

**TRAIL RIDGE
DUVAL COUNTY
FINANCIAL
2001**

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DISTRICT ROUTING SLIP

To: Mary Nogas DATE: 5/10/02

CC To:

	PENSACOLA	NORTHWEST DISTRICT	
	Panama City	Northwest District Branch Office	
	Tallahassee	Northwest District Branch Office	
	Sopchoppy	Northwest District Satellite Office	
	TAMPA	SOUTHWEST DISTRICT	
	Punta Gorda	Southwest District Branch Office	
	Bartow	Southwest District Satellite Office	
	ORLANDO	CENTRAL DISTRICT	
	Melbourne	Central District Satellite Office	
<input checked="" type="checkbox"/>	JACKSONVILLE	NORTHEAST DISTRICT	
	Gainesville	Northeast District Branch Office	
	FORT MYERS	SOUTH DISTRICT	
	Marathon	South District Branch Office	
	WEST PALM BEACH	SOUTHEAST DISTRICT	
	Port St. Lucie	Southeast District Branch Office	

☐ Reply Optional
Date Due: _____

☐ Reply Required
Date Due: _____

☐ Info Only

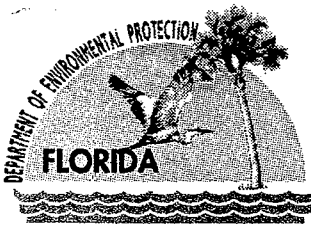
Comments:

FRANK H. PROCTOR
STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE

994-6026

From:

Tel:



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road MS 4565
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

05/10/02

Ms. Shari Shuman
City of Jacksonville
Treasury Division
117 W. Duval Street, Suite 300
Jacksonville, Florida 32202

Re: WACS 00033628 - Trail Ridge Landfill
WACS 00032129 - North Duval Landfill
WACS 00032126 - East Duval Landfill

Dear Ms. Shuman:

I reviewed the fiscal year end 2001 Independent Auditor's Report submitted to demonstrate financial assurance for the above referenced facilities. The September 30, 2001 escrow balance of \$12,300,000 for North Duval, East Duval and Trail Ridge Landfills adequately meets the funding requirements of Rule 62-701.630, Florida Administrative Code (F.A.C.) for the cost estimates dated August 30, 2000.

However, Rule 62-701.630(5), F.A.C., also requires that the audit shall include a list of all deposits and withdrawals made, by date, and indicate the escrow account balances for each landfill separately. This and previous audits submitted have included no such list. To ensure acceptance and approval of future submittals, please direct your auditor to include all required information in the audit report.

In addition, we are not in receipt of cost estimates due between July 1 and September 1, 2001 for North Duval and Trail Ridge Landfills. Please submit updated cost estimates to the Northeast District Office for review and approval, with a copy to the Solid Waste Financial Coordinator at the letterhead address. If you have questions concerning cost estimates, please contact the Northeast District Office. If you have questions concerning financial assurance mechanisms, contact me at (850) 488-0300.

Sincerely,

Frank Hornbrook
Environmental Specialist
Solid Waste Section

FH

cc: Fred Wick, DEP/TLH
Mary Nogas, DEP/JAX
Chris Pearson, Solid Waste Management

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DISTRICT ROUTING SLIP

To: Mary Nogas DATE: 11/9/01

cc To:

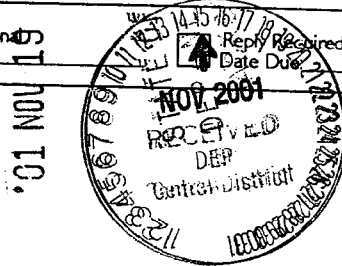
	PENSACOLA	NORTHWEST DISTRICT	
	Panama City	Northwest District Branch Office	
	Tallahassee	Northwest District Branch Office	
	Sopchoppy	Northwest District Satellite Office	
	TAMPA	SOUTHWEST DISTRICT	
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	Gainesville	Northeast District Branch Office	
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	Marathon	South District Branch Office	
	WEST PALM BEACH	SOUTHEAST DISTRICT	
	Port St. Lucie	Southeast District Branch Office	

☐ Reply Optional
Date Due 11/11/01

☒ Reply Required
Date Due 11/11/01

☒ Info Only

Comments:



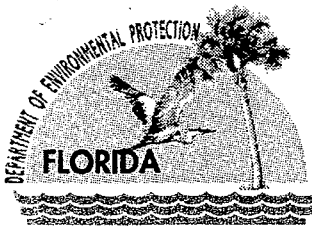
From: Frank Hornbrook

994-6026

From:

Tel:

08-18-93



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road MS 4565
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

November 9, 2001

Ms. Shari Shuman
City of Jacksonville
Treasury Division
117 W. Duval Street, Suite 300
Jacksonville, Florida 32202

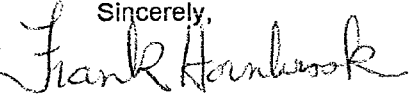
Re: GMS 3116P02787 - Trail Ridge Landfill
GMS 3116M10016 - North Duval Landfill
GMS 3116M10002 - East Duval Landfill

Dear Ms. Shuman:

I reviewed the fiscal year end 2000 Independent Auditor's Report submitted to demonstrate financial assurance for the above referenced facilities. The September 30, 2000 escrow balance of \$11,300,000 for North Duval, East Duval and Trail Ridge Landfills adequately meets the funding requirements of Rule 62-701.630, Florida Administrative Code (F.A.C.).

To comply with Rule 62-701.630(5)(c), F.A.C., in future audits, report all deposits and withdrawals made from the escrow account. In addition, please indicate the escrow account balances and transactions separately for each landfill.

Your last Department approved cost estimates on file are dated August 28, 2000. Facilities using an escrow account to demonstrate financial assurance must provide an annual cost adjustment statement between July 1 and September 1 each year. This statement should be submitted to the Northeast District office for review and approval with a copy to the Solid Waste Financial Coordinator at the letterhead address. If you have questions concerning cost estimates, please contact the Northeast District office. If you have questions concerning financial assurance mechanisms, contact me at (850) 488-0300.

Sincerely,


Frank Hornbrook
Environmental Specialist
Solid Waste Section

FH

cc: Fred Wick, DEP/TLH
Mary Nogas, DEP/JAX



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road MS 4565
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

June 5, 2001

Mr. Richard Cohee
City of Jacksonville
Department of Finance
117 W. Duval Street, Suite 300
Jacksonville, Florida 32202

Re: GMS 3116P02787 - Trail Ridge Landfill
GMS 3116M10016 - North Duval Landfill
GMS 3116M10002 - East Duval Landfill

Dear Mr. Cohee:

A financial assurance file review for the above referenced facilities reveals no fiscal year end 2000 escrow account audit is submitted. Pursuant to Rule 62-701.630(5), Florida Administrative Code (F.A.C.), facilities using an escrow account to demonstrate financial assurance must submit an annual audit of the closing and long-term care landfill management escrow account by March 31 each year. The audit shall be conducted by an independent certified public accountant and consist of reporting the escrow account balance and all deposits and withdrawals made. Within thirty (30) days of the date of this letter, please submit the requested documentation to the Solid Waste Financial Coordinator at the letterhead address.

Remember, facilities using an escrow account to demonstrate financial assurance must provide annual cost estimate updates between July 1 and September 1 each year, in accordance with Rule 62-701.630, F.A.C. These statements should be submitted to the Northeast District office for review and approval, with a copy to the Solid Waste Financial Coordinator.

If you have any questions, please contact me at (850) 488-0300.

Sincerely,

Chad Fetrow
Environmental Specialist
Solid Waste Section

CWF

cc: Mary Nogas, FDEP
Fred Wick, FDEP

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DEP002597



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road MS 4565
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

M E M O R A N D U M

TO: Solid Waste Management Facility Owners and Operators

FROM: Fred J. Wick, Environmental Manager 1
Solid Waste Section

DATE: July 5, 2001

SUBJECT: Updating Cost Estimates for Escrow Account Users

This memo is a reminder to owners and operators of solid waste management facilities that use an escrow account to demonstrate proof of financial assurance that it is time to inflation adjust facility closure cost estimates. If you have already submitted your cost estimate update for 2001, please disregard this notice.

Cost estimate adjustments must be made every year between July 1 and September 1. To fully comply with the filing requirements of Rule 62-701.630, Florida Administrative Code, you must complete Form 62-701.900(28). This form is new and is available on-line at

http://www.dep.state.fl.us/dwm/rules/forms/62-701/financial/701_28.pdf

(note the underscore between 701 and 28), or directly from DEP offices. Remember, if you are adjusting your estimate using the 2000 inflation factor (1.020), you still must submit it on Form 62-701.900(28).

Please submit updated cost estimates to the appropriate district office for review and approval, with a copy to the Solid Waste Financial Coordinator at the address above. Contact your district office for further assistance with cost estimates. If you have any questions about your escrow account, please contact Chad Fetrow at (850) 488-0300.

cc: Mary Jean Yon, DEP/TLH
Mary Nogas, DEP/JAX
Bob Butera, DEP/TPA
Lee Hoefert, DEP/WPB

Jack McNulty, DEP/PEN
Jim Bradner, DEP/ORL
Ghaus Minhaj, DEP/FM

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DEP002598

DISTRICT	FAC NAME	CL DOCU	PCL DOCU
NE	AUCILLA AREA LF	ES	ES
NE	BAKER COUNTY CENTRAL LF		ES
NE	BRADFORD COUNTY CENTRAL		ES
NE	BRYCEVILLE SLF		ES
NE	CAMP BLANDING LF		ES
NE	CENTRAL UNION LF		ES
NE	DIXIE COUNTY CENTRAL LF		ES
NE	DOCTORS INLET LF		ES
NE	EAST DUVAL SLF		ES
NE	GILCHRIST COUNTY LF		ES
NE	HAMILTON COUNTY SLF	ES	ES
NE	HUNTINGTON SLF		ES
NE	INTERLACHEN SLF		ES
NE	JEFFERSON COUNTY SLF		ES
NE	KEYSTONE HEIGHTS CLASS II LF		ES
NE	KEYSTONE HEIGHTS CLASS III LF		ES
NE	LAFAYETTE CO. CENTRAL LF		ES
NE	LEVY COUNTY LANDFILL	ES	ES
NE	LOFTON CREEK LF		ES
NE	LONG BAY LF		ES
NE	MADISON COUNTY CENTRAL LF		ES
NE	NEW RIVER REGIONAL LANDFILL	ES	ES
NE	NORTH DUVAL LANDFILL		ES
NE	OLD KINGS ROAD LF		ES
NE	PUTNAM CENTRAL - PHASE I		ES
NE	PUTNAM CENTRAL - PHASE II & III	ES	ES
NE	ROSEMARY HILL	ES	ES
NE	SOUTHWEST ALACHUA SLF	ES	ES
NE	SUWANNEE COUNTY CENTRAL LF	ES	ES
NE	TAYLOR COUNTY CENTRAL LF		ES
NE	TRAIL RIDGE LANDFILL	ES	ES
NE	WEST NASSAU SLF	ES	ES
NE	WINFIELD SOLID WASTE FACILITY	ES	ES

**England-Thims & Miller, Inc.**

ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

Principals

James E. England, P.E., C.E.O.
Douglas C. Miller, P.E., President
N. Hugh Mathews, P.E., Exec. V.P.
Joseph A. Tarver, Exec. V.P.
Juanita Bader Clem, P.E., V.P.
Jettrey A. Crammond, P.E., V.P.
Scott A. Wild, P.E., P.S.M., V.P.

FAX TRANSMISSION

To: Mary Nogas, P. E.
Dept. of Environmental Protection
Date: March 7, 2001

From: Francis Dayao
Pages: 17, including cover page

Reference: Trail Ridge Landfill - Incremental Closure

ETM No.:

If you do not receive all pages or have difficulty reading this document, please contact Francis Dayao at (904) 642-8990.

Comments:

Dear Mary:

Please find herewith information regarding the quality assurance/quality control plan for the incremental side slope closure. A copy of the letter from your office (dated July 10, 1996) regarding financial assurance is also attached.

We will call you this afternoon to discuss this further.

Sincerely,

England, Thims & Miller, Inc.


Francis

Attachments



Department of Environmental Protection

Lawton Chiles
Governor

Northeast District
7825 Baymeadows Way, Suite 8200
Jacksonville, Florida 32256-7590

Virginia B. Wetherell
Secretary

July 10, 1996

Mr. Chris Pearson
City of Jacksonville
Department of Public Utilities
515 North Laura Street
Jacksonville, Florida 32202

Dear Mr. Pearson:

Trail Ridge Landfill
Financial Assurance for Closure
FDEP Permit Number SC16-184444
Duval County - Solid Waste

The Department has completed review of the financial assurance cost estimate dated August 15, 1995 for the closure of the subject landfill. Since the closure cost estimate is for the top portion of the Class I landfill only, the Department requests that the estimate be adjusted to reflect closure of the entire landfill including the side slopes. Although Specific Condition Number 34 of the subject permit requires installation of the final cover system on the exterior side slopes within 180 days of final waste placement in those areas, the closure cost estimate should include the cost of closing the entire Class I landfill. However, annual closure cost estimates may be adjusted to exclude those areas that have received final cover.

Please call Francis Dayao of my staff or me at telephone number (904) 448-4320, if you have any questions regarding this letter.

Sincerely,


Mary C. Nogas, P. E.
Solid Waste Supervisor

MCN:fd

cc: Juanitta Clem, P. E., England, Thims and Miller, Inc.
Fred Wick, FDEP, Tallahassee



England-Thims & Miller, Inc.

Consulting & Design Engineers
3131 St. Johns Bluff Road So. Jacksonville, FL 32246
904-642-8990

PRINCIPALS

James E. England, P.E. President
Robert E. Thims, V.Pres. Sec
Douglas C. Miller, P.E. V. Pres
N. Hugh Mathews, P.E. V. Pres

September 1, 1993

Ms. Mary C. Nogas, P.E.
Waste Management Section
Northeast District
Department of Environmental Protection
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256

Reference: Trail Ridge Landfill
Permit No. SC16-184444
ET&M No. E93-143

Dear Ms. Nogas:


By this letter and on behalf of Trail Ridge Landfill, Inc., we hereby notify the Department (in accordance with Specific Condition No. 1 of the subject permit) that closure construction of Side Slope Units 5, 6, 7, 8, 9 and 10 will commence on September 7, 1993. The Contractor chosen for this closure construction is J.B. Coxwell Contracting, Inc.

Attached is the Quality Assurance/Quality Control Plan for this project. Upon completion of construction, the necessary QA/QC documentation will be submitted to the Department as a part of the certification documents.

Should you have any questions regarding this information, please do not hesitate to give me or Juanitta Clem a call.

Sincerely,

ENGLAND THIMS & MILLER, INC.


Douglas C. Miller, P.E.
Vice President

attachment

cc: Greg Mathes
Mary Ardif
Jim Lukens
Chris Pearson
Jim Horton

**TRAIL RIDGE LANDFILL CLOSURE
PHASES I AND II
CONSTRUCTION QA/QC PLAN**

This plan addresses the quality assurance and quality control (QA/QC) for the side slope unit closure construction. This plan delineates the quality procedures and standards for the construction.

In the context of this plan, quality assurance and quality control are defined as follows:

Quality Assurance - A planned and systematic pattern of all means and actions designed to provide adequate confidence that items or services meet contractual and regulatory requirements and will perform satisfactorily in service.

Quality Control - Those actions which provide a means to measure and regulate the characteristics of an item or service to contract and regulatory requirements.

The City of Jacksonville is the owner of Trail Ridge Landfill and Trail Ridge Landfill, Inc. is the permittee/operator of the landfill. The landfill began to receive waste in May of 1992. England, Thims & Miller, Inc. is the design engineer. The Contractor for the construction has not been chosen. The name of the Contractor will be provided to the Department of Environmental Protection, once a Contractor is chosen.

The QA/QC Plan for this project includes General QA/QC and Soils QA/QC. The General QA/QC includes periodic observation of the contractor's work to verify substantial compliance with permits, plans, specifications and design concepts. These services will be conducted by England, Thims & Miller, Inc. and will include the following:

General Quality Control Monitor - shall monitor the construction for compliance with the permits, plans, specifications and design including construction to proper lines and grades, maintain weekly progress reports of the construction (including observation data sheets, problem identification and correction logs), make note of any construction deviations, and coordinate qualifying and testing of materials. This individual shall be experienced in civil site construction and solid waste regulations and shall work under the supervisor of the General Quality Assurance Engineer.

General Quality Assurance Engineer - shall supervise the construction monitoring to verify compliance with permits, plans, specification and design concepts. This individual shall be experienced in civil site construction and solid waste regulations/construction and shall be a registered Professional Engineer.

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The General QA/QC includes monitoring the construction and construction sequence of the following activities:

1. General Earthwork
2. Underdrain Installation
3. Drainage Installation
4. Gas Well Installation
5. Sodding/Overseeding
6. General Construction Quality Control
7. Prepare As-Built Drawings and Surveys

The Soils QA/QC for this project includes full-time services to periodically observe the Contractor's work and conduct soil material qualifying and testing to verify substantial compliance with the material standards. This work will be conducted by Law Engineering and will include the following:

Soils Quality Control Monitor - shall pre-qualify soil materials, monitor the installation of soil materials, determine where in-place soil materials shall be tested, and test the in-place soil materials. This individual shall be responsible for assuring that all soil materials have been pre-qualified, prior to installation. This individual shall be experienced in civil site construction and soil testing standards and procedures and shall work under the supervisor of the Soils Quality Assurance Engineer.

Soils Quality Assurance Engineer - shall supervise the soil material pre-qualifying and testing of in-place soil materials to assure compliance with the test standards and testing frequency requirements, and verify compliance with the plans, specification and design. This individual shall be experienced in civil site construction and soil testing procedures and shall be a registered Professional Engineer.

The QA/QC Program includes monitoring the construction of the following:

A. Final Cover Installation (Initial Cover, Compacted Clay Layer and Top Soil)

The final cover shall consist of 18" (minimum) of initial cover, 12" (minimum) of compacted clay, and 24" (minimum) of top soil. The compacted clay layer of the final cover must be tied into any existing compacted clay layers, if applicable and must be placed in two 6" (minimum) lifts. The Soils Quality Control Monitor shall observe the construction of the final cover on a full time (on-site) basis. The QA/QC for the final cover is as follows:

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1. Tie-In to Existing Cover (When Applicable)

- a. **Location -** The edge of any existing final cover adjacent to the proposed final cover area.
- b. **Standard -** The compacted clay layer of any existing final cover and the proposed final cover must be tied together to form one continuous seamless layer.
- c. **Frequency -** The Soils Quality Control Monitor shall monitor the tie-in on a continuous basis.

2. Initial Cover (Compacted Clay Layer Subgrade)

- a. **Location -** Any material used to amend the existing soils shall be pre-qualified at the borrow source.

The soil shall be tested for thickness and density in place after compaction. The location of testing shall be determined by the Soils Quality Control Monitor.

- b. **Standard -** Any material used to amend the existing soils shall be clean granular soil, free from organics, roots, stumps, rocks and any other deleterious materials.

The initial cover shall be at least 18" in thickness (compacted).

Compacted to 90% of Modified Proctor maximum dry density (ASTM D 1557).

- c. **Frequency -** Any soil used to amend the existing soils shall be tested once per 500 CY of material.

Depth measurements shall be taken at the frequency of four measurements per acre for the first five acres. Thereafter, depth measurements shall be taken at the frequency of two measurements per acre.

Density tests shall be conducted at a frequency of four tests per acre for the first five acres. Thereafter, density tests shall be conducted at a frequency of two tests per acre.

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3. Compacted Clay Layer

- a. Borrow Source - Prior to installation of the compacted clay layer, an appropriate borrow source shall be located. Suitability of the construction materials from that source shall be determined in accordance with the following:

(1) If demonstrated field experience is available from at least three prior successful projects of five or more acres each to document that a given borrow source can meet the requirements of the project specifications, then extensive laboratory testing of the borrow source will not be required. However, the source of material shall be geologically similar to and the methods of excavating and stockpiling the material shall be consistent with those used on the prior projects. Furthermore, a minimum of three representative samples from the appropriate thickness of the in-situ stratum or from stockpiles of the borrow material proposed for compacted clay layer construction shall be submitted to an independent soil testing laboratory to document through index testing that the proposed material is consistent with the material used on prior successful projects. At a minimum, index testing shall consist of percent fines, Auerberg limits and moisture content determinations.

(2) If demonstrated field experience as defined above is not available or cannot be documented, then the following requirements shall be met.

(a) A field exploration and laboratory testing program shall be conducted by an independent soil testing laboratory to document the horizontal and vertical extent and the homogeneity of the soil strata proposed for use as compacted clay material. A sufficient number of index tests from each potential borrow stratum shall be performed to quantify the variability of the borrow materials and to document that the proposed borrow material complies with specifications. At a minimum, the index tests shall consist of percent fines, Auerberg limits and moisture content determinations.

(b) Sufficient laboratory hydraulic conductivity tests shall be conducted on samples representative of the range in variability of the proposed borrow source (ASTM D 5084). For each such sample, test specimens shall be prepared and tested to cover the range of molding conditions (moisture content and dry density) required by project specifications. The hydraulic conductivity tests shall be conducted in triaxial type permeameters. The test specimens shall be consolidated under an isotropic consolidation stress no greater than 10 pounds per square inch and permeated with water under an adequate backpressure to achieve saturation of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity

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calculated for each recorded flow increment. The test shall continue until steady state flow is achieved and relatively constant values of hydraulic conductivity are measured (ASTM D 5084). The borrow source will only be considered suitable if the hydraulic conductivity of the material, as documented on laboratory test specimens, can be shown to meet the requirements of the project specifications at the 98 percent confidence level.

- b. **Test Strip** - Prior to full-scale installation of the compacted clay layer, a field test section or test strip shall be constructed at the site above a prepared subbase. The test strip shall be considered acceptable if the measured hydraulic conductivities of undisturbed samples from the test strip meet the requirements of the project specifications at the 98 percent confidence level. If the test section fails to achieve the desired results, additional test sections shall be constructed. The test strip(s) shall be constructed in accordance with the following requirements:
- (1) The test section shall be of sufficient size (20' x 60' minimum) such that full-scale installation procedures can be duplicated within the test section;
 - (2) The test section shall be constructed using the same equipment for spreading, kneading and compaction and the same construction procedures (e.g., number of passes, moisture addition and homogenization, if needed) that are anticipated for use during full-scale installation;
 - (3) At a minimum, the compacted clay layer test section shall be subject to the following field and laboratory testing requirements:
 - (a) A minimum of five random samples of the construction material delivered to the site during test section installation shall be tested for moisture content (ASTM D 2216), percent fines (ASTM D 1140) and Auerberg limits (ASTM D 4318);
 - (b) At least five field density and moisture determinations shall be performed on each lift of the compacted test section;
 - (c) Upon completion of the test section lift, the thickness of the lift shall be measured at a minimum of five random locations to check for thickness adequacy; and
 - (d) A minimum of five Shelby tube or drive cylinder (ASTM D 2937) samples shall be obtained from each lift of the test section for laboratory hydraulic conductivity testing. Laboratory hydraulic conductivity testing shall be conducted in triaxial type permeameters (ASTM D 5084). The

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test specimens shall be consolidated under an isotropic consolidation stress no greater than 10 pounds per square inch and permeated with water under an adequate backpressure to achieve saturation of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity calculated for each recorded flow increment. The test shall continue until steady state flow is achieved and relatively constant values of hydraulic conductivity are measured (ASTM D 5084).

- (e) The test strip shall meet or exceed the standards established below. If the test strip fails to meet these standards, the construction methods and/or material will be rejected and the test strip shall be performed again.
- c. **Compacted Clay Layer Installation** - Full scale compacted clay layer installation may begin only after completion of a successful test section. During construction, quality control testing shall be provided to document that the installed layer conforms to project specifications. The compacted clay layer shall be installed in two 6" (minimum) lifts for a total minimum thickness of 12" (minimum).
 - (1) **Location** - The compacted clay layer shall be tested in place. The locations of testing shall be determined by the Soils Quality Control Monitor. If there are indications of a change in product quality or construction procedures during construction, additional tests shall be performed to determine compliance.
 - (2) **Standard** -
 - (a) **Compacted Clay Layer Subgrade** - Compacted to 90% of Modified Proctor maximum dry density (ASTM D 1557).
 - (b) **Field Density** - The field density of the clay layer shall not be less than 90% of Standard Proctor Density (ASTM D 698).
 - (c) **Thickness** - Each lift (two total) shall be a minimum of 6" thick.
 - (d) **Hydraulic Conductivity** - The compacted clay layer shall have an in-place hydraulic conductivity no greater than 1×10^{-7} cm/sec (ASTM D 5084).

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(3) Field Testing Frequency -

- (a) Prior to the laying of the compacted clay materials, the subbase shall be compacted to the specified density. Density tests shall be conducted at a minimum rate of four tests per acre for the first five acres. Thereafter, density tests shall be conducted at a frequency of two tests per acre;
- (b) A minimum of four moisture content and field density determinations shall be conducted per acre per lift of the compacted clay layer for the first five acres per lift. Thereafter, two moisture content and field density determinations shall be conducted per acre per lift of the compacted clay. The degree of compaction shall be checked using the one-point field Proctor test or other appropriate test procedures; and
- (c) A minimum of eight thickness measurements shall be conducted per acre per lift of the compacted clay layer for the first five acres per lift. Thereafter, four thickness measurements shall be conducted per acre per lift of the compacted clay layer.

(4) Laboratory Testing Frequency -

- (a) Percent fines (ASTM D 1140) of the liner construction material shall be determined at a minimum frequency of four tests per acre per lift of the installed compacted clay layer for the first five acres per lift. Thereafter, the percent fines shall be determined at a minimum frequency of two tests per acre per lift of the compacted clay layer;
- (b) Atterberg limits determinations shall be performed on two samples per acre per lift of the installed compacted clay layer for the first five acres per lift. Thereafter, Atterberg limits determinations shall be performed on one sample per acre per lift of the compacted clay layer; and
- (c) Hydraulic conductivity testing of Shelby tube or drive cylinder (ASTM D 2937) samples of the compacted clay layer shall be performed at a minimum frequency of two tests per acre per lift for the first five acres per lift. Thereafter, hydraulic conductivity testing shall be performed at a minimum frequency of one test per acre per lift. Laboratory hydraulic conductivity tests shall be conducted in triaxial type permeameters (ASTM D 5084). The test specimens shall be consolidated under an isotropic consolidation stress no greater than 10 pounds per square inch and permeated with water under an adequate backpressure to achieve saturation of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity

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calculated for each recorded flow increment. The test shall continue until steady state flow is achieved and relatively constant values of hydraulic conductivity are measured.

- (5) Deficiency - If the test data from a compacted clay layer section does not meet the requirements of the project specifications, additional random samples may be tested from that section. If such additional testing demonstrates that the thickness and hydraulic conductivity meet the requirements of the project specifications at the 95 percent confidence level, that section will be considered acceptable. If not, that section shall be reworked or reconstructed so that it does meet these requirements.

4. Top Soil Layer

- a. Location - The top soil shall be pre-qualified at the borrow source.

After placement, the top soil layer shall be tested in place. The location of testing shall be determined by the Soils Quality Control Monitor.

- b. Standard - Top soil shall have an organic content of at least 1.5 percent but not more than 10.0 percent (ASTM D 2974) and shall have a pH value between 5.0 and 7.0 (ASTM E 70). Top soil shall be suitable for plant growth and reasonably free of brush, weeds, litter, roots, stumps, stones and any other extraneous or toxic matter harmful to plant growth. Roots greater than 3/8" diameter shall be removed.

The top soil layer shall be at least 21" in thickness (compacted).

Compacted to 90% of Modified Proctor maximum dry density (ASTM D 1557).

- c. Frequency - The soil shall be monitored on a continuous basis for extraneous matter.

Organic content and pH shall be tested at the frequency of four tests per acre for the first five acres. Thereafter, the organic content and pH shall be tested at the frequency of two tests per acre.

8/5/93

Rev. 8/13/93

Rev. 8/25/93

Depth measurements shall be taken at the frequency of four measurements per acre for the first five acres. Thereafter, the depth measurements shall be taken at the frequency of two measurements per acre.

Density tests shall be conducted at a frequency of four tests per acre for the first five acres. Thereafter, the density tests shall be conducted at a frequency of two tests per acre.

B. Downcomer Pipes (Clay Encasement)

Downcomer pipes shall be installed in the final cover at the low point of the terraces, to intercept the stormwater between terraces. The downcomer pipes shall include the terrace side drains and terrace underdrain piping.

The downcomer pipes shall be encased in clay as shown on the Construction Drawings. The clay around the pipes shall be compacted into a uniform homogeneous material. Prior to placement of top soil on the downcomer pipes, the pipe shall be inspected by the General Quality Control Monitor.

(1) Location - The compacted clay layer shall be tested in place. The locations of testing shall be determined by the Soils Quality Control Monitor. If there are indications of a change in product quality or construction procedures during construction, additional tests shall be performed to determine compliance.

(2) Standard -

(a) Compacted Clay Layer Subgrade - Compacted to 90% of Modified Proctor maximum dry density (ASTM D 1557) (18" thick).

(b) Field Density - The field density of the clay layer shall not be less than 90% of Standard Proctor Density (ASTM D 698).

(c) Thickness - One foot minimum below pipe.

(d) Hydraulic Conductivity - The compacted clay layer shall have an in-place hydraulic conductivity no greater than 1×10^{-7} cm/sec (ASTM D 5084).

(3) Field Testing Frequency -

(a) Prior to the laying of the compacted clay materials, the subbase shall be compacted to the specified density. Density tests and thickness shall be conducted at a minimum rate of one per 60 L.F. of pipe.

(b) A minimum of one moisture content and field density determination of the compacted clay layer shall be conducted per 60 L.F. of pipe

(c) A minimum of two thickness measures of the compacted clay layer shall be conducted per 60 L.F. of pipe.

(4) Laboratory Testing Frequency -

(a) Hydraulic conductivity testing of Shelby tube or drive cylinder (ASTM D 2937) samples of the compacted clay layer shall be performed at a minimum frequency of one test per 60 L.F. of pipe. Laboratory hydraulic conductivity tests shall be conducted in triaxial type permeameters (ASTM D 5084). The test specimens shall be consolidated under an isotropic consolidation stress no greater than 10 pounds per square inch and permeated with water under an adequate backpressure to achieve saturation of the test specimens. The inflow to and outflow from the specimens shall be monitored with time and the hydraulic conductivity calculated for each recorded flow increment. The test shall continue until steady state flow is achieved and relatively constant values of hydraulic conductivity are measured.

(5) Deficiency - If the test data from a compacted clay layer section does not meet the requirements of the project specifications, that section shall be reworked or reconstructed so that it does meet these requirements.

C. Underdrain Filter Sand

The underdrains in the terraces shall be surrounded by filter sand as shown on the Contract Drawings. The QA/QC for the filter sand is as follows:

1. Filter Sand

a. Location - The material shall be pre-qualified at the borrow source. A chain-of-custody shall be provided via truck tickets from the source to the project site.

The location of the on-site hydraulic conductivity test shall be from on-site stockpile.

b. Standard - Clean, uniformly graded sand with a uniformity coefficient of 1.5 or greater and an effective grain size of 0.2 mm to 0.5 mm. The sand shall have a hydraulic conductivity no less than 1×10^{-3} cm/sec at a density of 100 percent Modified Proctor. The hydraulic conductivity testing shall be by Constant Head Method (ASTM D 2434).

8/5/93

Rev. 8/13/93

Rev. 8/25/93

- c. Frequency - This material shall be pre-qualified at the source at a frequency of 1 test per side slope unit. The hydraulic conductivity of the sand shall be tested once per side slope unit.

D. Gas Wells

Gas wells shall be installed through the final cover at the locations shown on the Construction Drawings. The QA/QC for gas well materials shall be as follows:

1. Gravel

- a. Location - The gravel shall be pre-qualified at the borrow source. A chain-of-custody shall be provided via truck tickets from the source to the project site.

- b. Standard - The gravel shall be clean, well-rounded gravel with no fines. The gravel shall be 1"-3" in size with an average size of 1.5", FDOT No. 2 Course Aggregate (ASTM D 448)

The gravel shall be non-calcareous (ASTM D 4373)

- c. Frequency - The gravel shall be certified by the supplier. The gravel shall be tested once per gas well.

2. Backfill Material

- a. Location - The soil shall be pre-qualified at the source by the Soil Quality Control Monitor.

- b. Standard - The backfill material shall be a cohesionless soil.

- c. Frequency - The soil shall be tested once per gas well.

3. Granular Bentonite

- a. Location - The material shall be pre-qualified at the source with documentation provided to the Soils Quality Control Monitor.

- b. Standard - The material shall be a homogeneous, inorganic material with at least 50 percent, by weight, passing the No. 200 sieve (ASTM D 1140)

The material shall be chemically inert to methane and carbon dioxide gasses, or any gaseous combination thereof.

- c. Frequency - The material shall be certified by the supplier, one time only.



England-Thims & Miller, Inc.

Consulting & Design Engineers
3131 St. Johns Bluff Road So Jacksonville, FL 32246
904-642-8990

PRINCIPALS

James E. England, P.E. President
Robert E. Thims, V.Pres. Sec.
Douglas C. Miller, P.E. V. Pres.
N. Hugh Mathews, P.E. V. Pres.

May 17, 1994

Ms. Mary C. Nogas, P.E.
Waste Management Section
Northeast District
Department of Environmental Protection
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256

Reference: Trail Ridge Landfill
Permit No. SC16-184444
Side Slope Closure Units 9, 10 and 11
ET&M No. E94-17

Dear Ms. Nogas:

By this letter and on behalf of Trail Ridge Landfill, Inc., we hereby notify the Department that the closure construction of Side Slope Units 9, 10 and 11 as required by Specific Condition 34 of the referenced permit shall begin on May 23, 1994. The parties involved in the construction are as follows:

Construction Contractor - J. B. Coxwell Contracting, Inc.
General Quality Assurance Engineer - Juanita Bader Clem, P.E.
Soils Quality Assurance Engineer - James Horton, P.E.
General/Soils Quality Control Monitor - Ken Bunnell

As in the previous closure construction, the field density of the clay layer shall be established by the Soils QA Engineer based upon test strip results and shall be determined by Standard Proctor Density (ASTM D-698). In no case shall the field density be less than 80% of Standard Proctor Density (ASTM D-698). Thus, the field density will be based upon the clay material to be used in the project.

Should you have any questions regarding this construction, please give me a call.

Sincerely,

ENGLAND, THIMS & MILLER, INC.


Juanita Bader Clem, P.E.
Project Manager

cc: Greg Mathes
Scott McCallister
Neil Rushing



England-Thims & Miller, Inc.

ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

April 21, 1997

Principals

James E. England, P.E., Pres
Robert E. Thims, Exec. V.P.
Douglas C. Miller, P.E., Exec. VP
N. Hugh Mathews, P.E., Exec. VP

Ms. Mary C. Nogas, P.E.
Waste Management Section
Department of Environmental Protection
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256

Reference: Trail Ridge Landfill
Incremental Side Slope Closure
FDEP Permit No. SC16-184444
ET&M No. E96-92-4

Dear Ms. Nogas.

By this letter and on behalf of Trail Ridge Landfill, Inc., we hereby notify the Department that the closure construction of Side Slope Units 1, 2-4 (partial), 7-8 (partial), 12-17 (partial), 18-19 and 20 (partial) as required by Specific Condition 34 of the referenced permit shall begin on April 21, 1997. The parties involved in the construction are as follows:

Construction Contractor - R. B. Baker Construction, Inc.
General Quality Assurance Engineer - Juanita Bader Clem, P.E.
Soils Quality Assurance Engineer - James Horton, P.E.
General/Soils Quality Control Monitor - Buckley Williams

As in the previous closure construction, the field density of the clay layer shall be established by the Soils QA Engineer based upon test strip results and shall be determined by Standard Proctor Density (ASTM D-698). In no case shall the field density be less than 80% of Standard Proctor Density. Thus, the field density will be established based upon the clay material to be used in this project.

If you have any questions regarding this construction, please feel free to give me a call.

Sincerely,

ENGLAND, THIMS & MILLER, INC.


Juanita Bader Clem, P.E.
Vice President

cc: Greg Mathes
Scott McCallister
Chris Pearson
Jim Horton

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DISTRICT ROUTING SLIP

To: Mary Nogas

DATE: 3/7/01

CC To:

	PENSACOLA	NORTHWEST DISTRICT	
	Panama City	Northwest District Branch Office	
	Tallahassee	Northwest District Branch Office	
	Sopchoppy	Northwest District Satellite Office	
	TAMPA	SOUTHWEST DISTRICT	
	Punta Gorda	Southwest District Branch Office	
	Bartow	Southwest District Satellite Office	
	ORLANDO	CENTRAL DISTRICT	
	Melbourne	Central District Satellite Office	
<input checked="" type="checkbox"/>	JACKSONVILLE	NORTHEAST DISTRICT	
	Gainesville	Northeast District Branch Office	
	FORT MYERS	SOUTH DISTRICT	
	Marathon	South District Branch Office	
	WEST PALM BEACH	SOUTHEAST DISTRICT	
	Port St. Lucie	Southeast District Branch Office	

☐ Reply Optional
Date Due _____

☐ Reply Required
Date Due _____

☐ Info Only

Comments:

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MAR 09 2001

STATE OF FLORIDA
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT JAX-8080

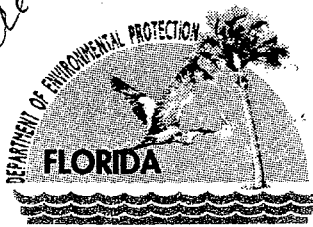
Chad Fetrow

From:

Tel.:

08-18-93

DEP002617



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

MS #4565

David B. Struhs
Secretary

March 7, 2001

Mr. Richard Cohee
City Treasurer
City of Jacksonville
Department of Finance
117 W. Duval Street, Suite 300
Jacksonville, FL 32202

RECEIVED

MAR 09 2001

RE: GMS 3116P02787 - Trail Ridge Landfill, Duval County, Florida
GMS 3116M10016 - North Duval Landfill, Duval County, Florida
GMS 3116M10002 - East Duval Landfill, Duval County, Florida

STATE OF FLORIDA
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT-JAX

Dear Mr. Cohee:

I reviewed the Independent Auditors Report for fiscal year end 1999 submitted to demonstrate financial assurance for the above referenced facilities and find it is in order. The September 30, 1999, escrow balance of \$11,375,679 adequately meets the funding requirements of Rule 62-701.630, Florida Administrative Code.

However, facilities using an escrow account to demonstrate financial assurance must provide an annual cost adjustment statement (estimate update) between July 1 and September 1 each year. The latest District approved or inflation adjusted closure and long-term care cost estimates on file for the Trail Ridge Landfill and the East Duval Landfill are dated December 8, 1999, and February 9, 2000, respectively, and require adjustment. Within thirty (30) days of the date of this letter, please submit new cost estimates to Mary Nogas at the Northeast District office for review and approval, with a copy to the Solid Waste Financial Coordinator at the letterhead address.

Remember, the fiscal year end 2000 escrow account audit is due by March 31, 2001.

If you have any questions, please contact me at (850) 488-0300.

Sincerely,

Chad Fetrow
Environmental Specialist
Solid Waste Section

CWF

cc: Fred Wick
Mary Nogas

Visit our Web Site: [HTTP://WWW.DEP.STATE.FL.US/DWM/PROGRAMS/SWFR/](http://WWW.DEP.STATE.FL.US/DWM/PROGRAMS/SWFR/)

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DEP002618

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DISTRICT ROUTING SLIP

To: Mary Negas DATE: 10/4/00

CC To:

	PENSACOLA	NORTHWEST DISTRICT	
	Panama City	Northwest District Branch Office	
	Tallahassee	Northwest District Branch Office	
	Sopchoppy	Northwest District Satellite Office	
	TAMPA	SOUTHWEST DISTRICT	
	Punta Gorda	Southwest District Branch Office	
	Bartow	Southwest District Satellite Office	
	ORLANDO	CENTRAL DISTRICT	
	Melbourne	Central District Satellite Office	
X	JACKSONVILLE	NORTHEAST DISTRICT	
	Gainesville	Northeast District Branch Office	
	FORT MYERS	SOUTH DISTRICT	
	Marathon	South District Branch Office	
	WEST PALM BEACH	SOUTHEAST DISTRICT	
	Port St. Lucie	Southeast District Branch Office	

☐ Reply Optional
Date Due _____

☒ Reply Required
Date Due _____

☐ Info Only

Comments:

OCT 06 2000

STATE OF FLORIDA
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT

From: Sandra Maddox

Tel.: 891-9973

08-18-93

DEP002619



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road MS 4565
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

October 4, 2000

RECEIVED

OCT 06 2000

STATE OF FLORIDA
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT-JAX

Mr. Richard Cohee
City Treasurer
City of Jacksonville
Department of Finance
117 W. Duval Street, Suite 300
Jacksonville, FL 32202

RE: GMS 3116P02787 - Trail Ridge Landfill
GMS 3116M10016 - North Duval Landfill
GMS 3116M10002 - East Duval Landfill

Dear Mr. Cohee:

A file review of the above referenced facilities reveals no fiscal year end 1999 escrow account audit is submitted. Rule 62-701.630(5), Florida Administrative Code, requires submittal of an annual audit of the closure/long-term care escrow account. The audit shall be conducted by an independent certified public accountant and consist of reporting the escrow account balance and all deposits and withdrawals made. Within thirty (30) days receipt of this letter please submit the annual escrow account audit.

Remember, the fiscal year end 2000 escrow account audit is due by March 31, 2001.

If you have any questions, please contact me at (850) 488-0300.

Sincerely,

Sandra M. Maddi

Sandra M. Maddi
Environmental Specialist
Solid Waste Section

SMM

cc: Fred Wick
Mary Nogas

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DEP002620

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Interoffice Memorandum

NORTHEAST DISTRICT - JACKSONVILLE

TO: Fred Wick *MS 4565*
THROUGH: Mary Nogas, P.E. *MN*
FROM: Sam I. Park *SP*
Solid Waste Engineer
DATE: March 1, 2001
SUBJECT: Trail Ridge Landfill
Review of the Financial Assurance Annual Cost Adjustments
Permit No. 0013493-002-SC

The Department has completed review of the cost estimates (copy enclosed for your files) received on August 31, 2000, submitted to comply with the requirements of Florida Administrative Code Chapter 62-701. The following cost estimates have been approved for the subject facility:

Active Class I Landfill

Closure Construction Cost Estimates - \$ 14,933,272

Annual Long-Term Care Cost Estimates - \$ 770,104

Total Long-Term Care Cost Estimates - \$ 23,103,120 (30 years)

The following is for your information:

Applicant name: Trail Ridge Landfill, Inc.
Contact person: Greg Mathes
Title: District Manager
Phone number: (904) 289-9100

MCN:mb1

Enclosures

cc: Chris Pearson, City of Jacksonville
Juanitta Bader Clem, England Thims & Miller



RECEIVED

TRAIL RIDGE LANDFILL, INC.
A WASTE MANAGEMENT COMPANY

5110 U.S. Highway 301, South
Baldwin, FL 32234-3608
(904) 289-9100
(904) 289-9013 Fax

August 30, 2000

AUG 31 2000

STATE OF FLORIDA
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT-JAX

Ms. Mary C. Nogas, P.E.
Solid Waste Section
Department of Environmental Protection
8925 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256-7590

Reference: Trail Ridge Landfill
Financial Responsibility
DEP Permit Number 0013493-002-SC

Dear Ms. Nogas:

In accordance with Specific Condition 11 of our Permit, we are enclosing two (2) signed and sealed copies of the Florida Department of Environmental Protection Financial Responsibility Documentation.

If you have any questions regarding this documentation, please feel free to give me a call.

Sincerely,

TRAIL RIDGE LANDFILL, INC.

Greg Mathes
District Manager

GM:lh
Enclosures (2)

RECEIVED

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

AUG 31 2000

FINANCIAL ASSURANCE COST ESTIMATES

STATE OF FLORIDA
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT-JAX

Date: August 28, 2000

Date of FDEP Approval: _____

I. GENERAL INFORMATION

Facility Name: Trail Ridge Class I Landfill GMS No.: GMS 3116P02787

Permit No.: 0013493-002-SC (Renewal of SC16-184444) Expiration Date: November 25, 2002

Address (facility): 5110 U.S. Highway 301, Baldwin, FL 32234

Address (mailing): Same as above

Permittee (operating authority): Trail Ridge Landfill, Inc.

Facility Location: Lat. 30° 14' 00" N Long. 82° 02' 30" W

Description of the Solid Waste Disposal Units included: The entire landfill less closed areas (10 Ac±), after Fill Phase 10. (The estimated worse case).

Landfill Acreage included in this Estimate: 134.0 Acres (71.3 acres of top area and 62.7 acres of side slope)

Date Disposal Unit Began Accepting Waste: May 18, 1992 Design Life of Disposal Unit: 20± years

Type of Landfill: Class I

Closure Plan Approved: Yes

II. TYPE OF FINANCIAL DOCUMENT SUBMITTED TO ENSURE FINANCIAL ASSURANCE:

<input type="checkbox"/> Trust Fund Agreement	<input type="checkbox"/> Performance Bond (only for landfills with an approved closure plan)
<input type="checkbox"/> Letter of Credit	<input type="checkbox"/> Standby Trust Fund Agreement
<input type="checkbox"/> Insurance Certificate	<input checked="" type="checkbox"/> Escrow Account
<input type="checkbox"/> Financial Guarantee Bond	<input type="checkbox"/> Other (Explain) _____

III. ESTIMATED CLOSING COST

For the time period in the landfill operation when the extent and manner of its operation makes closing most expensive.

*** Third Party Estimate/Quote must be provided for each item.

*** Costs must be for a third party providing all material and labor.

All items must be addressed. Attach a detailed explanation for all items marked not applicable (N/A).

DESCRIPTION	UNIT	QUANTITY	UNIT COST	SUBTOTAL	TOTAL***
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1. Monitoring Wells: The monitoring wells have been or will be installed prior to closure (as part of operation).

Borehole Excavation	CY				
Backfill	CY				
Gravel Pack	CY				
Casing	LF				
Screen	EA				
Cap	EA				

Subtotal Monitor Wells \$0

2. Slope and Fill:

Excavation	CY	N/A			
Placement/Spreading	SY	648,560	\$0.99/SY ^a	\$642,074	
Compaction	CY	Included with Placement/Spreading			
Off-Site Material	CY	Included as part of operation			

Subtotal Slope and Fill \$642,074

3. Cover Material (Barrier Layer):

(Side Slope) Off-Site Clay	CY	101,156	\$17.70/CY ^b	\$1,790,461	
On-Site Clay	CY	N/A			
(Top Area) Synthetics - 40 mil	SY	345,092	\$2.745/SY ^c	\$947,278	
Synthetics - 30 mil	SY	N/A			
Synthetics - GCL	SY	N/A			

Subtotal Cover Material \$2,737,739

a. Unit price based upon Bid prices from R.B. Baker Construction, Inc. received February 7, 1997 for Closure of Side Slope Units 1-4 and 12-20 and increased by 2% for 1998, 3% for 1999 and 1.015% for 2000 due to inflation.

b. Unit price based upon Bid prices from R.B. Baker Construction, Inc. received April 7, 2000 for Third Construction Increment.

c. Based upon Textured/Two Sides, 40 mil HDPE liner material from Serrot as provided by Jon Edens on August 28, 2000.

DESCRIPTION	UNIT	QUANTITY	UNIT COST	SUBTOTAL	TOTAL***
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4. Top Soil Cover:

Off-Site Material (sand)	CY	115,031	\$6.15/CY ^a	\$707,441	
Off-Site Material (top soil)	CY	317,343	\$9.60/CY ^b	\$3,046,493	
Delivery	CY	Included with Material			
Spreading	CY	Included with Material			
Compaction	CY	Included with Material			

Subtotal Top Soil Cover \$3,753,934

5. Stormwater Control:

Excavation, Grading & Recontouring	CY	8,815	\$5.60/CY ^a	\$49,364	
Stormwater Sideslopes Conveyances	LF	4,450	\$143.27/LF ^b	\$637,552	
Terrace Drains	EA	64	\$4,294/EA ^b	\$274,816	
Underdrain	LF	43,452	\$19.17/LF ^b	\$832,975	

Subtotal Stormwater Control \$1,794,707

6. Gas Migration Control: The Gas Collection System will be constructed during operation.

Wells	FT	44 @ 140 FT	\$124.85/FT ^c	\$769,076	
6" Pipe and Fittings	LF	7,000	\$21.85/LF ^c	\$152,950	
8" Pipe and Fittings	LF	1,300	\$27.31/LF ^c	\$35,503	
10" Pipe and Fittings	LF	4,700	\$31.68/LF ^c	\$148,896	
Control Valves	EA	5	\$2,731.20/EA ^c	\$13,656	
Well Head Assembly	EA	44	\$2,289/EA ^c	\$100,716	
Flare/Blower	EA	1	\$135,259/EA ^c	\$135,259	
Flame Arrestor	EA	Installed during operation			
Mist Eliminator	EA	Installed during operation			
Flow Meter	EA	Installed during operation			
Monitoring Probes	LF	Installed during operation			

Subtotal Gas Migration Control \$1,356,056

- Unit price based upon Bid prices from R.B. Baker Construction, Inc. received April 7, 2000 for Third Construction Increment.
- Unit price based upon Bid prices from R.B. Baker Construction, Inc. received February 7, 1997 for Closure of Side Slope Units 1-4 and 12-20 and increased by 2% for 1998, 3% for 1999 and 1.015% for 2000 due to inflation.
- Unit price based upon Bid price from R.B. Baker Construction, Inc. received on June 29, 1998 for construction of the phase I Gas Management system and increased by 3% for 1999 and 1.015% for 2000 due to inflation.

DESCRIPTION	UNIT	QUANTITY	UNIT COST	SUBTOTAL	TOTAL***
-------------	------	----------	-----------	----------	----------

7. Revegetation:

Sodding	SY	648,560	\$1.83/SY ^a	\$1,186,865	
Soil Preparation/Grading	SY	N/A			
Hydroseeding	AC	Included with Sodding			
Fertilizer	AC	Included with Sodding			
Mulch	AC	N/A			
Subtotal Revegetation					\$1,186,865

8. Landscape Irrigation System: The design does not include an irrigation system.

Pipe and Fittings	LF				
Pumps	EA				
Subtotal Landscape Irrigation System					\$0

9. Security System: The security system was installed as part of operation.

Fencing	LF				
Gate(s)	EA				
Sign(s)	EA				
Subtotal Security System					\$0

10. Engineering:

Closure Plan Report	LS			\$20,000	
Certified Engineering Drawings					
(for construction)	LS			\$250,000	
Closure Permit	LS			\$50,000	
Other (Detail):					
Subtotal Engineering					\$320,000

^a. Unit price based upon Bid prices from R.B. Baker Construction, Inc. received April 7, 2000 for Third Construction Increment.

DESCRIPTION	UNIT	QUANTITY	UNIT COST	SUBTOTAL	TOTAL***
11. Benchmark Installation	EA	<u>Included with Benchmark Survey</u>			
Benchmark Survey	LS			<u>\$20,000</u>	
Subtotal Benchmark Installation					<u>\$20,000</u>
12. Certification of Closure	LS			<u>\$60,000</u>	
Subtotal Certification of Closure					<u>\$60,000</u>
13. Administrative: ^a		Hours	@ \$/Hour		
P.E. Supervisor	HR	<u>104</u>	<u>\$125.00/HR</u>	<u>\$13,000</u>	
On-Site Engineer	HR	<u>1,300</u>	<u>\$75.00/HR</u>	<u>\$97,500</u>	
Office Engineer	HR	<u>208</u>	<u>\$98.00/HR</u>	<u>\$20,384</u>	
On-Site Technician	HR				
Other - (explain)					
	Clerical			<u>\$5,824</u>	
	Expenses			<u>\$10,000</u>	
Subtotal Administrative					<u>\$146,708</u>
14. Quality Assurance: ^a		Hours	@ \$/Hour		
P.E. Supervisor	HR	<u>100</u>	<u>\$105.00/HR</u>	<u>\$10,500</u>	
On-Site Engineer	HR	<u>1,200</u>	<u>\$65.00/HR</u>	<u>\$78,000</u>	
Office Engineer	HR	<u>400</u>	<u>\$90.00/HR</u>	<u>\$36,000</u>	
On-Site Technician	HR	<u>4,800</u>	<u>\$40.00/HR</u>	<u>\$192,000</u>	
QA Testing	LS			<u>\$65,000</u>	
Other - (explain)					
Subtotal Quality Assurance					<u>\$381,500</u>

a. Based upon a construction schedule of 26 weeks.

DESCRIPTION	UNIT	QUANTITY	UNIT COST	SUBTOTAL	TOTAL***
-------------	------	----------	-----------	----------	----------

15. Site Specific Costs (explain):

Waste Tire Facility (if applicable) (3,900 Tons @ \$75.00/Ton)				\$292,500	
Mobilization/Demobilization				\$100,000	
Erosion Control				\$100,000	
Bonds (0.8% of Construction Costs) ^a				\$93,371	

Subtotal Site Specific Costs \$585,871

16. Contingency 15% of Total \$1,947,818

TOTAL CLOSING COSTS \$14,933,272

a. Based upon Bid prices from R.B. Baker, received on February 7, 1997 for closure of Side Slope Units 1-4 and 12-20.

NOTE:

This Opinion of Probable Cost is based upon a final closure after Fill Phase 10, which would require final closure design. Further, this Opinion of Probable Cost is without benefit of final closure design.

CERTIFICATION BY ENGINEER

This is to certify that the Financial Assurance Cost Estimates pertaining to the engineering features of this solid waste management facility have been examined by me and found to conform to engineering principals applicable to such facilities. In my professional judgement, the Cost Estimates are a true, correct and complete representation of the financial liabilities for closing and long-term care of the facility, and comply with the requirements of Florida Administrative Code (FAC), Rule 62-701.630 and other Department of Environmental Protection rules, and statutes of the State of Florida. It is understood that the Financial Assurance Cost Estimates shall be revised and submitted to the Department annually as required by FAC 62-701.630(4).

Signature

Juanitta Bader Clem

Name and Title (please type)

43245

Florida Registration Number (please affix seal)

England, Thims & Miller, Inc.

Company Name

14775 St. Augustine Road

Mailing Address

Jacksonville, Florida 32258

City, State, Zip Code

(904) 642-8990

Telephone Number

Date:

8/28/2000

IV. ESTIMATED COST FOR LONG-TERM CARE

(for 30 yrs., F.A.C. Rule 62-701.600(1)a.1.)

**** Third Party Estimate/Quote must be provided for each item.**

**** Costs must be for a third party providing all material and labor.**

All items must be addressed. Attach a detailed explanation for all items marked not applicable (N/A).

DESCRIPTION	UNIT (A)	QUANTITY (B)	UNIT COST (C)	ANNUAL COST** (D) = (A) x (B) x (C)
1. Groundwater Monitoring	sampling frequency events/yr	# of wells	\$/well/event	\$/yr
Background	1/5 years = 0.2	37	\$1,033 ^a	\$7,644
Quarterly	N/A			
Semi-Annual	2	37	\$340 ^a	\$25,160
Semi-Annual Report	2		\$1,500	\$3,000 ^b
Biennial Report	1/2 years		\$4,200	\$2,100 ^b
Subtotal Groundwater Monitoring				\$37,904
2. Gas Monitoring	sampling frequency events/yr	# of locations	\$/location/event	\$/yr
Monthly	N/A			
Quarterly	4	10	\$38	\$1,520
Semi-Annual	N/A			
Semi-Annual Report	2		\$600	\$1,200
Subtotal Gas Migration Monitoring				\$2,720
3. Leachate Monitoring	sampling frequency events/yr	# of locations	\$/location/event	\$/yr
Monthly	N/A			
Semi-Annual	2	2	\$338 ^a	\$1,352
Composite	4	1	\$814 ^a	\$3,256
Annual				
Subtotal Leachate Monitoring				\$4,608

a. Includes sampling and laboratory analysis.

b. Includes all reporting (groundwater, surface water and leachate).

DESCRIPTION	UNIT (A)	QUANTITY (B)	UNIT COST (C)	ANNUAL COST** (D) = (A) x (B) x (C)
-------------	-------------	-----------------	------------------	--

4. Surface Water Monitoring

Surface Water Monitoring	sampling frequency events/yr	# of locations	\$/location/event	\$/yr
Monthly	N/A			
Quarterly	2	2	\$307 ^a	\$1,228
Semi-Annual Report	Included with the Groundwater Monitoring Report.			
Subtotal Surface Water Monitoring				\$1,228

5. Maintenance of Leachate Collection/Treatment Systems

Collection Pipes	LF	N/A		
Sumps, Traps	EA	N/A		
Lift Stations	EA	N/A		
Tanks	EA	N/A		
Impoundments- Liner Repair	SY	N/A		
Sludge Removal	CY	N/A		
Aeration Systems- Floating Aerators	EA	N/A		
Spray Aerators	EA	N/A		
Off-Site Disposal (include transportation and disposal)	1,000 gal	5,657.5	\$53.06/1000 gal. ^b	\$300,187
On-Site Pretreatment System Maintenance - (Describe)				
Other - (Describe)				
Replace/Maintain Pumps, Panels, Etc.				
Subtotal Leachate Collection/Treatment System Maintenance				\$330,187

a. Includes sampling and laboratory analysis.

b. Annual cost for 1997 has been increased by 2% for 1998, 3% for 1999 and 1.015% for 2000 due to inflation.

c. Unit price based upon Bid prices from R.B. Baker Construction, Inc. received April 7, 2000 for Third Construction Increment.

DESCRIPTION	UNIT (A)	QUANTITY (B)	UNIT COST (C)	ANNUAL COST ** (D)=(A)x(B)x(C)
-------------	-------------	-----------------	------------------	-----------------------------------

6. Maintenance of Groundwater - Assume replacement of one well per year.

Monitoring Wells	LS	1	\$5,625 ^a	\$5,625
Subtotal Groundwater Monitoring Well Maintenance				\$5,625

7. Maintenance of Gas Migration System Assume \$30,000 per year for all Maintenance

Piping, Vents	LF			
Blowers	EA			
Flaring Units	EA			
Meters, Valves	EA			
Subtotal Gas Migration System Maintenance				\$30,000

8. Landscape Maintenance

Mowing	AC	155	\$233.48/AC ^a	\$36,189
Fertilizer	AC	155	\$291.85/AC ^a	\$45,237
Irrigation	AC	N/A		
Subtotal Landscape Maintenance				\$81,426

9. Benchmark Maintenance	EA	N/A		
Subtotal Benchmark Maintenance				\$0

10. Administrative/Overhead

		Hours	\$/Year	
P.E. Supervisor	HR	2,080	\$26.53/HR ^b	\$55,182
On-Site Engineer	HR			
Office Engineer	HR			
On-Site Technician	HR	2,080 x 4	\$19.10/HR ^b	\$158,912
Other (explain):				
Electricity	LS			\$26,532 ^a
- include Leachate Pumps, Blowers, Lighting, etc.				
Subtotal Administrative				\$240,626

a. Annual cost for 1997 has been increased by 2% for 1998, 3% for 1999 and 1.015% for 2000 due to inflation.

b. Labor rates include direct and indirect labor costs, including benefits, etc. The 1997 rates have been increased by 2% for 1998, 3% for 1999 and 1.015% for 2000 due to inflation.

DESCRIPTION	UNIT (A)	QUANTITY (B)	UNIT COST (C)	ANNUAL COST ** (D)=(A)x(B)x(C)
-------------	-------------	-----------------	------------------	-----------------------------------

11. Maintenance of Cover

Seeding, Soil	AC	7.75*	\$1,274/AC ^a	\$9,874
Regrading	AC	Included with Seeding, Soil		
Liner Repair				
Synthetic	SY	Included with Seeding, Soil		
Clay	CY	N/A		
Subtotal Cover Integrity Maintenance				\$9,874

* 5% of the 155 AC landfill.

12. Surface Water Drainage Maintenance

Ditch Cleaning	LF	10,400	\$1.06/LF ^a	\$11,024
Stormwater Conveyance Maint.	EA	1	\$4,882/EA ^a	\$4,882
Subtotal Drainage Maintenance				\$15,906

13. Security System Maintenance

Fences	LF	Assume \$10,000 per year for all maintenance.		
Gate(s)	EA			
Sign(s)	EA			
Subtotal Security System Maintenance				\$10,000

14. Remedial Actions

LS				
Subtotal Remedial Actions				\$0

15. Site Specific Costs (explain)

Subtotal Site Specific Costs				\$0

LONG-TERM CARE COSTS (\$/yr) \$770,104

TOTAL LONG-TERM CARE COSTS (\$) \$23,103,120
(\$/year times required years of long-term care)

a. Annual cost for 1997 has been increased by 2% for 1998, 3% for 1999 and 1.015% for 2000 due to inflation.

CERTIFICATION BY ENGINEER

This is to certify that the Financial Assurance Cost Estimates pertaining to the engineering features of this solid waste management facility have been examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgement, the Cost Estimates are a true, correct and complete representation of the financial liabilities for closing and long-term care of the facility and comply with the requirements of Florida Administrative Code (FAC), Rule 62-701.630 and other Department of Environmental Protection rules, and statutes of the State of Florida. It is understood that the Financial Assurance Cost Estimates shall be revised and submitted to the Department annually as required by FAC 62-701.630(4).



Signature

Juanitta Bader Clem, Vice President
Name and Title (please type)

43245

Florida Registration Number (please affix seal)

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Jacksonville, Florida 32258

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(904) 642-8990

Telephone Number

Date: 8/28/00



01 FEB 27 PM 12 27

STATE OF FLORIDA
DEP - 1E DISTRICT
JACKSONVILLE

August 30, 2000

Copy *ORIGINAL* *REC'D Aug 31, 2000*
TRAIL RIDGE LANDFILL, INC.
A WASTE MANAGEMENT COMPANY

5110 U.S. Highway 301, South
Baldwin, FL 32234-3608
(904) 289-9100
(904) 289-9013 Fax

Ms. Mary C. Nogas, P.E.
Solid Waste Section
Department of Environmental Protection
8925 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256-7590

Reference: Trail Ridge Landfill
Financial Responsibility
DEP Permit Number 0013493-002-SC

Dear Ms. Nogas:

In accordance with Specific Condition 11 of our Permit, we are enclosing two (2) signed and sealed copies of the Florida Department of Environmental Protection Financial Responsibility Documentation.

If you have any questions regarding this documentation, please feel free to give me a call.

Sincerely,

TRAIL RIDGE LANDFILL, INC.

Greg Mathes
District Manager

GM:lh
Enclosures (2)



England-Thims & Miller, Inc.

ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

August 28, 2000

Mr. Greg Mathes
Trail Ridge Landfill
5110 U.S. Highway 301
Baldwin, FL 32234

Principals

James E. England, P.E., C.E.O.
Douglas C. Miller, P.E., President
N. Hugh Mathews, P.E., Exec., V.P.
Joseph A. Tarver, Exec., V.P.
Juanitta Bader Clem, P.E., V.P.
Jeffrey A. Crammond, P.E., V.P.
Scott A. Wild, P.E., P.S.M., V.P.

Reference: Trail Ridge Landfill
Financial Responsibility
ET&M Project No. E98-34-16

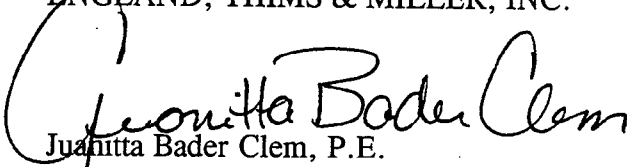
Dear Mr. Mathes:

On behalf of Trail Ridge Landfill, Inc., please find herein three (3) signed and sealed copies of the Florida Department of Environmental Protection Financial Responsibility Documentation for the referenced facility. We hereby request that you submit this documentation to the Department of Environmental Protection on or before September 1, 2000 to be in compliance with Specific Condition 11 of DEP Permit Number 0013493-002-SC.

If you have any questions regarding this documentation, please feel free to give me a call.

Sincerely,

ENGLAND, THIMS & MILLER, INC.


Juanitta Bader Clem, P.E.
Vice President

Attachment

cc: Chris Pearson w/attachment

**STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

FINANCIAL ASSURANCE COST ESTIMATES

Date: August 28, 2000

Date of FDEP Approval: _____

I. GENERAL INFORMATION

Facility Name: Trail Ridge Class I Landfill GMS No.: GMS 3116P02787

Permit No.: 0013493-002-SC (Renewal of SC16-184444) Expiration Date: November 25, 2002

Address (facility): 5110 U.S. Highway 301, Baldwin, FL 32234

Address (mailing): Same as above

Permittee (operating authority): Trail Ridge Landfill, Inc.

Facility Location: Lat. 30° 14' 00" N Long. 82° 02' 30" W

Description of the Solid Waste Disposal Units included: The entire landfill less closed areas (10 Ac±), after Fill Phase 10. (The estimated worse case).

Landfill Acreage included in this Estimate: 134.0 Acres (71.3 acres of top area and 62.7 acres of side slope)

Date Disposal Unit Began Accepting Waste: May 18, 1992 Design Life of Disposal Unit: 20± years

Type of Landfill: Class I

Closure Plan Approved: Yes

II. TYPE OF FINANCIAL DOCUMENT SUBMITTED TO ENSURE FINANCIAL ASSURANCE:

<input type="checkbox"/> Trust Fund Agreement	<input type="checkbox"/> Performance Bond (only for landfills with an approved closure plan)
<input type="checkbox"/> Letter of Credit	<input type="checkbox"/> Standby Trust Fund Agreement
<input type="checkbox"/> Insurance Certificate	<input checked="" type="checkbox"/> Escrow Account
<input type="checkbox"/> Financial Guarantee Bond	<input type="checkbox"/> Other (Explain) _____

III. ESTIMATED CLOSING COST

For the time period in the landfill operation when the extent and manner of its operation makes closing most expensive.

*** Third Party Estimate/Quote must be provided for each item.

*** Costs must be for a third party providing all material and labor.

All items must be addressed. Attach a detailed explanation for all items marked not applicable (N/A).

DESCRIPTION	UNIT	QUANTITY	UNIT COST	SUBTOTAL	TOTAL***
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1. Monitoring Wells: The monitoring wells have been or will be installed prior to closure (as part of operation).

Borehole Excavation	CY				
Backfill	CY				
Gravel Pack	CY				
Casing	LF				
Screen	EA				
Cap	EA				

Subtotal Monitor Wells \$0

2. Slope and Fill:

Excavation	CY	N/A			
Placement/Spreading	SY	648,560	\$0.99/SY ^a	\$642,074	
Compaction	CY	Included with Placement/Spreading			
Off-Site Material	CY	Included as part of operation			

Subtotal Slope and Fill \$642,074

3. Cover Material (Barrier Layer):

(Side Slope) Off-Site Clay	CY	101,156	\$17.70/CY ^b	\$1,790,461	
On-Site Clay	CY	N/A			
(Top Area) Synthetics - 40 mil	SY	345,092	\$2.745/SY ^c	\$947,278	
Synthetics - 30 mil	SY	N/A			
Synthetics - GCL	SY	N/A			

Subtotal Cover Material \$2,737,739

a. Unit price based upon Bid prices from R.B. Baker Construction, Inc. received February 7, 1997 for Closure of Side Slope Units 1-4 and 12-20 and increased by 2% for 1998, 3% for 1999 and 1.015% for 2000 due to inflation.

b. Unit price based upon Bid prices from R.B. Baker Construction, Inc. received April 7, 2000 for Third Construction Increment.

c. Based upon Textured/Two Sides, 40 mil HDPE liner material from Serrot as provided by Jon Edens on August 28, 2000.

DESCRIPTION	UNIT	QUANTITY	UNIT COST	SUBTOTAL	TOTAL***
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4. Top Soil Cover:

Off-Site Material (sand)	CY	115,031	\$6.15/CY ^a	\$707,441	
Off-Site Material (top soil)	CY	317,343	\$9.60/CY ^b	\$3,046,493	
Delivery	CY	Included with Material			
Spreading	CY	Included with Material			
Compaction	CY	Included with Material			
Subtotal Top Soil Cover					\$3,753,934

5. Stormwater Control:

Excavation, Grading & Recontouring	CY	8,815	\$5.60/CY ^a	\$49,364	
Stormwater Sideslopes Conveyances	LF	4,450	\$143.27/LF ^b	\$637,552	
Terrace Drains	EA	64	\$4,294/EA ^b	\$274,816	
Underdrain	LF	43,452	\$19.17/LF ^b	\$832,975	
Subtotal Stormwater Control					\$1,794,707

6. Gas Migration Control: The Gas Collection System will be constructed during operation.

Wells	FT	44 @ 140 FT	\$124.85/FT ^c	\$769,076	
6" Pipe and Fittings	LF	7,000	\$21.85/LF ^c	\$152,950	
8" Pipe and Fittings	LF	1,300	\$27.31/LF ^c	\$35,503	
10" Pipe and Fittings	LF	4,700	\$31.68/LF ^c	\$148,896	
Control Valves	EA	5	\$2,731.20/EA ^c	\$13,656	
Well Head Assembly	EA	44	\$2,289/EA ^c	\$100,716	
Flare/Blower	EA	1	\$135,259/EA ^c	\$135,259	
Flame Arrestor	EA	Installed during operation			
Mist Eliminator	EA	Installed during operation			
Flow Meter	EA	Installed during operation			
Monitoring Probes	LF	Installed during operation			
Subtotal Gas Migration Control					\$1,356,056

- Unit price based upon Bid prices from R.B. Baker Construction, Inc. received April 7, 2000 for Third Construction Increment.
- Unit price based upon Bid prices from R.B. Baker Construction, Inc. received February 7, 1997 for Closure of Side Slope Units 1-4 and 12-20 and increased by 2% for 1998, 3% for 1999 and 1.015% for 2000 due to inflation.
- Unit price based upon Bid price from R.B. Baker Construction, Inc. received on June 29, 1998 for construction of the phase I Gas Management system and increased by 3% for 1999 and 1.015% for 2000 due to inflation.

DESCRIPTION	UNIT	QUANTITY	UNIT COST	SUBTOTAL	TOTAL***
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7. Revegetation:

Sodding	SY	648,560	\$1.83/SY ^a	\$1,186,865	
Soil Preparation/Grading	SY	N/A			
Hydroseeding	AC	Included with Sodding			
Fertilizer	AC	Included with Sodding			
Mulch	AC	N/A			

Subtotal Revegetation \$1,186,865

8. Landscape Irrigation System: The design does not include an irrigation system.

Pipe and Fittings	LF				
Pumps	EA				

Subtotal Landscape Irrigation System \$0

9. Security System: The security system was installed as part of operation.

Fencing	LF				
Gate(s)	EA				
Sign(s)	EA				

Subtotal Security System \$0

10. Engineering:

Closure Plan Report	LS			\$20,000	
Certified Engineering Drawings					
(for construction)	LS			\$250,000	
Closure Permit	LS			\$50,000	
Other (Detail):					

Subtotal Engineering \$320,000

^a Unit price based upon Bid prices from R.B. Baker Construction, Inc. received April 7, 2000 for Third Construction Increment.

a. Based upon a construction schedule of 26 weeks.

DESCRIPTION	UNIT	QUANTITY	UNIT COST	SUBTOTAL	TOTAL***
-------------	------	----------	-----------	----------	----------

15. Site Specific Costs (explain):

Waste Tire Facility (if applicable) (3,900 Tons @ \$75.00/Ton)				\$292,500	
Mobilization/Demobilization				\$100,000	
Erosion Control				\$100,000	
Bonds (0.8% of Construction Costs) ^a				\$93,371	

Subtotal Site Specific Costs \$585,871

16. Contingency 15% of Total \$1,947,818

TOTAL CLOSING COSTS \$14,933,272

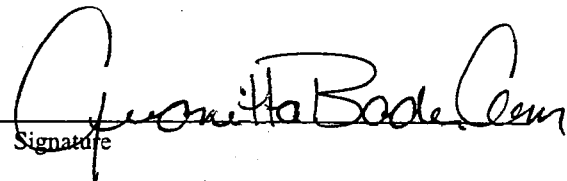
a. Based upon Bid prices from R.B. Baker, received on February 7, 1997 for closure of Side Slope Units 1-4 and 12-20.

NOTE:

This Opinion of Probable Cost is based upon a final closure after Fill Phase 10, which would require final closure design. Further, this Opinion of Probable Cost is without benefit of final closure design.

CERTIFICATION BY ENGINEER

This is to certify that the Financial Assurance Cost Estimates pertaining to the engineering features of this solid waste management facility have been examined by me and found to conform to engineering principals applicable to such facilities. In my professional judgement, the Cost Estimates are a true, correct and complete representation of the financial liabilities for closing and long-term care of the facility, and comply with the requirements of Florida Administrative Code (FAC), Rule 62-701.630 and other Department of Environmental Protection rules, and statutes of the State of Florida. It is understood that the Financial Assurance Cost Estimates shall be revised and submitted to the Department annually as required by FAC 62-701.630(4).


Signature

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Name and Title (please type)

43245
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Date: 8/28/2000

IV. ESTIMATED COST FOR LONG-TERM CARE

(for 30 yrs., F.A.C. Rule 62-701.600(1)a.1.)

**** Third Party Estimate/Quote must be provided for each item.**

**** Costs must be for a third party providing all material and labor.**

All items **must** be addressed. Attach a detailed explanation for all items marked not applicable (N/A).

DESCRIPTION	UNIT (A)	QUANTITY (B)	UNIT COST (C)	ANNUAL COST** (D) = (A) x (B) x (C)
1. Groundwater Monitoring	sampling frequency events/yr	# of wells	\$/well/event	\$/yr
Background	1/5 years = 0.2	37	\$1,033 ^a	\$7,644
Quarterly	N/A			
Semi-Annual	2	37	\$340 ^a	\$25,160
Semi-Annual Report	2		\$1,500	\$3,000 ^b
Biennial Report	1/2 years		\$4,200	\$2,100 ^b
Subtotal Groundwater Monitoring				\$37,904
2. Gas Monitoring	sampling frequency events/yr	# of locations	\$/location/event	\$/yr
Monthly	N/A			
Quarterly	4	10	\$38	\$1,520
Semi-Annual	N/A			
Semi-Annual Report	2		\$600	\$1,200
Subtotal Gas Migration Monitoring				\$2,720
3. Leachate Monitoring	sampling frequency events/yr	# of locations	\$/location/event	\$/yr
Monthly	N/A			
Semi-Annual	2	2	\$338 ^a	\$1,352
Composite	4	1	\$814 ^a	\$3,256
Annual				
Subtotal Leachate Monitoring				\$4,608

a. Includes sampling and laboratory analysis.

b. Includes all reporting (groundwater, surface water and leachate).

DESCRIPTION	UNIT (A)	QUANTITY (B)	UNIT COST (C)	ANNUAL COST** (D) = (A) x (B) x (C)
-------------	-------------	-----------------	------------------	--

4. Surface Water Monitoring

Surface Water Monitoring	sampling frequency events/yr	# of locations	\$/location/event	\$/yr
Monthly	N/A			
Quarterly	2	2	\$307 ^a	\$1,228
Semi-Annual Report	Included with the Groundwater Monitoring Report.			
Subtotal Surface Water Monitoring				\$1,228

5. Maintenance of Leachate Collection/Treatment Systems

Collection Pipes	LF	N/A		
Sumps, Traps	EA	N/A		
Lift Stations	EA	N/A		
Tanks	EA	N/A		
Impoundments-Liner Repair	SY	N/A		
Sludge Removal	CY	N/A		
Aeration Systems-Floating Aerators	EA	N/A		
Spray Aerators	EA	N/A		
Off-Site Disposal (include transportation and disposal)	1,000 gal	5,657.5	\$53.06/1000 gal. ^b	\$300,187
On-Site Pretreatment System Maintenance - (Describe)				
Other - (Describe)				
Replace/Maintain Pumps, Panels, Etc.				\$30,000 ^c
Subtotal Leachate Collection/Treatment System Maintenance				\$330,187

a. Includes sampling and laboratory analysis.

b. Annual cost for 1997 has been increased by 2% for 1998, 3% for 1999 and 1.015% for 2000 due to inflation.

c. Unit price based upon Bid prices from R.B. Baker Construction, Inc. received April 7, 2000 for Third Construction Increment.

DESCRIPTION	UNIT (A)	QUANTITY (B)	UNIT COST (C)	ANNUAL COST ** (D)=(A)x(B)x(C)
-------------	-------------	-----------------	------------------	-----------------------------------

6. Maintenance of Groundwater - Assume replacement of one well per year.

Monitoring Wells	LS	<u>1</u>	<u>\$5,625^a</u>	<u>\$5,625</u>
Subtotal Groundwater Monitoring Well Maintenance				<u>\$5,625</u>

7. Maintenance of Gas Migration System Assume \$30,000 per year for all Maintenance

Piping, Vents	LF	<u> </u>	<u> </u>	<u> </u>
Blowers	EA	<u> </u>	<u> </u>	<u> </u>
Flaring Units	EA	<u> </u>	<u> </u>	<u> </u>
Meters, Valves	EA	<u> </u>	<u> </u>	<u> </u>
Subtotal Gas Migration System Maintenance				<u>\$30,000</u>

8. Landscape Maintenance

Mowing	AC	<u>155</u>	<u>\$233.48/AC^a</u>	<u>\$36,189</u>
Fertilizer	AC	<u>155</u>	<u>\$291.85/AC^a</u>	<u>\$45,237</u>
Irrigation	AC	<u>N/A</u>	<u> </u>	<u> </u>
Subtotal Landscape Maintenance				<u>\$81,426</u>

9. Benchmark Maintenance	EA	<u>N/A</u>	<u> </u>	<u> </u>
Subtotal Benchmark Maintenance				<u>\$0</u>

10. Administrative/Overhead

		Hours	\$/Year	
P.E. Supervisor	HR	<u>2,080</u>	<u>\$26.53/HR^b</u>	<u>\$55,182</u>
On-Site Engineer	HR	<u> </u>	<u> </u>	<u> </u>
Office Engineer	HR	<u> </u>	<u> </u>	<u> </u>
On-Site Technician	HR	<u>2,080 x 4</u>	<u>\$19.10/HR^b</u>	<u>\$158,912</u>
Other (explain):		<u> </u>	<u> </u>	<u> </u>
Electricity	LS	<u> </u>	<u> </u>	<u>\$26,532^a</u>
- include Leachate Pumps, Blowers, Lighting, etc.				
Subtotal Administrative				<u>\$240,626</u>

a. Annual cost for 1997 has been increased by 2% for 1998, 3% for 1999 and 1.015% for 2000 due to inflation.

b. Labor rates include direct and indirect labor costs, including benefits, etc. The 1997 rates have been increased by 2% for 1998, 3% for 1999 and 1.015% for 2000 due to inflation.

DESCRIPTION	UNIT (A)	QUANTITY (B)	UNIT COST (C)	ANNUAL COST ** (D)=(A)x(B)x(C)
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11. Maintenance of Cover

Seeding, Soil	AC	7.75*	\$1,274/AC ^a	\$9,874
Regrading	AC	Included with Seeding, Soil		
Liner Repair				
Synthetic	SY	Included with Seeding, Soil		
Clay	CY	N/A		
Subtotal Cover Integrity Maintenance				\$9,874

* 5% of the 155 AC landfill.

12. Surface Water Drainage Maintenance

Ditch Cleaning	LF	10,400	\$1.06/LF ^a	\$11,024
Stormwater Conveyance Maint.	EA	1	\$4,882/EA ^a	\$4,882
Subtotal Drainage Maintenance				\$15,906

13. Security System Maintenance

Fences	LF	Assume \$10,000 per year for all maintenance.		
Gate(s)	EA			
Sign(s)	EA			
Subtotal Security System Maintenance				\$10,000

14. Remedial Actions

LS				
Subtotal Remedial Actions				\$0

15. Site Specific Costs (explain)

Subtotal Site Specific Costs				\$0

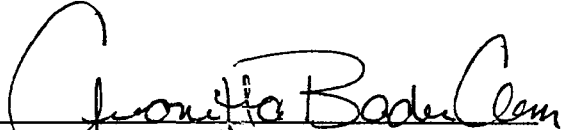
LONG-TERM CARE COSTS (\$/yr) \$770,104

TOTAL LONG-TERM CARE COSTS (\$) \$23,103,120
(\$/year times required years of long-term care)

a. Annual cost for 1997 has been increased by 2% for 1998, 3% for 1999 and 1.015% for 2000 due to inflation.

CERTIFICATION BY ENGINEER

This is to certify that the Financial Assurance Cost Estimates pertaining to the engineering features of this solid waste management facility have been examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgement, the Cost Estimates are a true, correct and complete representation of the financial liabilities for closing and long-term care of the facility and comply with the requirements of Florida Administrative Code (FAC), Rule 62-701.630 and other Department of Environmental Protection rules, and statutes of the State of Florida. It is understood that the Financial Assurance Cost Estimates shall be revised and submitted to the Department annually as required by FAC 62-701.630(4).


Signature

Juanitta Bader Clem, Vice President
Name and Title (please type)

43245
Florida Registration Number (please affix seal)

England, Thims & Miller, Inc.

Company Name

14775 St. Augustine Road

Mailing Address

Jacksonville, Florida 32258

City, State, Zip Code

(904) 642-8990

Telephone Number

Date:

8/28/2000