shall be sent to the Solid Waste Section, Department of Environmental Protection, Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8313.
- g. Gas Probes GP-1 through GP-9 are shown on Sheet 5 of 5 in the Plan Sheets entitled, "Gas Management System and Miscellaneous Details at Closure," [ref. SC#2.a(9)]. These probes shall be constructed, and the information described in Specific Conditions #20.a., and #20.c. (above), as appropriate, shall be submitted prior to the Certification of Construction Completion required by Specific Condition #13.
- 21. **Management of Dewatering Fluids.** Dewatering fluids from the trench excavation shall be either:
  - a. Managed as leachate and disposed of at a permitted wastewater treatment facility, if the fluid chemistry is the same as the site's leachate (no additional testing required) or;
  - b. Discharged to an on-site reinfiltration pond, if initial testing of the ground waters (i.e. dewatering fluids) to be removed indicates that it will not present a violation of ground water quality standards in excess of the background water quality, **AND** reinfiltration is conducted under the Department-approved plan which specifies sampling parameters, frequency, discharge rate and other pertinent information required by Specific Condition #5.a(2), above.
- 22. **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.
- 23. **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.

PERMIT NO.: 38414-001-SC Liner and Leachate Storage Tanks

#### SPECIFIC CONDITIONS:

24. **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.

Executed in Tampa, Florida

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

ORAFT

Richard D. Garrity, Ph.D. Director of District Management Southwest District

#### ATTACHMENT 1

SPECIFIC CONDITION	SUBMITTAL DUE DATE	REQUIRED ITEM
2.d.	No later than October 1, 1999	Complete Construction
4.	Prior to (180 days prior to expiration)	Apply for permit renewal
5.a.	30 days prior to construction	Submit complete plans and specifications, noting changes; Dewatering Plan; CQA Figure 1-1
5.b.	30 days prior to initiation of tank system construction	
5.c.	10 days prior to liner installation	Submit Installer's QC Plan, GM mfg. material test results, alternative seaming procedures, boot details
6.	72 hours prior to meeting	Notification of pre- construction meetings
6.	2 weeks after meeting	Submit minutes of pre- construction meeting
7.a.	1 week after pre- construction meeting	Submit construction schedule
7.b.	Monthly	Update construction schedule
9.e.	1 week prior to initiation	Notify of night activities
9.m.	1 week prior to testing	Notify of holiday testing

# ATTACHMENT 1 (cont'd)

SPECIFIC CONDITION	SUBMITTAL DUE DATE	REQUIRED ITEM
13.	Within 60 days after construction is complete	Submit Certification of Construction Completion, Arrange for inspection, submit Record Documents, submit narrative describing all deviations, submit final report, request modification to Operation Permit
17.a.	No later than 30 days after completion	Submit tank mfg. inspection report
17.a.	Within 15 days of owner's receipt of inspection report	Submit schedule for corrective measures
17.a.	Within 60 days of inspection report	Complete corrective measures
17.b.	Within 24 hours of occurrence	Notify the Department of damage to any portion of the landfill, groundwater monitoring or tanks systems
17.c.	Within 60 days of notification	Complete repairs to groundwater monitoring system
17.d.	Within 30 days of notification	Implement corrective actions to stormwater or leachate management systems
20.	Prior to submittal of Certification Documents	Groundwater monitoring system requirements complete



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# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

## CONVERSATION RECORD

Date 4/24/48	Subject Dewatering Plan
Time 8:25	Permit No.
	County Hardee
M Jim Hynt + Maureen Ma	Millo Telephone No.
M Jim Flynt + Maureen Ma Representing PBS+J	
[ Phoned Me [ X] Was Cal	
Other Individuals Involved in Conversa	ation/Meeting
Summary of Conversation/Meeting	
Discussed their 4/6	22 Jax on dewatering specs for
Harder Co. landfill	construction.
Sect 3.02 A. Q. of	Dewattring Spor Section 02140
- Specifice samplin	ng parameters & frequency but toean established. Other
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sheet, if necessary)	Title 16
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# **TELECOPY TRANSMISSION**

ENVIRONMENTAL SERVICES - ORLANDO

	THE PERMITTER OF THE PE
Fax: 407 / 647-8945 Watts: 800 / 284-5182	Job Number:
DATE: 4-22-98	Pelz & Allison Amram
SENDING TO: Susan	Pelz & Allison Aman
OFFICE: FDEP	· · · · · · · · · · · · · · · · · · ·
FAX# 813 - 74	4-6125
ORIGINATOR: Mowree	Mauriello OFFICE: PBS&J - Orlando
Transmit Date / Time : TOTAL NUMBER OF PAGES BEING	G SENT (including cover sheet);
a draft of our regions of takes from to small me with shaded text does not sopy of the Dewater on Finalizing	our best phone call attached is sponses for the dewatering ised Dewatering spec and he Drawings. Please review any questions or comments. Since t fax well, I am also sending a ering spec will the shading removed y our response and submitting it
If you	u have any trouble receiving this transmission,
please call Debbi	e Franklin at EXT. 335

b.

Response #15.b. indicates that Sheet C-2 shows the location of the proposed "temporary bermed storage area." However, this area is shown on Sheet C-1, not Sheet C-2. Please provide details for the construction of this lined area, including, but not limited to storage capacity, berm construction, anchoring details, etc. See also Ms. Allison Amram's memorandum dated January 28, 1998, attached. Please revise this section to include acceptable disposal methods for the dewatered liquids.

As discussed with the Department since our last submittal, PBS&J has revised the dewatering plan. The new plan proposes two (2) alternatives for handling the dewatering liquids. Alternative 1 is to pump down the existing dewatering ditch and use that ditch as a temporary holding area for the dewatering liquids, which would be treated as leachate and hauled to the Wauchula Municipal Wastewater Treatment Plant. Alternative 2 is to construct a temporary groundwater reinfiltration pond in the area of the existing sprayfield and pump the dewatering liquids into it. Under this option, periodic testing of the dewatering liquids will be performed to ensure that they meet groundwater standards. A decision will be made by the County on which option to use at the time of construction, based on field conditions and bid information. The revised Section 02140 (Dewatering) provides more detail on each option, and is included as Attachment T. Additionally, Sheet C-1 has been revised to show the location of the pond for Alternative 2, and a detail showing the typical cross section through the pond's perimeter berm has been added to Sheet C-4. These revised drawings are included in Attachment U.

8. Section 02140, 3.02A. The proposed testing protocol for the dewatering activities is not adequate to characterize the water quality. As previously stated, the dewatering activities are taking place below the old leachate sprayfield, and water quality may be affected by landfill leachate. In order to discharge the water to the site's borrow pit, initial testing for the surface water parameters listed in F.A.C. 62-701.510(8)(b) must be conducted. Based on these results, it is possible that a less stringent testing procedure can be approved by FDEP. Please present a testing protocol based on volume of water removed. Please note that in order for conductivity testing to be a valuable parameter, the conductivity of the receiving water must be monitored, and must not exceed 50% of the pre-discharge specific conductance, or 1275 micrombs per centimeter, whichever is greater (F.A.C. Rule 62-302.530(23)). There is no surface water standard for chlorides for the borrow pit's Class III fresh waters. Unionized ammonia may be a key parameter, as the surface water standard is 0.02 milligrams per liter (mg/l), and it is consistently higher in the ground water in the old sprayfield area (0.06 - .32 mg/l) and in the leachate (1.68 - 9.03 mg/l). A testing protocol must be approved by FDEP prior to discharge of dewatering fluids to surface or ground waters.

As discussed in our response to #15.b., two (2) alternatives for handling the dewatering liquids are now being proposed. Under Alternative 1, the dewatering liquids will be treated as leachate and taken to the treatment facility, therefore testing would not be required. Alternative 2 proposes to pump the dewatering liquids into a temporary reinfiltration pend for groundwater reinfiltration. Under this option, the dewatering liquids will be tested periodically to ensure that they meet groundwater standards. The testing protocol, including frequency and parameters to be monitored is presented in the revised Section 02140, included in Attachment T. Revised Sheet C-1 showing the location of the pond, and revised Sheet C-4 showing a cross section through the perimeter berm of the pond, are included in Attachment U.

#### **SECTION 02140**

### DEWATERING



### PART 1 - GENERAL

### 1.01 DESCRIPTION

A. Scope of Work: The work to be performed under this section shall include furnishing all equipment and labor necessary to remove storm or subsurface waters from excavation and lined areas in accordance with the requirements set forth herein and as shown on the Drawings.

### 1.02 QUALITY ASSURANCE

A. The dewatering of any excavation or lined areas and the disposal of the water shall be in strict accordance with the latest revision of all local, state and federal government rules and regulations.

### 1-03 SUBMITTALS

A. The Contractor shall submit a detailed dewatering plan to the Engineer for review Review shall be for general information only. The Contractor shall remain responsible for the adequacy and safety of the methods. The dewatering plan shall describe the procedures and schedule to be followed and include the types and paparities of equipment proposed to be used. The Contractor's dewatering plan will be reviewed by the Florida Department of Environmental Protection (HDEP). The dewatering plan shall be approved by FDEP prior to construction.

### PART 2 - PRODUCTS (Not Applicable)

### **PART 3 - EXECUTION**

### 3.01 DEWATERING

A. The Contractor shall provide adequate equipment for the removal of storm or subsurface waters which may accumulate in the excavation or on the lined areas.

- B. If subsurface water or ponding is encountered, the Contractor shall utilize suitable equipment to adequately dewater the excavation or lined areas so that it will be dry for continuation of work. A well point system or other Engineer-approved dewatering method shall be utilized, if necessary, to maintain the construction area in a dry condition for preparation of the lined areas for construction or trench bottoms for pipe placement.
- C. Dowatering by trench pumping will not be permitted if migration of fine grained natural material from bottom, side walls, or bedding material will occur.
- D. In the event that satisfactory dewatering cannot be accomplished due to subsurface conditions or where dewatering could damage existing structures, the Contractor shall obtain the Engineer's approval of wet trench construction before resuming work.

### 3.02 DISPOSAL

A. The Owner has two alternatives for the disposal of dewatering activities. The Contractor shall be informed of the selected alternative when the Notice to Proceed is given.

### 1: Alternative 1

water shall be pumped to the existing dewatering ditch. Contractor shall monitor and record the flow into the dewatering ditch. Contractor shall be responsible for the transformation and disposal of all water pumped into the dewatering ditch by the Contractor at the Wachula Waste Water Treatment plant or other permitted facility:

### 2. Alternative 2

a. Contractor shall construct a temperary reinfiltration pend in the location shown on Sheet C-1 of the Construction Drawings will material for the pond beams shall be obtained from the Owner's on site borrow source. Excavation and transport of the fill material shall be experimented with the Owner. Pond beams shall be a minimum of four (4) feet in height and no steeper that 2 horizontal to 1 vertical (2:1). Excavation and compaction shall be in accordance with Section 02220.

- Ab. Water pumped to the pond temporary storage area from the lined areas, trench or other excavation shall be disposed of in storm sewers, canals or suitable disposal pits having adequate capacity. tested by the Contractor in the field, in the presence of the Engineer's on site representative; to determine if the water can be discharged to the adjacent horrow area. The Contractor shall give the Engineer's representative two hour notice when testing will be conducted. The flow into the pend shall be monitored and recorded.
- An initial testing of the subsurface water shall be conducted in the vicinity of the excavation prior to constitution. The initial testing shall consist of the following:

Parameter	Maximum Consumnent Level (mg/)	
Antimony	0:006	
Arsenic	0.03	
Barium	2	
Beryllium	0.004	
Cadmium	0.005	
Chromium	0.1	
Cyanitle	0.2	
Fluoride	4.0	
Lead	0.015	
Mercury	0.002	
Nickel	0.1	
Nitrate	10 (as N)	
Nitrite	1 (ns N)	
Selenium	0.05	
Sodium	160	
<b>Phaltium</b>	0.003	

### Festing parameters are listed below:

Parameter Highest Acceptable Level
Chloride 250 mg/L
Specific Conductance 500 withos/cm

d. After initial testing those parameters that were above detection limits will continued to be sampled along with Nitrate, Nitrite and Sodium.

These tests shall be conducted once per 500,000 gallons water (approximately one volume of the County leachate limiting vehicle) accumulated in the tamparary storage area pond. The costs for testing shall be at the Contractor's expense:

If testing reveals results within acceptable levels of listed parameters, the Conventor shall discharge the water from the temperary storage area to the County and hours between the material submitted to and accepted by the Engineer. Paragy dissipation, and turbidity and sediment control of the waters discharged into the horrow area shall be included in the discharge method submitted.

If testing reveals results are not within listed parameters, the Contractor shall contact the County immediately and arrange for removal and hauling of the water to the County's leachate treatment facility for treatment. Additional dewatering shall be conducted in accordance with Alternative 1:

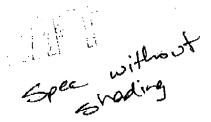
Upon completion of the dewatering operation, the 60 mild IDPE geometric shall be shaped in the active disposal area at no cost to the Contractor. The area shall be graded and restored to its pre-construction grades, including soil installation.

- B. The Contractor is responsible for acquiring at no cost to the County or Engineer, all permits required to discharge the water and shall protect waterways from turbidity or silting during the operation.
- C. In areas where adequate water disposal sites are not available, partially back-filled trenches may be used only when the Contractor's plan for trench disposal is approved in writing by the Engineer. The Contractor's plan shall include temporary culverts, barricades and other protective measures to prevent damage to property or injury to any person or persons.
- D. No flooding of roadways, driveways or private property will be permitted. Engines driving dewatering pumps shall be equipped with residential type mufflers. Where practical and feasible, electrical "drops" should be used in lieu of portable generators.
- E. Stormwater from any construction areas shall not be allowed to enter the adjacent active or inactive solid waste disposal areas.

END OF SECTION

SECTION 02140

DEWATERING



### PART 1 - GENERAL

### 1.01 DESCRIPTION

A. Scope of Work: The work to be performed under this section shall include furnishing all equipment and labor necessary to remove storm or subsurface waters from excavation and lined areas in accordance with the requirements set forth herein and as shown on the Drawings.

### 1.02 QUALITY ASSURANCE

A. The dewatering of any excavation or lined areas and the disposal of the water shall be in strict accordance with the latest revision of all local, state and federal government rules and regulations.

### 1.03 SUBMITTALS

A. The Contractor shall submit a detailed dewatering plan to the Engineer for review. Review shall be for general information only. The Contractor shall remain responsible for the adequacy and safety of the methods. The dewatering plan shall describe the procedures and schedule to be followed and include the types and capacities of equipment proposed to be used. The Contractor's dewatering plan will be reviewed by the Florida Department of Environmental Protection (FDEP). The dewatering plan shall be approved by FDEP prior to construction.

### PART 2 - PRODUCTS (Not Applicable)

#### **PART 3 - EXECUTION**

### 3.01 DEWATERING

A. The Contractor shall provide adequate equipment for the removal of storm or subsurface waters which may accumulate in the excavation or on the lined areas.

- B. If subsurface water or ponding is encountered, the Contractor shall utilize suitable equipment to adequately dewater the excavation or lined areas so that it will be dry for continuation of work. A well point system or other Engineer-approved dewatering method shall be utilized, if necessary, to maintain the construction area in a dry condition for preparation of the lined areas for construction or trench bottoms for pipe placement.
- C. Dewatering by trench pumping will not be permitted if migration of fine grained natural material from bottom, side walls, or bedding material will occur.
- D. In the event that satisfactory dewatering cannot be accomplished due to subsurface conditions or where dewatering could damage existing structures, the Contractor shall obtain the Engineer's approval of wet trench construction before resuming work.

### 3.02 DISPOSAL

A. The Owner has two alternatives for the disposal of dewatering activities. The Contractor shall be informed of the selected alternative when the Notice to Proceed is given.

### 1. Alternative 1

a. Water shall be pumped to the existing dewatering ditch. Contractor shall monitor and record the flow into the dewatering ditch. Contractor shall be responsible for the transportation and disposal of all water pumped into the dewatering ditch by the Contractor at the Wachula Waste Water Treatment plant or other permitted facility.

### 2. Alternative 2

a. Contractor shall construct a temporary reinfiltration pond in the location shown on Sheet C-1 of the Construction Drawings. Fill material for the pond berms shall be obtained from the Owner's onsite borrow source. Excavation and transport of the fill material shall be coordinated with the Owner. Pond berms shall be a minimum of four (4) feet in height and no steeper that 2 horizontal to 1 vertical (2:1). Excavation and compaction shall be in accordance with Section 02220.

- Ab. Water pumped to the pond-temporary storage areasfrom the lined areas, trench or other excavation shall be disposed of in storm sewers, eanals or suitable disposal pits having adequate capacity: tested by the Contractor in the field, in the presence of the Engineer's on-site representative, to determine if the water can be discharged to the adjacent borrow area. The Contractor shall give the Engineer's representative two-hour notice when testing will be conducted. The flow into the pond shall be monitored and recorded.
- c. An initial testing of the subsurface water shall be conducted in the vicinity of the excavation prior to construction. The initial testing shall consist of the following:

Parameter	Maximum Containment Level (mg/l)	
Antimony	0.006	
Arsenic	0.05	
Barium	2	
Beryllium	0.004	
Cadmium	0.005	
Chromium	0.1	
Cyanide	0.2	
Fluoride	4.0	
Lead	0.015	
Mercury	0.002	
Nickel	0.1	
Nitrate	10 (as N)	
Nitrite	1 (as N)	
Selenium	0.05	
Sodium	160	
Thallium	0.002	

-Testing parameters are listed below:

		Highest Acceptable Level
	Chloride	<del>-250 mg/L</del>
·	Specific Conductance	–500-umho <del>s/em</del>

d. After initial testing those parameters that were above detection limits will continued to be sampled along with Nitrate, Nitrite and Sodium.

These tests shall be conducted once per 500,000 gallons water (approximately one volume of the County leachate hauling vehicle) accumulated in the temporary storage area pond. The costs for testing shall be at the Contractor's expense.

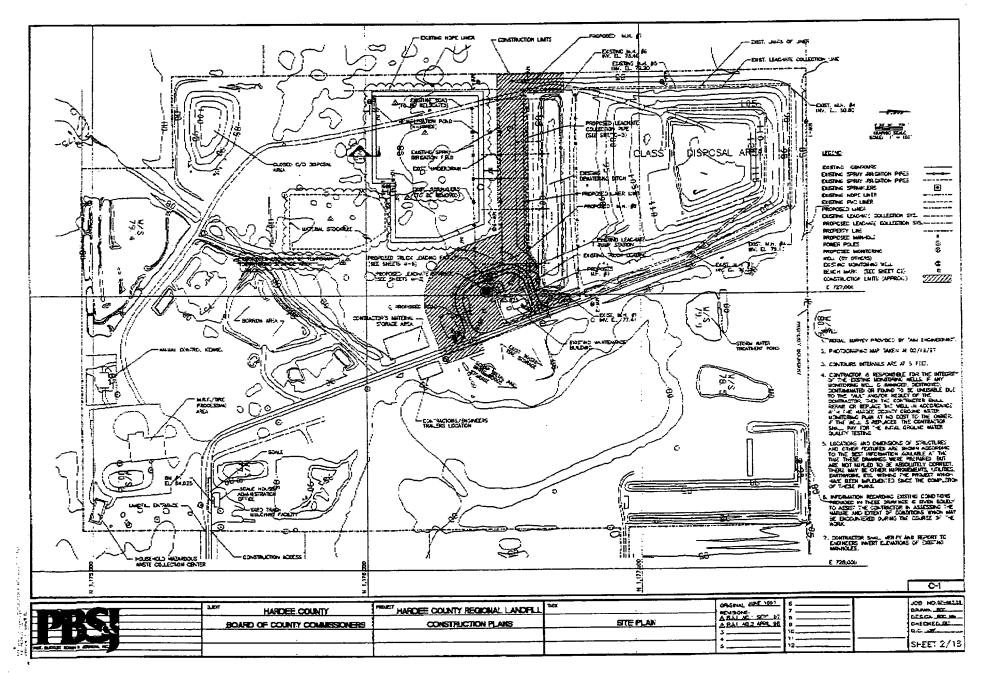
If testing reveals results within acceptable levels of listed parameters, the Contractor shall discharge the water from the temporary storage area to the County's adjacent borrow area by method submitted to and accepted by the Engineer. Energy dissipation, and turbidity and sediment control of the waters discharged into the borrow area shall be included in the discharge method submitted.

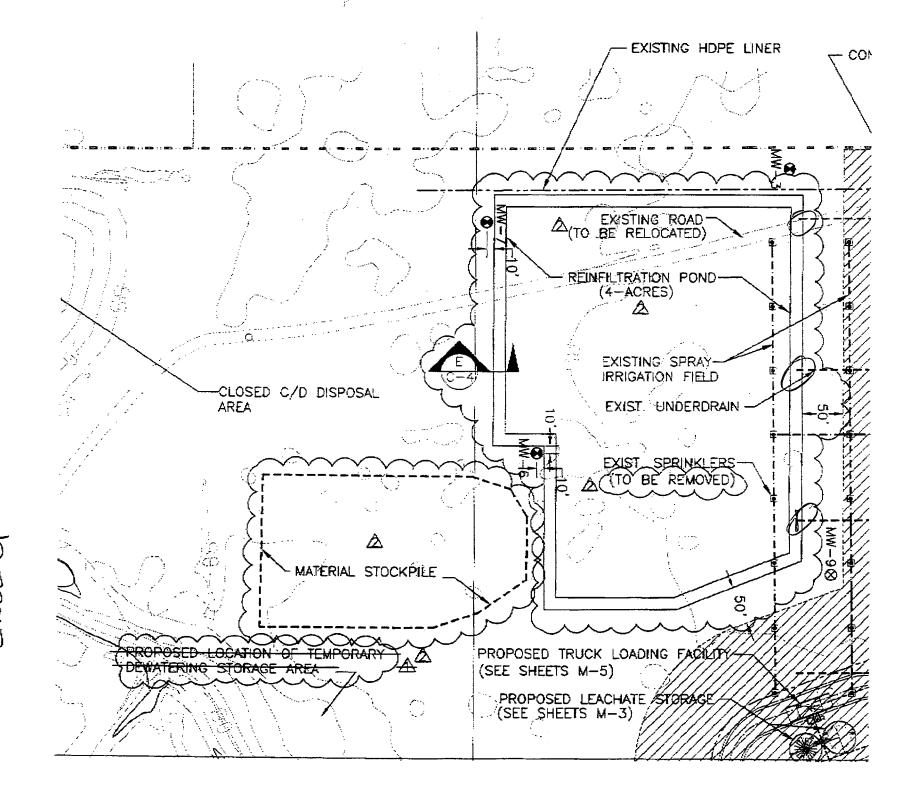
If testing reveals results are not within listed parameters, the Contractor shall contact the County immediately and arrange for removal and hauling of the water to the County's leachate treatment facility for treatment. Additional dewatering shall be conducted in accordance with Alternative 1.

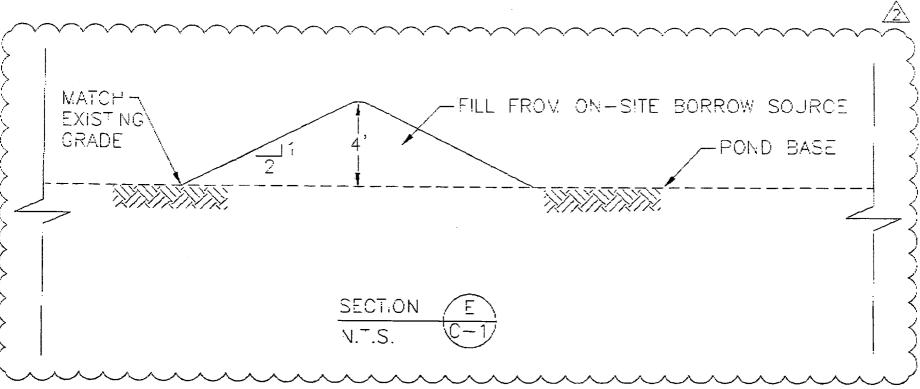
Upon completion of the dewatering operation, the 60 mil HDPE geomembrane shall be disposed in the active disposal area at no cost to the Contractor. The area shall be graded and restored to its pre-construction grades, including sod installation.

- B: The Contractor is responsible for acquiring at no cost to the County or Engineer; all permits required to discharge the water and shall protect waterways from turbidity or silting during the operation.
- C. In areas where adequate water disposal sites are not available, partially back-filled trenches may be used only when the Contractor's plan for trench disposal is approved in writing by the Engineer. The Contractor's plan shall include temporary culverts, barricades and other protective measures to prevent damage to property or injury to any person or persons.
- D. No flooding of roadways, driveways or private property will be permitted. Engines driving dewatering pumps shall be equipped with residential type mufflers. Where practical and feasible, electrical "drops" should be used in lieu of portable generators.
- E. Stormwater from any construction areas shall not be allowed to enter the adjacent active or inactive solid waste disposal areas.

END OF SECTION







# **PBS&J Fax**

TRANSMITTAL

To:

Ms. Susan Pelz, P.E.

Fax #:

407-647-8945

From:

Maureen Mauriello

Date:

813-744-6125 April 15, 1998

Re:

Hardee County RAI Submittals

Pages:

1, including this cover sheet.

Dear Susan:

Per our conversation today, PBS&J is requesting a week extension on submitting the responses to the

Department's Requests for Additional Information (RAI), dated January 30, 1998, for the Hardee County Landfill Operations Permit Renewal and Construction Permit applications. We will submit our responses by Friday, April 24, 1998.

If this is acceptable to you, please sign this fax and send back to me. My fax number is (407)647-8945. Thank you very much.

Sincerely,

Maureen Mauriello, P.E.

Project Engineer

c ·

J. Prestridge/Hardee County

Marie Manilla

D. Deans/PBS&J

GNENVICOMMON/WASTEMAN/HARDEE/CONST/PERMIT/RAIZ/EXTREO2.DEP

302 302

The Department does not object to your regrest. We appreciate your cooperation in resolving the artstanding issues.

P

## Transmit Confirmation Report

No. 007

Receiver

814076478945 WASTE MGT TAMPA SWDIST Apr 15 98 15:02 01'38 Transmitter Date

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# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

# CONVERSATION RECORD

Date 4/15/98	Subject Handoe
Time $10:15 - 11:03$	Permit No.
	County Handel
M Maureen Mauriel	lo Telephone No. 45 800/284-5/82
Representing PBS+J	
[] Phoned Me [Y V	Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting
Other Individuals Involved in C	onversation/Meeting
Summary of Conversation/Mee	ting
•	to propose 2 options: either petting back into
ditell on aw	In infiltration french
- At what pain	It will & you have specifies for sampling?
Contractor	will propose of bids > PERMIT CONDITI
- don't word in	nuch detail if just put back in trench &
<i>f</i> .	Fsite for disposal
	ion - need size of bermed men bottom
	be permeable, beens should be impermeable,
	nection spec, sampling parameters &
meale.	acception of the and
17169000	ry - water pumping into the pard ally initial - comprehensive, then periods
D/132 cl	on volume
(continue on another	Signature Swan Pely Allism Annam
sheet, if necessary)	D- / O/
	Title PE PG
PA-01	
1/96	
pap	·

- will change 02776, 5.01.B.1.
  to include telemance of depth into clay
  "Minimum of 1.5' into clay"
- pg 7-22 need to increase harling if level in tank is above x feet - min harling Enegrences
- contingency plan will take it to another plant within x days permit condition submit a plan
- submitted section 02220, 02776, 02140 revised sheet C-4
- she will send a doute of Deurtening Section before they submit a response

The

Handee SC permit f, le

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

### CONVERSATION RECORD

Date 4/2/98	Subject Dentering aption
Time /0:00	Permit No.
	County Hardee
M Mareen Mauriello	Telephone No. 407/647-7275
Representing PBS - J	·
[ ] Phoned Me [X] Was Call	ed [ ] Scheduled Meeting [ ] Unscheduled Meeting
Other Individuals Involved in Conversat	ion/Meeting
Summary of Conversation/Meeting	
Left han a messa	30 - Spoko w/ Maireen 2pm
Lewatering optive	ND
drains 15t).	MM thinks it's most expensive
@ GW inhiltration	in trench win spransields
nu monitorina	network (over)
(3) surface water va	riance - probable not an
artion - Would	I need to treat fixst. (over)
- Mills	mm think it's most expensive on trench w/in sprayfields network (over) niance - probable not an I need to treat fixst. (over)
coll dear in la 12	I'll be out tomorrow & Mon. Susan in case MM calls her
CAM Denot Dog De	
(continue on another	Signature Almman
sheet, if necessary)	Signature Almaam  Title PG/
	Title //
PA-01	
1/96	· · · · · · · · · · · · · · · · · · ·
nan	•

- gw reint/tration trench:

w/in some non. network, away from ditch/acek

ibould need to sample water Removed from excavation,

gw wells. Could install add / wells in needed. Sampling

plan eng/contractor would propose to DEP. Should include)

- surface water variance - unionized ammonia is not

a problem. They're interested in options 
i) treate water for iron x discharge to:

a: creek (via NPDES permit)

b: bonow pit (need gw non, wells)

2) get variance from neeting iron water quality

citeria to do a: or b: above.

Both options would involve periodic sampling of the

discharge & receiving water body.

PBS+I thinks they'll tell the contractor which disposal option to use - how they do it will be up to the contractor.

Date: From:

3/20/98 10:20:31 am Allison Amram TPA

Subject:

Hardee Co. - Dewatering disposal options Susan Pelz TPA

To: CC:

Robert Butera TPA

#### Susan-

I talked w/ Bill Kutash about the dewatering options for Hardee. He thinks that getting the leachate trench down, and then putting the dewatering water in it is best, since it will all effectively be contained (by pumping during installation, by the liner after installation). Paying for disposal of the water also gives incentive to the contractor to work quickly, and dewater as little as possible.

Using a ground water reinfiltration trench would probably be their best second option, and we could allow this IF the trench short-circuits to the excavation AND they sample the dewatering water so that we can know the actual quality. We could probably let them use a trench inside the monitoring well network for a short time if the water quality is comparable to the well quality (data that we do have).

A surface water variance is generally a last-ditch (ar, ar) effort, when there is no treatment or for economic hardship. Bill thinks they could try for one for iron, but they would need to go through Tallahassee, take 6 weeks, and he thinks that it would not be approved. No variance would be possible for unionized ammonia because it is toxic to aquatic life. We still don't know how much of the ammonia in the leachate and ground water is unionized.

I called PBS&J and left a message for Maureen to let her know that we are looking into this still, and anticipate calling them on Tuesday, after we get a chance to talk w/ Bob.

Hope you had a great weekend; I'm looking forward to starting mine soon!

> Rob well, we didn't all manage to get together last week! What do you think of the order of preference here? Thanks for your input.

FDEP

3804 Coconut Palm Drive, Tampa, FL 33619-8318

# FAX

Date: 3/24/98Number of pages including cover sheet: 2

To: Maureen Mauri'ello PB5+J	From: Allison Amram Solid Waste Section
Phone: Fax phone: 467/647-8945 CC:	Phone: (813) 744-6100 × 336  Fax phone: (813) 744-6125

REMARKS:	Urgent [	For your review	Reply ASAP	☐ Please comment
Maureen				
- Union	inged an	monia	calcs 6	asically
- the sar	ne equa-	tron yo	v gave me	
- depende	nt on p	HY /	Ka for ami	monium.
				<del></del>
_ Bob Buter	as been		eting all	day-we've
-1 -1	a chan		discuss a	Vervatering
- asposal	aptions		•	
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#### UNIONIZED AMMONIA

Total ammonia nitrogen (NH<sub>3</sub>-N + NH<sub>4</sub><sup>+</sup>-N = NH<sub>3</sub>-N<sub>total</sub>) present at the time of sample collection is immediately converted to non-volatile ammonium ions (NH<sub>4</sub><sup>+</sup>) by the addition of the acid preservative. Total ammonia is analyzed by the laboratory and no direct measurement of unionized ammonia (NH<sub>3</sub>) is possible. However, unionized ammonia in the original, nonpreserved sample may be calculated from equilibria considerations, providing that ambient temperature, pH and salinity is known. The concentration of unionized ammonia is a function of the concentration of total ammonia, the pH and the acid dissociation constant for ammonium. The acid dissociation constant is itself a function of temperature and salinity and may be estimated from empirical or theoretical equations. Equations I, II and III (below) can be used to calculate the concentration of unionized ammonia from field measurements of temperature, pH and salinity and laboratory measurements of total ammonia nitrogen.

$$NH_3 = [NH_3-N_{total}(17/14)]/[10^{pK-pH} + 1]$$
 (Equation 1) where:

NH<sub>3</sub> = estimated unionized ammonia in original sample (mg/L) NH<sub>3</sub>-N<sub>total</sub> = Laboratory measurement of total ammonia nitrogen (mg/L)· 17/14 = factor to convert ammonia nitrogen concentrations to ammonia pK = negative log<sub>10</sub> of the acid dissociation constant (K<sub>a</sub>) for ammonium pH = field measured pH value

The negative log<sub>10</sub> of the acid dissociation constant (pK) for ammonium can be estimated from equations II and III (below) published by Spotte and Adams in the Marine Ecology Progress Series, Vol. 10:207-210 (1983). Accordingly,

Equation I can be easily derived from equilibria considerations as follows:

$$NH_4^+ + H_2O --- H_3O^+ + NH_3^*$$
(\* in reality, ammonia is coordinated with a water molecule)
$$K_a = [H_3O^+][NH_3]/[NH_4^+]$$

$$log_{10}K_a = log_{10}[H_3O^+] + log_{10}([NH_3]/[NH_4^+])$$

Letting total ammonia represent the sum of ammonia plus ammonium, and recognizing that [NII4+] = [Total annonia] - [NII3], switching to nitrogen concentrations for the various species, substituting and rearranging gives:

$$\begin{split} -\log_{10} \mathrm{K_a} + \log_{10} [\mathrm{H_3O^+}] &= \log_{10} ([\mathrm{NH_3-N_{Total}}]/[\mathrm{NH_3-N}] - [\mathrm{NH_3-N}]/[\mathrm{NH_3-N}]) \\ & \qquad \qquad 10^{\mathrm{pK-pH}} + 1 = [\mathrm{NH_3-N_{Total}}]/[\mathrm{NH_3-N}] \\ & \qquad [\mathrm{NH_3-N}] = [\mathrm{NH_3-N_{Total}}]/(10^{\mathrm{pK}} - \mathrm{pH} + 1). \end{split}$$

Converting from reported ammonia nitrogen concentrations to ammonia concentrations yeilds Equation I.

### **MEETING SUMMARY**

Departmen.

SOUTHWEST DISTRIC

**Meeting Date:** 

March 20, 1998

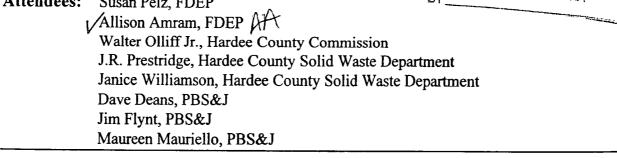
Subject:

Hardee County Landfill

**Operation and Construction Permits** 

Attendees:

Susan Pelz, FDEP



The purpose of this meeting was to resolve several issues resulting from the FDEP's request for additional information (dated January 30, 1998) on the construction permit application for the Hardee County Landfill. Items discussed at the meeting included the following:

#### 1. Dewatering issues (#15.b. and #8 of Allison Amram's memorandum)

FDEP stated that regardless of the groundwater quality in the area, any surface water discharges must meet surface water standards. Since previous testing has shown that the background water quality values for iron and ammonia are above Class III surface water standards, then the groundwater can not be discharged without treatment. FDEP stated that it may be possible to get a variance from Tallahassee for exceeding the iron value, since the groundwater does not meet surface water standards (Allison will check). FDEP stated that no variance would be allowed for unionized ammonia. FDEP questioned if the water quality testing showed whether the ammonia was ionized or unionized, because it is the unionized ammonia that is of concern. The County will check. (FDEP also questioned the 82-60 results of the recent ditch testing because they were reported in ug/kg which is an odd unit of measurement. The County will also check on this).

PBS&J stated that using a lined holding pond is too costly and proposed using the existing leachate collection ditch for the dewatering liquids as a temporary holding pond prior to hauling to the treatment facility. FDEP stated that this may work, however because of the proximity of the ditch to the construction area, the system may be short-circuited where the water pumped to the leachate collection ditch flows back through the sand to the construction ditch.

FDEP stated that another possible option would be to create a groundwater reinfiltration system using a trench not well (injection wells have special permitting requirements). The on-site borrow pit can not be discharged into because it also has to meet Class III surface

water standards. PBS&J proposed constructing an unlined holding pond in the area south of the ditch to be used as an infiltration pond. FDEP will want the holding area inside the monitoring zone of the existing sprayfield. Allison will check to see if this option is possible, and what criteria would have to be met.

FDEP also requested a dewatering plan that describes both where the dewatering liquids will go as well as how the trench will be dewatered. PBS&J stated that the contract documents will have the contractor responsible for the dewatering and hauling for treatment. The contractor will be required to dispose of every gallon of water he pumps out of the construction trench. FDEP stated that in that case, they will require a dewatering plan from the contractor unless PBS&J specifies how the trench will be dewatered. PBS&J stated that they cannot dictate to the contractor what method he is to use for dewatering. They can only define the standards that must be met and indicate where the contractor is to put the dewatered liquid for temporary storage.

FDEP questioned how much liquid the treatment plant will continue to accept. The County stated that currently they are taking 55,000 gallons per day. The County will check on the maximum daily allowable quantity that the treatment plant will accept at the time of construction. FDEP requested a written commitment for the Wauchula WWTP.

In summary, there are three (3) potential options for handling the dewatering liquids:

- 1. If the unionized ammonia meets surface water standards, obtain a variance to allow the discharge of higher levels of iron into the on-site creek.
- 2. Construct a holding/infiltration pond in the area of the sprayfield and dewater into that.
- 3. Dewater into the leachate collection ditch and then haul the pumped water to the wastewater plant for treatment.

# 2. Additional procedures and specifications requested for the clay subgrade, geomembrane tie-in, etc.

FDEP says that the specification needs to either provide a specific compaction requirement or if the spec says "compact for stability" then define stability. PBS&J said that the spec will be revised to provide a specific compaction requirement.

# 3. Permeability requirement for the existing clay layer (#1, and #16.b.)

FDEP disagrees with PBS&J's position that the new construction design is not based on the permeability of the existing clay layer. FDEP will address this issue in the permit conditions as best they can.

# 4. HELP Model questions and contingency measures for leachate disposal (#11.b.2 and

### #11.b.3)

For contingency measures, FDEP is concerned about what will be done if the tanks become full and then there is a peak rain event. FDEP wants either the County to have a backup treatment facility available to them or modify the Operations Plan to provide procedures to be followed to prevent the tanks from becoming totally full. The County has surveyed all treatment facilities within a 100-mile radius and none of them will accept leachate from the landfill at this time. PBS&J will review the Operations Plan to ensure that this issue is addressed as part of operations.

On the HELP Model, PBS&J explained that the runoff coefficient is a maximum potential value and the model determines the actual amount of runoff based on the SCS curve number. FDEP will review this issue again.

For the rainfall data, PBS&J used Tampa data and hesitates trying to use actual data from the landfill because there are other related defaults that are tied into the calculations (i.e. temperature, solar radiation, humidity, wind speed, etc.) for which there are no site specific data available and using only partial site specific data could skew the results. Allison pointed out that the annual rainfall records for Tampa are greater than Hardee County, so using Tampa data would actual be more conservative.

On the question of years of data, PBS&J stated that the data is synthetically generated and there are no specific years of data used. PBS&J will review the HELP Model manual for more information on the synthetic generation and try to provide FDEP a better answer.

Regarding the question of 12 feet used for the lateral drainage layer above the liner, PBS&J stated that the model incorporated the waste area as well as the area close to the proposed construction. FDEP is satisfied with this response.

# 5. Deleting portions of master specifications (#12)

PBS&J stated that the specifications were reviewed and modified as much as possible to comply with FDEP's request. FDEP will review our response to determine if it will be satisfactory.

# 6. Size specification request for excessive wrinkling of the geomembrane (#18.k)

FDEP will not require that excessive wrinkling be defined in the specifications. This was a suggestion to provide guidance to the contractor. If in the field FDEP determines wrinkles to be excessive, they will require them to be repaired.

## 7. Request for subgrade and final grade grading plans (#38)

PBS&J stated that the cross section provided is sufficient for the proposed construction and

the site plan provides elevations for the proposed liner. FDEP will review the specifications regarding this reference.

# 8. Clarification of FDEP's requirement for full time on-site supervision of the project full time construction inspector or full time liner inspector (Comment #3 at end of letter)

FDEP stated that full time inspection of the entire project will be written into the permit because the leachate storage tanks are part of the liner system. FDEP cited the definition of "liner system" which states "means a system of leachate collection and liner layers comprised of natural or synthetic materials installed between the subgrade and the waste for the purpose of containing the waste and collecting and removing leachate". PBS&J disagrees that the tanks are part of the liner system and interprets this definition to mean the liner components and leachate collection system, not the storage system.

# 9. FDEP's requirement of certain submittals for their review and approval during the construction project (Comment #4 at end of letter)

PBS&J questioned what submittals will be required. PBS&J expressed a desire to attain all necessary FDEP approvals during the permitting process so that construction progress is not dependant on submittals or approvals from FDEP. At this point in time, FDEP does not know exactly what submittals they will require. FDEP suggested that PBS&J review other construction permits issued by the Department for examples of the type of submittals they require. The actual requirement will vary based on the specifics of the project. Any timing requirements for the submittals will be based on what is called for in the specifications. These requirements will be incorporated into the construction permit.

### 10. Completeness of Leachate Management Plan (#7)

PBS&J stated the Operations Plans from the operating permit renewal and construction permit applications have been combined into one single plan. The reason they were different was due to the timing of the original submittals. The renewal was due prior to the construction, therefore the operations plan had to reflect what was currently being done and could not address the operations after the construction. Changes in the operations due to the construction were addressed in the construction permit application's operations plan. Since both applications have been submitted, the plans have been combined to reflect the proposed operations after the construction is complete. PBS&J is concerned that there is additional information that FDEP wants to see in the plan but has not yet requested. FDEP will review Section 7 again to determine if it is adequate.

Please note, a draft of the most current Section 7 was not provided to FDEP with the draft response letter, therefore it is included herein for FDEP's review.

In addition to the issues discussed above, FDEP wished to verify that the ditch referred to in

Allison's memorandum (question #1) originated on-site. The County confirmed that it does originate on-site.

PBS&J stated that the target submittal date is 30 days after the meeting, or April 17th. FDEP felt that they should be able to review our draft within this time frame. PBS&J requested that should the FDEP require additional information or have more questions has a result of there review, to please contact PBS&J so that we may address the issues as part of our next response package. PBS&J is trying to resolve all issues in this next response so that and no more requests for additional information will be issued and a draft permit can be issued.

### Section 7

# PART K - LANDFILL OPERATION REQUIREMENTS (62-701.500 F.A.C.)

D.E.P.

DRARY

MAR 2 3 1998

### 7.0 INTRODUCTION

OUTHWEST DISTRICT TAMPA

The Hardee County Regional Landfill is located east of the town of Wauchula on Airport Road. This Operations Plan addresses the regulatory requirements for the operation of the Class I facility and ancillary operations on the site, other than the MRF. The MRF Operations Plan is included herein as Attachment 7-1 for reference. This landfill operations plan will be kept at the administrative offices and shall be accessible to landfill operators. The facilities on the site include:

- Scalehouse and Administrative offices.
- Class I Landfill,
- Construction and Demolition (C&D) Debris disposal area (currently being closed),
- Materials Recovery Facility (MRF),
- Waste Tire Storage and Processing Facility,
- Yard Trash Mulching Facility,
- Scrap Metal Site,
- Household Hazardous Waste Collection Facility, and
- Maintenance Facility
- Borrow Area

These facilities are described below and shown on Sheet 4 of the Permit Drawings. Another facility present at the site is the County's Animal Control Kennel, located west of the MRF.

## 7.0.1 Scalehouse and Administrative Offices

The scalehouse and administrative offices are located just inside the entrance to the site. All incoming vehicles must stop at the scalehouse to register. Records, reports, analytical results, and modifications to the operating plan are maintained and kept on file at the administrative offices.

### 7.0.2 Class I Landfill

The Class I Landfill is located in the northwest corner of the site and comprises approximately 12.5-acres. The landfill is predominantly a bale fill type operation, with some "loose waste" disposal activities occurring on the south end. The majority of incoming solid waste is baled at the on-site MRF and transported to the Class I landfill for placement at the bale fill working face. During certain periods of time, the MRF may not be operational due to planned or unplanned maintenance

activities. During those periods the waste is taken to the area of the Class I landfill designated for "loose waste" which represents un-baled waste. Additionally, asbestos and any incoming burned wastes are also disposed of in the loose waste disposal area. Therefore, two working faces are maintained at the landfill, one for bale filling disposal activities, and one for "loose waste" disposal activities. The Class I waste disposal area is currently operating under Permit No. SO59-214306.

## 7.0.3 <u>C&D Debris Disposal Area</u>

A C&D debris disposal area is currently located in the southwest corner of the site. This disposal area is being closed in accordance to the provisions of the existing permit per Rule 62-701.730(1)(c). Until the proposed southern leachate barrier is constructed, C&D debris will be temporarily stockpiled just north of the existing dewatering ditch, east of the asbestos disposal area. Once the barrier is constructed, this C&D debris will be disposed of in the ditch which is an area separate from the Class I cell where no wastes have previously been disposed of. The current dewatering ditch will, at that time, no longer be directly connected to the leachate management system, however some volume of water may remain in the ditch until the County can transport it to a treatment facility. If this is the case, a separation clay dam will be placed in the ditch. The westerly zone will be pumped dry prior to placement of any C&D material.

## 7.0.4 MRF Facility

The MRF is operating under Permit No. SC25-179573. The MRF is equipped with a HI Density/2 ram baler. Wastes, excessively dirty and/or contaminated recyclables, non-recyclables, plastic bags and other residuals are baled at the MRF and then transported to the Class I landfill for disposal. Large items such as mattresses and other furniture, such as sofas, chairs, tables, etc. are baled, with no special handling requirements. These large items are not separated from the waste prior to being baled, and the baled waste is disposed of in the Class I cell. Small appliances such as microwaves, VCR's and televisions are also baled with other wastes and disposed of in the Class I cell. Should electronic items be found in the incoming waste loads, their batteries are removed and taken to the on-site Household Hazardous Waste Collection Facility, and then the item is processed with the rest of the waste load. See Attachment 7-1 for additional information on the MRF operational activities.

# 7.0.5 Waste Tire Storage and Processing Facility

A shredder is located inside the MRF for the processing of incoming waste tires from cars. The facility is currently permitted to process up to 500 waste tires per month at the on-site shredder. When processing tires, a worker is stationed on a platform located beside the shredder. Other workers pass tires, one at a time, to the person located at the platform who in turn drops the tires into the shredder. The shredded tires are deposited onto the tipping floor. A bobcat loader is used to pick up the shredded tires and load them onto a truck. The truck transports the tire shreds to the Class

I Landfill for use as an alternative cover. Incoming large waste tires and tires with rims are temporarily stored on-site in a designated area southeast of the Class I Landfill. These tires are collected by a contractor on an as-needed basis for removal from the site for processing. Per the existing permit, no more than 1,000 waste tires are stored at the facility. Additionally, at least 75% of both the waste tires and processed tires that are delivered to or are contained at the waste tire storage facility at the beginning of each calendar year are removed for processing and disposal or recycled during the year. A report on the operations of the waste tire facility is submitted annually to the FDEP.

### 7.0.6 Yard Trash Mulching Facility

The yard trash mulching area is located just north of the scalehouse and administrative offices. An independent contractor processes the material on-site. The minimum frequency for processing yard trash is 6 months. The mulch is provided free to Hardee County residents.

### 7.0.7 Scrap Metal Site

A scrap metal and white goods storage site is located just south of the waste tire storage area. southeast of the Class I Landfill. Incoming loads of scrap metal, appliances, and white goods (with and without freon) are temporarily stored in this area on an impervious base comprised of compacted shell. Bi-metal cans baled at the MRF are also transported to the scrap metal site for temporary storage. Propane tanks are accepted only if they are empty and the valves has been removed. Lawnmowers are also stored at the scrap metal site. However, lawn mowers are not accepted at the facility unless any oil or gasoline has been removed prior to their delivery. If a lawnmower is spotted by the scalehouse attendant, the attendant will question the driver about if the lawnmower still has gasoline or oil in it. If it does, the scalehouse attendant will not accept it. If a lawnmower is found in a load delivered to the MRF for processing, the operating personnel inspect the lawnmower to ensure that it is free of gasoline and oil prior to taking it to the scrap metal site. White goods and appliances with freon are stored separately from the rest of the scrap pile. These items are stored in an upright position to prevent the freon from discharging to the atmosphere. An independent contractor is hired to remove the scrap metal and white goods from the site on an as needed basis. The contractor is required to provide a letter stating that he will be responsible for the removal of any chloro-fluoro-hydrocarbons (i.e., freon or CFCs) from the white goods. The minimum frequency for scrap metal removal is 6 months.

# 7.0.8 Household Hazardous Waste Collection Facility

A household hazardous waste collection facility is located southeast of the MRF. The facility is used for the temporary storage of special wastes such as used oil, lead acid batteries, and household hazardous wastes. Used oil is consolidated in two 350 gallon tanks. Lead acid batteries are stacked

three high on palettes, with cardboard placed between each layer, and then shrink wrapped. Private contractors are hired for the removal of the recyclable special wastes such as the used oil, lead acid batteries, and fluorescent light bulbs. The minimum frequency for removing these recyclables from the site is as follows: used oil is removed monthly, batteries are removed quaterly, and light bulbs are removed within 180 days of exceeding the accumulation of 400 lamps.

Household hazardous waste is defined as discarded, small quantity residential waste (less than 220 lbs.) which is either listed by the U.S. Environmental Protection Agency (EPA) in its hazardous waste regulations or exhibits one of the four (4) following hazardous characteristics:

- Ignitability It may catch fire.
- Corrosivity It can damage other materials (including human tissue) on contact.
- Reactivity It reacts violently with water and may catch fire or explode.
- Toxicity It may cause illness or health problems if handled incorrectly.

Amnesty days are held two times per year in which residents can deliver their household hazardous wastes (including cans of paint) at no charge. These wastes are removed from the site by the contractor that same day. Gasoline tanks are not accepted at this facility. Only empty dried out paint cans are accepted throughout the year. If a can of paint is found by landfill personnel, and it is determined to be oil-based or of unknown composition, it is taken to the household hazardous waste facility for temporary storage on pallets until removed from the site by the qualified contractor. If the found paint is latex, then it is dried out on a piece of plastic and disposed of in the landfill. Gasoline tanks are not accepted at this facility. Propane tanks are only accepted if they are empty and the valve has been removed (they are stored at the searp scrap metal storage facility). The facility is also used to temporarily hold any unacceptable wastes found at any of the other on-site facilities. Currently, Laidlaw Environmental is contracted to remove and properly dispose of the household hazardous wastes.

# 7.0.9 Maintenance Facility

The on-site maintenance facility is located southeast of the Class I Landfill. Landfill equipment are maintained and fueled at this facility. The routine inspection of landfill equipment is performed at this facility. Fuel and fluids (engine oil, transmission oil, hydraulic oil, radiator, battery) are provided as needed. If repairs on the equipment are necessary, the equipment is sent to the County's central maintenance shop, located off-site, or to the dealer's authorized maintenance facility.

### 7.0.10 Borrow Area

A borrow area is located northeast of the MRF. The County utilizes this on-site borrow area as well as an off-site County borrow pit for cover material. County personnel conduct portions of the

excavation with the dozer and loader, however the majority of the excavation and on-site hauling is contracted out to an independent contractor.

### 7.1 TRAINED OPERATING PERSONNEL DOCUMENTATION

Currently, four (4) landfill personnel are trained landfill operators in accordance with prior Rule 62-703 F.A.C. While Rule 62-703 F.A.C. has been repealed and FDEP has not issued the new policy statement, the current certified employees are maintaining the continuing educational standards originally required in 62-703, anticipating that FDEP will re-institute the requirements. The record of their successful completion of the training is included in Attachment 7-2, and records of their continuing education credits are on file at the landfill. Those individuals currently trained include the following:

- J.R. Prestridge
- Janice Williamson
- Jerry Hutto
- Steve Strickland

At least one of these trained operators is on-site at all times when the facility is receiving waste.

The following staff positions, along with the names of the current staff, are designated for the landfill operation.

- Solid Waste Superintendent J.R. Prestridge
- Recycling Coordinator/Executive Secretary Janice Williamson
- Crew Chief, Spotter Jerry Hutto
- Heavy Equipment Operator, Spotter Harold Crooms
- Heavy Equipment Operator, Spotter Steve Strickland
- Resource Recovery Operator, Leachate Tanker Driver, Spotter, Data Collector-Paul Knarr
- Weighmaster Teresa Carver
- Weighmaster Ofelia Reyna

Job descriptions are provided in Attachment 7-3. As part of the solid waste management operations, trained spotters (scalehouse attendant, recycling crew chief, resource recovery operators, etc.) visually check for unacceptable materials. Additionally, at least one trained spotter is stationed at the working face of the Class I landfill.

The normal schedule for the landfill operations personnel are as follows:

J.R. Prestridge - Monday-Friday - 8:00 am-5:00 pm
Janice Williamson - Monday-Friday - 7:30 am-4:30 pm
Jerry Hutto - Monday-Saturday - 7:30 am-5:30 pm

Steve Strickland - Week One: Monday-Thursday - 7:30 am-5:30 pm

Week Two: Wednesday-Saturday - 7:30 am-5:30 pm

Harold Crooms- Week One: Wednesday-Saturday - 7:30 am-5:30 pm

Week Two: Monday-Thursday - 7:30 am-5:30 pm

Normal landfill operating hours are Monday-Saturday 7:30 am-5:00 pm.

# 7.2 LANDFILL OPERATION PLAN

# 7.2.1 <u>Designation of Responsible Operating and Maintenance Personnel</u>

The designated person responsible for operations and maintenance at the Hardee County Regional Landfill is:

Mr. J. R. Prestridge, Solid Waste Superintendent/Assistant County Manager Hardee County Solid Waste Department 675 Airport Road Wauchula, FL 33873 Phone: (941) 773-5089

Any inquiries concerning the management and operation of the Hardee County Regional Landfill facility should be submitted to his attention.

# 7.2.2 Contingency Operations

The landfill site has sufficient space that in the event that a portion of the site had to be closed due to some emergency, another area could remain open for waste disposal. Furthermore, there is currently space to accommodate additional waste in the event of a hurricane or severe storm.

There is sufficient equipment on-site so that landfill operations would not cease in the event of an equipment failure. If the MRF ceases to operate, the waste will be disposed of in the loose waste disposal area of the landfill.

The county also has budgeted enough funds for one month's leasing or rental of heavy equipment for contingency purposes. Furthermore, equipment from the Hardee County Public Works Road and Bridge Section is available to the Solid Waste Department for use during an emergency.

In the event of fire, the responding agency is the Hardee County Fire and Rescue Service, located approximately three miles west of the site, in Wauchula, FL. Additionally, the landfill site is equipped with a dry fire hydrant for the filling of pumper trucks. Three fire hydrants are located along the east side of Class I landfill, on the east side of the entrance road. Fire extinguishers are located in the equipment and at the maintenance barn for use in the event of small fires. There are also six fire extinguishers and five hose bibs located in the on-site MRF.

If a fire is discovered on the working face, the Solid Waste Superintendent is notified immediately. Landfill equipment is used to pull the burning waste away from the working area and smother it with soil. The area is closed and another area opened to allow landfill operations to continue. If necessary, the Hardee County Fire and Rescue Service is called for assistance. This service is equipped with self contained breathing devices. While the service does not receive formal training on fighting landfill fires, the Fire Chief is experienced in dealing with landfill fires and has informed his crew of the proper procedures should a landfill fire occur. Should additional help be necessary, the Division of Forestry is contacted. In the event that a fire is observed or reported when the landfill is closed, the Sheriff's Office is instructed to contact the Solid Waste Superintendent.

All fires occurring at the landfill are reported to FDEP by letter, within five days, explaining the cause, remedial actions, and measures taken to prevent a recurrence.

The following phone numbers can be used to notify the appropriate individual or agency:

Landfill Superintendent: 941-773-5089 (Office)

(After hours, Call Central Dispatch): 941-773-4144
Police: 911

Fire and Rescue: 911

FDEP, Tampa: 813-744-6100 Public Works: 941-773-6272

Equipment Rental/GHC Construction: 941-494-4147

# 7.2.3 Controlling Types of Waste Received

The landfill operators and scalehouse personnel are responsible for inspecting loads received at the landfill to detect and discourage attempts to dispose of unauthorized wastes. Each vehicle entering the landfill must stop at the scalehouse and have its load weighed in and classified in one of the following categories:

- 1. Residential
- 2. Commercial
- 3. Wood and Yard Waste

- 4. Horticultural
- 5. Agricultural
- 6. Institutional
- 7. Industrial
- 8. Appliances/Scrap Metal
- 9. Construction and Demolition Debris
- 10. Mixed Loads
- 11. Special Handling
- 12. Pre-tested Contaminated Soil
- 13. Tires without Rims
- 14. Tires with Rims
- 15. Tires Mixed

After classification, the loads are assigned one of the following destinations:

- 1. Class I Landfill
- 2. Construction and Demolition Debris Site in the Class I Landfill
- 3. Wood and Yard Waste Site
- 4. Scrap Metal Site
- 5. Material Recovery Facility
- 6. Waste Tire Site

The scalehouse attendant visually checks each load and, depending on the type of material, directs the driver to the appropriate on-site facility. Waste loads directed to the MRF for processing are inspected by personnel on the tipping floor prior to being baled for disposal in the Class I landfill. All facility employees are trained to look for liquid waste, drums, waste in sealed containers and unusual odors or fumes. If any material is found to be suspicious to the personnel, it is not processed through the MRF until the Solid Waste Superintendent comes to identify the material and determine its suitability. If the material is determined to be unsuitable, it is separated out and if the generator cannot be determined, it is taken to the on-site Household Hazardous Waste Collection Facility for temporary storage prior to being removed from the site and disposed of properly. If the generator can be identified, they are contacted to retrieve the unacceptable material.

As a standard operating procedure, at the working face of the loose waste disposal area of the Class I Landfill, equipment operators and spotters visually inspect loads for unacceptable wastes. If this inspection reveals any unauthorized or potentially hazardous wastes, the Solid Waste Superintendent is notified immediately. If so directed by the Landfill Superintendent the working face will be shut down, and another area within the landfill will be opened to allow continuing landfill operations.

The landfill does not accept closed or sealed containers; all drums, tanks and cans must have one end open and have been flushed. Other unacceptable wastes include septic tank sludge;

paint thinners; contaminated gasoline or like liquids; human waste from hospitals, doctor's offices or clinics or personal homes as a result of surgery or contamination. The facility does not accept any materials that the hauler cannot identify the composition of nor supply certification that the material is non-hazardous waste. No solid waste generated from outside the borders of Hardee County are accepted without prior written approval from the Board of County Commissioners or their designee.

In addition to the measures taken at the landfill, the County is involved with several programs which should reduce the risk of receiving hazardous wastes. Hardee County contracts with the Central Florida Regional Planning Council to participate in their Site Notification and Verification Program. In this program, the Council inspects all businesses in the County, once every five years, to verify the types of wastes generated by each facility and their procedures for handling any hazardous wastes. The County also has a Household Sharps Collection Program permitted through HRS. This program is used to prevent the unauthorized disposal of non-regulated household biohazardous waste. The collected materials (i.e. needles, etc.) are temporary stored in a designated room at the on-site County Animal Control Kennel. The operating procedures for this program are provided in Attachment 7-5.

# 7.2.4 Weighing Incoming Waste

All waste hauling vehicles entering and exiting the landfill are required to pass over the scales located at the facility entrance. Upon entering the facility, the scalehouse attendant weighs the vehicle and classifies each load, as described in Section 7.2.3. The load weights are printed on tickets and recorded on computer. Residents who transport their own garbage to the landfill are not charged for the delivery of recyclables. Residents are instructed by the scalehouse attendant to drop off recyclables, in an orange drop off trailer that is located at the right of the landfill entrance, prior to weighing in their wastes at the scalehouse. When the bin is filled, a facility employee retrieves the materials and weighs it prior to taking it to the MRF.

### 7.2.5 Vehicle Traffic Control

Signs posted at the gate describe disposal cost, materials accepted, hours of operation, and other information to educate disposers of on-site restrictions. Upon entering the site, all vehicles are required to stop at the scalehouse for weighing. The scalehouse attendant directs the driver to the appropriate on-site facility for unloading. All site roads are adequate for two-way traffic, and the speed limits are clearly marked. At each on-site facility, landfill personnel direct traffic to unload at the proper area. Additionally, signs are posted at each on-site facility to inform the public of acceptable and unacceptable materials.

# 7.2.6 Method and Sequence of Filling Waste

Incoming waste loads are deposited on the tipping floor of the MRF for processing. After being inspected for unacceptable materials, a bobcat loader is used to push the waste onto a steel belt conveyor which transports the material to an elevated sorting belt. Trustees from the Hardee County Jail are stationed along each side of the sorting belt and instructed to recover the recyclable materials. The recyclables are dropped down the appropriate chute where they are deposited into the appropriate recycling container. Non-recyclables, excessively dirty and/or contaminated recyclables, plastic bags and other wastes continue down the conveyor belt and into the baler where they are baled for volume reduction. The bales are loaded onto a flatbed truck and transported to the Class I landfill for disposal. Front end loaders with forks unload the flatbed and stack the bales. Waste loads not suitable for the MRF are directly routed to the Class I landfill and deposited at the loose working face of the landfill.

Sequencing Plans on file with the FDEP provide the current filling plan of the Class I landfill. These plans include Sheet 1, titled "Proposed Stormwater Design Final Buildout and Details" and Sheet 2, titled "Proposed Stormwater Design Operational Sequencing Plan". These plans were submitted by PBS&J to the Department on April 3, 1996 and are hereby referenced for this item.

For information concerning the Sequence of Filling Waste, please refer to Sheets 6 and 7 of the revised Permit Drawings included in Appendix E of the "Response To Request For Additional Information Dated July 25, 1997 for the Application for a Construction Permit", dated December 31, 1997. With the proposed landfill expansion, the remaining landfill life is approximately 10.5 years. The proposed sequence of construction is discussed in Section 5.1 of the Construction Permit application.

# 7.2.7 Waste Compaction and Cover Procedures

Waste compaction and cover procedures are discussed in Section 7.7 of this report.

# 7.2.8 Operations of Gas, Leachate, and Stormwater Controls

The Hardee County Regional Landfill's existing gas management system consists of six (6) passive gas vents installed at approximately five hundred-foot intervals around the perimeter of the site, inside the side wall. The location of the existing gas vents are shown on Sheet 5 of the Permit Drawings. The passive gas vent system requires only minimal maintenance and periodic inspection.

Once full landfill height is achieved, the complete gas management system, including horizontal collection pipes and additional passive gas vents, will be installed. The proposed gas management system components will be installed as part of closure activities, which will commence at the end of the landfill's active life which is currently anticipated at 8.5 years. The proposed piping configuration and vent locations are shown on Sheet 5 of the Permit Drawings. The location of proposed gas probes to be installed around the north and west sides of the landfill perimeter for use in the monitoring of potential gas migration are also shown. The gas probes will be installed during construction activities for the proposed southern barrier.

Operation of the leachate management system is discussed in Section 7.8 of this report and Sections 5.3 and 5.5 of the Construction Permit application.

Operation of the stormwater control system is discussed in Section 7.10.

# 7.2.8.1 Title V Applicability

On December 20, 1996, an Initial Design Capacity Report was submitted to FDEP's Division of Air Resources Management in Tallahassee, Florida (to the attention of Mr. Venkata Panchakarla). The report stated that the design capacity of the landfill is approximately 335,590 Mg. Since the facility did not exceed the threshold limit of 2.5 million Mg, the requirements of Title V are not applicable.

# 7.2.9 Water Quality Monitoring

The water quality monitoring information and requirements are addressed in Section 8.1.

# 7.3 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.

## 7.4 WASTE RECORDS

Waste reports that include waste type and quantity are compiled monthly and submitted quarterly to FDEP. Previous reports are on file with FDEP. 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:

Household C&D Debris Yard Trash
Commercial Asbestos Used Oil
Agricultural Batteries White Goods
Industrial 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.

### 7.5 METHODS OF ACCESS CONTROL

To prevent unauthorized waste disposal and to prevent unauthorized access to and use of the landfill, the entire site is surrounded by a fence. The entrance/exit to the facility is controlled by the scalehouse attendant. All vehicles entering the site must pass by the scalehouse. All visitors or customers must stop at the scalehouse either to have their vehicle weighed or to register by signing a "visitor log". When the facility is closed, the gates are locked.

# 7.6 LOAD CHECKING PROGRAM

As described in Section 7.2.3 of this report, load inspections at the MRF tipping floor occur daily as part of the facility's normal operating procedures. Of these daily inspections, a minimum of three (3) random load inspections are recorded each week in accordance with 62-701.500(6)(a)(1), FAC. Each inspection is completed by personnel trained to recognize regulated hazardous waste or PCB waste. If prohibited wastes are discovered, the Solid Waste Superintendent is notified and the waste generator is identified. The waste generator is contacted to retrieve the prohibited waste and instructed on the proper disposal procedures. Violations are recorded and reported to the Solid Waste Enforcement Section of the Department of Environmental Protection.

# 7.7 WASTE SPREADING AND COMPACTION PROCEDURES

As previously discussed in Section 7.0.2, 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 at the "loose waste" disposal area located on the south end of the landfill. Typically, waste is not baled during down time at the MRF when the baler is not operating due to scheduled or unscheduled maintenance activities. Some wastes, such as asbestos and burned wastes, are never baled and are taken directly to the loose waste fill area for disposal.

# 7.7.1 Waste Layer Thickness and Compaction Frequencies

At the baled waste disposal area, bales are stacked with a front end loader equipped with a fork attachment. Each bale measures approximately 4-feet (width) by 5-feet (length) by 2.5-feet (height). Bales are stacked three wide across the southern face, sixteen long towards the south, and two high per lift. When stacking the bales, they are positioned so that their joints are offset. The typical stacking plan is shown on Figure 7.1. 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.

At the loose waste disposal area, the waste is deposited at the working face and spread in layers approximately two feet thick and compacted with a dozer to a depth of one foot. This usually requires two to three passes.

#### 7.7.2 First Layer of Waste

Since the first layer of waste has been placed over the entire landfill footprint and there is not a synthetic bottom liner system to protect, this section does not apply. "Not Applicable" has been noted on the application form.

# 7.7.3 Slopes of Cell Working Face, Side Grades, and Lift Depths

The exterior side slopes of the landfill above grade do not exceed three horizontal to one vertical (3:1). To control erosion on completed side slopes, intermediate cover and sod is placed to establish a grass cover.

At the loose waste disposal area, the side slopes of the working face are maintained at no greater than three horizontal to one vertical (3:1). The lift depth for waste placed in this area is approximately ten feet. Initial cover is placed once this lift depth is reached. Initial cover is also placed on the waste at the end of each working day.

At the baled waste disposal area, the interior working face of the bale fill area is sloped at approximately 1.5 horizontal to 2.5 vertical since bales are stacked one on top of the other in a staggered formation (see Figure 7-1). Bales are stacked two high per lift. When the lift height is reached, intermediate cover is placed. Intermediate cover is also placed on the bales at the end of each working day.

Figure 7-1

# 7.7.4 Maximum Width of Working Face

The maximum width of the working face in the baled waste area is approximately one hundred feet. The working face of the bale fill area of the landfill is kept only wide enough to accommodate the maneuvering room required by the front end loaders with forks that are used to stack the bales.

At the loose waste disposal area, the working face is kept at a maximum width of approximately fifty feet.

## 7.7.5 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 6-inches of soil obtained from the on-site or off-site borrow pit, or shredded tire chips from the on-site tire processing facility. Plastic tarps are used as a temporary daily cover on the exposed side of working face of the bale fill area.

# 7.7.6 <u>Initial Cover Application Procedures</u>

At the loose waste fill area, the working face is covered with six inches of initial cover that consists of either soil or chipped tires at the end of each working day. The quantity of loose waste to be disposed of each day varies. During periods when the baler is inoperable, all incoming municipal solid wastes will be delivered directly to the loose waste fill area for disposal. When the baler is in operation, the incoming waste loads will be baled and only specific waste loads, such as burned waste, will be delivered directly to the loose waste fill area. On average, the monthly quantity of loose waste landfilled is approximately 66 tons, which is equivalent to 5% of the incoming waste stream.

Also at loose waste disposal area, when the waste lift reaches its maximum height a dozer is used to spread initial cover over the surface. The cover material placed between lifts consists of either soil or chipped tires.

#### 7.7.7 Intermediate Cover Application Procedures

At the baled waste disposal area, at the end of each working day the top of the working face is covered with 1-foot of soil and plastic tarps are hung over the exposed side of the working face. The tarps remain until more baled waste, or intermediate cover, is placed against that side of the working face. Also, when a waste lift reaches its maximum height a dozer is used to spread intermediate soil cover over the surface.

At both the baled waste and loose waste disposal areas, intermediate cover is also applied within seven days after completion of each lift over areas which will not receive additional waste within 180 days. Intermediate cover consists of compacted soil. Areas with intermediate cover are inspected weekly to insure that all waste is covered and that the proper depth of one foot is present. Any damage to the intermediate layer is repaired as quickly as operations permit.

When waste is to be placed on areas with intermediate cover, all or part of the intermediate cover is 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 with a front end loader. After additional waste is placed, the stockpiled cover material is used as cover by pushing the material back with the loader. Previously used cover material is not used on exterior sideslopes.

# 7.7.8 Final Cover Application Time Frame

The Class I landfill will be closed when the entire landfill reaches its final design grades. Currently, the facility's remaining life is estimated at 8.5 years. As areas of the landfill reach their design elevations they will receive intermediate cover prior to final closure. These areas will be sodded as necessary to establish a grass cover which will prevent erosion and promote runoff. Currently the north, east and west sideslopes of the Class I landfill have reached their design elevations, have received intermediate cover, and have grass cover. The landfill area exterior side slopes are maintained at a ratio of three horizontal to one vertical (maximum).

#### 7.7.9 <u>Litter Policing Methods</u>

On a weekly basis, landfill personnel and/or county jail trustees collect litter along the entrance and access roads, at buildings, in the parking areas, and in the vicinity of the working face. Litter control fences are used near the working face to lessen the amount of blown litter.

#### 7.7.10 Erosion Control Procedures

Erosion of the protective cover material on landfill areas is repaired as soon as possible to maintain the required depth of cover. The exact time frame is dependent on weather conditions and available materials, however, the repairs should be completed within 48 hours. The establishment and maintenance of a good stand of grass on the finished slopes is important to maintaining erosion control. In addition, it may be necessary to use silt

fences, straw bales, ditches or berms to help prevent erosion. The landfill operator will take appropriate measures to prevent and correct erosion problems on the site.

# 7.8 <u>LEACHATE MANAGEMENT PROCEDURES</u>

# 7.8.1 Leachate Level Monitoring, Sampling, Analysis and Data Results

The landfill operator is responsible for maintenance and monitoring of the leachate collection system. This includes daily level monitoring, biannual sampling and analysis of the landfill leachate.

Water quality and leachate monitoring is handled via a network of seven monitoring wells and one leachate collection point in the dewatering ditch. Leachate level monitoring is performed with a staff gauge located in the ditch. Leachate sampling is conducted at the south end of the dewatering ditch. Leachate monitoring is to be handled via a network of six monitoring wells (MW-1, MW-2, MW-4, MW-5, MW-8, MW-9) and ten piezometers (PI, P2, P3, P4, P5, P9, P10, P11, P15, P16) that will encompass the landfill and lateral expansion, and one leachate collection point at the existing pump station. Leachate level monitoring is to be accomplished using the piezometers for within the landfill cell and liquid level monitors for the leachate storage tanks. Leachate sampling is to be conducted at the pump station. Sample collection and analysis is performed by Short Environmental Laboratories, Inc. of Sebring, Florida. The leachate analysis parameters are outlined in the Groundwater Monitoring Plan included in Section 8. The leachate analysis parameters are discussed in Section 8 and Appendix D of the Construction Permit application. The Solid Waste Superintendent is responsible for reviewing all data reports and submitting them to the FDEP.

# 7.8.2 Operation and Maintenance of Leachate Collection and Removal System

The leachate collection and removal system consists of an above-ground and below-ground system. Leachate from stormwater runoff is collected in the above-ground system; leachate from stormwater infiltration and moisture in the landfilled wastes is collected in the below-ground system. In both systems, leachate is conveyed to a dewatering ditch for removal by evaporation, spray irrigation, and/or transport to a wastewater treatment plant.

The landfill is constructed with plastic PVC sidewall liners, tied to a natural clay base, on the cast, west, and north sides of the landfill. Leachate is collected by underdrains adjacent to the sidewall liner. This configuration serves to effectively isolate the landfill from groundwater infiltration while providing for leachate collection and removal.

The above-ground portion of the leachate collection and removal system consists of a series of ditches and pipes that divert stormwater runoff leachate from the working face of the bale fill area to the dewatering ditch on the southern end of the landfill. Leachate from the loose waste disposal area (adjacent to, and northeast of, the dewatering ditch) is conveyed by overland sheetflow to the dewatering ditch. A pump station is located adjacent to the dewatering ditch to convey the liquid from the ditch to the spray irrigation field and/or a tanker truck.

The spray irrigation field is comprised of approximately 6.1-acres surrounding and including the dewatering ditch. Leachate is conveyed via one of two pumps, as follows:

Pump No.	Flow	Head *	H.P.
+	<del>370 gpm</del>	<del>164 Feet</del>	25
2	<del>90 gpm</del>	<del>164 Feet</del>	6

<sup>\*</sup> At pump discharge

The sprayfield has been designed to discharge into four zones, layed out as follows:

Zone	Location	Arca (acres)	<del>Capacity</del>
1	South of dewatering ditch	3.3	<del>76.34 gpm</del>
2	Over dewatering ditch	0.8	<del>84 gpm</del>
3	Over dewatering ditch	0.85	<del>88 gpm</del>
4	North of dewatering ditch	<del>1.46</del>	<del>27.20 gpm</del>

The spray head information for each zone is as follows:

Zone	Head Type	Nozzle Size	Flow Rate	No. of Heads
1	<del>Impact</del>	<del>8/64"</del>	4:0 gpm	<del>24</del>
2	Mist	<del>8/64"</del>	4.0 gpm	<del>22</del> .
3	Mist	<del>8/64"</del>	4.0 gpm	<del>23</del>
4	<del>Impact</del>	8/64"	3.3 gpm	9

The record drawings on the construction of the spray irrigation system were developed by Briley, Wild & Associates, Inc. In March 1987, titled "Hardee County Sanitary Landfill Improvements", and are on file with the FDEP. The spray field layout is provided on Sheet 3 of 8 of these drawings and is titled "Leachate Collection and Spray Irrigation System".

The system was designed to allow the operation of any zone alone or all zones together. The typical operating schedule for the system is as follows:

Zone	Suggested Running Time for Maximum Evaporation	Hours of Operation	Quantity Sprayed (gallons per day)
1	12:00 pm to 5:00 pm	<del>5</del>	<del>24,984</del>
2	8:00 am to 5:00 pm	9	<del>47,520</del>
3	8:00 am to 5:00 pm	9	<del>49,680</del>
4*	12:00 pm to 5:00 pm	<del>5</del>	<del>9,180</del>

<sup>\*</sup>When operating in Zone 4, area should be monitored for surface runoff, and system shut down earlier if surface ponding observed.

The daily length of operation may vary depending on the liquid level in the dewatering ditch. If necessary, in addition to running the spray irrigation system, the leachate will be removed by truck for disposal at the treatment facility.

The configuration of the leachate collection and recovery system inside the Class I disposal area changes in accordance with the existing Sequencing Plans submitted by PBS&J to the FDEP on April 3, 1996. These plans are on file with the FDEP and include Sheet 1, titled "Proposed Stormwater Design Final Buildout and Details" and Sheet 2, titled "Proposed Stormwater Design Operational Sequencing Plan". In sequences 1-4, a leachate swale is constructed around the west, south, and east sides of the working area to capture stormwater runoff leachate. Two twelve-inch diameter (minimum) leachate collection pipes convey leachate from the southeast and southwest corners of the southern leachate swale to the dewatering ditch. As the landfill sequence progresses, existing leachate swales are removed and new leachate swales are constructed to accommodate the new working area. Sections of the leachate collection pipes are removed, and the upstream pipe inverts adjusted, to maintain a positive outfall to the dewatering ditch.

Berms along the northeast edge of the loose waste disposal area and along the north edge of the dewatering ditch divert stormwater runoff from the non-working areas of the landfill to swales and culverts which discharge into the stormwater pond. The berms and non-working areas have grass cover for erosion and sediment control.

In Sequence 5, the loose waste disposal area is part of the working area of the landfill. The berm along its northeast edge is removed to allow leachate to flow into the dewatering ditch. Leachate flows overland, either directly to the dewatering ditch, or to the new leachate swales on the east and west sides of the working area. In the non-working areas, sections of the berm along the north edge of the dewatering ditch remain to prevent stormwater from draining into the dewatering ditch.

In Sequence 6, the working area adjacent to the dewatering ditch is closed. The working area is moved to the north, and a leachate collection swale is constructed to the east, west, and south sides of the new working area. Two twelve-inch diameter (minimum) leachate collection pipes convey leachate from the southeast and southwest corners of the southern leachate swale to the dewatering ditch. The non-working areas are fully sodded for erosion and sediment control. Prior to closure (final build out), the leachate collection swales and pipes are covered or removed.

The leachate collection and removal system consists of above ground and below ground systems. Leachate generated from stormwater runoff in contact with the waste is collected in the above-ground system; leachate from stormwater infiltration and moisture in the landfilled wastes is collected in the below-ground system. In both systems, leachate is to be conveyed to a submersible leachate pump station for removal to leachate storage tanks Leachate is then pumped from the storage tanks to tanker trucks for transport to the Wauchula Municipal Wastewater Treatment Plant

The submersible leachate pump station will be a duplex system having a nominal capacity of approximately 130 gallons per minute (gpm). This pump station will be operated by float control using the following five floats:

- lead pump on, MONTH REPORTED THE PROPERTY OF
- lag pump on,
- pump(s) off,
- high level alarm, and
- low level shut-off.

The wet well for the submersible leachate pump station shall utilize the existing concrete structure with a new concrete top slab and aluminum access hatch.

The submersible leachate pump station will discharge into a 4-inch force main flowing to the leachate storage tanks. If the level sensor in the storage tanks indicates high leachate levels, the submersible leachate pumps will either not be allowed to start or will automatically turn off if they are already in operation. For additional reliability, the submersible leachate pump station will also be furnished with an emergency pump out connection.

Any storage tank overflow will be retained within the secondary containment area. The longest period that the leachate will be stored in the containment area is expected to be three days (a long weekend).

Each submersible leachate pump will be furnished with a high motor temperature sensor. If this condition occurs, an alarm signal will be annunciated. In addition to an alarm, high motor temperature will also cause pump shut-down. As noted above, alarm annunciation for high level in the submersible leachate pump station will also be provided.

The submersible leachate pump station control panel and the truck loading pump station control panel will be furnished with an emergency generator receptacle.

One truck loading pump will take suction from the leachate storage tanks(s) and discharge into a truck loading chute. The truck loading pump will have a duty point of approximately 600 to 700 gallons per minute, which will fill a tanker in approximately ten minutes.

Truck loading will be a manual operation with relay logic control located in the pump control panel. Two local on/off push buttons will be provided on the truck loading piping such that the truck loading pump can be started or stopped by the truck driver while directly observing the discharge onto the truck. The truck loading pump will also be able to be started and stopped from the control panel.

Low levels in any on-line storage tank will trigger a switch, thereby turning the truck loading pump off. Flow metering will also be provided for record keeping purposes. Provisions will be made to take any storage tank off-line without interrupting truck loading operations.

Any spillage, washdown, or other flow collected in the truck loading area or loading pump containment area will be routed back to the submersible leachate pump station which will pump into the storage tanks.

A 3-inch magnetic flow meter will be connected to the forcemain leading from the submersible leachate pump station to the leachate storage tanks. Daily readings of leachate generated, in gallons per day, will be read directly from the meter. As a backup to the magnetic flow meter, an estimate of leachate removed from the landfill can be calculated in one of the two following ways:

- The elapsed time meter for each submersible leachate pump can be read to establish the change in total pump run time. This value can then be multiplied by the nominal pump discharge rate to estimate the leachate volume removed.
- 2) The ultrasonic level sensor for each leachate storage tank can be read and any change in the tank liquid level can be translated to volume of leachate

removed. The net effect of precipitation or evaporation would need to be accounted for in this methodology.

Precipitation data is recorded daily by landfill personnel on one of the sample leachate management recordkeeping forms provided in Attachment 7-6. Rainfall quantity is obtained at a rain-gauge located on-site. This data will be used to calculate quantity of possible leachate generated by multiplying the rainfall quantity by the area of landfill not capped, and converted to gallons of leachate generated.

Leachate that has accumulated in, and is removed from, the storage tanks will be recorded at the time of loading the leachate hauling vehicle. Leachate generation data is recorded by landfill personnel on one of the sample leachate management recordkeeping forms provided in new Attachment 7-6. It is the County's goal to keep the leachate level in the storage tanks as low as possible. This will be accomplished by hauling the leachate regularly to the treatment facility, as part of the daily operations?

The secondary containment structure around each of the leachate storage tanks is not closed to the weather. Rainfall cannot escape from this area and therefore can accumulate. The secondary containment area will be equipped with a sump area and electric sump pump for removal of this water!

County personnel will visually check the secondary containment area after each rain event for accumulation of rainfall. Rainfall accumulation resulting in standing water in this area will require removal. The accumulated water can be discharged by an electrical sump pump, included in the design of the secondary containment area, to a gravel pad outside the secondary containment structure where it can infiltrate through the gravel and into the underlying soil. The LSTF is within the liner system, therefore the quality of this accumulated water does not require special consideration.

The above-ground portion of the leachate collection and removal system consists of a series of ditches and pipes that divert stormwater runoff leachate off the working face. Berms located along the east and west edges of the working area direct runoff to the south into a swale that runs along the southern edge of the working area. The slope of the swale bottom directs the flow to two 12-inch diameter (minimum) temporary leachate collection pipes, located in the southeast and southwest corners, which currently conveys the runoff to the southern, dewatering ditch. The proposed leachate collection and removal system construction will eliminate the use of the dewatering ditch and sprayfield irrigation disposal. Runoff from the working area will continue to be directed to temporary collection pipes via the east and west berms and the southern swale. The southern ends of the collection pipes will be connected to new manholes which will direct the flow through the improved existing leachate pump station to the proposed storage tanks.

As the landfill sequences progress, the east and west berms will be extended and a new southern leachate swale will be constructed to accommodate the new working area. The berms adjacent to completed areas and the existing swale will be removed. Sections of the temporary leachate collection pipes between the existing and new swales will be removed, and the upstream pipe inverts adjusted, to maintain a positive outfall to the pump station. The new swale; berms, and non-working areas will be fully sodded for erosion and sediment control.

Leachate generated from stormwater infiltration and moisture in the wastes will continue to be collected by underdrains surrounding the landfill and conveyed by below-ground pipes to the proposed leachate pump station and storage tanks.

# 7.8.3 Procedures for Managing Leachate if Regulated as a Hazardous Waste

If at any time the leachate is determined to be hazardous, it will be managed in accordance with Rule 62-730, F.A.C.

### 7.8.4 Off-Site Discharge and Treatment Agreements

An agreement between Hardee County ("the County") and the City of Wauchula ("the City") provides for off-site discharge and treatment of leachate. The County retains the City to provide for treatment and disposal of leachate on an as-needed basis. The County is responsible for testing and reporting, and for transportation of leachate to the City's wastewater treatment plant. The services to be performed and the terms of the agreement are subject to FDEP rules and regulations.

A copy of the agreement between Hardee County and the City of Wauchula for leachate treatment and disposal is included in Attachment 7-4.

### 7.8.5 Contingency Plan for Managing Leachate

<u>Currently</u>, during emergencies or spray field equipment failure, leachate is trucked to the City of Wauchula Wastewater Treatment Plant for treatment.

Backup systems have been designed throughout the proposed leachate collection and removal system. At the Waste Disposal Area, two pipes convey leachate to the pump station. If one pipe is damaged, it may be closed off and all leachate conveyed through the other pipe. Leachate may be pumped and stored into either of two leachate storage tanks, increasing storage capacity and allowing for maintenance without disrupting operations. Leachate may

also be pumped from either storage tank, or directly from the pump station, to tanker trucks for transport to the Wauchula Municipal Wastewater Treatment Plant.

# 7.8.6 Procedures for Recording Quantities of Leachate Generated in Gallons per Day

<u>Currently</u>, a staff gauge located at the southern dewatering ditch is used to measure the leachate level which in turn is used to compute leachate generation in gallons per day. <u>Leachate generation data is recorded daily by landfill personnel</u>.

Upon completion of construction activities, a 3-inch magnetic flow meter will be connected to the forcemain leading from the submersible leachate pump station to the leachate storage tanks. Daily readings of leachate generated, in gallons per day, will be read directly from the meter. As a backup, to the magnetic flow meter, an estimate of leachate removed from the landfill can be calculated in one of the two following ways:

- The elapsed time meter for each submersible leachate pump can be read to establish the change in total pump run time. This value can then be multiplied by the nominal pump discharge rate to estimate the leachate volume removed.
- The ultrasonic level sensor for each leachate storage tank can be read and any change in the tank liquid level can be translated to volume of leachate removed. The net effect of precipitation or evaporation would need to be accounted for in this methodology.

Leachate generation data is recorded daily by landfill personnel.

#### 7.8.7 Procedures for Comparing Precipitation with Leachate Generation Rates

A rain gauge, <u>currently</u> located at the southern dewatering ditch is used to compare precipitation with leachate generation. Rain data, in excess of one tenth of an inch, is recorded daily by landfill personnel. The rain gauge will be relocated during construction activities.

#### 7.9 ROUTINE GAS MONITORING PROGRAM

Gas meter readings are taken inside all buildings on the landfill site (maintenance building, MRF, scalehouse/administrative offices, kennel, household hazardous waste collection center). All monitoring points are sampled quarterly, and the results reported to FDEP. If methane gas levels

exceed twenty five percent of the lower explosive limit for gases in structures, excluding gas control or recovery components, the landfill operator shall:

- Immediately take all necessary steps to ensure protection of human health and notify FDEP;
- Within seven days of detection, submit to FDEP for approval a remediation plan for the methane gas releases. The plan shall describe the nature and extent of the problem and the proposed remedy. The remedy shall be completed within sixty days of detection unless otherwise approved by FDEP.

#### 7.10 STORMWATER MANAGEMENT SYSTEM OPERATION AND MAINTENANCE

The stormwater management system at the Hardee County Regional Landfill consists of a series of swales and pipes that divert stormwater from the non-working areas of the landfill to the stormwater pond. Throughout sequences 1-6, swales and berms divert stormwater runoff leachate from the working face of the bale fill area and the loose waste disposal area to the dewatering ditch. All other stormwater runoff, from the non-working areas, flows toward swales surrounding the landfill. The swales discharge into pipes and/or other swales, or directly into the stormwater pond. Runoff from the detention pond ultimately discharges into the Peace River.

The newly proposed stormwater management system for the leachate storage tank facility (LSTF) will consist of a proposed 0.10 acre on-line retention pond located south of the LSTF. It will receive stormwater from the access roads and from the existing maintenance area and proposed LSTF. The pond receives discharge from the LSTF area through a culvert. The pond discharges to a swale through a trapezoidal weir. The treatment volume will recover through percolation into the soil. See Revised Sheet C-3 (revised permit, October, 1997) and Sheet C-4 (original permit, June, 1997) of the Construction Drawings submitted with the environmental resource permit (ERP) application for more detail. See also the LSTF stormwater management system ERP application, "Hardee County Landfill Leachate Storage Tank Facility SWMS", submitted to FDEP October 7, 1997.

Certain procedures have been implemented at the landfill to minimize maintenance requirements and to ensure efficient performance of the stormwater system operation. These procedures include:

- No excavated material is stockpiled in such a manner as to direct sediment laden runoff outside the project site property limits or into any adjacent stormwater collection facility;
- All drainage ditches are inspected periodically for erosion and reshaped and resodded as required;

- Erosion and siltation control devices are cleaned and repaired as required; any temporary erosion control features or measures incorporated into any work conducted at the site (i.e. intermediate cover placement areas, borrow area) are removed after the work has been completed; any permanent erosion control features damaged by such removal are repaired;
- After vegetation has been established, all swales, channels, and detention ponds are mowed regularly; Minimum mowing frequency is once per year.
- The plant types in the littoral zone are checked periodically and any intruding vegetation is removed if required;
- Drainage sumps are cleaned out at least once per year and the storm sewer lines checked for plugging;
- The area in front of the control structure is checked at least quarterly to remove any excess plants or debris that could cause the structure to plug.
- Additional erosion control measures are implemented when field conditions warrant (i.e. cover material stockpiling, on-site construction activities, etc.).

# 7.11 EQUIPMENT AND OPERATION FEATURE REQUIREMENTS

#### 7.11.1 Sufficient Equipment for Operations

The following equipment is owned by the county and is currently available at the landfill:

Front End Loader, CAT 950F, multi-functional bucket, rake, and forklift w/enclosed cab Dozer, Cat D7H w/enclosed cab (for landfilling activities, i.e. compacting loose waste) Pickup Truck, Ford F150

Tanker Truck and 5000 gallon tanker (for leachate transport)

Flatbed Truck (for bale transport)

#### 7.11.2 Reserve Equipment

The existing equipment on site, listed in the section above, is sufficient to handle the incoming waste stream. Should unforeseen circumstances require more equipment than is currently available, the county also has budgeted enough funds for one month's leasing or rental of heavy equipment. Additionally, equipment from the Hardee County Public Works Road and Bridge Section is available to the Solid Waste Department for use during an emergency.

# 7.11.3 Communication Equipment

The scalehouse and on-site landfill office are equipped with telephones. Supervisory personnel are assigned vehicles with radios that communicate with the county's Public Works Division. Public Works Division personnel can then relay messages to the Sheriff's Office and other emergency services.

# 7.11.4 Personnel Shelter, Sanitary Facilities and First Aid Equipment

Sanitary facilities are provided at the on-site landfill office, the maintenance building and the scale house. Fire extinguishers are housed in all equipment used at the landfill site. The front end loader and dozer have fully enclosed cabs for roll over protection. The front end loader and dozer are equipped with air conditioning and heaters. Site employees are equipped with safety boots, rain gear, gloves, and goggles for personal protection while working at the landfill. First aid kits have been strategically placed throughout the landfill site.

#### 7.11.5 <u>Dust Control Methods</u>

During dry periods haul roads will be sprayed with water if dust control is necessary. Water from the on-site stormwater pond will be pumped into a 1,000-gallon tanker truck equipped with a spray bar and nozzles to use for wetting the roads. The tanker truck will be provided through the Hardee County Public Works Department.

# 7.11.6 <u>Litter Control Devices</u>

On a weekly basis, landfill personnel collect litter along the entrance and access roads, at buildings, in the parking areas, and in the vicinity of the working face. Litter control fences are used along the perimeter hill of the working face to lessen the amount of blown litter. The fences are erected at the beginning of each work day and removed at the end of the day. Litter control is also obtained by baling most of the landfilled wastes.

# 7.11.7 <u>Signs</u>

A large sign on S.R. 636 indicates that the landfill is run by Hardee County and displays the days and hours of operation. Signs posted at the scalehouse state the rates and fee schedules. Signs posted throughout the facility indicate traffic flow, types of waste that are not acceptable, speed limits, and under ground liner location. All manholes are marked with a

warning sign stating "This Manhole Contains Toxic and Explosive Gasses. Do Not Enter Without Proper Ventilation".

# 7.12 SITE ACCESS ROADS

The entrance and on-site roads are paved with a shell base. The roads are crowned and slightly elevated above the surrounding grades with drainage swales on both sides to promote drainage. The roads are routinely graded by the Hardee County Public Works Department. The access ramp to the working faces is compacted soil with pea gravel or shell placed over it. This access ramp is adequate for landfill operating equipment to reach the working area during almost all weather conditions. Should conditions prevent the flatbed truck carrying baled waste from accessing the top of the landfill, the loader can be used to carry the bales to the working face of the bale fill area.

# 7.13 ADDITIONAL RECORD KEEPING AND REPORTING REQUIREMENTS

### 7.13.1 Records for Development of Permit Applications

In addition to waste and operating records, supplemental information from the permit applications and information pertaining to the landfill's construction and maintenance are on file at the facility. These records will be retained at the site for the remainder of the landfill's life.

# 7.13.2 Copies of Reports Maintained for 10 Years

Records of all monitoring information, including calibration and maintenance records, and copies of reports required by the permit will be retained for at least 10 years.

# 7.13.3 Background Water Quality Reports

Background water quality records will be kept on file for the design life of the landfill.

# 7.13.4 Annual Estimates of Remaining Life

Hardee County will maintain an annual estimate of the remaining solid waste disposal capacity (in cubic yards) and life of the existing Class I landfill. The estimate will be based on the geometry of the solid waste disposal area and the scalehouse waste records. These estimates will be reported to the FDEP annually.

Date: From:

3/24/98 12:12:43 PM Allison Amram TPA

Subject:

Dewatering discharge to surface waters

Kim- (Barlow, IW)

I have a landfill that needs to do some construction, and they'll need to dewater to do it. The water quality in the area shows iron higher than the surface water criteria of 1 mg/l, but their first choice is to send the water from dewatering to an onsite borrow pit (pond w/ no outfall to surface waters). I had talked w/ some of the biologists from Tech Support, and they said that the discharging water has to meet the surface water criteria, even if the receiving water body doesn't. Does this apply to an onsite borrow pit? As long as the iron concentrations are not harmful to the aquatic life that's established in the borrow pit, and it won't increase the iron concentration in ground water, can we somehow allow them to discharge ground water into this pit?

We're looking at all options right now, including the possibility of a ground water infiltration trench. Do you ever work with this kind of request? If all goes well, they expect to take 2 weeks to complete the construction parts that require dewatering. It's a one-time deal.

Thanks, I'm looking for input as to how these folks can proceed. construction is to install a liner on their landfill, and once installed it will provide better containment of leachate from the landfill.

Come see me, or give me a call at x 336, and I'll come up and show you the site (or whoever is familiar w/ these kinds of projects!)

Allison

Discharge to ground water by fandfill and want addressed the land fill want and sile shell be parant shall a/50 be authorized want of sile shell a parant shall a/50 be for sile was le parant shall a sile was le parant shall dan pipes on flow.

- dan pipes cuit flow.

- short.

Susan dowateing Handle dowateing stuff fy; for stuff

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

# CONVERSATION RECORD

Date 3/20/98	Subject Hardee -	dewatering disposa
Time /0.15	Permit No.	ofterno
Maureen Mauriel	les County Hard	ee
Marid Dears	Telephone No <del>4</del>	07/647-7275
Representing $PBS+T$		<u> </u>
[ ] Phoned Me 💢 Was 0	Called [ ] Scheduled Meetin	ng [ ] Unscheduled Meeting
Other Individuals Involved in Conve	rsation/Meeting	
Summary of Conversation/Meeting		
Loft Maurean a	message that	+ we are still
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1/96 pap		



# Florida Department of Environmental Regulation.

Southwest District

Lawton Chiles, Governor

3804 Coconut Palm Dr.

813-744-6100

Tampa, Florida 3361° Virginia Wetherell, Secretar

DATE: TIME: Hande lo Liver & Tank ATTENDEES Name Affiliation Telephone 813-744-6100 x 386 FDEP lison Amram 744-6100 x 336

Dewatering issues O high inon & immoria , in groth & leachate

gwith & leachate violate class III sunface water stel. no tests of creek yet (2) storage of dewatering water prien to receipt of analysis - pend costs 50,000 - \$100,000 (confe news, 30 mil PVE) - cost to have is chapen than cost 5 mc foot of freeboard storinge in terchate ditel bottom of liver triench appear. So ft may from deteh Contracton is pessonsible for decentering, Nel Egner Co Co will tell contruster detch is Avail 8 most take out what they put into ditch \* Co will check if wavehula about mrx. capacity We have concern that you might "short cincuit" From Co must have ditch level lowered (bettern 71 existing ditch) Exception will be 10-15 feet deep. \* We will want de-watering plan from Contractor paior to implementate - Don't know what unionized Ammonia level is in leachate PBSS Apparatch is to tell Contractor to take water to Workers if he wants to have other disposal, then DEP review Approve - Contractor will hime our trucks to har 1 to Worch la ???? - What happens if worchold can't take everyth water? Contractor must memore as much as he puts in

Whichold has finite # gallons they can accept.

Co mist have level in truch low enough to Allow ??? May use Re-intiltenation trench for quiter. Allison will check on regarts for this. Dig open trench or build becomed sees to put dewatering water in - water could seed down Anex must be withing gut men system Regardless of Contractor's choice - we weed.

A de-watering plan prior to implementation 304A "synthetic" 12 Ft dagings -: : ? ? #38 - check 02776, 5.01. B. 1 PBSJ disagnees About tanks being included in daily existe Sepenvision PBSS disperses About permerbility of clay - basis of design

and the second s

PBS\*J - wants to wrap up incomplete items - agenda

1-Dewatering - high Fe + NHz - > Cl3 SW Stds

have not tested surface water

Turbidity problems, too.

Holding pond, lined \$50-100K (30 mil PVC)

no QA/QC - \$50

Truck + haul is Cheaper than holding pond

Excavation is ~ 50' from leachate trench Want to put watering water into trench: Will tell contractor (who is in change of dewatering + liner installation) that trench is avail for millionize gal holding dewatering until contractor can have. Contractor will have to have same volume out of the trench that they put it.

PBS+J hasn't looked at soils to see if trench will short circuit detatering. Excav. going 10-15' to clay.

Water treatment - Fe - needs line

NH3 - aeration Not effective wy low conc. I

would prob. weed to Nitrify I denitify

Surface water variance for Fe? an option?

GW reinfiltration trench - dig open trench +

> GW reintitration trench - dig open trench +

2. Construction 
Subgrade compaction - Press liver into subgrade

W backfill - No rolling or preg.

Clay - compact for Stability

30' fill is adequate compaction

to PBS+J

Backfill - there's a grading

Spec so that settlement

I's Not excessive.

JR - Previous construction - cut clay; got a smooth cut, layed geomem. - replace clayfoll some, add backfill in lifts, compact Concern - that geomem, i's sealed in clay.

- 3. Permedility of Clay key layer design should be key to perm. PBS + thinks the liner design is just a continuation of an old design. Clay gumbo -"visually distrived."
- 4. HELP model -runoff coff- Susan will look at.

  Using Tampa vainfall cein it has other climate l'use, too.

  Contingencies need fallbacks for clitches in

  Normal ups. Leachate disposal need alt.

  plan in case Wachela WWTP cuts them

  off.

5. Deleting Master Specs - Susan has not reviewed in detail.

.

- 6. Geomembrane wrinkling spec to show what wrinkle is too big.
- 7. Subgrade/fival gade plans Susan will review specs. There are specs for bottom (2' listo clay) + top elev (82?)
- 8. On-5te supervisor full time need (required by Rule) for liver system.

  Question 1s tank a part of liner system?

  DEP-yes PBS+J-No
- 9. Submittals during construction to clarify allow where contractor needs to get DEP details that design engineer couldn't provide. PBS+I wants to minimize these -it DEP can 10 up from will save contractor / Co. possible time delays + costs.
- 10. Completeness of Leachats Mgt Plan Any outstanding issues! Susan will look into.
- Big. 155 us Tank inspection Liner design basis Dewatering disposal

# PBS TRANSMITTAL

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# Hardee County Class I Landfill Pending Construction Permits Meeting Agenda

**Meeting Date:** 

Tuesday, March 17, 1998

**Meeting Time:** 

10:00 a.m.

**Meeting Place:** 

FDEP, Tampa

# **Agenda Items:**

- 1. Dewatering issues (#15.b. and #8 of Allison Amram's memorandum)
- 2. Additional procedures and specifications requested for the following items:
  - a. construction of clay subgrade (#1, and #16.b.)
  - b. geomembrane tie-in (#1, and #16.b.)
  - c. ensuring the geomembrane is consistently keyed in (#1 and #16.q.)
  - d. compaction for clay backfill (#16.j.)
  - e. depth checks of the protective cover soil (#16.j.)
- 3. Permeability requirement for the existing clay layer (#1, and #16.b.)
- 4. HELP Model questions and contingency measures for leachate disposal (#11.b.2 and #11.b.3)
- 5. Deleting portions of master specifications (#12)
- 6. Size specification request for excessive wrinkling of the geomembrane (#18.k)
- 7. Request for subgrade and final grade grading plans (#38)
- 8. Clarification of FDEP's requirement for full time on-site supervision of the project full time construction inspector or full time liner inspector (Comment #3 at end of letter)
- 9. FDEP's requirement of certain submittals for their review and approval during the construction project (Comment #4 at end of letter)
- 10. Completeness of Leachate Management Plan (#7)

We have attached a draft copy of our response letter for the Department's review prior to our meeting.



Harder SOpermit

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

## CONVERSATION RECORD

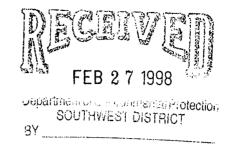
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Time 9:25	Permit No.
	County
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Representing PBS+J	
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Other Individuals Involved in Conversation	on/Meeting
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ENGINEERING PLANNING



February 25, 1998

Ms. Susan J. Pelz, P.E.  $43\nu$ Solid Waste Section Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619



RE: Request for Extension on Responses to FDEP's Request for Additional Information, Dated January 30, 1998 for the following permits:

Hardee County Class I Landfill Pending Permit No.: 38414-001-SC Liner & Tank Construction

Hardee County Class I Landfill Operation Permit Renewal Pending Permit No.: 38414-002-SO Class I Landfill Operations Renewal (Note new number replaces SO25-302620)

Dear Ms. Pelz:

PBS&J is currently working on responses to the Department's Requests for Additional Information (RAI), dated January 30, 1998, for the Hardee County Landfill Operations Permit Renewal and Construction Permit applications. There are several outstanding issues regarding the proposed construction activities, we would like to discuss with the Department prior to submitting our response. We have scheduled a meeting with the Department on March 17 (10:00 a.m.), to review the outstanding issues and our intended responses, in order to resolve these issues in a timely manner. These responses are currently due to the Department by March 2, 1998. We request an extension to submit our responses for 30-days after our meeting with the Department (April 17, 1998). An agenda with the specific issues we would like to discuss is currently being prepared, and will be forwarded to your office prior to the scheduled meeting day.

Since our response to the Operations Permit RAI includes information on leachate management issues which are in the process of being resolved, PBS&J would like to request that the extension apply to both response packages.

If you have any questions regarding this request, please do not hesitate to call me at (407) 647-7275.

Sincerely, Maurea Mainla

Maureen Mauriello, P.E.

**Project Engineer** 

c: J. Prestridge/Hardee County, D. Deans/PBS&J G:\ENV\COMMON\WASTEMAN\HARDEE\CONST\PERMIT\RAI2\EXTREQ.DEP



# Department of Environmental Protection

Lawton Chiles Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretary

Mr. J.R. Prestridge, Solid Waste Superintendent Hardee County Regional Landfill 675 Airport Road Wauchula, FL 33873 January 30, 1998

RE:

Hardee County Class I Landfill Operation Permit Renewal

Pending Permit No.:

38414-002-SO

Class I Landfill Operations Renewal (Note: new number replaces SO25-302620)

Dear Mr. Prestridge:

This is to acknowledge receipt of the additional information received January 2, 1998 submitted by Post, Buckley, Schuh & Jernigan, Inc. (PBSJ) in support of your permit application, to operate a solid waste management facility, referred to as the Hardee County Regional Landfill.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes. Your application for a permit is <u>incomplete</u>. 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.)]:

#### CLASS I LANDFILL OPERATIONS PERMIT:

Section 7, Operations Plan, F.A.C. 62-701.330(4)(j), F.A.C. 62-701.500.

- 1. The Department has not received the gas monitoring results, or documentation of the Quality Assurance Plan for sampling and analysis which were required by the current permit, and were due January 15, 1998. Please submit this information. Please also submit leachate quantity reports for September 1996, September 1997, November 1997, and the annual summary for 1997.
- 2. Please submit a complete Section 7. Due to pagination inconsistencies, the document currently submitted for the permit application is incomplete.
- 3. Please provide a comprehensive leachate management plan which meets the requirements of F.A.C. 62-701.500(8). Since the existing leachate management system does not comply with the requirements of 62-701.400(6), F.A.C., the Department cannot consider the Operation Permit application to be complete until the leachate management issues at the site have been fully addressed. (Section 7.8.)

The Department acknowledges that the information submitted is intended to address the operation of the proposed new leachate storage tanks and truck loadout systems. However some of the information previously submitted which addressed operational procedures for applying cover, separating stormwater from leachate, and maintenance of the temporary leachate management swales and pipes, has been deleted. Please review this information and include all information which is relevant to the operation of the landfill regarding leachate management.

The following comments are for information only, at this time, and do not require an immediate response:

1. The leachate management issues at the site are directly related to the construction of the proposed liner and leachate storage and pumping facilities. Please be aware that the Department does not intend to issue the pending operations permit until the leachate management issues are resolved.

"NOTICE! Pursuant to the provisions of Section 120.60, F.S. if the Department does not receive a complete response to this request for information within 30 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 the date of this letter, responding to all of the information requests and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 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 a 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."

You are requested to submit <u>four copies</u> of your response to this letter together, as one complete package. If there are points which must be discussed and resolved, please contact me at (813) 744-6100 ext. 386.

Sincerely,

Susan J. Pelz, P.E. Solid Waste Section

Southwest District

sjp cc:

Mr. Walter Olliff, Jr., Chairman, Hardee County Board of County
Commissioners, 412 West Orange St., Wauchula, FL 33873
Maureen Mauriello, P.E., PBSJ, 1560 Orange Ave., Ste. 700, Winter Park,
Fl. 32789

Robert Butera, P.E., FDEP Tampa
Randy Cooper, P.E., FDEP Tampa-ERP Section (e-mail)



# Department of **Environmental Protection**

Lawton Chiles Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretary

FAX TRANSMITTAL SHEET
1/30/98 5180
Date
TO: JR Prestridge
Phone: $941-773-5089$ Fax: $941-773-3907$
FROM: Susan Pelz
Phone: (813) 744-6100 ext 386 Fax: (813)744-6125
TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET
SUBJECT: Up Permit & Liver/Tank Permite (13 pgs)  Negvest for information.
request for information.
HARD copy to Howing via mail.
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#### Transmit Confirmation Report

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JAM 0 2 1998

D E P

#### HARDEE COUNTY REGIONAL LANDFILL

Response to R.A.I. dated July 25, 1997 for the Application for Renewal of the Operation Permit

December 1997

See Bound Report



### Department of Environmental Protection

Lawton Chiles Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretary



FAX TRANSMITTAL SHEET DATE: December 22, 1997

9554

TO: J.R. Prestridge - Hardee County

Phone: 941-773-5089 Fax: 941-773-3907 Maureen Mauriello/David Deans - PBSJ

-1-

Phone: 407-647-7275 Fax: 407-647-8945

FROM:

3)

Susan Pelz, P.E.

Phone: (813) 744-6100 ext 386

Fax: (813) 744-6125

TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET

SUBJECT: Hardee County Landfill - Leachate collection system

PBSJ letter dated November 24, 1997

As indicated in the message I left on Maureen's voicemail on December 4, 1997, the Department still requests that the County arrange for the leachate collection lines to be videotaped. Please let us know when this activity is scheduled, and the anticipated completion date.

The Department appreciates your efforts to preserve and protect the environment. If you have any questions, you may contact me at the phone number listed above.



November 24, 1997

Ms. Susan J. Pelz, P.E.
Solid Waste Section
Southwest District
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619



**RE:** Evaluation of Existing Leachate Collection Lines

Hardee County Regional Landfill

Hardee County, Florida

Dear Ms. Pelz:

During our meeting on October 3, 1997, FDEP requested that Hardee County evaluate the effectiveness of the existing leachate collection lines. Hardee County planned on completing this evaluation using both visual and camera inspection.

The County conducted a visual inspection of the system during the first week of November. All the manholes in the system were opened and the County observed that the water level in each manhole was consistent. A pump was used in the southernmost manhole to pump the system dry and during this procedure good flow through all the lines was observed. Based on the initial visual inspection, the County feels that the system is operating according to design and the pipelines are not clogged or collapsed.

The County was concerned that there could be some clogging in the two solid wall pipelines that transport the leachate from Manholes #1 and #6 to the southern dewatering ditch, due to their configuration. Pressure washing equipment was used to flush these pipelines clear, and during this procedure some silt buildup was observed. The County is not concerned about future clogging of these particular pipelines because they will be removed as part of the construction activities.

Due to the heavy rains that took place during the second week in November, the County was unable to check the collection system lines using camera equipment. Given the system performance observed above, the County will only conduct this last portion of the evaluation if FDEP still requires this inspection.

Ms. Susan J. Pelz, P.E. November 24, 1997 Page 2

If you have any additional questions, please contact me at (407) 647-7275.

Sincerely,

Maureen Mauriello, P.E.

Solid Waste Division

c: B. Butera, FDEP

A. Amram, FDEP

Maureen Mauriello

J. Prestridge, Hardee County

D. Deans, PBS&J

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#### Southwest Florida Water Management District

2379 Broad Street (U.S. 41 South), Brooksville, Florida 34609-6899 Phone (352) 796-7211 or 1-800-423-1476 SUNCOM 628-4150 TDD No. only: 1-800-231-6103

3711

#### Gardner Strasser, P.G.

Hydrogeologist
Well Construction Regulation
Technical Services Department
Ext. 4439

Excellence Through Quality Service

SOUTHWEST FLURIDA WATER MAN	
5960 U.S. Hay 41 South	Brooksville Florida 33512
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DER FORM 171, 122 (38) IMS UPDATE		•			
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Section Section

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### 2379 Broad St., Brooksville, Florida 34609-6899

### APPLICATION FOR A PERMIT TO CONSTRUCT A WELL

a compliance with the Rules	and Regulations of the Caust		
Florida Water Management I	District (Regulatory)	iwest	
Ceasar Blackburn	<b>₹2050</b>	PERMIT NO.: 5	10327 - 20
Drilling Contractor	License Number	STIPULATIONS I	REQUIRED: #3
401 South 11th Avenue, 1	Wauchula, Fla 33873	(See Reverse	1
Address Street or Box No.	City Zip Code	DATE:	
(Please type or print in	above anacal		14.000年35日的40
Requests authorization to Co. (Circle	distructo repair, modify a well	for:	
Hardee County	at Hardee Co. Sanitar	v Landfill. Airnort	Rd. Wanchiles Place
Name of Well Owner	Address of Well Loc	ation Street or Box	No. City Zip Code
tideres.	74 Hanchey Road Wauc		1 43.10 make the state of the s
Owners Mailing Address	Street or Box No.	City	Zip Code
TYPE OF EQUIPMENT: R	otary		ATION SKETCH ST MAIN HIGHWAY)
APPROXIMATE DEPTH: 30	_ 1		Last V
APPROXIMATE CASED DEP		<del></del>	38
ac cement	PURPOSE: Public 3	world	
LEGAL DESCRIPTION:	•	63	6 E E
	35 mp. 33 Stee. 25	E unschala	
LOT HE UNIT	SUBDIVISION		
COUNTY HOLDE			
	D		
lagree to furnish a Completic	iles and Regulations of the	SWFWMD (R) relati	cease and to comply with
Driller should supply a copy of	the Completion Report to the	he owner.	The state of the s
understand if the withdrawa	al is from a well having an i-	nside dismeter of -i-	inches (67)
the withdrawal during any sing	gle day is to exceed one-milli	on (1,000,000) gallons	or if the average annua
daily withdrawal is to exceed then a Consumptive Use Perm	one hundred thousand (100,0)	00) gallons average pe	r day on an annual hasis
		rilling Contractor	コープターの かんだい
	•	~	( )
	Signature of C		
The state of the s	or His Authori	zea Agent	and utol
DO NOT V	rite below teis line - f	OR OFFICIAL USE O	HS COVER SECTION
GRANTED BY:	P Com DATE:	Feb 7. 199	RECEIVED
TIE Harole	gist III	<del></del>	DEC 1 9 1990
THIS PERMIT NOT VALID	UNTIL PROPERLY SIGN	ED BY AN AUTH	ORLED OFFICER OF
SWFWMD(R). IT SHALL BE K	EPT AT THE WELL SITE DU		OF REATIONS.
EUP NO.	<i>.</i> :	CC. J.C.	THE WAR
SF 306(3) Rev. 4/79		66	

WELL COMPLET		・シスツ		DRILL MI		last   Augur		
Permit Number:	0,327-	وسنو را سست	n 1N.	Measured Sta	ti ter Level		35	Fi
Water Well Contractor	Signature	Completion Bate	21.0	Measured Pur	nping Water Leve	12.77		≟r.
Cicense No. 205	0	-			_ Hours At	G.P.M		
		The state of the s			J	ove Below L	ind Surface	77
SURFACE CASII	IG, CASING						<b>创新中央</b> 140	
AND LINER MA	IERIAL:			Depth (Ft.)	Examine cuttin	gs at 20 ft. or smi Give color, grain-	le intevals	
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ION:ppm SULF	ATES:ppm CHLO	RIDES:		160 197	Score	PWO GA	DYLL	4
INISH: Screen:	(Ft.) Open Hole	:(Ft.)			BROW	N CIPTES	TCC/	PS
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ongitude   1	اللا للا	N)	1	Driller's Name	- Bus			2
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SOUTHWEST FL IDA WATER MANAGEMENT DISTRI (REGULATORY)
23 Jroad Street, Brooksville, Florida 3351 /12
904/796-7211

#### APPLICATION FOR A PERMIT TO CONSTRUCT A WELL

155/04

In compliance with the Rules and Regulations of the Southwest	
ি Florida Water Management District (Regulatory)	1110000
Robert TKeeness 2033  GRILING CONTRACTOR LICENSE NUMBER	PERMIT NO.: 418987=20
DAJLING CONTRACTOR LICENSE NUMBER	STIPULATIONS REQUIRED:
ADDRESS STREET OF BOX NO. CITY ZIP CODE	(See Reverse)
ADDRESS STREET ON BOX NO. CITY ZIP CODE	DATE:
CALID SIX IAGS THE SOUT SPACES	
(PCEASE 1 TO BOX PAINT IN ABOVE SPACE)	
Requests authorization toconstruct, repair, modify a well for: (Circle One)	
	ok Only Come House
HENRY P BUDNETT SAME 664B L. NAME OF WELL OWNER ADDRESS OF WELL LOCATION	STREET OR BOX NO. CITY ZIP CODE
04 -	//.
OWNERS MAILING ADDRESS STREET OR BOX NO.	3 × 1 × 3 × 3 × 3 × 3 × 3 × 3 × 3 × 3 ×
OWNERS MAILING ADDRESS STREET ON BOX NO.	
TYPE OF EQUIPMENT: CABLE TOOL	LOCATION SKETCH
APPROXIMATE DEPTH. 200 FT DIAMETER. 4 11	(TO CLOSEST MAIN HIGHWAY)
APPROXIMATE DEPTH:	webs a
APPROXIMATE CASED DEPTH. SO AT CASING MATERIAL SILVING	" O/S
SEAL YATURAL PURPOSE DOMESTIC	
LEGAL DESCRIPTION:	Manr.
LEGAL DESCRIPTION: OTR SE QTR: SEC36 TWP 33 S RGE 25 E.	
	1 6H C
LOTBLKUNIT SUBDIVISION	
COUNTY A Ardee /	
Lagree to furnish a Completion Report within 30 days after drilling operat	
the Rules and Regulations of the SWFWMD(R) relative to well construction	n. Driller should supply a copy of the Completion
Report to the owner.	
Understand if the withdrawal is from a well laving an inside diameter of any single day is to exceed one-million (1,000,000) gallons or the everage	six inches (b.) or more or it the withdrawal during
thousand (100,000) gallons average per day on an annual basis, then a Cons	sumptive Use Permit must be approved prior to the
Construction Permit being authorized	
X   / /	Iling Contractor Relat 1 Keene Li
gnature of Uri	Ting Contractor
Signature of Ow	mer _ L/ PB
or His Author	ized gent frage franch
DO NOT WHITE BELOW THIS LINE - EOR OF	FICIAL USE ONLY
	- Control of the cont
GRANTED BY: DATE	
	Manageme
TITUE:	A CHIED CAN
THIS REPUIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTH	ORIZED OFF GER HE STEVEN (R) SHALL
BE KEPT AT THE WELL SITE DURING ALL DRILLING OPERATIONS.	1 7 YEAR TO SELECT THE TOTAL OF THE TOTAL PROPERTY OF THE TOTAL PR
A A A A A A A A A A A A A A A A A A A	
CUP NO	WELL E
	PERMITTING &
SWFWMD(R) SF 306(3) Rev. 4/79	
the same of the sa	Form No. 25-18-6/83
Problem 1	

The state of the s	
STATE OF FLOPIDA	TYPE OF WORK  New Construction 11 Hepair  LID 900
DEPARTMENT OF ENVIRON AL REGULATION	Depening     Plugging   4/8   10
WELL COMPLETION REPORT	11 Oines
OWNER: SW A XX A STATE OF THE NAME OF THE STATE OF THE ST	WELL NUMBER
K/F 2	
NAVERALA IIII A4	TYPE OF WELL:   Water Well     Test Well       Recharge         Orange
BUS TITLE BISBIZZ	USE: Domestic     Irrigation     I Industrial     Construct     Public Supply
Area Coda Phone Number Zio Coda	SKETCH LOCATION OF WELL in relation to focal landmarks, giving distance and direct
WELL LOCATION:	tion from nearest town, road, or other reference point.
of Section BG	Wall
Township Range	<b>8</b> /9
Lettrude Dec Min. Sec.	<b>1</b>
Longitude W	V
Number Street/Road	MANC
KAKE DALA	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Subdivision May dele	64E
County	
OWNER WELL NUMBER OR NAME:	
DRILL METHOD: [1] Rotary Cable Tool [1] Jet [1] Auger	
SURFACE CASING, CASING, AND LINER MATERIAL:	GEOPHYSICAL LOGS: Tyre By: 自身主
Steel Dia, (In ) Steel Dia (In ) From To Schedule Joints*  Black Gate S, Steel Wt (In /It.) PVC Other (Fr) (Fr) No	WELL LOG Examine curtings at 20 ft, or smaller intervals and et changes. Give color, gram-size and type of material.
4 10.89 DW1 40 tcw	Bore Casing Depth (Ft ) Note any cavities. Indicate producing room, Attach- (In.) (In.) From To additional sheets if necessary
	4 1 30 SAVO, hardDAN, CLAV
Describe Material:	30 50 phosphate
*-TC+-Threaded and Coupled, TCN+-Threaded, Coupled, and Welded, Win-Welded, Bin-Bonded (PVC), Oin-Other	50 90 CLAY, SAND, Phosplate
GROUT: None 11 Neat Cement 11 Other	40 05 CA, Greav To White
Type and Percent of Additives and Grout Volume or Number of 94 th. Sacks  From (Et.) To (Et.)	15 140 LIME FOCKICLAY
	140 180 NAITE LIME YOUR
FINISH: M Open Hole         Perforated or Slotted Casing	14970000/14000
[ ] Sendpoint or Screen Attached to Well Casing [ ] 1 Indpoint or Screen Telescoped with Packer Inside Casing (Packer Material)	205 235 Hald white to
Sandpoint/Screen Margrayl Dia Holl Stot From To	brome rock
[ ] Other Finish:	
QUALITY TEST:     None     Bacteria Date     Chemical Date	
By: (F) Nealth Dept.     USGS     Other	
Cunductance (Micromhos) Chloride	1 20 to 1 2 to
Mardness OH Temp OF	IMS TE SANGEMENT OF THE
Well Disinfected: [ ] No. [ ] Yes(Date)	We so return to
WELL TEST, by: 11 Natural Flow G.P.M. 11 Airtift	102 1987 E 100 E 100 E
Bailer [ ] Permanent Pump [ ] Test Pump [ ] None Discharge Massured By.   ] Bailer [ ] Estimated   ] Con-ant Meter	L MR Return To
[1] Orifice   [1] Trajectory   [1] Venturi   [1] Volumetric   1] Other	· · · · · · · · · · · · · · · · · · ·
Measured Static Water Level Ft.	The state of the s
Messured Pumping Water Level	
After	
Measuring Pt. (Describe):	3. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
Which is Ft. [] Above [] Below Land Surface Elevation of Measuring Pt. e Ft. [] Ahove [] Below MSL	7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	Total Depth 72 5 Ft. Producing Zone Material: [1 Sand [1 Shell
WELL EQUIPMENT: [   Open Capped     Valved     Permanent Pump     Temporary Pump	Braken Shell
Type Pump: - 1   Centrifugal - [ ] Cyfinde - [ ] fet - [ ] Submersible - [ ] Turbine: - [ ] Other	Top of Frankering Zone Ft. Battom of Producing Zone Ft.  [] Orill Cuttings Sent ja Buyesu of Geglogy
Priser:     Ciesal     Electric     Gasoline     Other	2055 Robert / Kernels owner
Gnacity G M M	Wie Was Contrology Market of Market
#2. Form 17-1 213(2)   Effective Concenher 30   1942	Completion Dere

	THES	
N. GREAT		
	OD WE	RUS

#### STATE OF FLOW A PERMIT APPLICATION TO CONSTRUC. REPAIR, MODIFY, OR ABANDON A WELL

Southwest

□ Northwest

#### St. Johns River ☐ South Florida

#### THIS FORM MUST BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated

Permit No. 597100:01
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well
CUP/ Application No.

	☐ Suwannee River	арричане.			WUP Application No.		
	CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON	BACK OF PERMIT FO	RM.		ABOVE THIS LINE	FOR OFFICIAL USE OF	NLY
	Sandra V. Humpi	ha :-	_S	ONa	. <del>?</del> . <del>?</del>	81	
1.	Owner, Legal Name of Entity if Corporation	Address		City	Zi	アンシュー p Telephone	Number
2.	many m. m.	(Suma	er re	!, )			
٤.	Well Location — Address, Road Name or Number, City	-1		·			
3.	James R/ Newberry	2881			941-494-		
		License No.	<u> </u>		Telephone N		NE
	2058 NE Diamond K St.		4. SE	1/4 of1	/4 of Section	الإلكا	
	Address Arcadia,FL 34266		्यावार्थः)	(viggest)	(Indicate Well on 0	1 1 1	
	City State Zip	<del></del>	5. Townsh	<sub>iip</sub> <u>33</u>	Range <u>25</u>	_ [	
6.	Hardee   Charles  Subdivision Name	lL	l	Block	Unit	_ Sw	SE
7.	Number of proposed wells Check the use of well: (See back	of permit for additional	choices)	Domesti	Monitor (type) _		
	Irrigation (type) Public Water Supply (type)		List Ot	her			
	(See Back)  Distance from septic systemft. Description of facility	(See Back)	F.A.		onetniation date	9/97	
				nateu start of (	onstruction date _	- NOIDA W	
8.	Application for: New Construction Repair/Modify	Abando	onment	(Resent for f	bandonment)	SS TO Date Sta	mgs \
_	Estimated: Well Depth 250 Casing Depth	100	,	(Reason for A Screen Interval 1		E Second	1 [18
9.	Estimated: Well Depth Casing Depth Casing Material: Blk-Steel / Gal (PVC) Casing Diameter	er <u>'</u> ''		Screen Interval Seal Material	` — <i>_</i>	18 9 m	NCE 5
			•		~· - <del></del>	J. Dr. W.	TE TE
10.	If applicable: Proposed From to Seal Material  Grouting Interval From to Seal Material					KANAGEV	M.
	Grouting Interval From to Seal Materia From to Seal Materia				l location and indicate w		
11	Telescope Casing or Liner (check one) Diameter		- <i>r</i>	oads and landmai	ks; provide distances be North	tween well and landr	narks.
. 1.	Blk-Steel / Galvanized / PVC Other (specify:		i	V	<b>A</b>	¥	
					N	X	664B
12.	Method of Construction: Rotary Cable Tool		tion	51	7 1	P	
	Auger Other (specify:)			7		1	
13	. Indicate total No. of wells on site List number of unused	d wells on site <u> </u>	<u>ノ</u> .	हु	GYA		<u>m</u>
14	. Is this well or any other well or water withdrawal on the owner's co	ontiguous proper	ty covered	<u>*</u>		1	181
	under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP A	Application?	VoYes	1		1	
	(If yes, complete the following) CUP/WUP No		l	1			
	District well I.D. No.			1			
	Latitude Longitude		j	1			
	Data obtained from GPS or map or survey ( map datu	ım NAD 27 N.	AD 83) L	<u> T                                   </u>	South		
15	. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Coc		hat I am the owner	of the property, that t	he information provided is a	ccurate, and that I am av	vare of my
	and that a water use permit or artificial recharge permit, if needed, has been or will be obtaine prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or loc	s the agent	for the owner, that	the information prov	tes, to maintain or properly a ided is accurate, and that I is opersonnel of the WMD or a	nave informed the owner	of his re-
	application is accurate and that I will obtain necessary approval from other rederal, state, or loc governments, if applicable, I agree to provide a well completion report to the District within 30 d after dipling or the permit expiration, whichever occurs first.		ar sienou diviv	, consents t	UI		
	( Jans 1 / 258/	( S,	mdi	a $L$	I am a la	ارسا	
L	Agnature of Contractor . License No.			Owner's	or Agent's Signature	Date	
	DO NOT WRITE BELOW	THIS LINE -	FOR OFFIC	IAL USE ON	~ ~	,	
	Approval Granted By: Jam Dons all FST		Issue Date: _	4.10.	Y7Hydrol	ogist Approval	Initials
	Owner Number: 244792 Fee Rece	eived: \$ 50.0	<b>U</b> Receip	ot No.: VE9	7-765 Check	No.: <u>3'757</u>	

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. This permit is valid for 90 days from date of issue.

					7 100=	Onese propos		
WELL COMPLETION REP PERMIT # 597/00.01 cu If permit is for multiple wells indicate Indicate remaining wells to be cancel WATER WELL CONTRACTOR'S SIGNATURE I certify that the information	PORT (Please con P)#	mplete in black ink or typeDID # s drilled	e.) (	OWNER'S NAME COMPLETION DATE OF THE PROPERTY O	Sun TE_// Public imited _ Hotar	d/, /97 Irriga 62-5 y []	V. Humphales  _Florida Unique I.D. ation Domestic Monito 524 Other  Cable Tool [ ] Combination Auger Other	
Grout No. of Bags From (Ft.) To (Ft.)  Neat Cement: 22 bags 0 115			-	Measured Static Water Level Measured Pumping Water Level After Hours at G.P.M. Measuring Pt. (Describe): Which is Ft. [ ] Above [ ] Below Land Surface Casing: [ ] Black Steel [ ] Galv. [ ] PVC Other				
Bentonite:  WELL LOCATION: County 14  BW 1/4 of Section 1/4 of Sec	Twp: 5  Longitude  Sketch of well load	3 Rge: 25		Open Hole Screen Casing Diameter Depth (Ft.) Diameter From 7/5	Dep (Ft From O Qo Uo 80 80	th ) To Q U U 0 G O 8 0 145 120 140	DRILL CUTTINGS LOG Excuttings every 20 ft. or at formation of Note cavities, depth to producing zon-Color   Grain Size   Type of METOWN SANDWATE White Rock oregan white clay Phoseworth clay Rock hawth clay Rock hawth clay Rock white Rock of white clay white clay white clay	es. Material Roc Cla. Ton/B
iron:ppm Sulfate:pp Chloride:ppm [ ] Lab Test [ ] Field Test Kit Pump Type [ ] Centrifugal [ ] Jet [ ] S Horsepower Capac Pump Depth Ft. Inta	Give distances from or other reference ubmersible [ ]	Turbine 5		From To			Brown white Ro Bottom of well	<u>,</u>
		Form 41.10-410(2) Re	v. 6/95	princor type) <u>r</u>	1 41.7.	<del>- Y</del>	1 30/1-14	

# Florida Department of Environmental Protection

TO:

Susan Pelz, P.E.

Bob Butera, P.E.

FROM:

Allison Amram, P.G. Alman

SUBJECT:

Hardee County Deep Well Installation

Pending Permit No. 38414-001-SC

DATE:

November 24, 1997

I told the County to discontinue drilling the deep well at 110 feet for the following reasons:

- They encountered 87 feet of continuous tight (non-waterbearing) sandy clay;
- The SWFWMD well logs for the MRF supply well showed clays to 50 feet, but the
  rock encountered below 50 feet had no permeability, and the well was drilled to a
  depth of 160 before enough permeability was found to complete the well. This well
  is not a good producer.
- The SWFWMD well logs for a domestic well near the airport (north of the landfill) showed the same low-permeability rock and clay as the MRF well. This well, too, was completed at a depth of 160 feet.

With such tight formations, I do not have a concern that leachates from the landfill would migrate into the intermediate aquifer; no monitoring is necessary in any aquifer but the surficial. Any leaks should be detected in the surficial sands above the clays. Also, the consistency of the well logs from the MRF (south of the deep boring) to the northern domestic well give a good probability that the clays beneath the landfill are continuous and thick. This area of Florida does not have the rapid lithologic changes that are common elsewhere (i.e., low potential for sinkholes, mainly due to the thick clays).

I asked the County to keep the soil samples for our observation, and to send us a good copy of the geologist's field notes. I also mentioned to Janice that the County may want to collect an undisturbed soil sample for permeability testing, but she stated that at the October 3, 1997 meeting, that FDEP agreed to leakage calculations based on older site data.

Before I told them to stop drilling, I consulted with Mary Yeargan, and with Gardner Strausser (SWFWMD), and it was agreed that the deeper aquifer is not very susceptible to ground water contamination from the landfill's leachate.

#### **CONVERSATION RECORD**

Date	Subject Hander deep well
Time 3 / 30	Permit No.
	County Hundel
M. Janice Williams	Telephone No. 941/773-5089
Representing Hunder	2 (c
[ ] Phoned Me [ ] W	as Called [ ] Scheduled Meeting [ ] Unscheduled Meetin
Other Individuals Involved in Con	nversation/Meeting
Summary of Conversation/Meeting	ng I TOLD THEM IT WAS OK TO STOP
DRILLING. They	have tight sandy clay from 23-110
Very low potenti	al for leachate to reach the inter
F save field Not	
- save sample	this.
- May Want to	
+ Clay permeat	life & thickness - may want to
get an un	disturbed sample for legtage calc
Janice said	susan was of w/ previous pormeabi
test results 6	selva used for that call.
	·
(continue on another	Signature Allis Amam  Title
sheet, if necessary)	Title #G /
	- VG
PA-01 1/96	

pap

### **FAX TRANSMITTAL**

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# HARDEE COUNTY SOLID WASTE DEPARTMENT MATERIAL RECOVERY FACILITY MAUCHULA, FLORIDA 33873

TO:

COMMENTS:

COMMENTS:

CULT ON CUL

PLEASE DELIVER THESE PAGES TO THE INDIVIDUAL NAMED ABOVE. IF YOU HAVE ANY DIFFICULTY RECEIVING THIS TRANSMISSION OR IF PAGES ARE MISSING OR ILLEGIBLE, PLEASE CALL (941) 773-5089 AND SPEAK WITH JANICE.

778-12070 Hardan H. Landeill Ou site at 9:00. Brow Drill Crew is Ken Darham Eli, Clinton site 10:30 to 11:00 7.5-17 Clary SAUCE

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	Hardre Cty Lung Fill 11/2 = 197		<del>───</del> ┤┤
	mu-3/3	Hardin Cty Land Fill	
- 5	Depth Litles 13.6.	Dupt-1147 4:143	++++++++++++++++++++++++++++++++++++
;			13.14
	10-17- Saddy CLAY, 7,12,12,12	┊┩╗┷╌┪┩┼┈┼┼┼┼┼┼┼┼┼┼┼┼┼┼	
	Legeren, Sorb, Sand		
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#### CONVERSATION RECORD

Date 11/24/97	Subject Hardes Leep well
Time 2:10	Permit No.
	County
M Gardner Straus	zer Telephone No. 228-9858 x 4439
Representing SWIWMI	
[ ] Phoned Me	Was Called [ ] Scheduled Meeting [ ] Unscheduled Meeting
Other Individuals Involved in C	
Summary of Conversation/Mee	ting Gardner will pull up other well nea + call me back. R 25E
logs in the a	nea + call me back.
<u>535</u> 7335	R 25E
2 vells @	LF
I supply well	- 17-501 fan 15./geen Cha
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He will lax m	e the well logo
(continue on another sheet, if necessary)	Signature Allison Annam
sheet, it necessary)	Title $PG/$
PA-01	
1/06	• ·

pap

#### CONVERSATION RECORD

Date	Subject Han dee deep well
Time /: 30	Permit No.
	County
M JR Prestridge / Janice W	Telephone No. 941/773-5089
Representing Hardon County	
	Scheduled Meeting [ ] Unscheduled Meeting
Other Individuals Involved in Conversation/Med	•
Summary of Conversation/Meeting	
Engineen special we	11@ 50'
Prillers are at 100'	- are carried the mark
Engineer spec'd we Dillers are at 100' to go to 200' tefor	Augent I by
	•
I asked JR to go 1	to 140' (do the boscid
MRF well is at ) &	call have the sun
W Bill K. IN nean	
2:45 These Theyer de	illing a hard layer now-will
be The before they h	·
fax me a capy of the	1111
able to quit - it log	geologists log. They may be
& airport (to N) has	
61 LGO'6/5 - then FDEP	No water-bearing Tones
(continue on another we not coo Signatu	ire Allison Amain
sheet, if necessary)	
to the where aguifel.	<u> </u>
	•
1/96	

#### CONVERSATION RECORD

Date	Subject Noen and installation
Time 3:25	Subject <u>deep well installation</u> Permit No.
	County Handeo
M Finice William	· · · · · · · · · · · · · · · · · · ·
Representing Hande	
[ ] Phoned Me	
Other Individuals Involved in C	
Summary of Conversation/Mee	eting
	V V
135-140' dee	n well for 43 recording center
Private Supr	p well for 43 recording centers
//	
Dillers - c	ising hollow Stem auger - were
split-spooni	ne every 2' til SD them to every 5.' They are not
switched -	to every 5.1 They are not
leggine by	dill cuttings. PSI geologist
is saving	samples. They probably
will be diell	ing tomorrow. IR says samples
	and but are mostly clay
Dillers will	stop & dask; return tomorrow
(Sat) is nece	ssay.
	2 10
(continue on another sheet, if necessary)	Signature HH much
incompany)	Title
DA 01	

PA-01 1/96 pap

#### CONVERSATION RECORD

Date $\frac{11/21/97}{}$	Subject <u>Hardee</u>
	Permit No.
	County Hardee
M Mauriello 7	Telephone No. 407/647-7275 × 16
Representing PBS +J	800/284-5/82 X04
Phoned Me [ ] Was Called [	] Scheduled Meeting [ ] Unscheduled Meeting
Other Individuals Involved in Conversation/Meet	· · · · · · · · · · · · · · · · · · ·
Summary of Conversation/Meeting	
Drilling deep well t	oday - 50' depth
· · · · · · · · · · · · · · · · · · ·	5x of Class
have not hit water	
David Deane - wants of	o stop at 50' of clay
Called them back@ 2	/25
They have set the sur	face casing, plan to doill
16/2 6/5 (2/2 1/Wto	Elay)
Want to extend the 12/1	197 doodline - they were delayor
(continue on another Signatur	e Allian Aman
sheet, if necessary)	
Title _	PCz J
PA-01	

1/96

pap



TPA-02 04/93

# Florida Department of Environmental Regulation

Southwest District

Lawton Chiles, Governor

3804 Coconut Palm Dr.

813-744-6100

Tampa, Florida 33619

Virginia Wetherell, Secretary

DATE: 10/3/9	7	
TIME: 10304		
SUBJECT: Handee Of	recortions / TANK/linear	
•	ATTENDEES	
Name	Affiliation	Telephone
Susan Pela Allison Amram J.R. Martidge Dava Deans Maureen Mauriello Janice Williamson Bob Butera Steve morban	FOEP  HARDES CO.  PBSJ  PBSJ  Hardea County  FOEP  FOEP	813-744-6100 x386  " x 336  941-773 50 89  407-647-7275  407-647-7275  (141-773-5089  813-744-6100 x 385
	1	

PBS5 payposal \$ is to continue of the into they submitted. "Sold" the idea to the Board for putting the 4th side & tacks. PBSJ thinks that there is No "compelling environmental reason" to change their proposal.

Want to put LCS pipe @ existing MH

Briley wild of PRSS

MH #6 78.40 > proposed MHH7 74.10 into

74.09 out

MH#1 77.41

MH#8 72.90 into MH48 72.90 into existing lift station 72.89 57 Feet PBSJ MH#1 73,105 out to 000 MH#9 72.75 out W 73.08 in E 73.46 NIN to existing lift station Bailey wild pump station @ 72 (controlling elevation for design) \* elevation of clay in ditch! Is the leachate collection system effective? (1) If vertical quadient is yournd - can just monitor sunficial - if vertical guardient is downward, weed to manitan desper squiter. - may want to pain a deeper well of MW #3 If it is downward, want the detection MW system in deeper agriter. (2) Can check effectiveness of existing system by checking flowrate - they will check on Fessibility of video inspection. 3 Permenbility & thickness of clay a deep well location & literature (Envisors B-2, B-3, B-4) -

- they will evaluate what is expected leakage based on

head, thickness of elay, permeability.

### 10/3/27 Harder Co Meeting -p1/3-Must Oural 274-7/03 PBS+I wants to pursue landfill design as planned. Agrees w/ facts, but not the interpretation. David Thought DEP o Co./consultant were in agreement Leachate collection - connect to eleveristing pipes x go to existing pump station Lowest elev w/ pump station will be 72 78.40 elev - existing manhole-w. side 74,10 New 74,10 72,90 77.41 (Britey Wild) MH 1 73.10 (PBS N dwgs) evisting - E. side MH9 ..+72.75 /73.08 in pumpstation 12.00 Clayeller in ditch or 72 or 72 Envisors dues 75' Nul corner of LF 70 E side of ditch, 70,71 @W. Ardaman soil busings - should have clay elevations - we can check elevations

5. 15 leachate collection system functioning as designed.

gw- Intermediate head 1550e - need vertical gradient Mw. If up, continue elev. meas. to show always up. If down, would need a gw detection.

System in the inter. ag.

Propose deeper well by Mw3 - Sw.

Corner of CF. This should be ag.

of LF in the inter. ag. Can measure head between Mw3 y new well, also compare w/ leachate head.

Il are submerged after yesterday last weeks rains.

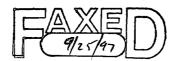
Leachate system needs to eval removal -TV, pump test, snake lives. IR will see what ophon is feasible, will check if Susan before they evaluate system.

If gw head is downwend -Swill want wertical ceak calc.

Deep well - get K, b, head

BI - went 40' past top of ctay B4-5. of ditch B3-W of 4 (1) 10-8 cm/sec A Requested well construction before construction Javie Liner goes around tahks - tanks will be doublewalled Stormwater pond outside liner - will get an ERP permit

## FAX



Date: 9-24-97

Number of pages including cover sheet: 9

To:	PRESTA	LIDGE	
<del></del>			
Phone:	941-7	13-508	<u> </u>
Fax phone:		13- 390	•
CC:			7

From:	BUTER	
DOB	DUTERA	
		<del> </del>
Phone:	(813) 744-6100	- × 45/
Fax phone:	(813) 744-6125	

REMARKS: 🛛 Urgent 🔀 For your review 🗌 Reply ASAP 📋 Please comment
PLEASE REDICA THE ATTACHED MEMO ASAF AND CONTACT SUSAN POLT TO SCHEDULE A MEETING AT WHICH THE FOEP REQUESTS YOUR MODISED DESIGN PROGRESS / DIRECTION.  THE FIRP LOOKS KNUMBED TO A PROPOSAL THAT WILL INSTALL THE ATH SIDE OF THE LANDEIN ARAP.
Bob Satur

#### Memorandum

# Florida Department of Environmental Protection

TO:

Robert Butera, P.E., Solid Waste Manager

FROM:

Susan Pelz, P.E., Solid Waste Permitting

DATE:

September 22, 1997

SUBJECT:

Hardee County Landfill File Review -

Re: Original Design Concepts

cc:

Allison Amram, P.G.

For the purposes of determining the original design intent of the Hardee County Landfill, I reviewed the following documents. Please note that other information was also reviewed, but is not included because it did not seem to be relevant for the purpose of this review:

#### References:

- 1. Feasibility Study on Use of the Mobil Site as a Class I Sanitary Landfill, dated February 1982, prepared by Envisors, Inc.
- Construction Permit Application for the Regional Sanitary Landfill,
   (and supporting documentation) dated May 1982, prepared by Envisors, Inc.
- Construction Permit SC25-56095, issued September 27, 1982.
- 4. Record Drawings entitled, <u>Hardee County Sanitary Landfill</u>, (14 sheets) originally dated October/November 1982, prepared by Envisors, Inc.
- 5. Letter to James Hetherington (Hardee County Administrator), dated August 15, 1985 from Andrew Berry (FDER).
- 6. Letter to Douglas Darden, P.E., Envisors, Inc., dated November 6, 1985, from James Hetherington, Acting County Administrator, Hardee County.
- 7. "Hardy County Sanitary Landfill Leachate Assessment," dated March 17, 1986 (received April 2, 1986), prepared by Seaburn & Robertson, Inc.
- 8. Letter to Nick Bruno (FDER), dated May 20, 1986, from Susan J. Metcalfe (Seaburn & Robertson).
- 9. "Analyses and Recommendations, Hardee County Regional Sanitary Landfill, Leachate Collection and Disposal System, Hardee County Florida," dated January 16, 1987, prepared by Ardaman & Associates, Inc. (Ardaman file #86-166).
- 10. Leachate Collection and Disposal System, Hardee County Regional Sanitary Landfill, dated March 20, 1987, prepared by Ardaman & Associates, Inc.

- 11. Letter to Hardee County Board of County Commissioners, "Sanitary Landfill Improvements, Monthly Status Report #4," dated April 10, 1987 (received April 13, 1987), from John Cumming, P.E., Briley, Wild & Associates, Inc.
- 12. Record Drawings entitled, Hardee County Sanitary Landfill Improvements, (8 sheets) dated July 12, 1988 (originally dated March 1987), prepared by Briley, Wild & Associates, Inc.
- 13. Letter to J.R. Prestridge (Hardee County), dated October 13, 1992 (re: pending permit number SO25-214306) from Kim Ford, P.E. (FDER).
- 14. Memorandum/Fax to Susan Pelz, dated September 4, 1997, from Maureen Mauriello, Post, Buckley, Schuh & Jernigan (PBSJ).

#### Permitting History:

Permit Number SC25-56095, landfill construction (side liner & ditch)

application received 5-24-82
permit issued 9-27-82 expiration 7-1-83
modification issued 6-21-83 expiration 7-1-84
certification accepted 1-9-84
modification issued 8-23-84 expiration 11-30-84

Permit Number SO25-096551, landfill operation, spray field & LCS

application received 12-7-84
permit issued 6-11-87 expiration 5-1-92
certification accepted 5-27-88
modification issued 4-28-92 expiration 6-11-92

Permit Number SO25-214306, landfill operation

application received 6-3-92 permit issued 11-29-93 expiration 6-10-97

Permit Number 38414-002-SO, landfill operation application received 3-11-97 pending

Permit Number 38414-001-SC, tank & liner construction application received 6-27-97 pending

#### Summary:

This review was initiated in response to questions concerning the original design intent of the landfill. The Department had requested information concerning the leachate management system design (for the proposed new piping) and operation (of the existing system) as part of the review of the pending permit applications (operation and construction). PBSJ had indicated that it was their belief that the landfill was designed as "slurry wall type" landfill which requires an inward-gradient around the perimeter and does not consider the hydraulic head on the bottom clay layer. It has been my view that that landfill was not originally designed as a "slurry-wall type" landfill, but was constructed with the intention of draining (or drying out) the landfill. Based on my review of the above-referenced documents, I believe that my assumption is correct, and is well supported by the information.

However, as I will explain below, some inconsistencies and gaps exist in the information, and the "slurry-wall" misconception can be inferred (although the basis is weak). I will also attempt to address some of the counter claims concerning this issue.

## 1. Was the original landfill design intended to function as an inward-gradient, "slurry wall type" landfill?

It is clear from the information that the Mobil Site was a "virgin" site for the landfill, i.e. waste had not been previously disposed at the site. The Feasibility Study [Ref. 1] indicates that the perimeter ditch (around the west, north and east sides),

intercepts groundwater that would usually traverse the site and lowers the groundwater elevation in the solid waste disposal area. Therefore, the perimeter ditch will minimize the horizontal movement of any leachate which might escape from the disposal cells and [will] also make the cell area dry. (page V-1) [emphasis added]

The "conceptual design" [Ref. 1, Figure V-2, attached] shows a cross-section of the cells. The cells are constructed in "two major lifts, one below existing grade and the other above existing grade.... This... accomplishes two goals: (1) it minimizes the area required for solid waste disposal with a corresponding reduction in excavation and roadway construction; and (2) it facilitates the collection and treatment of leachate if it should prove necessary." (page V-1)

The Construction Permit Application documentation [Ref. 2] includes the Feasibility Study [Ref. 1] and additional information. In response to Item #8.j. required on the application form at that time (1982), the information states:

Groundwater Control - Groundwater will be controlled by first constructing an impervious barrier around three sides of the site utilizing a 30 mil PVC membrane or a bentonite slurry wall keyed into the clay base underlying the site.... [emphasis added]

Cell Construction - Cell will be excavated to the depths and slopes shown. The bottom will be excavated into the clay layer with a six-inch layer of clay pushed up the sides of the cell to a height of five feet above the clay layer. The bottom of the cell will be sloped to the leachate collection sump as shown....

Leachate Control - If leachate ever forms in sufficient quantity to present a potential problem, it will be pumped from the leachate collection sumps into an aerobic treatment system....

It is clear from this information that the original design called for leachate to be removed via collection sumps, if it "ever forms in sufficient quantity." If the design was intended to maintain an inward gradient then it is reasonable to assume that the designer would have certainly expected <a href="large quantities">large quantities</a> of leachate to be generated.

Specific Condition #8 of Permit Number SC25-56095 states, "Dumping of solid waste into water shall not be allowed. All trenches shall be kept adequately de-watered while being filled with wastes." [emphasis added] It is evident from this condition, that the original design was intended to be "dry", as opposed to an inward gradient ("wet") landfill.

The Leachate Study by Seaburn & Robertson [Ref. 7], in 1986, is the chronologically next report that mentions an "inward gradient." The report states:

The landfill is constructed with plastic PVC sidewall liners tied to a natural clay base on the west, north, and east sides of the landfill with a dewatering ditch on the south side. This configuration serves to effectively isolate the landfill from any outside groundwater and therefore any leachate generated will result from existing groundwater within the landfill and from infiltration of rainwater falling on the landfill surface.... [emphasis added]

The dewatering ditch was designed for the purpose of dewatering the saturated sands within the landfill. It has also served as a leachate control system by maintaining the water table gradient inward toward the landfill. Actual operations at the landfill have proven that while the dewatering ditch has maintained lower water levels in the immediate vicinity of the ditch and consequently kept an inward gradient, it has not been effective in dewatering the entire area within the landfill. [emphasis added] (pages 1, 3)

It is clear that the "inward gradient" was intended to be <u>only</u> at the ditch, to prevent leachate from exiting on the unlined side. This passage also indicates that the original design "effectively isolate[d]" the landfill from outside groundwater, and that the only groundwater which needed to be removed was the groundwater which was "existing" prior to dewatering activities. A water balance was calculated, and the outside groundwater elevations were used in determining the quantity of "existing" groundwater which would need to be removed, in addition to the leachate generated after disposal activities began. The water balance model used by Seaburn & Robertson "helped show that while some headway is being made toward dewatering the landfill, it will take a relatively long time to accomplish...." (page 7) This statement again supports the concept that the landfill was intended to be "dry."

The report [Ref. 7] concludes the water balance discussion with an explanation of how much water is required to be removed to dewater the landfill. Including the "residual groundwater to be removed initially," [emphasis added] and assuming it "is necessary to dewater only one cell per year,..." the amount of leachate which is required to be removed is 64,000 to 113,000 gallons per day. This discussion again, supports the "dry" landfill hypothesis.

PBSJ's September 4, 1997 fax [Ref. 14] indicates that the seasonal low groundwater elevation in the current permit application was based on the lowest elevation from all wells. MW-5 on June 8, 1989 had a recorded groundwater elevation of 76.09. This is the basis for the current piping design in the ditch. The Briley Wild drawings [Ref. 12], Sheet 3 show Manhole #5 with an invert elevation of 79.20. MW-5 is located approximately 50 feet south of MH #5. Since the piping from MH #5 to MH #6 is constructed at a 0.2% slope, the elevation of the leachate collection pipe at the approximate location of MW-5 is 79.1. This makes the elevation of the LCS piping higher than the seasonal low water elevation at this point. If it is assumed that inward gradient systems are designed based on the seasonal low water elevation, then the LCS piping should be below the seasonal low water elevation at all points. As illustrated above, this is not the case near MW-5.

It appears that portions of the Leachate Study [Ref. 7] has been misinterpreted, resulting in the "inward gradient" hypothesis for this site. The report [Ref. 7] also indicates that "as long as the water levels [inside the landfill] are maintained below the top of the liners..." flow offsite will not be allowed, and a "fairly accurate projection of leachate generation" can be made. (page 7-8) While this does not state that the water levels inside the landfill must be below the water levels outside the landfill, it can be seen how this passage could be mistaken for a reference to inward gradient conditions. discussion of the inward gradient at the ditch (see comments above) also confuses this issue. The Department's October 13, 1992 letter [Ref. 13] shows that at some point, this misconception had become accepted. However, based on a review of all pertinent information, the conclusion that an inward gradient design was the "basis of FDER's previous approval of the landfill containment and leachate removal system" is unsupported. (Item #4, page 2) The documentation reviewed for 1987 through 1992 does not illuminate this any further.

## 2. Was the facility constructed to drain north to south and discharge into the dewatering ditch?

My initial assumption was that the clay bottom was sloped generally from north to south. The clay layer elevations shown on Sheet 3 of the Envisors' drawings [Ref. 4] generally show that the clay layer slopes from a high of +75 feet NGVD at the NW corner to a low of +69 to +70 feet NGVD at the southern part of the landfill site. Although it is not clear which direction the cells shown on Figure V-2 [Ref. 1] are oriented, Sheet 5 [Ref. 4] show the cells oriented east-west. This east-west orientation does not support my original hypothesis that the site sloped from north to south (to the trench). However, Sheet 5 does indicate that the cells were designed to slope 0.15% from east to west to "leachate collection sumps (by owner) for each cell." Sheet 5 also shows the dewatering ditch to be sloped from west to east to the "dewatering station." The County's letter dated November 6, 1985 [Ref. 6] indicates that cells 1 and 2 were actually graded from west to east as an "accommodation to the public." The County's November 6, 1985 letter also indicates that the cell separator berms were constructed with 3H:1V sideslopes, and the depth of the cells was 15 feet.

PBSJ's fax [Ref. 14] indicates that it was their understanding from our August 27, 1997 meeting that my belief was that the facility had been constructed with a drainage layer above the clay layer. This is an apparent misunderstanding from the meeting. I did not have an opinion on whether or not a "drainage layer" was placed over the clay layer. My belief was that the relatively low permeability of the clay layer would cause the leachate to follow the slope of the clay to the lowest point (the dewatering ditch), regardless of the presence of a "drainage layer." I agree with PBSJ that a "drainage layer" was not placed above the clay layer.

Specific elevations for the actual excavations (cell bottoms) were not provided. Figure V-2 [Ref. 1] indicates that the cells would be 12 feet deep. The County's November 6, 1985 letter indicates that the depth of the cells was 15 feet. The Envisors' drawings [Ref. 4] and Construction Permit Application [Refs. 1 and 2] do not specifically address the potential for areas with inadequate clay subsurface.

However, the Department required, as a condition of the construction permit, that areas with inadequate "confining properties" must have additional material brought in to "supplement the integrity of the deficient area." [Specific Condition #4, Permit Number SC25-56095] This implies that if low areas, or areas without clay, were discovered during excavation, that these areas would be filled with a suitable clay material.

Ardaman's report [Ref. 10] indicates that the perimeter leachate collection system should include the west, north and east perimeter. Since the other information indicates that the cells were sloped in an east-west direction, it is not clear why a leachate collection pipe would be required along the north boundary.

3. Was the leachate collection system designed to remove leachate to minimize the hydraulic head on the in-situ bottom clay layer, or was it designed to maintain an inward gradient?

Although the Envisors' drawings indicate that the leachate collection sumps would be installed "by owner," the sumps were not installed at the time of the liner construction. A letter from the Department to Hardee County [Ref. 5] indicated that the "leachate collection system originally proposed in [the 1982 application] was never installed.... [and] no water control berms... were constructed in the trenches." This letter was then forwarded to Envisors by letter from the County [Ref. 6]. The County's November 6, 1985 letter [Ref. 6] states, "there is more water collecting in the cells than originally anticipated. This has necessitated pumping water from the cells daily to prevent water from filling the low end of the cells and backing up to and under the garbage." This statement seems to support the hypothesis that the water levels in the cells were to be minimized such that the water did not "backup into" the waste, and were not dependent on groundwater elevations outside the cell.

I was unable to locate Envisors' response to the County's November 6, 1985 letter. However, it appears that the County then authorized Seaburn & Robertson to conduct a Leachate Study to address the Department's concerns. The Leachate Study [Ref. 7] was conducted in April 1986. As discussed in #1, above, the Leachate Study provided a leachate removal range which would result in "dewatering the landfill." (page 7) Although a hydraulic head over the bottom clay layer is not specified, it is clear that the water in the cell was to be minimized.

The "leachate disposal problem" is discussed also in Seaburn & Robertson's May 20, 1986 letter [Ref. 8]. This letter discusses leachate disposal options which were presented to the County. Among those options was leachate recirculation onto the landfill cells. This option was not considered feasible because numerical modeling indicated that without increased dewatering, "the landfill will eventually fill completely up with water... [and] spray irrigation on the landfill will only make this problem worse." This letter also indicated that Seaburn & Robertson had recommended, and the County had agreed, to line the south side of the dewatering ditch with a synthetic liner. It is apparent that the leachate level inside the landfill was a concern, but I could not locate the calculations or other information upon which these recommendations were based.

The leachate collection system design was finally submitted in April 1987, during the operations permit evaluation. The information concerning how the system was designed is incomplete, and in some cases inconclusive. References #9, 10 and 11 continued the most pertinent information. Ardaman's January 16, 1987 report was apparently revised and resubmitted April 1987. The Ardaman report appears to have been prepared with the purpose of determining how much leachate could be spray irrigated on the 10 acres south of the ditch while still preventing leachate from discharging outside the influence of the dewatering ditch. The Ardaman report indicated that a mounding analysis was performed which would show that the leachate would discharge back into the dewatering ditch. However, the Ardaman report did not include discuss the slope of the clay layer underlying the proposed spray field area (i.e. did the clay layer slope toward or away from the dewatering ditch).

A water balance was performed using the HELP model. Leachate generation rates were determined. Ardaman's report [Ref. 10] stated, "a leachate collection system is required... to collect and convey the leachate to the dewatering ditch and to prevent leachate from building up within the landfill and from exiting the above ground landfill sidewalls in the future. In addition, the leachate collection system will lower the hydraulic head necessary for recharge into the underlying aquifer." [emphasis added] (page 10) To accomplish these goals, Ardaman "recommend[ed] a peripheral leachate collection underdrain on the west, north, and east sides of the landfill. The underdrains should be a minimum of 4 feet below natural ground and should slope toward the dewatering ditch...." [emphasis added] (page 10) The basis of this recommendation is not clear. Calculations for mounding inside the landfill were not provided, although Figure 5 of this report shows a "conceptual hydrologic cycle" which shows the mounding.

Documentation supporting the Briley, Wild & Associates leachate collection system design is sketchy. Reference #11, and the Ardaman's reports [Refs. 9, 10], were the only information I could locate on this issue. It appears that Briley Wild used the application rate provided in Ardaman's report [Ref. 9] to design the sprinkler system. Briley Wild's determination that the invert elevation at the NW corner should be at +80 feet NGVD, is unsubstantiated, but appears to have been derived from the existing ground elevation (+84 to +85 feet NGVD) minus the "4-foot minimum" recommended by Ardaman for the leachate collection piping. Although the Ardaman report [Ref. 10] does not include calculations to support their recommendation, it appears that the intent of the design was to "lower the hydraulic head necessary for recharge into the underlying aguifer." Whether or not the four-foot depth of the leachate collection pipes actually is adequate to perform this function has not been demonstrated.

#### Conclusion:

Based on my review of the available documentation and files, it is my opinion that the original design of the landfill was founded on the assumption of a "dry" landfill, and not an inward gradient landfill. While there are some discontinuities in portions of the information, the majority supports this opinion. It should also be pointed out that leachate management issues do not appear to have been adequately addressed throughout the history of the site. Leachate management is not a new issue.

Additionally, the County has not been timely or effective in addressing the Department's concerns about leachate management at the site. In violation of Department rules, the County has not timely applied for operations permits, and has frequently operated the facility without a valid permit (7-1-84 to 8-23-84; 11-30-84 to 6-11-87; and 6-11-92 to 11-29-93). The County's agreeing to line the south edge of the dewatering ditch in 1987, but not acting until 1997, and the 2-1/2 years to complete an operation permit application (SO25-096551), illustrate the County's unwillingness or inability to comply with Department rules.

Finally, although I had previously indicated that an evaluation of the existing LCS was not required, based on the information reviewed, the effectiveness of the system has not been demonstrated. Therefore, in addition to the other information requested as part of the pending permit application, the County should provide an adequate evaluation of the existing leachate collection and removal system (based on the concept of a "dry" landfill). If the existing system does not effectively drain the leachate, then modifications to the system may be required. Similarly, we have required other facilities to either make modifications to their leachate collection systems (e.g. Pinellas County) or monitor their existing systems (e.g. Polk County, DeSoto County) to demonstrate their effectiveness.

If the County elects to pursue the "inward gradient" hypothesis, I will continue my review at a more detailed level, including attempting to obtain the calculations for the Ardaman report [Ref. 10]. I invite the County (and their consultants) to come in and review our files.

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST DISTRICT

#### CONVERSATION RECORD

Date $\frac{9/22/97}{121}$	Subject Icachark mgm t  Permit No
M JR Preshing e	County
[ ] Phoned Me Was Called	
Other Individuals Involved in Conversation/Months of the until mand 1309  Summary of Conversation/Meeting	(weed to Mow for October Insp)
	to installation of LCs?
9/23/97 1122 Devotering ditch had pump-  (3) He was there when LES	dischanged to stormwater & culvert
They put pipes in At specitions that the then guntel put on top guntel on top.	Fiel grade - his accollection of neach was dug down to clay of their pipes & then
·	
(continue on another Signa sheet, if necessary)  Title	ature $\mathcal{J}$

PA-01 1/96

pap

FILE

### **PBS&J Fax**

TRANSMITTAL

To:

Ms. Susan Pelz

Fax #:

813-744-6125

From:

Maureen Mauriello

Date:

September 4, 1997

Re:

Hardee County Construction Permit

Pages:

5, including this cover sheet.

Susan:

In accordance with our meeting on 8-27-97, we have reviewed the Hardee County record drawings to verify the original type of landfill design (slurry wall or standard landfill). Based on our review of the Envisors Record Drawings (dated November 1982) and the Briley Wild Record Drawings (dated March 1987), PBS&J still feels that the Hardee County landfill was intended to operate as a slurry wall type landfill. The existing clay layer elevations shown on Sheet 3 of the Envisors drawings show that the existing clay naturally slopes generally toward the southeast. The plan view of the landfill, shown on Sheet 5 of the Envisors drawings, shows that the landfill bottom was to be constructed with trench-fill cells and berms that run east-west, restricting flow to the south. Also, cross-sections 1 and 3 on Sheet 6 of the Envisors drawings show that no drainage layer was placed over the existing clay surface. Therefore, it appears that while the natural slope of the clay layer is generally toward the southeast, it does not appear consistent and the landfill bottom was not designed with a drainage layer nor graded to slope in that direction. Furthermore, upon comparing Sheet 3 of the Briley Wild Record Drawings to the existing clay layer elevations shown on Sheet 3 of the Envisors drawings, it shows that the invert elevations of the existing leachate collection system are well above the clay layer.

PBS&J feels that this confirms our original opinion that this landfill acts as a slurry wall type landfill in which the system was designed to keep an inward gradient, and no head over liner would be applicable.

Additionally, the meeting minutes for our 8-27-97 meeting are attached. Regarding the Department's question on how the seasonal low groundwater elevation was determined, monitoring well data was reviewed from 1987 through 1996 (1997 data unavailable at the time of determination). The lowest elevation from all the wells was MW-5 on June 8, 1989 with the recorded elevation of 76.09. There was one event in January 1991 where MW-7 showed an elevation of 63.65, however, since this elevation was well below any of the others recorded, it was determined to be erroneous, and the 1989 event was used as the seasonal low groundwater elevation.

We will call you today around 2 pm to confirm or discuss these findings based on your review of the record drawings.

Thank you, Marie lain Ola

Maureen Mauriello

#### **MEETING SUMMARY**

**Meeting Date:** 

August 27, 1997

Subject:

Hardee County Landfill - Request for Additional information on the

County's Operation and Construction Permits

Attendees:

Allison Amram, FDEP

Susan Pelz, FDEP Bob Butera, FDEP Randy Cooper, FDEP

Walter Olliff Jr., Hardee County Commission

J.R. Prestridge, Hardee County Solid Waste Department Janice Williamson, Hardee County Solid Waste Department

Dave Deans, PBS&J Jim Flynt, PBS&J

Maureen Mauriello, PBS&J

The purpose of this meeting wast to resolve several issues resulting from the FDEP's request for additional information (dated July 25, 1997) on the construction permit application for the Hardee County Landfill. Items discussed at the meeting included the following:

- PBS&J had the understanding that the Hardee County Landfill is similar to a slurry wall type landfill (with HDPE sidewalls instead of slurry) and that the existing leachate collection system was designed to keep an inward gradient, therefore head over liner is not applicable. FDEP had the understanding that once the southern side of the landfill is closed in, the landfill should be operated as a standard type of liner system where a minimum of 12-inches of head over the insitu liner would be applicable. FDEP thought that the existing clay layer was graded to drain to the southern ditch and that a drainage layer was installed above the existing clay. PBS&J disagrees. Both PBS&J and FDEP will review existing record drawings to determine which type of system exists. PBS&J will call FDEP on Thursday, September 4, to discuss these findings. At that time the timeline for finalizing PBS&J's response letter will be determined.
- FDEP questioned the design of the southern leachate collection line and why it is not located at the clay layer. Again, PBS&J stated that this was a continuation of the existing system and is to provide an inward gradient. Furthermore, the proposed leachate collection trench matches into the existing system, and if the piping is lowered the County would need to replace the existing pump station. This issue will also be resolved upon review of the existing record drawings.
- FDEP questioned what the reported seasonal low groundwater table was based on.

PBS&J will review how this elevation was determined and provide this information to FDEP.

- FDEP questioned the gradient/head condition in the next aquifer down from the surficial aquifer, and suggested installation of a monitor well, properly cased, into this aquifer to monitor for upward gradient conditions.
- FDEP questioned whether there is a stormwater permit for the entire site. FDEP has
  seen several stormwater permits for individual buildings, but none for the entire site.
  FDEP will check their records and conduct a site visit to review the existing
  conditions.
- PC
- FDEP raised concerns regarding the location of the stormwater detention pond being inside the slurry wall and the potential for groundwater (leachate) and surface water to mix prior to being discharged from this pond. PBS&J agreed to relocate the pond outside the slurry wall where the groundwater is not considered to be leachate
- Regarding the calculations requested in FDEP's letter:
  - Pipe buckling, pipe crushing, pipe deflection. PBS&J feels that these calculations are unnecessary because there will be no waste load over the pipes. FDEP was unclear as to the limit of waste shown on our original submittal. Based on the information provided by PBS&J, FDEP agreed that these calculation would not be required. (The waste limit will be provided in PBS&J's response letter)
  - Leachate head over liner, groundwater seepage. Upon resolving the questions
    of what type of landfill this is (slurry wall or standard), the applicability of
    these calculations will be determined.
  - Slope stability. PBS&J feels this calculation is unnecessary because the trench will be completely filled to existing grade, therefore slippage of the select common fill is not an issue. FDEP feels that this calculation is required because during construction they need assurance that the material will not slide. PBS&J stated that during construction it is the contractors responsibility to ensure that the material does not slide. FDEP still wants to either see this calculation or have PBS&J dictate the contractor method of construction and include them in the specifications. PBS&J will not modify the specification, therefore the calculation will be provided. The stabilized trench is excavated and only select fill is on the sideslope of the liner will be determined.
  - Buoyancy calculation. PBS&J explained that this calculation is not applicable because the liner trench will be completely backfilled and the weight of this

cover will resist hydrostatic uplift. Furthermore, the groundwater outside the liner system should be higher than inside, based on the inward gradient design, therefore the groundwater will exert a downward force not uplift force on the side liner. FDEP agreed that only calculations were not required.

- PBS&J discussed the issue of whether the dewatering liquid in the area of construction was to be treated as leachate or allowed to be discharged to surface water. PBS&J stated that based on review of the water quality tests from monitoring wells in the area, the water meets Class III standards. Based on these water quality results, PBS&J feels that the dewatering liquids should not be treated as leachate. PBS&J proposed to berm the area south of the spray field to overland flow the dewatering liquids in order for any turbidity to settle, then pipe the liquids to the onsite borrow pit for disposal. Conductivity testing will be used as a field parameter for determining the quality of the dewatering liquids. If the conductivity reads over 500, then the liquid will be tested to see if it should be treated as leachate. FDEP requested that a dewatering sampling plan be submitted.
- FDEP questioned if an NPDES construction permit will be required. PBS&J indicated that one is needed for any construction at a landfill site. This is notification of intent to operate under a general permit.
- FDEP stated that a surface water monitoring plan will be required if there is any discharge to the surface water ditch that leads off-site. PBS&J agreed and will address this in the response.
- The leachate management section of the operations plan was discussed to determine exactly what FDEP is requesting. FDEP is looking for more in-depth information on the operations of the tanks and truck loading facility. For example, information on the tank level monitoring, how often the tanks are emptied, contingencies for when tanks are filled and there are hauling problems, the number of trucks expected to be hauling per day, more specific instructions and recordkeeping information with frequency and sample forms. FDEP is not looking for O&M details on the equipment.
- FDEP questioned if there is a contingency facility for treating the leachate. The County stated that Short Environmental in Florida is their contingency facility.
- PBS&J questioned what FDEP wanted regarding their comment on "professional evaluation of the proposed leachate management system". FDEP stated that this would include calculations for hauling and storage and tank capacity, etc.
- FDEP had the following comments regarding the HELP model:

- FDEP does not accept 100% runoff for an active landfill. PBS&J agreed.
   Both FDEP and PBS&J agreed that 100% runoff for a closed landfill is acceptable.
- FDEP stated that when running the HELP model for the closed condition, 0 defects is unacceptable. PBS&J agreed.
- FDEP informed PBS&J and the County that since the leachate collection tanks are located inside the liner system, a secondary tank is not required, as long as the area is graded such that any leakage is contained within the liner system and does not enter the surface water drainage system.
- The County requested that the on-site water well located at the maintenance building which is currently proposed for abandonment be allowed to stay since it currently only serves the fire hydrant and restrooms, not used for drinking water. FDEP does not think that will be a problem, however requested that the County send them the well construction logs to verify (send to the attention of Allison Amram).
- FDEP commented that when dewatering, to keep in mind that there is a septic system in the vicinity.
- Regarding FDEP's comments at the end of the request for additional information on the CQA plan, PBS&J stated that the plans and specifications govern the contractor and the CQA plan governs how the engineer will monitor the contractor. The CQA plan is treated as a separate but equal document. FDEP will review the documents to ensure that items in the CQA plan that the contractor is required to do are also included in the specifications.
- Regarding FDEP's comments at the end of the request for additional information on the full time inspector, PBS&J agreed that a full time inspector is needed for the liner installation, however for other portions of the construction where the construction quality can be inspected later, a full time inspector is not required. FDEP disagrees and intends on including the full time inspector requirement in the permit.
- FDEP questioned who will mark up the as-builts in the field. PBS&J stated that the
  contractor will mark up the as-builts in the field and provide them to the engineer to
  generate the record drawings.

This concluded the meeting. PBS&J will call FDEP on Thursday, September 4th to discussed the unresolved issues and to determine a timeframe to submit the response letter.



# Department of Environmental Protection

Lawton Chiles Governor

DATE:

Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretary

TIME: 2  SUBJECT: Hardee Cou	nty Landfill - Operation	n + Construction Permit.
	ATTENDEES	
<u>Name</u>	<u>Affiliation</u>	<u>Telephone</u>
Allison Amram Susaw Pelz Bob Burella RANDY COOPER  LLACTER B. Ohhiff, JR J. R. Prestridge Janice Williamson Jim RAYNT Maureen Mauriello Dave Daams	FDEP  FDEP-ERF Secken  HARDEE Co. Commission  Hardee County S.W.  PBS+3  PBS+3  PBS+J  PBS+J	813/744-6100 x336 744-6100 x386 \$

DDews "Pseudo-slunny wall" landfill
inward gandient
putting pipes at same elevation

JFlyst 2' below seasonal gnoundusten for new header pipe

they will

-check where seasonal low gut el. came From.

# I will check old boning logs for clay continuity & depth

\* I will check old boning logs for clay continuity & depth JR will check for top of elay & depth of clay maps from early liven work

Unid Daws Existing pipes are approx. 2' Above elay - (based on lift stations @ SE & SW convers

Allison markeren pet deeper well in to moniton lower agriffen if design is such that have higher head which cannot be drained off in LCS

oooo (Stormwater) oooo

We will check our records & see if they have a permit & check old cales (if we can find them) to see if it's sufficient (50 will check his files also).

slope stability on protective cover 
they don't want to made the calculations to

show the "protective cover" will not slide

dewatering - concern that water that is acmoved
is leachate - can't put it in stormwater

100 ft wide strip > 5 MG Along liver trench

Ammonia in water meets CIII water stols

- Propose to beron Area south of ditch

Dewstering -- overland flow to beamed Anca south of ditch, Then pump to bonnow Anex Allison - must have a sampling protocol - key parameters David Dears - have looked a guter at mw3, & mw7, mw6 B gotto manhole Deans - we will use indication panameters, eq. conductivity Bob - estimated time? Jim - 6 mo - overall job Bob - linen? denstering? Jim - I wk (good contractor) (depends on weather)

JR best case I wk, worse case 2 wks

Allien - MODER? Allison - NPDES? Jim - they want at least an Notice of Intent for All LF constructions David - It they have A with gratety parblem in the sprayfield, then they will look a placement of liven farther sorth. Their intent is to proceed the way (location) it is connectly proposed. David - Class III water stds - can put it in the creek. But they want to put it in bonnon pit (may be considered gnovndarten rechange) Allison - Since cacek discharges offsite, must have sunface who monitoring plan. Mauren-It is being Addressed.

Leachate Management Op procedures - how, when, how much to pump daily
Operational information for accord/keyping nainfall, pumping, tank levels

Leachate Management Professional evaluation grantity of leachate, pump sizing, harling

(decision point) head over linen vs. inward guadient

PBSJ to do list - Subsunface = LCS
- Construction Dewstering
- Leachate Magnet

inward gnadient - responses in couple weeks

had over liner - longer time Frame

- decision point - if into readily available therepretty

grick ( Next Thursday

At that point, they can finalize response, will be due. Thurs we will decide when into will be resubmitted.

Allison Send her well construction into on well inside liver

EYI comments liver/tank

CAA Plan is fan contractor's information only—

contractvally lo—Contractor

CAA—Engineer

I will look e QA & specs—specs must have everything

required by rule;

- Waste will be 50' laterally away from the leachate Collection pipes. No need for Settlement calc. of pipes.

- Liner uplift -

· Construction - excavate wide trench - create skipe, Compact - lay HDPT + select fill -- backfill as you build.

Stability of fill over geomembrane - will be buried quickly. Contractor upst make sure the select fill is in place prior to filling over it. This is how the construction was done last time.

- PBS+T will not include method of construction in their specs - it's all up to the contractor.

- Zeachate Coll. system colcs will be provided.

- Dewatering for brench - well points on both sides of the excavation. Estimate MIN. 5 million gallons 40 need to be removed David D. - To Doesn't know any place that can take that vol. Propose to overland flow to over old sprayfield bern & pump & into old borrow area. They've looked @ loachate & mw6+7 waters. Ammonia + turbidity are key

Hardee County Landfill Meeting Notes 8/21/97 P1/4 Head over bottom liner issue Leachate collection pipes are above i'w-situ clay (located 2' below seasonal low gw table)

thu was seasonal low figured? (Shouldn't be
from sprayfield pr) from sprayhield pr) Satisfied that side walls will be ok + keep an invand gradient Bottom liner - head will be or 3' between in-situ clay & bottom of leachate collection pipes. May need deeper aquifer nonitoring for gradient (is inter, ag pz head > surficial aq head?) or water quality. Stormwater - PBS+J will move pond outside of stura landfill liner, RunoA from truck loadout will go back to leachate Callection system. Candfill may not have a "total" stormwater ngt plan - there are ones for the untike 5ite. One was done in oarly 1980s. Kandy Will look for older records + make a Site visit. 12 acre total site. It looking, too. Kandy is Working of BILL Felford@PBS+J.

David D. - will submit a plan -- may

screen conductivity in discharge water.

Bewatering may be for just a week.

- will apply for an NPDES permit for dewatering.

- Surface water sampling plan i's coming of west submittal

- Zoachate management once vew system

- Susan discussed aption of going of single wall tank inside liner as long as a catastrophic release would not overland flow past the liner. Co / PBS+J will consider.

- Discussed submittal schedule - must first

decide if I' writical head issue applies 
PBS+J will get in touch w/ Susan by 9/4.

Will discuss submittal schedule then.

- PBS + I will send a mtg Sunnary.

- Well by tanks - weel for restrooms + fire

protection. Would like to keep, it possible. IR will

look for well casing construction & we will eval

it it can be kept. If it must be abd, then

p2//4

the Co, must run a water line to area from another well.

Ahman



# Department of **Environmental Protection**

Lawton Chiles Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretary

FAX TRANSMITTAL SHEET
8/11/97 LI STP
TO: MANNIC 1/0
Phone: 407-647-7275 Fax: 407-647-0624
FROM: SUSAN PC/2
Phone: (813) 744-6100 ext $386$ Fax: (813)744-6125
TOTAL NUMBER OF PAGES, INCLUDING COVER SHEET
SUBJECT: HAnder Co TANK & Liver 38414-001-5C
Operations Permit 38414-002-50
<b>/</b>
This fax is to continu the Department's
This fax is to contiam the Department's understanding that since we will be
meeting At our office 8/27/97@ zogm,
# responses to the Denn truck show and
7/25 letters me not expected on 8/25/97
Cerchate Management issues are expected to
be discussed at the 8/27 meeting, and we
understand that The page acquires will be
1/25 letters are not expected on 8/25/97.  Lerchate Management issues are expected to  be discussed at the 8/27 meeting, and we  Understand that the paper responses will be  based on discussions at the meeting.

#### Transmit Confirmation Report

No. 800

814076470624 WASTE MGT TAMPA SWDIST Aug 11 97 16:59 00'43 Receiver Transmitter Date

Time Norm Mode

Pages Result 01 0K



### Department of Environmental Protection

Lawton Chiles Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretary

Mr. J.R. Prestridge, Solid Waste Superintendent Hardee County Regional Landfill 675 Airport Road Wauchula, FL 33873 July 25, 1997

RE: Hardee County Class I Landfill Operation Permit Renewal Pending Permit Nos.: 38414-001-SC Liner & Tank Construction

Dear Mr. Prestridge:

This is to acknowledge receipt of your permit application, to construct site improvements (liner and leachate storage tanks system) at a solid waste management facility, referred to as the Hardee County Regional Landfill. The application Prepared by Post, Buckley, Schuh & Jernigan (PBSJ) dated June 24, 1997 was received on June 27, 1997.

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 <u>incomplete</u>. 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.)]:

#### **GENERAL:**

- 1. Due to magnitude of the proposed project, the requested information and comments below do not repeat the information submitted by the applicant. However, every effort has been made to concisely refer to the section, page, drawing detail number, etc. where the information has been presented in the original submittal.
- 2. Please submit all revised plans and reports as a complete package. If possible, please provide revised pages which may be inserted into the original submittal (holes punched for a three-ring binder or spiral binding). For revisions to the narrative reports, deletions may be struckthrough (struckthrough) and additions may be shaded or similar notation method. This format will expedite the review process. Please include revision date on all revised pages.
- 3. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet SW-1A, SW-1B, C-8A, C-8B, etc.
- 4. Please be advised that although some comments do not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, and/or other information as appropriate.

#### Application for Construction Permit....

#### Section 5.

- 1. Part 5.2.1. The information states, "the liner system is designed to intercept groundwater and resist hydrostatic uplift if groundwater rises to the liner system at any time." (page 5-3) Please provide calculations which support this statement. Since the SHWT is expected to be above the bottom liner system, please provide a professional evaluation of the impact of the groundwater on the side liner. Please provide procedures and specifications for tying the geomembrane liner to the subsurface clay layer. Please provide procedures for ensuring that the geomembrane is consistently keyed into the clay layer.
- 2. Part 5.3.1. and 5.3.2. The narrative information indicates that the filter aggregate will be sand. However, the Specifications (Section 02220, 2.01.G. and H.) do not specify the aggregate to be "sand." Since the size of the perforations on the leachate collection piping was not provided, it is not clear if the "sand" will clog the pipes. The narrative information also indicates that the filter aggregate has a permeability of 1 x 10-3 cm/sec. However, the Specifications do not include this criteria for the filter aggregate (it is included for the drainage sand). Please clarify this.
- 3. Part 5.3.2. The narrative indicates that the leachate piping will have a slope of 0.3%. However, drawing Sheet C-2 shows some piping with as little as 0.20% slope. Since subsurface settlement calculations were not provided, it is not clear if foundation settlement may adversely affect the performance of the leachate collection system. Please clarify this. See also comments #11 and #36, below.
- 4. <u>Part 5.5.2</u>. Please provide calculations which demonstrate that the secondary containment will hold 110% of the primary storage tank. See also comment #11, below.
- 5. Part 5.8.1. Please be advised that stormwater which infiltrates within the liner system shall be considered leachate, and shall not be discharged to surface water or groundwater unless the permittee demonstrates by sampling and analyses that the discharge will not exceed Department water quality standards. It does not appear that the proposed stormwater pond will comply with this requirement. Please provide procedures for determining that the water discharged from this pond will meet water quality standards, or provide a revised design.
- 6. Part 5.11. Since the SHWT is expected to be higher than the bottom liner, please explain why this section (62-701.400(12), F.A.C.) is not applicable.

#### Section 7.

- 7. Part 7.8. Please provide a comprehensive leachate management plan which meets the requirements of F.A.C. 62-701.500(8). This information should include, but not be limited to, professional evaluations of the proposed system, samples of recordkeeping forms, procedures for recording precipitation and leachate generation, etc. Please provide procedures for determining the quality of liquids which may accumulate in the secondary containment areas of the tanks.
- 8. <u>Part 7.8.5</u>. Please explain how one pipe may be "closed off and all leachate conveyed through the other pipe [to the lift station]" since the two pipes collect leachate from different areas of the disposal area.

#### Section 8.

9. Please respond to Ms. Allison Amram's memorandum dated July 23, 1997, attached.

#### Appendix C.

10. Please provide the complete PSI report. It appears that only portions were provided. Please provide the land surface elevations for each of the boring logs, or provide the boring logs in NGVD.

#### Calculations.

- 11. Please provide calculations for the following:
  - a. Leachate collection system piping- Pipe flow capacity, pipe buckling, pipe crushing, pipe deflection, piping perforations and "filter aggregate" sizing;
  - b. Water balance-leachate generation, expected hauling and storage, pump capacity, leachate head over the liner, groundwater seepage;
  - c. Slope stability for placing the protective cover over the liner;
  - d. Subgrade settlement in the areas of the leachate collection piping.

#### Technical Specifications.

12. The following sections appear to include information which is not specific to this project. Since the Technical Specifications are intended to govern the project construction and are expected to be specific to the project, please review the applicability of the following sections and delete information which is not required for this project, or clarify where the referenced information is used in the project.

- 13. Several items in the CQA Plan and the Technical Specifications require that the Contractor shall submit information to the Owner and Engineer. In general, these specifications (and the CQA) should refer to when these submittals are expected. Please explain at what point the submittal dates will be established. The Department suggests that the specifications (and CQA Plan) refer to specific timeframes for submittal, e.g. 30 days prior to commencement of..., two weeks after..., etc. See Technical Specifications Section 02730, 1.05, page 2; Section 03600, 1.02, page 1; Section 11200, 1.04.A., page 2; Section 11200, 3.01.A., page 8; Section 13200, 1.04.A, page 3; and Section 13200, 3.01.A, page 9.
- 14. Please provide Division 1 General Requirements.
- 15. Section 02140, Dewatering.

  a. Since it is not likely that the appropriate compaction of the subgrade or seaming of the geomembrane will be possible in a wet condition, please explain the allowance for "wet trench construction." (3.01.D., page 2)

#### (Comment #15 cont'd)

- b. Please be advised that water pumped from areas previously used as the leachate sprayfield or near the leachate trench is considered leachate and shall not be discharged to surface water or groundwater unless the permittee demonstrates by sampling and analyses that the discharge will not exceed Department water quality standards. Please revise this section to include acceptable disposal methods for the dewatered liquids. (3.02.A., page 2)
- 16. <u>Section 02220, Excavation, Backfilling and Compaction.</u>
  a. Please specify which tests will be required. (1.03.A., page 2)
  - b. Please provide a specification for the construction of the clay subgrade and tie-in with the geomembrane sidewall liner. Please provide a specification for surveying to ensure the accuracy of elevations of the trench bottoms, clay permeability and pipe slopes.
  - c. Please explain the requirement for the Engineer to advise the Contractor of the types of materials allowed. Please explain Parts 2.01.B.3. and 2.01.C.3. (page 4). (see also QA Plan parts 2.1.1.2. and 2.1.1.3.)
  - d. Please provide a permeability specification for the filter aggregate. (2.01.G., page 5)
  - e. Please clarify the type of fill referenced in part 3.04.A. (page 11)
  - f. Please reference the specification section for compaction requirements in part 3.05.A.
  - g. Please clarify if crushed rock or gravel will be used to stabilize the geomembrane trench bottoms. (3.05.B., page 11)
  - h. Please clarify which "stabilized subgrades for concrete structures" are referenced in part 3.05.B. (page 12)
  - i. Please reference the specification for "uniform moisture content" in part 3.06.B.2. (page 12)
  - j. Table 02220-A. Please clarify which "liner trenches, not directly over the liner" will be filled with common fill. Please provide a compaction specification for the clay subgrade. Please clarify in which specification depth checks of the protective cover soil are included. Please explain why "select common fill" is used over the liner but not under the liner.
  - k. Table 02220-B. Please clarify which pipe material on this table includes the leachate collection piping.
  - 1. Please verify the force required by the vibratory compactor. This specification requires 30,000 to 35,000 pounds, but the PSI geotechnical report indicates 36,000 pounds should be used. (3.06.H.1., page 16)
  - m. Please clarify if part 3.07 applies to liner trench excavation. (page 18)
  - n. Please specify the section which is referenced in part 3.07.A.1 for the maximum joint deflection of the pipes. (page 18)
  - o. Please specify the leachate collection trench bottom elevation tolerance.
  - p. Please clarify which "stockpile" is referenced in part 3.11.C. (page 21)

#### (Comment #16 cont'd)

q. Please provide a specification for keying the geomembrane into the subsurface clay layer. The specification must include procedures for ensuring that the geomembrane is consistently keyed into the clay subsurface.

#### 17. Section 02730 HDPE Piping Systems.

- a. Please clarify if it is permissible to drop pipe onto ground which is <u>not</u> rocky or unprepared. (1.03.B.2., page 2)
- b. Please clarify what type of "certified test records" will be submitted. (1.05.C., page 2)
- c. Please provide a specification for the slots in the leachate collection piping. Please explain how groundwater is expected to inflow into the leachate collection system after the liner is installed. (2.01.A., page 3)
- d. Please explain how "all fittings shall match the system piping..." (2.01.B.1., page 3)
- e. Please specify the "physical property requirements" for the piping, or reference the specification section which includes this information. (2.01.C., page 3)
- f. Please provide a copy of AASHTO M252 and M294. (2.01.E., page 3)
- g. Please specify the tolerance on the leachate collection piping elevations. Please clarify what weather conditions are considered "unsuitable" for laying pipe. (3.02.A., page 4)
- h. Please explain the type of "curing" that will be used for the HDPE piping. Parts 2.01.B.2 and 3.02.E. indicate that this piping will be joined by split couplings. (3.02.C., page 4)
- i. Please clarify "as small a deviation as possible." (3.02.H., page
- j. Since the liner will be placed in a trench, please explain how the liner will be exposed to traffic. (3.02.L.2., page 5)

#### 18. Section 02776, HDPE Geomembrane.

- a. Please verify the manufacturer's successful production requirement of 3 years. Part 1.02.B.2 indicates a requirement for 5 years. (1.02.B.1., page 1)
  - b. Please clarify what is required in part 1.02.C.1(a). (page 2)
  - c. Please clarify if the additional conformance testing referenced in part 2.01.D. is for the resin only. (page 6)
  - d. Table 02776-A. Please verify the minimum thickness required for the geomembrane. This table does not appear to correlate with QA Plan Table 2-1. Please explain the requirement for 10% of tensile strength yield, break and elongation at yield and break. Please include vapor transmission rate on this table and QA Plan Table 2-1.
  - e. Since Hardee County Landfill leachate is available, part 2.02.B.8. should specify that Hardee County leachate be used. (page 10)
  - f. Please clarify if geomembranes received damaged will be repaired and used or will not be used in the project. (4.01.A., page 11)
  - g. Please specify the number of samples and type of tests required for conformance testing. (4.01.C., page 11; also QA Plan part 3.2)

#### (Comment #18 cont'd)

- h. Please clarify if the panel layout is required to be submitted 30 days prior to installation. (5.01.A.2., page 13)
- i. Please clarify which "survey information and geotechnical testing" is referenced in part 5.01.B.2. (page 14)
- j. Please provide a specification for the size of acceptable "washouts" or erosion. (5.01.B.5., page 14)
- k. Please provide a size specification for "excessive wrinkling." (5.01.C.3(d)(6), page 16; 5.01.D.12(e), page 29 and QA Plan part 4.2.4.5)
- 1. Please clarify if the temperature requirements are <u>ambient</u> temperature or <u>sheet</u> temperature. The QA Plan indicates sheet temperature. (5.01.D.6(a), page 18; also QA Plan part 3.3.1.3 and 3.4.6.)
- m. Please clarify if only non-destructive testing will be used to test areas where seams have passed the non-destructive tests but have failed destructive tests. (5.01.D.12(d), page 29; also QA Plan part 4.2.4.4.)
- n. Since the liner will be primarily installed in a trench and the total perimeter of additional liner is only 1150 linear feet (approximately), this specification would only provide approximately 6 elevation check points. This does not appear to be adequate to provide assurance that the liner was constructed correctly. It does not seem reasonable that the 100-foot interval for the leachate collection trench will provide sufficient information to assess the construction of the very small slopes proposed. Please re-evaluate the number of survey points with relation to the scale and requirements of the project. Since the geomembrane liner will not be installed under the leachate collection system, it is not clear if the requirements of 7.02.B.3. refer to elevations of the "installed liner" or the bottom of the leachate collection trenches. (7.02.B, page 32, see also QA Plan 4.1.1.)
- o. Please provide a specification and associated QA Section for the geotextile shown on the drawings (e.g. Sheet C-4).
- 19. Section 03410, Precast Concrete Structures.

  a. Please explain if the sealing compound and grout are compatible with leachate. Please provide manufacturer's specification sheets which include chemical compatibility information. (2.01.B., page 4)
- 20. Section 03600, Grout.

  a. Please explain if the sealing compound and grout are compatible with leachate. Please provide manufacturer's specification sheets which include chemical compatibility information. (1.02.A and 2.01.B, page 1)
- 21. Section 03800, Leakage Testing of Structures.

  a. Please clarify to what "storage tanks containment structure" this section applies. Please clarify to which concrete "hydraulic structures" this section applies, e.g. manholes and lift station. (1.01.A, page 1)
  - b. Please clarify against which walls backfill will be "placed... after all concrete has attained the specified compressive strength." (3.02.B., page 1)
  - c. Please clarify if the hydraulic testing will require the structures to be filled to the "normal" liquid level line or the "maximum" liquid level. It seems that a "worst case" test would require the maximum level. Please explain how moisture will be absorbed by the concrete in the structure since the storage tanks are steel, and the manholes and lift station are sealed. (3.02.C., page 1)

1 1

#### 22. Section 08350, Access Hatch Doors.

a. Please clarify if this section applies to the "manway" or the "roof hatch" shown on the mechanical drawings. Please specify the detail on the drawing which references this specification.

#### 23. Section 09900, Painting.

- a. Please clarify if the "structural steel" which is to be painted includes the steel tank bottoms (both sides). (1.01.B., page 1)
- b. Please clarify if the hydraulic load/leak tests will be conducted prior to sealing the concrete manholes and/or lift station. Since the floor of the secondary containment is concrete (although the wall is steel), please clarify at what point the concrete in this area will be sealed. Please specify which horizontal surfaces will have sand mixed with the top coat to provide a non-skid surface. (2.02.B.2(a) and (d), page 6)
- c. Please clarify if the steel surfaces (tank panels) will be sandblasted and painted before or after installation. (2.02.C.3(a), page 7)
- d. Please clarify if interior painting must also be conducted in dry weather. (3.04.A., page 11)

#### 24. Section 11200, Open Top Bolted Steel Tank.

- a. Please clarify if the steel bolted tank panels will be "factory coated [painted]" or will be painted at the site. (1.01.A., page 1)
- b. Please provide a copy of Section 10.5 of AWWA D103-87. (1.02.C., page 1)
- c. Since the alternate bid item included in the specifications is a different type of tank and different dimensions (capacity), please provide containment calculations for each configuration, and provide a note on the drawings concerning the two different tanks (painted steel bolted tank and glass fused steel bolted tank). (1.06.A.1, page 3, see also Section 13200, 1.05.A.2.) See also comment #4, above.
- d. Please provide Section 2.10 of AWWA D103-87. (2.01.E.1., page 4)
- e. Please clarify the difference between the interior and exterior coatings in part 2.02.B. (page 5)

#### 25. <u>Section 11210, Submersible Leachate Pumps</u>.

- a. It appears that this section does not include the specifications for the float system. Please provide a specification for the lift station float system.
  - b. Please clarify if the submersible pumps and control panels are explosion-proof. (2.02.E.3., page 6)
  - c. Please clarify if the "level control system" will only be used during the pump testing, or will be permanently installed. (3.02.A.2(b)(3), page 11)

#### 26. Section 11211, Leachate Truck Loading Pumps.

a. Please clarify if the leachate truck loadout pumps and control panels are explosion-proof. (2.10.B. and E., pages 7-8)

#### 27. Section 13200, Glass-Coated Bolted Steel Tanks.

- a. Please provide the dimensions of the tanks on the drawings. (1.02.C., page 2)
- b. Please specify the dimensions of the tank. (1.05.A.2., page 3)

- Mr. J.R. Prestridge, Solid Waste Superintendent Hardee Co. Liner & Tank Pending Permit Nos.: 38414-001-SC Page 8
- 28. Section 15000, Mechanical General Requirements.

  a. This section states, "The Drawings are to be considered diagrammatic, not necessarily shown in detail or to scale all of the equipment or minor items." (1.01.B. page 1) Please clarify if this reference is for tank piping (or mechanical) drawings only, or is intended to apply to all of the construction drawings.
- 29. Section 15050, Process and Utility Piping....

  a. Since the drawings show the drainage piping from the truck loadout to the lift station as 4-inch ductile iron pipe, and the leachate gravity drain lines are HDPE, please explain where PVC gravity drainage piping is located in this project. (2.02.A., page 7)
- 30. <u>Section 15126, Hangers and Supports</u>.

  a. Please clarify to which "wall and column supports" this section applies. (2.01.A., page 2)
- 31. <u>Section 16010, Basic Electrical Requirements</u>.

  a. Please provide a specification for the switches which will be used in the control panels.

#### Quality Assurance Plan.

- 32. <u>Section 1, Project Party Definitions and Responsibilities</u>.

  a. Please clarify who is authorized to stop the work or require the Contractor to repair, replace or alter defective or inadequate work.

  (1.2, page 1-1)
  - b. Please clarify if the "fabricator" listed in Table 1-1 is the "installer" described in Part 1.2.6.2., page 1-7.
  - c. Please clarify if the MQC personnel and officer listed in Table 1-1 are responsible for quality control at the manufacturing facility or at the site.
  - d. Please provide a specification for the pre-construction conference in the Technical Specifications. (Part 1.2.4., page 1-4)
  - e. The CQAM is required to report defective work and advise the Engineer of work that should be corrected. (Part 1.2.7.5.b., page 1-11) However, the Engineer's responsibilities described in Part 1.2.4. do not explicitly include a description of the Engineer's duties related to the disposition of the CQAM'a reports and recommendations. Please provide a more detailed description of the Engineer's responsibilities and authority.
  - f. Please clarify the purpose, and specification for, "puncture resistance using construction equipment" testing. (Part 1.2.7.13.h., page 1-14)
  - g. Please clarify who will be making the site visits described in Part 1.3. (page 1-15)
- 33. Section 2, Liner System-Manufacturing and Delivery.
  a. Please provide QA information on the drainage sand and clay materials.
- 34. <u>Section 3, Geomembrane installation</u>.

  a. Please reference the specification section for the topographic surveys. (Part 3.1.1., page 3-1)
  - b. Although damage will be "noted," please clarify if geomembranes damaged upon receipt will be used in the project. Please include conformance testing in the specifications. (Table 3-2)

#### (Comment #34 cont'd)

c. Please define "each construction sequence." (Part 3.7.2., page 3-16)

#### 35. Section 4, Sampling and Testing.

a. See comment #18.n., above. It is possible that the total geomembrane installed will be less than one acre. One compaction test per acre may not be sufficient due to the size of the project.

#### 36. Section 5, Leachate Collection and Removal System.

a. Please verify the required pipe slope tolerance. Some LCS piping has only 0.2% slope, and a 5% tolerance would require the Contractor to construct the piping to within +/-0.0001 foot per foot of elevation.

#### Drawings.

- 37. Please provide details of the geomembrane seam overlaps, etc. on a plan sheet. (See Specification Section 02776, 5.01.A.2(c))
- 38. Please provide a subgrade and final grade grading plan. (See Specification Section 02776, 5.01.B.1.)

#### 39. <u>Sheet\_C-2</u>.

- a. Please verify that Detail 1/C-4 shows the liner connection.
- b. Please verify if the invert elevation of 74.10 for the pipe between manholes #6 and #7 is for the south invert instead of the east.
- c. Please add the maximum groundwater elevation on Note 3.

#### 40. Sheet C-4.

a. Please provide a specific detail showing the liner connection at the corner.

- b. Please include a marker post which delineates the edge of the liner. Please provide a view which shows the extent of waste with respect to the edge of the liner.
- c. Please provide a view which shows the location of the liner and anchor trench with respect to the manholes (i.e. the distance between the manhole(s) and liner/anchor trench).
- d. Please specify the depth of the leachate collection trench. Since it appears that the leachate collection trench does not extend to the clay layer, please explain how water which may accumulate (upflow) under the liner will be removed.
- e. Please specify the type of material which will be placed under the geomembrane.
- f. Please provide a detail of the corrugated HDPE piping and proposed connections (split couplings). This detail must show the size and orientation of the perforations or slots in the piping.
- g. Please specify the bedding material elevation for each of the manholes. Please explain the purpose of the 12-inch HDPE blind flange shown in Detail 3 on this sheet.

#### 41. Sheet M-1.

- a. Please clarify the floor drain shown on this sheet and sheet M-3 within the pump pad area. It does not appear that a floor drain is shown in Section B on Sheet M-5. Please provide an invert elevation for the floor drain.
- b. Please provide a cross-section which shows the burial depth for the drain and force main under the proposed road.

#### 42. <u>Sheet M-3</u>.

- a. Please show the diameter of the tanks.
- b. Please show the truck loadout pumps.
- c. Please clarify the reference to a "deck as an additive alternate."

#### 43. Sheet M-4.

 $H_{2N}$ 

...

a. Please clarify if the tank panels will be flange-type connections or lap joints. The Pipe Support Bracket Detail (Detail 1 on this sheet) indicates that the panels are flange-type joints. However, it has been the Department's experience that leachate storage tanks typically utilize lap joints.

#### 44. <u>Sheet M-5</u>.

- a. Please specify the clearance between the flare bends and the top of slab. Please clarify if the flare bends will include screens to prevent the entry of trash and insects in the piping.
- b. Please show the location of Detail 1, Leachate Fill Pipe Travel Limit Stop Detail and Plan.

#### 45. Sheet M-7.

- a. Please note the location of the Hose Rack (Detail 9) and Exterior Hose Valve (Detail 10) on a plan view.
- b. Please clarify which equipment the Equipment Concrete Pad Detail (Detail 13) is used for.

The following comments are for information only, at this time, and do not require an immediate response:

- 1. Although the Department will address the leachate management issues as part of the pending construction permit, please be aware that the Department does not intend to issue the pending operations permit until the leachate management issues are resolved. Please be advised that the Department will not extend the expiration date of the pending permit to accommodate delays in completion of the permit application due to the outstanding leachate management issues at the site (i.e. the pending permit will expire on June 10, 2002). In the event that substantial delays are experienced in resolution of the leachate management issues, the Department may issue an Administrative Order which will include all operational permit conditions and a required schedule for constructing the leachate tanks system and liner.
- 2. The information states, "The General Contractor is responsible only for the requirements of the contract specifications and construction drawings for [the] project," and the "CQA Plan is to be used only as a guidance document for the CQA personnel,..." (QA Plan, 1.1, page 1-1) Please be advised that the CQA Plan is required by Department rules, and as such, is required to be complied with and is not "only... guidance." Please be aware that the Department will evaluate the sufficiency of the construction with respect to the specifications, drawings, CQA Plan and Department rules when determining if the project has been constructed adequately. If the Department determines that the construction has not been performed adequately, approval for operation of the facility may be denied, and/or modifications or corrections may be required.
- 3. The CQA Plan states, "The CQA Program Manager is sometimes required to be at the construction site during all major construction operations..." (Part 1.2.8., page 1-14) "Site visits... will also be conducted on a weekly basis or as needed by the principal engineer..." (Part 1.3.2., page 1-16) Please be advised that the Department will require full-time on-site supervision of the project by a registered professional engineer or his/her designee. The on-site resident engineer must have the authority to make field decisions and order corrections to defective or insufficient work. The on-site resident engineer must also assure that deviations from the permitted construction drawings are clearly marked on the set of drawings maintained at the site in support of developing the as-built drawings.

Mr. J.R. Prestridge, Solid Waste Superintendent Hardee Co. Liner & Tank Pending Permit Nos.: 38414-001-SC Page 11

"NOTICE! Pursuant to the provisions of Section 120.60, F.S. if the Department does not receive a complete response to this request for information within 30 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 the date of this letter, responding to all of the information requests and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 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 a 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."

You are requested to submit <u>four copies</u> of your response to this letter together, as one complete package. If there are points which must be discussed and resolved, please contact me at (813) 744-6100 ext. 386.

Sincerely,

Susan J. Pelz, P.E. Solid Waste Section Southwest District

sjp Attachment

Robert Butera, P.E., FDEP Tampa
Allison Amram, P.G., FDEP Tampa
Steve Morgan, FDEP Tampa (e-mail)
Randy Cooper, P.E., FDEP Tampa-ERP Section (e-mail)

### Memorandum

# Florida Department of Environmental Protection

TO:

Susan Pelz, P.E.

FROM:

Allison Amram, P.G. Allman

SUBJECT:

Hardee County Permit Application for Construction Permit: Lateral Expansion

and Leachate Storage Tank Facility, dated June 26, 1997

Pending Permit No. 38414-001-SC, Hardee County

DATE:

July 23, 1997

CC:

Bob Butera, P.E.

I have reviewed the gas monitoring and water quality monitoring sections of this permit application response and have the following comments:

\_\_\_\_\_\_\_

### Section 8.0 - Water Quality and Leachate Monitoring Requirements

- 1. Surface water: F.A.C. Rule 62-701.510(4)(a) requires that "All surface water bodies that may be affected by a contaminant release from the facility shall be monitored, except bodies of water contained completely within the property boundaries of the disposal site which do not discharge from the site to surface waters." Does the ditch located south of the disposal area discharge offsite? If it does, please include a plan for surface water sampling in accordance with this rule.
- 2. Leachate: How is the leachate sample proposed to be collected from the leachate pump station?
- 3. The monitoring parameters and frequency will remain the same as proposed in the operating permit renewal application.

### Appendix D, Water Quality Plan Modification

- Section 2.0 This section states that ground water elevation contour maps for 1993, 1994, 1995 and 1996 are included in Appendix B. Appendix B contained maps for February, May and December 1995; and June, December 1996. Please provide the rest of the maps.
- 5. Section 3.0 The proposed ground water monitoring wells (MW-1, MW-2, MW-4, MW-5, MW-8, MW-9) are acceptable. Existing monitoring wells MW-3, MW-6 and MW-7 shall be kept in good working condition in case they are needed for future monitoring. The FDEP suggests monitoring MW-6 and MW-7 for water elevations and ground water conductivity to observe if any contaminants move from the sprayfield area over the next several years.
- 6. Section 3.0 The proposed ground water elevation monitoring in piezometers P-1, P-2, P-3, P-4, P-5, P-9, P-10, P-11, P-15 and P-16 are also approved, with the addition of P-6 to

Memorandum to Susan Felz Hardee County Landfill Permit Renewal Page 2

monitor ground water elevations close to the southeast corner of the landfill. As with the monitoring wells, remaining piezometers P-7, P-8, P-12, P-13 and P-14 shall be kept in working condition in case they are needed for future monitoring.

7. Section 3.0 The following information is required for the proposed well and piezometer construction: estimated total depth, well screen length and slot size, filter pack size and thickness and well seal thickness.

#### **Technical Specifications, June 1997**

- 8. Section 02140, 3.02A discusses disposal of the dewatering fluids into storm water systems. This is not acceptable. The liner installation will be going through the leachate sprayfield, and water in this location may be contaminated. Please provide either disposal plans for treating the water as leachate, or a testing protocol during dewatering to ensure that the water meets acceptable criteria for discharge into stormwater systems.
- 9. Drawing C-2 states that an existing water well will be abandoned by others. Please provide the documentation of proper well abandonment prior to the start of construction activities.

The applicant may contact me directly at 813/744-6100, ext. 336 if they have any questions.

aa



## Department of Environmental Protection

Lawton Chiles Governor Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619

Virginia B. Wetherell Secretary

July 25, 1997

Hardee County Landfill c/o Mr. William H. Telford, P.E. Post, Buckley, Schuh & Jernigan, Inc. 1560 Orange Avenue, Suite 700 Orlando, FL 32789

RE: Request for Additional Information - Leachate Storage Tank Facility FDEP Application #: 25-124892-3-001, Hardee County

Dear Mr. Telford:

This is to acknowledge receipt of your application on June 27, 1997 for a Standard General permit (minor systems), pursuant to Part IV, Chapter 373, and 40D-40, Florida Statutes, to construct a leachate storage tank facility with access driveway at the Hardee County landfill.

In order to review your application, we need the items listed in Part I of the enclosed request for additional information (RAI) by September 23, 1997 (60 calendar days). If necessary, you may request an extension up to 30 additional days. If neither the information nor a request for an extension is received by this date your application may be denied without prejudice. If you revise your project after submitting the initial joint application, please contact us as soon as possible.

The environmental resource permit program replaces the wetland resource (dredge & fill) and management and storage of surface water permit programs. In addition, the department will make a single decision to approve or deny your request for an environmental resource permit and authorization to use sovereign submerged lands.

We appreciate your cooperation. If you have questions, please contact me at (813) 744-6100, extension 329.

Sincerely,

Randal R. Cooper, P.E. Surface Water Engineer

Submerged Lands & Environmental Resources Program

/rrc

Enclosure

cc: Susan Pelz, P.E., FDEP Solid Waste Section V
file

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

#### PART I

# REQUEST FOR ADDITIONAL INFORMATION HARDEE COUNTY LANDFILL - LEACHATE STORAGE AREA APPLICATION # 25-124892-3-001

- 1. Have you considered incorporating the surface water management system for the proposed LSTF into the landfill's existing surface water management system? This will eliminate the need to obtain a separate permit just for the LSTF. If the existing system can be expanded, or already has capacity for the proposed LSTF, it may be possible for the Department to simply issue a no permit required letter. Please call me if there are any questions regarding this process.
- 2. For your information, a \$700.00 application processing fee is normally required for a standard general permit, for systems serving a project with a total land area of less than 100 acres and greater that 40 acres and with no wetland impacts. (The fee is partially based on the size of the contiguously owned property, not just the project area). The DEP did not adopt the permit fee reduction schedule specified in 40D-1.608, F.A.C., please reference 62-330, F.A.C. (enclosed) for further information regarding WMD rules adopted by reference. We are aware of the fee reduction/waiver mentioned in Chapter 94-278, of the Laws of Florida, and are not sure if this applies to ERP applications, but will continue to research the subject. I have also included a portion of our fee schedule, 62-4.050(4)(g)2., F.A.C., which describes fees for Environmental Resource Permits.
- 3. It is my understanding any stormwater that falls within the limits of the HDPE or PVC liner will be considered as leachate and cannot be discharged as stormwater, in accordance with solid waste rules. Please comment on how stormwaer and leachate will be separated within the limits of the project area.
- 4. It is still not clear how percolation of runoff will occur in the proposed pond that will be located within the liner limits. It seems intuitive that even if stormwater does eventually percolate out of the pond into the space above the HDPE liner, this space would eventually fill up and become totally saturated. Please provide information (typical cross section, etc.) of how the top soil cover, HDPE liner, and bedding material was actually constructed.
- 5. Reference Appendix C, "Recovery Analysis", of the submittal, what is the significance of listing such things as the depth to seasonal high ground water table, clay layer elevations and thickness, and soil boring information when the proposed pond will be constructed over the impermeable liner.

### TRANSMITIAL

D.E.P. TO: Ms. Susan Pelz, P.E. Date JUN 27 1997 June 26, 1997 **FDEP** Job No. SOUTHWEST DISTRICT HARDEE COUNTY RE TAMPA Under separate cover via the following items: Shop Drawings **Prints** Plans Samples Copy of Letter Change Order Specifications Description Copies Date No. \$100 APPLICATION FEE Hardee County Application for Construction Permit 6/26/97 **Construction Drawings** 6/26/97 **Technical Specifications** 6/26/97 4 Construction Quality Assurance Plan 6/26/97 4 Response to RAI dated May 28, 1997 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 Prints returned after loan to us **REMARKS** SIGNED Maureen Mauriello DISTRIBUTION J.R. Prestridge (Hardee County), File

If enclosures are not as noted, kindly notify us at once.

(See Bound Report)

# HARDEE COUNTY, FLORIDA

### APPLICATION FOR CONSTRUCTION PERMIT



**JUNE 1997** 

Prepared for:

### HARDEE COUNTY BOARD OF COUNTY COMMISSIONERS

Room A-203, Courthouse Annex 412 West Orange Street Wauchula, FL 33873-2867

Prepared by:

POST, BUCKLEY, SCHUH & JERNIGAN, INC.

Winter Park Plaza 1560 Orange Avenue, Suite 700 Winter Park, Florida 32789

МЕМО	INVOICE DATE	INVOICE NUMBER /	AMOUNT	DISCOUNT	NET AMOUNT
CITY NO. 020E	02/05/97	02 <b>107</b> A	IVVIEW !		100.00
SW VO 8205	02/03/9/	020697A			100.00
		NUU	2 7 1997		
		SOUTHWA	ST DISTRICT		
		BY			
HARDEE COUNTY BOARD COUNTY COM	MISSIONERS	TOTALS	100.00		100.00

DETACH BEFORE DEPOSITING

HARDEE COUNTY BOARD COUNTY COMMISSIONI ACCOUNTS PAYABLE ACCOUNT P.O. DRAWER 1749 WAUCHULA, FL 33873	ers 63-670/631 No. 017273
DATE 02/20/97 PAY	CHECK NO. AMOUNT
	***** ONE HUNDRED AND NO/100 DOLLARS
DEPT ENVIRONMENTAL PROTECTION ORDER A 3804 COCONUT PALM DRIVE ORDER TAMPA FL	CLERK / DEPUT/ CLERK BORNO COUNTY COMMISSIONERS
FIRST NATIONAL BANK: WAUCHULA, FL. 33873	AMMAN BOARD COUNTY CONTINUES :

#O17273# #O63106705#

#01 095 2#

### HARDEE COUNTY **BOARD OF COUNTY COMMISSIONERS**

**412 West Orange Street** Room A-203, Courthouse Annex Wauchula, Florida 33873-2867 (941)773-9430 \* (941)773-6952 \* Fax (941)773-0958

March 03, 1997

Department of Environmental Protection Solid Waste Section Attention: Bob Butera 3804 Coconut Palm Drive Tampa, Florida 33619-8318

Re: Permit Fee Reduction

Dear Mr. Butera:

Pursuant to the Florida State Law 94-278, Hardee County is requesting a permit fee reduction.

Hardee County is currently at the ten mill ad valorem tax cap. Florida Law states that millage greater than eight mills would justify a permit fee reduction or waiver to be granted on the basis of fiscal hardship. Hardee County certifies that the cost of the permit processing fee is a fiscal hardship due to the fact that ad valorem operating millage is greater than eight mills.

Attached you will find the certification of the county millage by the Hardee County Property Appraisers Officer.

Thank you.

Walter B. Olliff, Jr., Chairfraga Board of County Commissioners

Hardee County, Florida

WBO/jw

c: file

Hardee County Solid Waste Dept.

Ed Hilton, PBSJ

edppermitfee

D.E.P.

JUN 27 1997

TAMPA TO INICT

### **RESOLUTION NO. 96-29**

A RESOLUTION ADOPTING THE FINAL MILLAGE RATE FOR HARDEE COUNTY BOARD OF COUNTY COMMISSIONERS FOR FISCAL YEAR COMMENCING ON OCTOBER 1, 1996 AND ENDING SEPTEMBER 30, 1997.

NOW, THEREFORE BE I'I RESOLVED BY THE GOVERNING BOARD OF THE HARDEE COUNTY COMMISSIONERS THAT:

SECTION 1. The Governing Board does hereby adopt its final millage rate of 10 mills to be levied for the general fund upon all real and tangible personal property located within the boundaries of the above named taxing authority

# SECTION 2. THE FINAL LEVY OF 10 MILLS WILL RESULT IN A 9.613 PERCENT INCREASE OF THE ROLLED BACK RATE OF 9.123.

SECTION 3. This final millage rate of 10 mills for the general fund is for the calendar year 1997 to fund the expenses for the fiscal year commencing October 1, 1996 and ending September 30, 1997.

PASSED AND ADOPTED THIS 17TH DA	Y OF SEPT	EMBER 1996.
STATE OF FLORIDA COUNTY OF HARDEE	YES -	BENNY ALBRITTON, CHAIRMAN
THIS IS TO CERTIFY THAT THE FOREGOING IS A TRUE		ABSENT
AND CORRECT COPY OF _Resolution 96-29	•	TED S. WITTER ST. W.
AS ADOPTED BY THE BOARD OF COUNTY COMMISSIONERS	NO -	
OF HARDEE COUNTY THE 17th DAY OF September	<i>\( \bullet \)</i>	WALTER OLLIEF JR.
19_96	YES -	Mino Drym
WITNESS MOUHAND AND OFFICIAL SEAL THIS 19th		MINOR L. BRYANT
DAY US September 1996	•	ABSENT
COLEMON W. BEST, CLERK CIRCUIT COURT		MILTON LANIER
BY: Khargen + W Lowley DC		



D.E.P. JUN 27 1997 TO: Ms. Susan Pelz. P.E. Date June 26, 1997 **FDEP** Job No. INWEST DISTRICT RE HARDEE COUNTY TAMPA WE ARE SENDING YOU X Attached Under separate cover via the following items: **Shop Drawings Prints** Plans Samples Copy of Letter Change Order Specifications Description Copies Date No. \$100 APPLICATION FEE 6/26/97 Hardee County Application for Construction Permit **Construction Drawings** 4 6/26/97 **Technical Specifications** 6/26/97 Construction Quality Assurance Plan 6/26/97 Response to RAI dated May 28, 1997 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 Prints returned after loan to us **REMARKS** SIGNED Maureen Mauriello DISTRIBUTION J.R. Prestridge (Hardee County), File

If enclosures are not as noted, kindly notify us at once.

## HARDEE COUNTY BOARD OF COUNTY COMMISSIONERS

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Room A-203, Courthouse Annex
Wauchula, Florida 33873-2867
(941)773-9430 \* (941)773-6952 \* Fax (941)773-0958

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Board of County Commissioners

Hardee County, Florida

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c: file

Hardee County Solid Waste Dept. Ed Hilton, PBSJ

edppermitfee

D.E.P.
JUN 27 1997

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