Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

January 15, 2003

Mr. Greg Mathis
General Manager
Trail Ridge Landfill Inc.
5110 U.S. Highway 301
Jacksonville, Florida 32234

Dear Mr. Mathis:

Trail Ridge Landfill, Inc
Permit renewal and modification request
FDEP File Number 13493-010 and 13493-011
Second Request for Additional Information
Duval County - Solid Waste

The department has reviewed your submittal, received December 16, 2002. The following review is enclosed:

Attachment 1, Review Memorandum, dated January 15, 2003, prepared by Julia Boesch.

The information requested in this review is required for the department to proceed with the processing of your permit application. Please provide the requested information by February 24, 2003. Action on the application will be delayed until the requested information is received in this office. Please reference the associated DEP file number in all written correspondence concerning this project.

If you have any comments concerning this matter, please contact Julia Boesch at the letterhead address or telephone number (904) 807-3356.

Sincerely,

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

MCN:jbl

cc: Juanitta Bader-Clem, P.E., England, Thims, and Miller, Inc.

Memorandum

Florida Department of Environmental Protection

Northeast District – Jacksonville

TO: Files

THROUGH: Mary C. Nogas, P. E.
Solid Waste Section Supervisor

FROM: Julia Boesch

DATE: January 15, 2003

SUBJECT: Trail Ridge Landfill
Permit renewal and leachate recirculation
FDEP File Numbers 13493-010 and 13493-011
Second Request for Additional Information
Duval County- Solid Waste

The Department has reviewed your submittal received on December 16, 2003, and requests the following information:

1. Comment number 1 is no longer applicable since you have withdrawn your proposal to recirculate leachate.

2. Response is adequate.

3. Response is adequate to develop specific conditions to the permit.

4. Please note the department considers your response to be non-responsive; please respond to the original question.

5. Response is adequate to develop a specific permit condition.

6. Please note that the department intends to include the following as a specific condition to the permit: a spotter shall inspect each load of waste as it is being discharged and spread.

7. Please note that with the exception of the adequacy of the equipment, the department considers your response to be non-responsive; please respond to the original question. Please note the department is interested in the minimum personnel that will be provided to handle the proposed waste amounts, including both spotters trained in accordance with FAC Chapter 62-701 as well as those interim spotters who have not received the official training.

8. Response is adequate.

9. Please describe the existing concrete storage area where batteries and other prohibited waste will be stored. Is the storage area a building? If not how will you prevent rainwater from coming into contact with the materials? Please propose the minimum frequency at which batteries and whitegoods will be removed from the site, and indicate by whom they will be removed and to where they will be removed as previously requested. Please indicate where the roll off containers designated for only white good temporary storage will be maintained and if the containers will be covered to prevent rainwater from infiltrating in and potentially causing leachate to seep out the containers? Will the roll offs be stored on an impervious surface? What will be there capacity? Finally, please show and label the temporary storage areas on the site plan.

10. Responses are adequate to develop specific conditions to the permit.

11. Responses are adequate to develop specific conditions to the permit.

12. Responses are adequate to develop specific conditions to the permit.

13. Responses are adequate to develop specific conditions to the permit.

14. The Department encourages the reuse of impacted soils with appropriate environmental safeguards and provisions. In order to determine the adequacy of the safeguards please provide the following at a minimum: Please define the sampling protocols, including frequency and parameters, utilized to determine if soils are impacted and if they are hazardous. Please provide the methodology utilized to determine if the soils are appropriate for usage as cover, based upon nuisance issues such as odor, moisture content, etc. Please provide a scaled drawing showing the location for storage of impacted soils prior to usage and a detailed description of signage and usage. Please list the procedures that will be followed at the facility to ensure the contaminated soil is only used on internal slopes of the lined area. What safeguards will you have in place to prevent it from being inadvertently placed on an external slope? What documentation will you maintain concerning this materials application and temporary storage prior to application?

15. Responses are adequate to develop specific conditions to the permit.

16. Responses are adequate to develop specific conditions to the permit.

17. Responses are adequate to develop specific conditions to the permit.

18. Responses are adequate to develop specific conditions to the permit.

19. Please note that your response does not address the concern as to whether or not the liner system is experiencing a problem that warrants resolutions, i.e., flooding of the geonet, excess leachate head on the liner. Please propose an action leachate leakage rate which if triggered will warrant an evaluation of the system's effectiveness and remedial actions if necessary. Please base this action rate on that rate expected to leak through the primary liner to the leak detection layer as determined in your original liner design calculations for the installed system. Please provide all supporting calculations, documentations and

references to documents previously provided, to justify the acceptable rate versus the unacceptable rate which warrants action. Please note that your calculations shall be based on the leachate head determined in your design calculations.

20. Response is noted.

21. Responses are adequate to develop specific conditions to the permit.

22. Responses are adequate to develop specific conditions to the permit.

Comment Numbers 23-44 are no longer applicable since the applicant has withdrawn the request to recirculate leachate.

45 through 50. Response is adequate to develop specific conditions to the permit.

51. Please address the Rule change that requires interface friction angle testing of the actual materials used for closure. Additionally, please clarify what minimum interface friction angles you are proposing to achieve in the field, and the assumptions used.

52. Please note that the following comments (a) through (e) concern your water balance analysis; the remainder concerns the alternate closure design: (a) Please demonstrate that the top 24-inch layer will act as a lateral drainage layer as you indicate it will in the analysis. Please provide all calculations and documentations to support your demonstration. Also, please indicate and show and label on the drawing sheets, site plan and details, to where fluid that collects in this drainage layer will be conveyed to and how will it be managed from there. Please provide supporting design calculations. Please note the department will request the top 24 inches be tested for hydraulic conductivity after installation to ensure the proposed minimum hydraulic conductivity is being satisfied since you are proposing the material as your lateral drainage layer in the final cover system. Please revise your Quality Assurance/Quality Control Plan to include this testing. (b) Also since your are indicating that the top layer will act as a lateral drainage layer and not a vertical drainage layer, erosion is of concern and whether or not the material will support root growth? Please address these concerns. (c) Please run the Help model program utilizing precipitation data that represents a wet period in time as opposed to a dry period in time. (d) Please justify an evaporative zone depth of 24 inches. (e) Please rerun the HELP model in accordance with the changes requested in comments 51 and 52. (f) Please confirm that the alternate closure design meets the equivalency requirements in the Rule.

53. Response is noted.

54. Please provide a more detailed description of the temporary and permanent gas system, including sequencing of construction and submittals to the department. Please include necessary repairs to the cover system due to installation or repair of the gas system in the CQAP.

55 &56. Comments no longer applicable as applicant has withdrawn the leachate recirculation proposal.

57. Please provide an inspection check list that will list the minimum items and conditions you will observe for during the routine inspections, i.e., erosion, hot spots, slope of the disposal area, ponding of leachate on disposal area, etc. Also, please not only indicate that they will be conducted on a regular basis, but propose a minimum frequency at which the inspections will be conducted and justify the adequacy of that frequency. Please include in your response to inspect the facility after any major storm events in addition to the routine inspections, for erosion and to also inspect the leachate collection storage tanks and containment area for integrity and leachate leaks. Please include the procedures that will be followed in maintaining and repairing damage to the leachate collection and gas collection systems at a minimum, and include the quality assurance plan you will implement in repairing damages to the system. Additionally, please describe how repairs to the liner system will be conducted and documented.

58. Response is adequate.

59. Please provide a more detailed description of the on-site surveying during operations that is conducted to ensure that design elevations and grades are met.

60. Please be more specific in your response.

61. The department understands that you are proposing to construct only access roads that are within the lined disposal area be constructed of slag. Please confirm or deny. If this is a misunderstanding and you intend to utilize the slag outside the liner limits, please be reminded that the only slag to date, which the department district has approved for this use, would be that slag described in the attached letter. Additionally, please note that the described slag shall only be utilized in accordance with the said attached letter.

62. Response is adequate to develop specific conditions to the permit.

63. Please note that the department intends to include a condition indicating that facility shall be policed of litter by the end of each work day. What will be the source of the water you will use to control dust and how will you apply it? If you will use a water truck please indicate if water will be the only material used in the truck.

64. Response is adequate to develop specific conditions to the permit.

65. How will waste material excavated to control a fire be managed? Please address the handling of hot loads and specify where and how hot loads will be isolated.

66. Please be more specific concerning the qualifications of the various CQA personnel.

67. Please propose a minimum frequency at which tires will be removed from the site and not only indicate on a regular basis.

68. This appears to be non-responsive; please address the original question.

69 - 71. Responses are noted.

72. Please breakdown the cost to remove the tires from the site. Please provide letters from third parties quoting the cost that will charge to remove whole tires from the site and to send them to a facility authorized to accept them as well as the costs a facility/entity will charge to process and manage them. The costs shall not reflect any reduced costs. Also, please note that unless the department has accepted in writing the certification of closure construction completion in writing, than the cost estimates to close that area are still required. Please revise your estimates accordingly.

Department of
Environmental Protection

Lawton Chiles
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

Virginia B. Wetherell
Secretary

May 17, 1996

Mr. Robert E. Hice
Environmental Coordinator
Ameristeel
Jacksonville Steel Mill Division
Post Office Box 518
Baldwin, Florida 32234

Dear Mr. Hice:

Ameristeel Slag Disposal
Duval County - Solid Waste

The Department has reviewed your May 16 submittal of the results of the slag column leaching test designed to demonstrate whether or not your mill's processed slag meets the requirements of Section 403.7045(1)(g)(2), Florida Statutes.

These results, in combination with previous results and your confirmation that slag that is collected during furnace maintenance or Melt Shop clean-up or might otherwise be contaminated will continue to be transported to a properly permitted TSDF, provide adequate assurance for the Department to reach the determination that your processed slag may be considered an industrial byproduct under Florida Statutes, and therefore not regulated as solid waste, provided that:

a majority of the processed slag is demonstrated to be sold, used, or reused within one year;

the slag is not utilized in such a manner that it is placed in the environment in a greater than six-foot thickness; and

neither the slag nor your processing operation is found to be a source of pollution.

Thank you very much for your cooperation in this matter. The Department appreciates the responsible and professional manner in which you approached this issue. If you have any questions

concerning the Department's determination, please do not hesitate to contact me at (904)448-4320, extension 355.

Sincerely,

Michael J. Fitzsimmons

Michael J. Fitzsimmons
Waste Program Administrator

MJF:mn

cc: Chris McGuire, Office of General Counsel, DEP

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHEAST DISTRICT
7825 Baymeadows Way, Suite B200
Jacksonville, FL 32256-7590

Interoffice Memorandum

TO: Julia Boesch
Solid Waste

THROUGH: Ken Kohn
Industrial Wastewater

FROM: Dean Setiono
Industrial Wastewater

DATE: January 10, 2003

SUBJECT: Duval County – Stormwater Review
Trail Ridge Landfill – First RAI Response

My stormwater review of the First RAI Response for Trail Ridge Landfill is complete, based upon the information provided on December 16, 2002. Based on my review, comments number 12 in the First RAI Response adequately addressed the capacity, flow rate and velocity for the terrace swales. Therefore additional stormwater RAI regarding the terrace swales will not be necessary.

If you have any questions concerning this matter, please feel free to contact me.

Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Stru
Secretary

CONFERENCE

SUBJECT: Trail Ridge DATE: April 28, 2005

NAME/TITLE	AFFILIATION	PHONE NUMBER
Julia Boesch	DEP	(904) 807-3356
Mark Behel	WMI	904 289-7792
Juanita Glenn	Engineer, Thomas & Miller	642-8990
JEFF SAMUELS	MACTEC	904-396-5173
Jim Horton	MACTEC	904-396-5173
GREG Mathes	WMIF	904-289-9100
Mary Nogg	FDEP	904/807-3355

cc: Files

Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

April 4, 2003

Mr. Greg Mathis
General Manager
Trail Ridge Landfill Inc.
5110 U.S. Highway 301
Jacksonville, Florida 32234

Dear Mr. Mathis:

Trail Ridge Landfill, Inc
Permit renewal and modification request
FDEP File Number 13493-010 and 13493-011
Third Request for Additional Information
Duval County - Solid Waste

The department has reviewed your submittal, received March 17, 2003. The following review is enclosed:

Attachment 1, Review Memorandum, dated April 3, 2003, prepared by Julia Boesch.

The information requested in this review is required for the department to proceed with the processing of your permit application. Please provide the requested information by May 5, 2003. Action on the application will be delayed until the requested information is received in this office. Please reference the associated DEP file number in all written correspondence concerning this project.

If you have any comments concerning this matter, please contact Julia Boesch at the letterhead address or telephone number (904) 807-3356.

Sincerely,

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

MCN:jbl

cc: Juanitta Bader-Clem, P.E., England, Thims, and Miller, Inc.

Memorandum

Florida Department of Environmental Protection

Northeast District – Jacksonville

TO: Files

THROUGH: Mary C. Nogas, P. E.
Solid Waste Section Supervisor

FROM: Julia Boesch

DATE: April 3, 2003

SUBJECT: Trail Ridge Landfill
Permit renewal and leachate recirculation
FDEP File Numbers 13493-010 and 13493-011
Third Request for Additional Information
Duval County- Solid Waste

The Department has reviewed your submittal received on March 17, 2003, and requests the following information:

4. & 7. According to your submittal, one spotter can inspect forty 8.45-ton trucks per hour, while a laborer can manage waste (remove) from 24 trucks each hour. This appears to be an extremely high amount of waste for one individual to be able to effectively spot. Please provide documentation to support your numbers, or revise your matrix.

In your comment number 4, you indicate that the matrix was developed based upon the number of trucks and waste received, while the number of spotters and laborers that are currently being provided appear to not be included in its development. Please address.

In your response when you indicate that the number of spotters and laborers needed are to one decimal point, i.e., 1.2, will you provide the minimum number of people rounded up, i.e., 2 people? Please address.

9. Please clarify if batteries received at the site will be stored on pallets in the existing concrete storage area.

In the event that more water is collecting than evaporating, what measures will you implement to prevent water from reaching the elevation of the pallets?

Please note, drawing sheet 4 reflects various future areas. Please note that those areas were not reviewed in this application.

14. In your response, you indicate that contaminated soil you will use as initial cover will be stored within the landfill lined area on top of existing in-place waste. Please clarify if you intend to store this material in waste areas that have received initial, intermediate and/or final cover on it and address. How will you remove the soil for initial cover without also removing waste or portions of the existing in-place underlying cover material?

    Please note, your proposal is not acceptable, as you are not proposing to provide the department with analytics of contaminated soil prior to its disposal or reuse, i.e., as initial cover, at the facility. Please propose to do so. Please develop and provide a soil-screening matrix that will reflect the cases in which you will or will not provide the department with analytical results prior to its use or disposal at the facility.

19. You indicate that leachate flows will be recorded Monday through Friday. Please note that they also should be recorded on Saturday and Sunday. Please propose to provide and maintain recording flow meters and address. Please show in the site plan their location. Please note your proposal to not notify the department of an exceedance unless the maximum rate is exceeded for more than 5 consecutive days is not acceptable. Please propose to notify the department if the maximum rate is ever exceeded and to notify the department by telephone within 24 hours of the discovery and in a follow-up report within 7 days. Additionally, if the allowable rate is exceeded even on just one day, please propose to conduct an investigation and implement remedial actions if warranted.

    What is the storage capacity of the sumps and can they handle the proposed leachate action rate? Please address. Please confirm that the pumps are operated automatically. Also, please propose to maintain logs recording when a pump is out of service for repairs/maintenance and when replaced. Please propose to provide such logs to the department.

    Please clarify what you mean by "cell" in Attachment C.

    Are you able to measure the leachate flow from each cell? Please address.

    Please provide all supporting calculations including those you conducted to determine Q. Also, please indicate and justify how you determined each of the values factored into the equations, i.e., h, B, beta, geonet thickness, and etc. Please also clarify what each factor represents. For example Q stands for flow rate. Additionally, please justify all equations used. Finally, please note that a trigger rate 5 times the determined rate appears excessive. Please either justify that rate or propose a new one.

    Do you have backup pumps at each of the pumping stations? If a pump is out for service, how does that affect the system?

51. Please note that the department does not find a factor of safety of 1.5 acceptable for this site. In evaluating whether a factor of safety is adequate for a site, various factors should be considered. Two of which are 1) the potential consequence of a slope failure, and 2) the confidence of the selected values. Both of these factors appear to have not been considered in your selection of the factor of safety thereby indicating it is too low. Regarding the selected values, it appears that neither the impact of seepage on the driving force or the long-term condition cohesion was accounted for in your evaluation, which reduces the department's confidence in them. Please either select a higher factor of safety in which these factors are accounted for and provide a discussion on your selection, or propose additional testing to determine these values and address.

    Please revise the Quality Assurance/Quality Control Plan For Side Slope Closure, Attachment E, page 4, in which you propose to provide a factor of safety of 1.5, considering the department's concern and provide.

    Also, please propose and revise the plan to indicate that all interfaces of the final cover system, including the clay with the intermediate cover, will be tested for shear strength. Please address and revise the plan to include the internal friction angle tests that will be conducted on the other materials of the final cover system as well.

    Please revise the Quality Assurance/Quality Control Plan For Side Slope Closure, Attachment E, page 4, to indicate that the shear testing will be conducted in wetted/saturated and unconfined conditions by an approved third party qualified laboratory. In other words, testing shall be conducted in a manner that will allow the clay to swell in submerged, close to saturated conditions, to emulate conditions similar to that of a long storm.

    Please also amend the QA/QC plan to indicate that the clay and other material, if applicable, will be tested for its cohesion as well as adhesion values and what values they must exhibit to be considered acceptable. Please also describe and identify the testing that will be conducted.

    Your table 2 lists the angle of internal friction but does not also list the interface friction angle; please address.

    Please identify and justify the equations used.

    In your analysis please also evaluate the potential for deep-seated rotational or translational failures through the final cover system and waste.

    Please show the surface boundary you are modeling. Also, please show the failure surfaces and the points of convergence at a minimum.

    How will the gas management system, especially the header pipes you are proposing to install above grade, impact slope stability?

52. Response is noted.

54. Drawing sheets 14 and 15, provided September 2003, reflect gas wells but do not appear to reflect the header pipes you refer to. Please clarify when the header pipes will be constructed. Furthermore, it is not clear what you mean by temporary extraction wells and headers. Will they be removed or will they remain and become part of the permanent gas management system? Please clarify. Are you still proposing interim wells? If so, please address. If the header pipes will not be installed until after the final cover system is in place, impact to the cover system is of concern. What vehicles, if any, will be allowed to drive over the cover system during header pipe construction? What measures will you implement during their installation to minimize final cover system impact? Please address. Also, neither the Quality Assurance/Quality Control Plan for Side Slope Closure or the Quality Assurance/Quality Control Plan for Long-term care includes the construction or repairs to the temporary nor permanent gas management system, respectively. Please include and provide.

    Furthermore, please note that the design for the temporary system will need to be provided to the department's solid waste section and approval obtained by the permittee prior to installation. Please provide details of both the temporary and proposed systems and how they will be installed relative to the final cover system.

    Finally, please note that the department understands that you are proposing to install the gas collection system and manage the gas condensate as permitted in accordance with specific condition number 17 of the existing system. Please confirm or deny. If this assumption is incorrect, please address.

    Please revise the Quality Assurance/Quality Control Plan for Long-term care to include how the horizontal extent of impact to the cover system in addition to the vertical extent of impact will be determined.

57. Please note that quarterly inspections are too infrequent while 14 days to initiate repairs is too excessive. Also, the inspection checklist did not include a category for the active areas. Please note erosion, ponding of leachate, hot spots, etc. are some of the conditions the facility shall inspect for.

59. You indicate that you may use plastic pipes to stake the grades and slopes. Will they have elevations marked on them? Will the field personnel be trained to know how to read the stakes and to know when waste is placed at its final grade? Please address. What measures will the facility employ to maintain these stakes at their staked location?

    If the facility discovers during the re-staking that its slopes and grades allow for additional waste placement, please address the measures the facility will implement in re-contouring the slopes and ensuring they will be stable.

60. You indicate that during wet weather an area within the lined area that is accessible will be used. Will you limit yourself to interior slopes? How will you minimize the ponding of leachate in waste and also prevent the mixing of leachate in stormwater if you continue to operate during wet weather? Who will select the area? Will you limit yourself to areas that have initial but not intermediate cover? How will you manage the wet weather area; will you apply initial cover; intermediate cover?

61. Please note that the department intends to include a specific condition to the permit that will require the facility to record the sources from where slag is accepted and the location where slag from a specific source is used.

63. Response is adequate to develop specific conditions to the permit.

65. Please clarify that the waste excavated to control a fire will be replaced after it is extinguished and any waste on fire will not be placed in contact with other waste. Additionally, you propose to discharge a hot load within the active lined area where there is a minimum of 12 inches of cover. Are you referring to areas that have intermediate cover? If so, how will that impact the intermediate cover and grade of slope? Will you remove the waste once extinguished to the active area? Will you repair the intermediate cover where needed? Please further address the managing of hot loads and address these comments at a minimum in your response.

66. Response is adequate to develop specific conditions to the permit.

67. Response is noted

68. Response is noted.

72. Response is noted.

DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

NORTHEAST DISTRICT - JACKSONVILLE

TO: Larry Morgan, Office of General Counsel

THROUGH: Mike Fitzsimmons

FROM: Sally Heuer

DATE: 3/26/03

SUBJECT: Trail Ridge

County: Duval (not Alachua)

OGC Case No. 97-1915 (see 97-1914) Request for extension to file a petition for hearing
Case Closure Request

All provisions of the subject Consent Order/Notice of Violation have been met; therefore, it is requested that the case be closed.

Amount of assessment, if any $_____

Paragraph No.	Date Complete	Comments

cc: Project File
LCTS Closure File
Ollie Henderson, Administration

Boesch, Julia

From: Juanitta Clem [ClemJ@etminc.com]
Sent: Thursday, August 07, 2003 4:09 PM
To: Boesch, Julia
Cc: Achaya Kelapanda (E-mail); Greg Mathes (E-mail); Mark Behel (E-mail)
Subject: Trail Ridge Landfill

LeakageRevised2.doc

Dear Julia:

Please find herewith the revised Primary Liner Leakage calculations for the referenced project. I apologize for the conversion error in the previous calculations. I will have original copies delivered to you tomorrow morning.

Juanitta Clem
ENGLAND, THIMS & MILLER, INC.

<<LeakageRevised2.doc>>

Trail Ridge Landfill
Primary Liner Leakage

Although geomembranes have very low permeability, they still allow some leakage. Leakage through geomembranes can occur due to pinholes and larger holes (holes larger than the geomembrane thickness). The leakage due to pinholes is negligible compared to the larger holes and is therefore ignored. The leakage due to large holes can be calculated by Bernoulli's equation for flow through an aperture, as follows:

$$Q = 0.6\ a\ \sqrt{2gh}$$

Where:
- Q = Leakage rate through one geomembrane hole
- a = Area of geomembrane hole
- g = Acceleration of gravity = 9.81 m/s^2
- h = Head of liquid on top of geomembrane

Say:

a = 1 cm^2 (per acre) = 1 x 10^{-4} m^2

h = 5.6 mil* = 0.0056 in = 1.42 x 10^{-4} m

* The maximum head on the liner as determined in the First Permit Renewal, Appendix E, October 28, 1996.

Therefore:

$$Q = (0.6)\ (1 \times 10^{-4}\ m^2) \sqrt{\ 2\ (9.81\ m/s^2)\ (1.42 \times 10^{-4}\ m)}$$

$$Q = 3.17 \times 10^{-6}\ m^3/sec\ \text{(per acre)}$$

$$Q = 72.51\ \frac{\text{gallons}}{\text{day}}\ \text{(per acre)}$$

Assume a trigger rate at 3.5 times this rate.

$$Q_{Max} = 253.8\ \frac{\text{gallons}}{\text{day}}\ \text{(per acre)} = 1.11 \times 10^{-5}\ m^3/sec\ \text{(per acre)}$$

Check to make sure the geonet can handle the trigger rate leakage.

$t_{LCL} = (Q / k)^{1/2}$ (J.P. Giroud, 1997)

Where:

k	=	θ/t
t_{LCL}	=	Minimum Thickness of Secondary Geonet
Q	=	Maximum Flow Rate for Secondary Geonet
k	=	Hydraulic Conductivity of Secondary Geonet
θ	=	Hydraulic Transmissivity of the Secondary Geonet (m^2/sec)
t	=	Thickness of Secondary Geonet

Say:

θ	=	2.26×10^{-3} m^2/sec
t	=	200 mil = 0.2 inches = 5.1×10^{-3} m
Q	=	1.11×10^{-5} m^3/sec

Therefore:

k	=	$(2.26 \times 10^{-3}$ m^2/sec) / $(5.1 \times 10^{-3}$ m) = 0.44 m/sec
t_{LCL}	=	$(1.11 \times 10^{-5}$ m^3/sec / 0.44 m/sec)$^{1/2}$ = 5.02×10^{-3} m
	=	197.7 mil

Since the geonet has a minimum thickness of 200 mil, the geonet can handle the flow.

The smallest cell is 17.7 acres, so the flow per cell is:

$$Q_{Total} = 253.8 \frac{\text{gallons}}{\text{day} * \text{ac}} * 17.7 \text{ ac}$$

$$\Rightarrow 4{,}492.3 \frac{\text{gallons}}{\text{day}} \text{ per cell}$$

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.
Juanitta Bader Clem, P.E., V.P.
Scott A. Wild, P.E., P.S.M., V.P.

September 14, 2001

Mr. Tom Griffin
Regulatory and Environmental Services Department
City Hall - St. James Building
117 West Duval Street
Jacksonville, Florida 32202

Reference: Trail Ridge Landfill
Landfill Incremental Closure
ET&M No. E00-117-01

Dear Mr. Griffin:

Trail Ridge Landfill Inc. will be conducting an incremental closure project at Trail Ridge Landfill, which will include expansion of the landfill gas system. This project will include drilling, trenching and other operations within the waste disposal unit and during these operations, regulated asbestos containing material may be encountered.

On behalf on Trail Ridge Landfill Inc., we hereby provide notification to the Department, in accordance with 40 CFR Part 61.154, prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at Trail Ridge Landfill. The proposed start date is currently set for November 1, 2001 and the project is expected to be complete by July 1, 2002. Notification of the presence of asbestos will be provided to the contractor as part of the contract documents. If asbestos is encountered, the contractor will be expected to follow the attached procedures.

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

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Juanitta Bader Clem

Juanitta Bader Clem, P.E.
Vice President

Attachment

cc: Mary Nogas, Department of Environmental Protection
Christopher Kirts, Department of Environmental Protection
Greg Mathes, Trail Ridge Landfill
Chris Pearson, City of Jacksonville
Richard L. Robinson, P.E, City of Jacksonville, RESD

ASBESTOS HANDLING PROCEDURES

If asbestos is encountered during drilling operations or excavation, the following waste handling procedures will be implemented:

a. If, when working outside of the areas where asbestos waste is known to have been deposited, any waste appearing to possibly contain asbestos is uncovered, all asbestos handling procedures will be immediately placed into effect.

b. All persons within 50 feet of the drilling operations or excavation will be required to wear the appropriate respirators.

c. The use of Tyvek suits will be required. All Tyvek suits will be considered to be contaminated with asbestos and will be disposed of accordingly.

d. A water truck equipped with the appropriate spraying equipment needed to keep the drill cuttings or excavation wet will be required at all times.

e. An area of appropriate size will be prepared to contain the cuttings and excavated material by one of the following methods.

   1) A waste container lined with 6 mil polyethylene will be placed as close as reasonably possible to the well being drilled or the excavation. A small area next to the drill rig where drill cuttings will be handled will also be lined with 6 mil polyethylene and covered with clean earthen material to protect the polyethylene. A small earthen berm will be made to help contain the cuttings and facilitate loading into the container. The polyethylene and earthen cover will be considered to be part of the waste.

   2) An area next to the drill rig or the excavation that is appropriately sized to accommodate all of the drill cuttings and excavated material will be surrounded by a small earthen berm approximately 30" high. This area will then be lined with 6 mil polyethylene and covered with clean earthen material to protect the polyethylene. This area will be positioned in a way such that all handling of cuttings will be in the protected area. The polyethylene and earthen material will be considered to be part of the waste.

f. Warning signs shall be posted to demarcate the area described in e. above.

g. All cuttings and excavated material that are not already damp upon removal from the wellbore or excavation will be immediately wetted.

h. After wetting, all cuttings and excavated material will then be immediately placed into the container or moved to a different part of the storage area (if needed).

i. All cuttings and excavated material will be kept damp and covered.

j. After the container is filled, the well or excavation is completed, or at the end of the work day, a representative sample will be taken of the waste. This waste will then be tested by a certified testing laboratory for asbestos using the polarizing light microscopy method. While waiting for the test results, all waste will be kept damp and covered.

k. If test results indicate greater than one (1) percent asbestos, the waste will be handled and disposed of as asbestos waste. This will include keeping the waste wetted and covered as it is transported to another portion of the landfill. If asbestos waste is handled, all equipment that contacted the waste must be decontaminated in an acceptable manner prior to leaving the landfill site.

l. The Site Manager shall be notified of the status of the asbestos containing waste material and complete appropriate special waste paperwork, prior to disposal. Once the documentation has been completed, the waste shall be disposed of in the designated area for asbestos disposal in accordance with landfill procedures.

m. If test results indicate less than one (1) percent asbestos, the waste will be tested as normal MSW and disposed of at the normal working face of the landfill.

n. An alternative to sampling and testing the waste will be to assume that the waste contains asbestos and to handle and dispose of accordingly.

England-Thims & Miller, Inc.

ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

01 AUG 30 PM 1 01

STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE

August 30, 2001

sdlD

Ms. Mary Nogas, P. E.
Northeast District Office
Department of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256-7590

Reference: Trail Ridge Landfill
Certification of Construction Completion – Phases VA, VB, VC and VD
ET&M Project No. 00-079-04

Dear Ms. Nogas:

We have received a copy of your letter dated August 15, 2001 regarding the construction certification and the results of the Department's construction completion inspection of the referenced project. Based upon our meeting on August 20, 2001 and on behalf of Trail Ridge landfill, Inc., we hereby provide the following remedial actions as requested:

a. Permeability testing and thickness verification of the protective sand layer will be conducted in the area of the Phase VA repair to ensure that the sand layer is in conformance with the Quality Assurance/Quality Control Plan for the project. It should be noted that no new sand material was required to complete the repair and a Quality Control monitor was present during the repair work. This permeability testing and thickness verification will be completed and the documentation submitted to the Department within 21 days.

b. Prior to placement of waste in a new Phase, silt or other soil deposits on the surface of the protective sand layer will be removed and the thickness of the underlying protective sand layer will be checked to ensure the minimum 24 inch thickness. Upon completion, the Department will be notified so the Department can conduct a site inspection. To avoid delay in landfill operations, it is requested that the site inspection be conducted within forty-eight (48) hours of notification. Documentation of the removal and thickness verification will be provided to the Department by a Professional Engineer (signed and sealed).

On behalf of Trail Ridge Landfill, Inc., we hereby request the Department's approval of the certification documents for Phases VA, VB, VC and VD of Trail Ridge Landfill. If you have any questions, please feel free to give me a call. Thank you for your assistance.

Sincerely,
ENGLAND, THIMS & MILLER, INC.

Juanitta Bader Clem

Juanitta Bader Clem, P. E.
Vice President

cc: Greg Mathes
Chris Pearson

14775 ST. AUGUSTINE RD. • JACKSONVILLE, FL 32258 • TEL: (904) 642-8990 • FAX: (904) 646-9485

Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

August 15, 2001

CERTIFIED - RETURN RECEIPT

Greg Mathes
Trail Ridge Landfill, Inc.
5110 U.S. Highway 301
Baldwin, Florida 32234

Dear Mr. Mathes:

Trail Ridge Landfill-Phases VA, VB, VC and VD
Certification of Construction Completion
FDEP Permit Number 0013493-002-SC
Duval County – Solid Waste

The department acknowledges receipt of the following documents submitted pursuant to Florida Administrative Code Chapter 62-701 and Specific Condition Number 15 of the subject Permit:

1. "Record Documentation Report for Geosynthetic Quality Assurance of Construction of Phases VA, VB, VC and VD Third Construction Increment Trail Ridge Landfill, Baldwin, Florida," Volume I and II, signed by Francis T. Adams, P.E., prepared by Golder Associates, Inc., received July 13, 2001.

2. "Trail Ridge Landfill Phases VA, VB, VC and VD. Quality Assurance and Quality Control Documentation," signed by Juanitta B. Clem, P.E., prepared by England, Thims & Miller, Inc., received July 13, 2001.

3. "Certification of Construction Completion of a Solid Waste Management Facility," form dated July 13, 2001, signed and sealed by Juanitta B. Clem, P.E., prepared by England, Thims & Miller, Inc., received July 13, 2001.

4. As-Built Survey, "Trail Ridge Landfill Phases VA, VB, VC and VD," signed and sealed by Joseph L. Reynolds III, P.S., received July 13, 2001.

In addition to the department's review of the aforementioned documents, department staff conducted a construction completion inspection of Phases VA, VB, VC and VD of the Trail Ridge Landfill on August 10, 2001. Based on the department's inspection and visual observations, the department has the following comments:

- top of Protective Sand Blanket did not grade positively and uniformly;
- isolated areas of ponded water, following previous rains, were observed in Phases VC and VD;
- vehicles had driven across the Phases VC and VD. The vehicular tracks have further impeded flow in the leachate collection system;
- the top of Phase VA was spread with material that had the consistency of sand and clay;
- the surface of Phases VB, VC and VD has sediment deposits;
- the surface of Phase VC was covered with numerous cracks.

The department is requesting that remedial action be taken. The surface of Phases VA, VB, VC and VD need to be resurfaced. Laboratory testing of the protective sand blanket material shall be resubmitted to the department. You are requested to respond, in writing, within ten (10) days of receipt of this letter, addressing the issues herein. Your response should also include a description and schedule of the steps that have been or are being taken to meet each rule requirement and prevent the recurrence of improper protective sand blanket placement.

If you have any comments concerning this matter, please contact Michael Bogin at the letterhead address or telephone number (904) 807-3365.

Sincerely,

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

MCN:mbl

cc: Juanitta B. Clem, P.E., England, Thims & Miller, Inc.
Chris Pearson, City of Jacksonville

England-Thims & Miller, Inc.
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

'01 SEP 17 PM 3 59

STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE

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.
Scott A. Wild, P.E., P.S.M., V.P.

September 17, 2001

Ms. Mary Nogas, P. E.
Northeast District Office
Department of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256-7590

Reference: Trail Ridge Landfill
Certification of Construction Completion – Phases VA, VB, VC and VD
ET&M Project No. 00-079-04

Dear Ms. Nogas:

As agreed upon in our meeting on August 20, 2001 and on behalf of Trail Ridge Landfill, Inc., we hereby provide the following documentation of the repair to the sand layer in Phase VA of Trail Ridge Landfill. This documentation demonstrates that the sand layer in the repair area is in conformance with the Quality Assurance/Quality Control Plan, which requires a minimum of 24 inches of soil with a minimum permeability of 1×10^{-3} cm/sec. The documentation includes the following:

a. The area was repaired using sand material from the original construction of the phase and all work was conducted in the presence of a quality control monitor from England, Thims and Miller, Inc.
b. Thickness verification of the protective sand layer was conducted in the repair area by the quality control monitor to verify that the sand layer is in conformance with the Quality Assurance/Quality Control Plan for the project. Please see the attached Phase VA Site Plan as well as the Repair Area Site Plan, which includes the thickness verification results.
c. Law Engineering and Environmental Services, Inc. conducted permeability testing of the in-place sand in the repair area to verify that the sand is in conformance with the Quality Assurance/Quality Control Plan for the project. The results are provided herewith and the location of the samples is provided on the Repair Area Site Plan.

Based upon the test results and on behalf of Trail Ridge Landfill, Inc., we hereby request the Department's approval of the certification documents for Phases VA, VB, VC and VD of Trail Ridge Landfill. If you have any questions, please feel free to give me a call.

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Juanitta Bader Clem

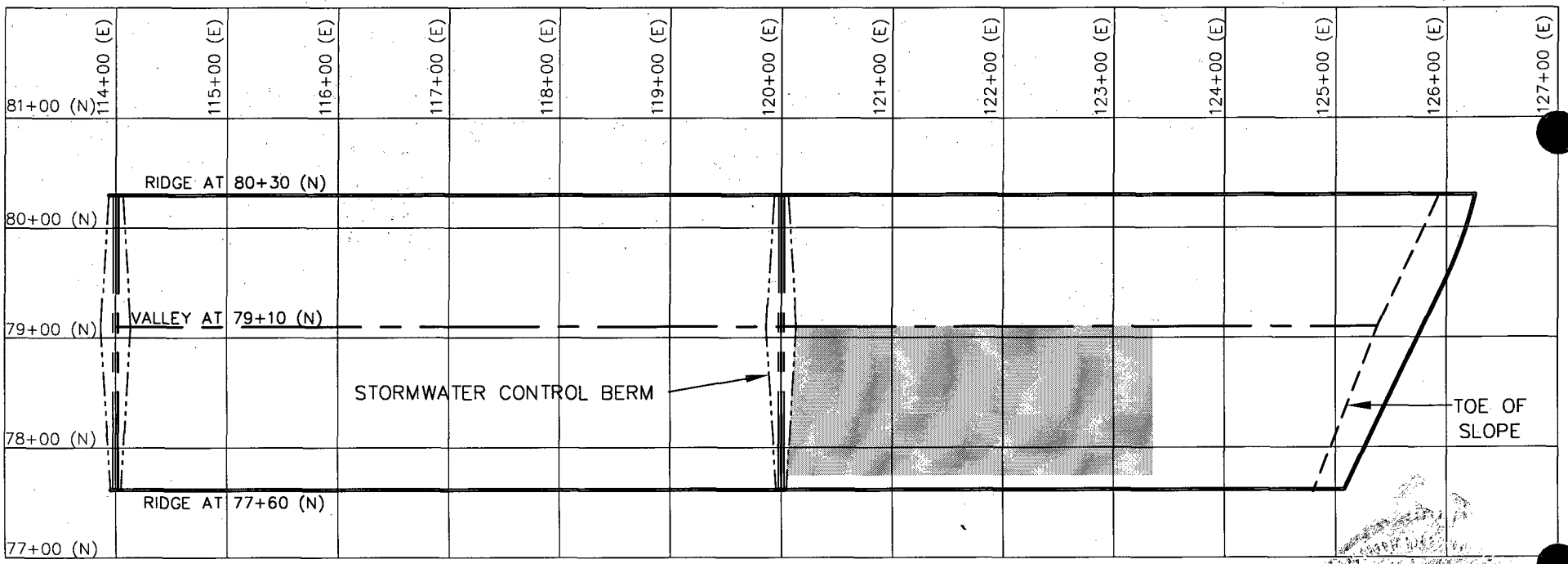
Juanitta Bader Clem, P. E.
Vice President

Attachments

cc: Greg Mathes
Chris Pearson

14775 ST. AUGUSTINE RD. • JACKSONVILLE, FL 32258 • TEL: (904) 642-8990 • FAX: (904) 646-9485

SCALE 1 IN. = 140 FT.



LEGEND

LIMITS OF PHASE VA

SAND LAYER REPAIR AREA

STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE
01 SEP 17 PM 3:58

Jeanetta T. Badu-Ann 9/17/01

England-Thims & Miller, Inc.
ENGINEERS - PLANNERS
SURVEYORS - LANDSCAPE ARCHITECTS
14775 St. Augustine Road
Jacksonville, Florida 32258
Certificate of Authorization No.:2584
Phone No. (904) 642-8990
Fax No. (904) 646-9485

PHASE VA SITE PLAN

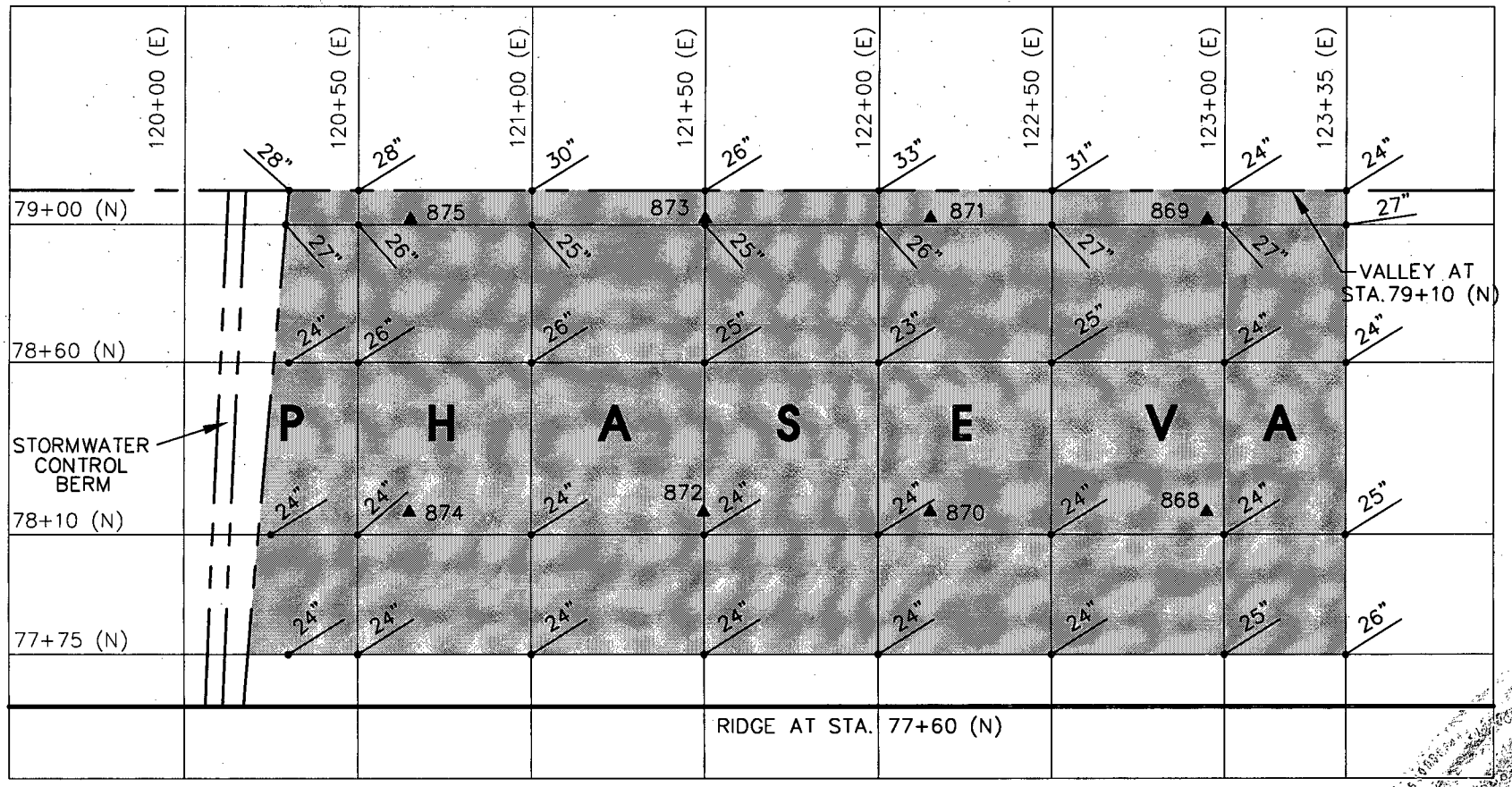
TRAIL RIDGE LANDFILL
FOR
TRAIL RIDGE LANDFILL, INC.

ETM. NO. 00-079-04

DATE: SEPTEMBER 13, 2001

DRAWN BY: F.D.D.

DRAWING NO: 1



SCALE 1 IN. = 50 FT.

LEGEND

- 24" — SAND THICKNESS
- ▲ 874 — PERMEABILITY TEST LOCATION (SEE ATTACHED REPORT FROM LAW)
- SAND LAYER REPAIR AREA

Approved
Bodie Cann
9/17/01

England-Thims & Miller, Inc.
ENGINEERS - PLANNERS
SURVEYORS - LANDSCAPE ARCHITECTS
14775 St. Augustine Road
Jacksonville, Florida 32258
Certificate of Authorization No.:2584
Phone No. (904) 642-8990
Fax No. (904) 646-9485

REPAIR AREA SITE PLAN
PHASE VA

TRAIL RIDGE LANDFILL
FOR
TRAIL RIDGE LANDFILL, INC.

ETM. NO. 00-079-04
DATE: SEPTEMBER 13, 2001
DRAWN BY: F.D.D.
DRAWING NO: 2

LAW
LAWGIBB Group Member
3901 Carmichael Avenue
Jacksonville, FL 32207
(904) 396-5173 • (904) 396-5703

Report of Permeability Test

CLIENT: England, Thims and Miller, Inc. **JOB NO.:** 40562-0-4105-03

PROJECT: Trail Ridge Landfill **DATE:** August 23, 2001

On August 21 and 22, 2001, eight samples of soil were tested for permeability (ASTM D5084). The samples were obtained by a representative of LAW. The results of these tests are as follows:

Sample Identification	Station No.	Coefficient of Permeability (cm/sec)
868	78+17N, 122+95E	1.0×10^{-3}
869	79+02N, 122+95E	1.2×10^{-3}
870	78+17N, 122+15E	1.3×10^{-3}
871	79+02N, 122+15E	1.1×10^{-3}
872	78+17N, 121+35E	1.0×10^{-3}
873	79+02N, 121+35E	1.1×10^{-3}
874	78+17N, 120+65E	1.0×10^{-3}
875	79+02N, 120+65E	1.0×10^{-3}

Respectfully Submitted:

LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

James A. Horton, P.E.

Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

September 20, 2001

CERTIFIED - RETURN RECEIPT

Greg Mathes
Trail Ridge Landfill, Inc.
5110 U.S. Highway 301
Baldwin, Florida 32234

Dear Mr. Mathes:

Trail Ridge Landfill-Phases VA, VB, VC and VD
Certification of Construction Completion
FDEP Permit Number 0013493-002-SC
Duval County – Solid Waste

The department acknowledges receipt of the following documents submitted pursuant to Florida Administrative Code Chapter 62-701 and Specific Condition Number 15 of the subject Permit:

1. "Record Documentation Report for Geosynthetic Quality Assurance of Construction of Phases VA, VB, VC and VD Third Construction Increment Trail Ridge Landfill, Baldwin, Florida," Volume I and II, signed by Francis T. Adams, P.E., prepared by Golder Associates, Inc., received July 13, 2001.

2. "Trail Ridge Landfill Phases VA, VB, VC and VD. Quality Assurance and Quality Control Documentation," signed by Juanitta B. Clem, P.E., prepared by England, Thims & Miller, Inc., received July 13, 2001.

3. "Certification of Construction Completion of a Solid Waste Management Facility," form dated July 13, 2001, signed and sealed by Juanitta B. Clem, P.E., prepared by England, Thims & Miller, Inc., received July 13, 2001.

4. As-Built Survey, "Trail Ridge Landfill Phases VA, VB, VC and VD," signed and sealed by Joseph L. Reynolds III, P.S., received July 13, 2001.

5. Additional documentation of the repair to the sand layer in Phase VA of Trail Ridge Landfill, signed and sealed by Juanitta B. Clem, P.E., prepared by England, Thims & Miller, Inc., received September 17, 2001.

In addition to the department's review of the aforementioned documents, department staff conducted a construction completion inspection of Phases VA, VB, VC and VD of the Trail Ridge Landfill on August 10, 2001. Based on the department's review and inspection, the department has determined Phase VA to be acceptable for the receipt of solid waste as approved in your permit application.

Please be reminded that as we agreed upon in our August 20 meeting, and as concurred in the August 30 letter from Juanitta B. Clem, the department shall be notified prior to the placement of waste in the new Phases VB, VC, and VD in order to conduct a site inspection. Silt or other soil deposits on the surface of the protective sand layer shall be removed and the thickness of the underlying protective sand layer shall be checked to ensure the minimum 24-inch thickness. Additionally, you are reminded that initial placement of select waste must be conducted under the supervision of a quality assurance engineer.

If you have any comments concerning this matter, please contact Michael Bogin at the letterhead address or telephone number (904) 807-3365.

Sincerely,

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

MCN:mbl

cc: Juanitta B. Clem, P.E., England, Thims & Miller, Inc.
Chris Pearson, City of Jacksonville

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.
Juanitta Bader Clem, P.E., V.P.
Scott A. Wild, P.E., P.S.M., V.P.

December 4, 2001

Ms. Mary C. Nogas, P. E.
Solid Waste Section
Department of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256-7590

Reference: Trail Ridge Landfill
Incremental Closure and Landfill Gas System Expansion
FDEP Permit No. 0013493-002-SC
ET&M Project No. E00-117-04

Dear Ms. Nogas:

As stated in my telephone conversation with Ms. Julia Boesch on November 29, 2001, we are currently expanding the landfill gas system at the referenced facility and additional gas extraction wells are being constructed. The Incremental Closure Quality Assurance/Quality Control Plan and the Project Specifications require FDOT No. 3 course aggregate as backfill material for the extraction wells. We have tested the aggregate that was delivered and the result was outside the standard limits for a 1-inch sieve. The grain size distribution data is attached for your reference. The material was utilized by the contractor in four (4) wells (Well Nos. W-26, W-27, T-22 and T-37) prior to the result being received. We have segregated the material to ensure that this material will not be utilized (unless the material is screened, retested and accepted) in the remaining gas extraction wells. Per Julia Boesch's request, attached is a signed and sealed letter from EMCON/OWT (the Design Engineer for the landfill gas system expansion) certifying that the material utilized in the 4 wells will not compromise the intended use. The remaining wells will be constructed and backfilled with gravel that meets the specifications. Due to the tight schedule for completing the landfill gas system expansion, we respectfully request that the aggregate be authorized to be utilized in the aforementioned wells and be noted as a deviation in the certification documents.

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

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Francis Dayao, P. E.
Project Engineer

Attachment: Grain Size Distribution Data
EMCON/OWT Certification Letter

cc: Greg Mathes (w/ attachment)
Chris Pearson (w/ attachment)
Juanitta Clem, P. E. (w/ attachment)
Tom Bilgri (w/ attachment)

STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE

'01 DEC 4 PM 3 21

14775 St. Augustine Rd. • Jacksonville, FL 32258 • Tel: (904) 642-8990 • Fax: (904) 646-9485

GRAIN SIZE DISTRIBUTION TEST DATA

Client: England Thims and Miller
Project: Trailridge Landfill Temporary Closure
40562-0-4105-03
Project Number:

Sample Data

Source: Proposed Trench Gravel
Sample No.: 1
Elev. or Depth:
Sample Length (in./cm.):
Location:
Description: Granite
Liquid Limit:
Plastic Limit:
USCS Classification:
AASHTO Classification:
Testing Remarks:

Mechanical Analysis Data

	Initial
Dry sample and tare=	55196.00
Tare =	0.00
Dry sample weight =	55196.00

Tare for cumulative weight retained= .00

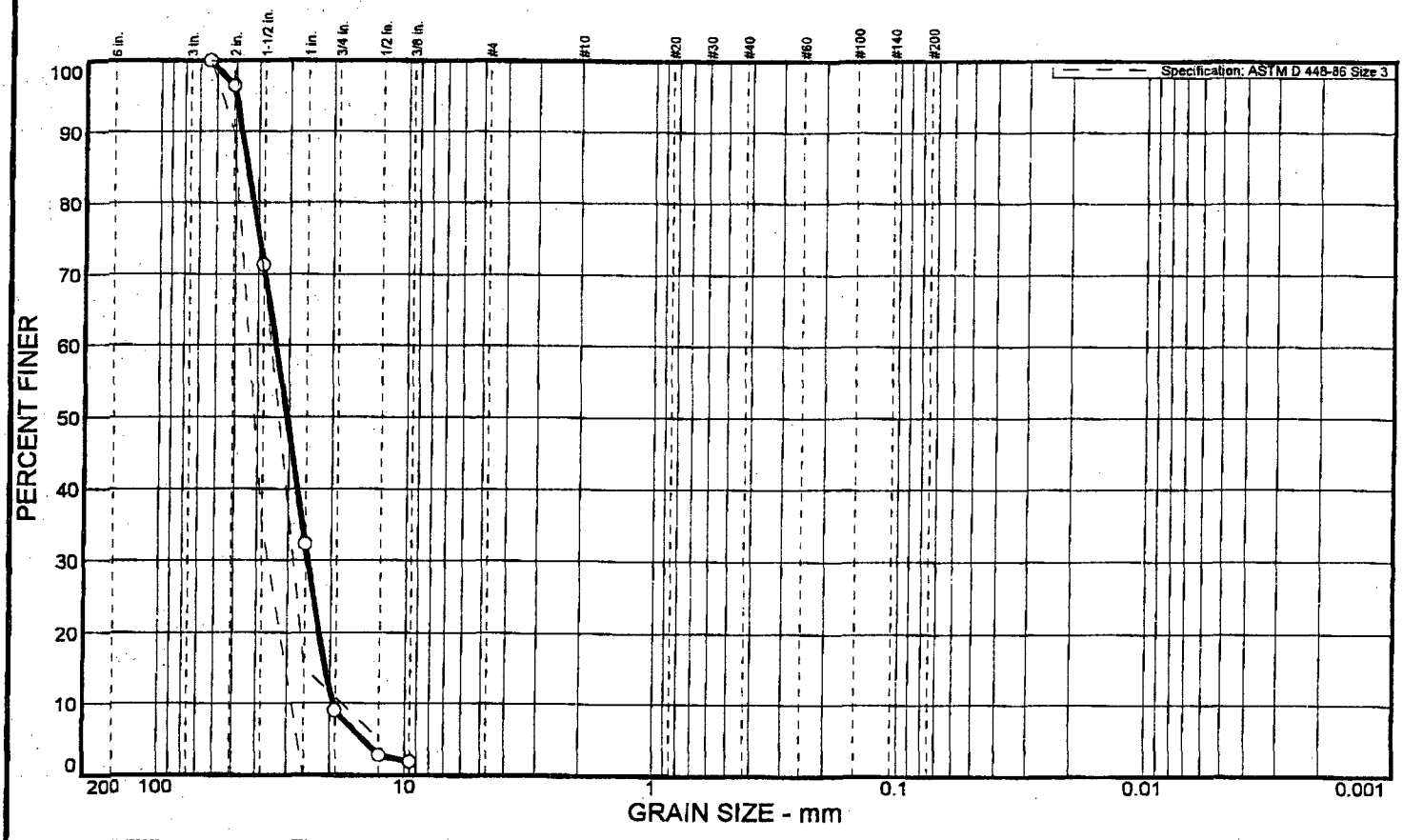
Sieve	Cumul. Wt. retained	Percent finer	Specification Limits, percent	Deviation, percent
2.5 inch	0.00	100.0	100.0 to 100.0	
2 inch	2002.00	96.4	90.0 to 100.0	
1.5 inch	15898.00	71.2	35.0 to 70.0	+ 1.2
1 inch	37414.00	[redacted]	0.0 to 15.0	+ 17.2
.75 inch	50298.00	8.9		
.5 inch	53713.00	2.7	0.0 to 5.0	
.375 inch	54189.00	1.8		

Fractional Components

Gravel/Sand based on #4
Sand/Fines based on #200
% COBBLES = % GRAVEL = % SAND =

D_{85}= 44.49 D_{60}= 33.81 D_{50}= 30.49
D_{30}= 24.83 D_{15}= 20.94 D_{10}= 19.43
C_c= 0.938 C_u= 1.7399

Particle Size Distribution Report



	% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
○									

SIEVE inches size	PERCENT FINER ○		
2.5	100.0		
2	96.4		
1.5	71.2		
1	32.2		
.75	8.9		
.5	2.7		
.375	1.8		
	GRAIN SIZE		
D_{60}	33.8		
D_{30}	24.8		
D_{10}	19.4		
	COEFFICIENTS		
C_c	0.94		
C_u	1.74		

SIEVE number size	PERCENT FINER ○		

SOIL DESCRIPTION

○ Granite

REMARKS:

○

○ Source: Proposed Trench Gravel

Sample No.: 1

Law Engineering and Environmental Services, Inc.

Client: England Thims and Miller

Project: Trailridge Landfill Temporary Closure
40562-0-4105-03

Project No.:

Plate

EMCON/OWT Solid Waste Services
999 Remington Boulevard, Suite A
Bolingbrook, IL 60440
Phone: (630) 771-9200
Fax: (630) 771-9250

December 3, 2001
Project 829385

Ms. Mary C. Nogas, P.E.
Solid Waste Section
Department of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, FL 322565-7590

Re: Trail Ridge Landfill
Landfill Gas System Expansion

Dear Ms. Nogas:

On behalf of Trail Ridge Landfill Inc. EMCON/OWT Solid Waste Services (EMCON) respectfully requests permission to use an alternate backfill material for four (4) gas extraction wells (W-26, W-27, T-22 and T-37) for the ongoing construction of the landfill gas system expansion. The Incremental Closure Quality Assurance/Quality Control Plan and the Project Specifications require FDOT No. 3 Course Aggregate for the backfill material for the gas wells.

The gradation test result exceeds the allowable percentage of material passing a 1-inch sieve (approximately 32% actual vs. 0% to 15% allowed per FDOT No. 3). However, the percentage of finer material passing a 0.5-inch sieve is well within specification requirements (approximately 3% actual vs. 0% to 5% allowed).

The material was utilized to backfill the perforated portion of the landfill gas extraction well casings. The purpose of the stone backfill is to allow the flow of landfill gas into the well casings, while providing an isolation or "filter" medium between the well casing and the waste mass. Considering the perforations in the well casing consist of vertical slots approximately 0.375 inches wide, the alternate material gradation should perform in a manner consistent with the FDOT No. 3 course aggregate. As the design engineer for this portion of the landfill gas extraction system, I respectfully request that this material be approved for these four (4) wells as an alternate to the FDOT No. 3 course aggregate.

Please contact my office (630-771-9213) with any questions you may have regarding this request. I would be pleased to discuss this project with you at your convenience. Thank you.

Sincerely,

EMCON

Thomas Bilgri by AD.

Thomas A. Bilgri, P.E.
Manager – LFG Engineering Services

WILLIAM EARL HIGGINBOTHAM CERTIFICATE PE 0037835 STATE OF FLORIDA REGISTERED ENGINEER

William Earl Higginbotham, P.E.
Certifying Engineer

cc: Greg Mathes, Trail Ridge Landfill, Inc.
Juanitta Clem, England, Thims & Miller, Inc.

England-Thims & Miller, Inc.
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

Principals
James E. England, P.E., CEO
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.
Scott A. Wild, P.E., PSM, V.P.
Samuel R. Crissinger, CPA, V.P.
Robert A. Mizell, Jr., P.E., V.P.
Bryan R. Stewart, V.P.

December 17, 2001

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. 0013493-002-SC
ET&M No. E00-117-4

Dear Ms. Nogas:

On November 7, 2001, we submitted a letter to the Department on behalf of Trail Ridge Landfill, Inc. regarding the closure construction of Closure Phase 2 at Trail Ridge Landfill. In the letter, it was stated that the closure construction would begin on November 12, 2001. However, due to weather and operational issues, the final waste placement on Closure Phase 2 was delayed until December 7, 2001. Therefore, in accordance with Rule 62-701.600(5)(f)2., F.A.C., final cover must be placed over Closure Phase 2 within 180 days after final waste deposit or June 5, 2002. We have proceeded with this closure construction and currently plan to complete the work by the June 5, 2002-deadline, weather permitting.

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

Sincerely,
ENGLAND, THIMS & MILLER, INC.

Juanitta Bader Clem

Juanitta Bader Clem, P.E.
Vice President

cc: Greg Mathes
Chris Pearson
Jim Horton
Jeff Marshall

STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE
01 DEC 17 PM 3:15

14775 ST. AUGUSTINE RD. • JACKSONVILLE, FL 32258 • TEL: (904) 642-8990 • FAX: (904) 646-9485

Trail Ridge Landfill. Phases VA, VB, VC and VD

Trail Ridge Landfill. Phases VA, VB, VC and VD

D

C

C and D

Trail Ridge Landfill. Phases VA, VB, VC and VD

Trail Ridge Landfill. Phases VA, VB, VC and VD

B

B

Solid

England-Thims & Miller, Inc.

ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

August 13, 2001

Mary C. Nogas, P.E., Solid Waste Supervisor
Department of Environmental Protection
Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

'01 AUG 15 PM 2 07
STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE

Reference: Trail Ridge Landfill
DEP Permit Number 0013493-002-SC
DEP Project No. 0013493-008
ETM Project No. E98-34-26

Dear Ms. Nogas:

We have received your letter dated July 2, 2001 regarding the minor modification request for the referenced project. Upon your request, we conducted additional testing of the HDPE liner material. Based upon the test results and on behalf of Trail Ridge Landfill, Inc., we hereby withdraw the application. We thank you for consideration of the modification.

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

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Juanitta Bader Clem

Juanitta Bader Clem, P.E.
Vice President

cc: Greg Mathes
Chris Pearson

14775 ST. AUGUSTINE RD. • JACKSONVILLE, FL 32258 • TEL: (904) 642-8990 • FAX: (904) 646-9485

✓ 185294

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

July 9, 2001

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

Re: Permit No. 0013493-002-SC
Waste Tire Processing Facility Quarterly Report
Second Quarter 2001

Dear Ms. Nogas:

In accordance with specific condition 32e of the above referenced permit, please find enclosed, the Waste Tire Processing Facility Quarterly Report for Trail Ridge Landfill for the second calendar quarter of 2001. We have also attached our 2001 Fire Safety Inspection.

Should you have any questions concerning this report, please call me at 289-9100.

Sincerely,

Greg Mathes
District Manager

GM:lh
Enclosure

cc: Carolyn McCreedy, w/o encl.
Sam Park, DEP, w/encl.

c:\my documents\word engineer 01\wastetir2ndqtrr01.doc

City of Jacksonville
Fire and Rescue Department - Fire Prevention Division

FIRE SAFETY INSPECTION

Fpd #: _____

Date: 1-11-01 New Property: _____ Existing Property: ✓

Name: TRAVIS RIDGE (Please Print) Owner/Occupant: CITY OF JAX (Please Print)

Address: 5110 Hwy 301 Phone #: _____

Occupancy Use: STORAGE

YOUR ATTENTION IS CALLED TO THE FOLLOWING VIOLATIONS:

I. Dangerous or Hazardous Conditions — Code
- A. Improper storage of combustible materials, and/or rubbish, waste paper, trash, etc. _____
- B. Improper maintenance of chimneys, vents, and/or exhaust systems or heat producing equipment _____
- C. Building in disrepair and/or unsecured _____
- D. Nonapproved heating or cooking appliances _____
- E. Aisle, passageway or stairway blocked _____
- F. Locked Exit doors _____
- G. Exitways improperly marked and/or illuminated _____
- H. Inadequate means of egress _____
- I. Smoking prohibited in _____ _____
- J. Parking of vehicles in fire lanes. (call police) _____
- K. Smoke detectors missing or inoperable _____
- L. Improper trash receptacle _____
- M. No valid _____ permit _____

II. Fire Protection Equipment:
- A. Fire Extinguishers or suppression system date 11-17 _____
  - 1. Improper type, location or number _____
  - 2. Faulty condition _____
  - (3.) Annual maintenance by licensed Fire equipment contractor _____
  - 4. Insufficient sprinkler head clearance _____
  - 5. Defective Nozzles, hoses, piping _____

III. Alarm System:
- (A.) Annual maintenance by a certified Alarm contractor 7-11 _____
- B. Alarm system inoperative or malfunctioning _____

IV. Flammable and combustible liquids:
- A. Improper storage and/or handling _____
- B. Inadequate ventilation _____
- C. Improper identification _____
- D. Improperly maintained fuel dispensing equipment _____

V. Toxic Materials: — Code
- A. Improper storage of toxic materials, poisonous gases, and/or corrosive liquids _____
- B. Improper and/or inadequate identification of containers or facilities _____
- C. Inadequate containment for leaks or spills _____
- D. Inadequate ventilation _____

VI. Compressed Gas:
- A. Improper and/or inadequate identification of storage facilities _____
- B. Improper location of tanks _____
- C. Tanks and piping subject to physical damage _____
- D. Improper ventilation _____
- E. Improper Maintenance of equipment _____

VII. Electrical Wiring:
- A. Improper use of extension cords and/or adapters _____
- B. Unsafe wiring of fixtures _____
- C. Electric panel or junction boxes, overloaded, exposed or obstructed _____

VIII. Hood Systems:
- A. No hood system _____
- B. Hood insufficient to cover appliances _____
- C. Improper wiring or electrical fixtures attached to hood system _____
- D. Missing or dirty filters _____
- E. Defective Fire suppression system _____

Other Violations: _____

Comments/Instructions: _____

Failure to correct these violations may result in this office seeking civil and/or criminal penalties as required by law.

This occupancy meets the minimum fire codes. YES

I acknowledge receipt of this inspection form:

L. J. Hair — Name (Please Print)

L J Hair — Signature

1-11-01 — Date

I certify on this date, I made an inspection of the above premises.

Dale Hay — Inspector

1-11-01 — Date

WHITE COPY — F.P.D. OFFICE COPY YELLOW COPY — FACILITY COPY PINK — OWNER/OCCUPANT COPY PSR-3867

Department of Environmental Protection

DEP Form # 62-701.900(21)
Form Title Waste Tire Processing Facility Quarterly Report
Effective Date 12/23/96
DEP Application No. _____ (Filled in by DEP)

Waste Tire Processing Facility Quarterly Report

Pursuant to Rule 62-711.530, Florida Administrative Code, the owner or operator of a waste tire processing facility shall submit the following information to the Department quarterly.

Quarter covered by this report: 2nd Quarter 2001 (First quarter begins on January 1 of any given year)

1. Facility name: Trail Ridge Landfill
2. Facility mailing address: 5110 U.S. Highway 301 South
   City: Baldwin County: Duval Zip: 32234-3608
3. Facility permit number: 0013493-002-SC
4. Facility telephone number: (904) 289-9100
5. Authorized person preparing report: Greg Mathes
6. Affiliation with facility: District Manager
7. Telephone number (if different from above): ( )
8. Activity: Report in tons.

	Beginning Inventory	Received	Processed	Consumed	Removed	Adjustments	Ending Inventory
Used Tires	8	119			115		12
Other whole tires							
Processed tires							
Processing Waste							
Other							
Total	8	119			115		12

a. Explain all inventory adjustments. _____

b. List any period in which one or more category of inventory exceeded the permitted maximum for that category. How was that condition relieved? _____

For any excess inventory at the end of the quarter, state how and when this condition will be relieved. Attach additional sheets, if necessary. _____

9. Certification:

To the best of my knowledge and belief, I certify the information provided in this report is true, accurate and complete.

Greg Mathes, District Manager — Name of Authorized Agent

_____ — Signature of Authorized Agent

7/5/01 — Date

Mail complete form to
the appropriate district office

Northwest District	Northeast District	Central District	Southwest District	South District	Southeast District
160 Governmental Center	7825 Baymeadows Way, Ste. B200	3319 Maguire Blvd., Ste. 232	3804 Coconut Palm Dr.	2295 Victoria Ave., Ste. 364	400 North Congress Ave.
Pensacola, FL 32501-5794	Jacksonville, FL 32256-7590	Orlando, FL 32803-3767	Tampa, FL 33619	Fort Myers, FL 33901-3881	West Palm Beach, FL 33401
904-444-8360	904-448-4300	407-894-7555	813-744-6100	941-332-6975	561-681-6600

Department of
Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

July 2, 2001

CERTIFIED - RETURN RECEIPT

Greg Mathes, District Manager
Trail Ridge Landfill, Inc.
5110 U. S. Highway 301
Baldwin, Florida 32234

Dear Mr. Mathes:

Trail Ridge Landfill
Alternative Initial Cover Material
FDEP Project No.0013493-008

The Department of Environmental Protection (Department) has reviewed the Application for a Solid Waste Management Facility Permit for a minor modification to the referenced Permit for Trail Ridge Landfill, received on June 12, 2001, and additional information received on June 27, 2001. The Department has the following comments:

1. Your submitted Application (Part B, Item 10) indicates two spotters. But in accordance with Minor Modification No.0013493-006 to Permit No.0013493-002-SC issued by the Department on October 10, 2000, "The personnel present at the working face shall include four spotters and three equipment operators. During peak operating hours, the facility shall have an additional spotter and an additional equipment operator at the working face." Please correct this item on the application.

2. Please explain how Trail Ridge Landfill intends to meet the requirement of FAC Rule 62-701.500(7)(e) 1.

3. The information that you submitted in Attachment B encompasses the qualification criteria and a description of the method that is suitable for the determination of the ignitability of solids and may be used, but not required, to determine whether a solid waste "when ignited, burns so vigorously and persistently that it creates a hazard." But in accordance with Guidelines for Obtaining Approval to Use Alternative Initial Cover Materials at Municipal Solid Waste Landfills in Florida, dated February 27, 1998, "A demonstration that the material is not flammable or is self-extinguishing must be provided to the Department." Therefore a discrepancy exists between proposed Method 1030 and tests which may be appropriate: ASTM D4982-89, ASTM E1354, NFPA 701 or FMVSS 302. Please submit a laboratory flammability test result of 60-mil HDPE geomembrane material.

The requested information is required for the Department to proceed with the processing of your permit modification application. Please provide the requested information by August 3, 2001. Action on the application will be delayed until the requested information is received in this office. Please reference the associated Department file number in all written correspondence concerning this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Michael Bogin at the letterhead address or telephone number (904) 807-3365.

Sincerely,

M C Nogas

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

MCN:mbl

cc: Juanitta Bader Clem, P.E.

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

April 17, 2001

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

Re: FDEP Permit Number: 0013493-002-SC
Trail Ridge Landfill
Annual Topographic Survey for 2001

Dear Ms. Nogas:

In accordance with Specific Condition 13 of the referenced permit, enclosed please find the annual topographical survey for Trail Ridge Landfill. The current permitted maximum design elevation is 350.6 feet MSL. The survey indicates the site is well below this elevation. The terraces, toe of slope, and other features of the site are easily identifiable from this survey.

Please give me a call at 289-9100 if you have any questions or comments concerning this enclosure.

Sincerely,

Greg Mathes
District Manager

GM:lh
Enclosure

cc: Chris Pearson, w/o enclosure
Carolyn McCreedy w/o enclosure

Digital
Mapping
Associates, Inc.

SURVEY AND MAP REPORT

This document has been prepared in accordance with Chapter 61G17-6 of the Florida State Department of Business & Professional Regulation code, which addresses minimum technical standards for the surveying and mapping industry.

Survey Description:

Project No.:	ASC71010159/F01679
Location:	Trail Ridge Landfill and Trail Ridge Landfill Borrow Area
Type of Survey:	Topographic Survey
Date of Original Photography:	February 5, 2001
Date of Survey:	February 5, 2001
Film Type:	Kodak 2445 Color Negative
Deliverable Items:	
Three Mylar Plots at 1"=100'	
Digital Files:	TR201-1.DWG, TR201-2.DWG, TRBA201.DWG

Photogrammetric methods were employed in the performance of this Topographic Survey. This survey was conducted by:

Digital Mapping Associates, Inc.
(LB 0006977)
479A North U.S. 1
Ormond Beach, FL 32174
904-677-7715 FAX 904-677-7626

This survey was performed for:

Trail Ridge, Inc.
5110 U.S. Highway 301
Baldwin, Florida 32234

This Report of Survey is not full and complete without the map sheets and/or digital files to which this report makes mention.

Unless it bears the signature and the original raised seal of a Florida licensed surveyor and mapper, this report is not valid. Additions or deletions to any signed survey report or map by other than the signing party is prohibited without the written consent of the signing party.

Edward C. Beute
Professional Surveyor and Mapper LS 0005429
State of Florida

March 23, 2001.
Date

479A N. US1 • Ormond Beach, FL 32174 • Office (904) 677-7715 • Fax (904) 677-7626 • email: dmafl@iag.net

Measurement Methods

All map data were collected using photogrammetric methodology from aerial photography dated February 5, 2001 acquired at an altitude of 3,000 feet above ground elevation (1"=500' nominal negative scale). Fully analytical stereoplotter instruments were used in the collection of digital data with photogrammetric software specifically designed for the extraction of positional information from stereo imagery.

The relative location of the site improvements (i.e., roads, trails, streets, fences, buildings, and drainage features) has been accurately portrayed with respect to the control survey. Planimetric features and details were collected commensurate with the final output map scale and the ability of the operator to see and interpret these features from the photography. Areas where the ground was obscured due to heavy vegetation have been labeled and identified with dashed contours.

Survey and Map Accuracy

All mapped features meet or exceed the Minimum Technical Standards of the State of Florida:

- At least 90% of ground point elevations of well-identified features contained in this survey and map have been measured to an estimated **vertical** accuracy of: +/- 1.0 feet.
- The survey-measured verses ground truth coordinates of at least 90% of well-identified features contained in this survey and map have been measured to an estimated **horizontal** positional accuracy of: +/- 5.0 feet.

Horizontal and vertical accuracy is determined from the absolute orientation solution, which is based upon ground control values received from England, Thims & Miller, Inc., 3131 St.Johns Bluff Road S., Jacksonville, FL 32246. Digital mapping and/or coordinate data files are intended to be displayed at a scale of 1:1200 (1"=100') or smaller.

Additionally, this map has been compiled in accordance with procedures that have been demonstrated to comply with the National Standard For Spatial Data Accuracy (NSSDA), for target mapping scale of 1"=100' with a specified contour interval of two feet.

Datum

The **vertical** datum for the Trail Ridge Landfill and the Landfill Borrow Site is referenced to NGVD 1929. Source: USC&GS BM AJ-59, Elevation 88.412 feet. The **horizontal** datum for the Trail Ridge Landfill and the Landfill Borrow Site is NAD83.

Intended Features

All features identified on the aerial photography were intended to be surveyed and mapped in their entirety. All line drawn features are shown edge to scale. Symbols do not represent the actual size of the object. Please refer to the Map Legend in the digital file for the cartographic representation of each feature.

Limitations

This mapping should be used for preliminary design work only and should not replace an actual field survey where the required accuracy is greater than the accuracy stated in this report.

This survey is restricted to the active areas of the landfill for which the company contracted to update. No responsibility is assumed for the areas outside this scope.

Areas of dense vegetation where the contours have been dashed should be field verified.
The signing party assumes no responsibility for the accuracy of the ground control provided by England, Thims & Miller, Inc.

End of Report.

✓ 185294

16-000 33628

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

'01 APR 9 PM 2:28

STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE

April 6, 2001

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

Re: Permit No. 0013493-002-SC
Waste Tire Processing Facility Quarterly Report
First Quarter 2001

Dear Ms. Nogas:

In accordance with specific condition 32e of the above referenced permit, please find enclosed, the Waste Tire Processing Facility Quarterly Report for Trail Ridge Landfill for the first calendar quarter of 2001.

Should you have any questions concerning this report, please call me at 289-9100.

Sincerely,

Greg Mathes
District Manager

GM:lh
Enclosure

cc: Carolyn McCreedy, w/o encl.
✓ Sam Park, DEP, w/encl.

X

c:\my documents\word engineer 01\wastetire1stqtrr01.doc

Department of Environmental Protection

DEP Form # 62-701.900(21)
Waste Tire Processing Facility
Form Title Quarterly Report
Effective Date 12/23/96
DEP Application No. _____
(Filled in by DEP)

Waste Tire Processing Facility Quarterly Report

Pursuant to Rule 62-711.530, Florida Administrative Code, the owner or operator of a waste tire processing facility shall submit the following information to the Department quarterly.

Quarter covered by this report: 1ST QUARTER 2001 (First quarter begins on January 1 of any given year)

1. Facility name: TRAIL RIDGE LANDFILL
2. Facility mailing address: 5110 U.S. HIGHWAY 301 SOUTH
   City: BALDWIN County: DUVAL Zip: 32234-3608
3. Facility permit number: 0013493-002-SC
4. Facility telephone number: (904) 289-9100
5. Authorized person preparing report: GREG MATHES
6. Affiliation with facility: DISTRICT MANAGER
7. Telephone number (if different from above): ( )
8. Activity: Report in tons.

	Beginning Inventory	Received	Processed	Consumed	Removed	Adjustments	Ending Inventory
Used Tires	274	139	141		264		8
Other whole tires							
Processed tires							
Processing Waste							
Other							
Total							

a. Explain all inventory adjustments. _____

b. List any period in which one or more category of inventory exceeded the permitted maximum for that category. How was that condition relieved? _____

For any excess inventory at the end of the quarter, state how and when this condition will be relieved. Attach additional sheets, if necessary. _____

9. Certification:

To the best of my knowledge and belief, I certify the information provided in this report is true, accurate and complete.

GREG MATHES		4/5/01
Name of Authorized Agent	Signature of Authorized Agent	Date

Mail complete form to
the appropriate district office

Northwest District	Northeast District	Central District	Southwest District	South District	Southeast District
160 Governmental Center	7825 Baymeadows Way, Ste. B200	3319 Maguire Blvd., Ste. 232	3804 Coconut Palm Dr.	2295 Victoria Ave., Ste. 364	400 North Congress Ave.
Pensacola, FL 32501-5794	Jacksonville, FL 32256-7590	Orlando, FL 32803-3767	Tampa, FL 33619	Fort Myers, FL 33901-3881	West Palm Beach, FL 33401
904-444-8360	904-448-4300	407-894-7555	813-744-6100	941-332-6975	561-681-6600

Golder Associates Inc.
8933 Western Way, Suite 12
Jacksonville, FL USA 32256
Telephone (904) 363-3430
Fax (904) 363-3445

Golder Associates

'01 APR 3 AM 11 13

STATE OF FLORIDA
DEP NE DISTRICT
JACKSONVILLE

Via Certified Mail - Return Receipt Requested
Receipt No. 7099-3400-0010-0077-7497

March 28, 2001 003-3979

Ms. Mary C. Nogas, P.E.
Solid Waste Supervisor
Florida Department of Environmental Protection
Northeast District
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7577

RE: ON-SITE CONFORMANCE SAMPLE OF GEOTEXTILE
THIRD CONSTRUCTION INCREMENT CONSTRUCTION
TRAIL RIDGE LANDFILL PHASES IIIC, IVC, AND VA TO VD
BALDWIN, DUVAL COUNTY, FLORIDA
DEP PERMIT NO. 0013493-002-SC

Dear Ms. Nogas:

This letter is to inform you of a minor deviation to the Project-Specific Addenda to the Quality Assurance Manual for the above referenced project. Specifically, Section 10.2 (Geotextiles - Manufacturing Plant Inspection) requires in-plant conformance sampling of geotextiles prior to shipment to the site. In conformance with this requirement, Golder Associates Inc. (Golder), as the Geosynthetics Construction Quality Assurance Engineer, has performed in-plant sampling of all geosynthetic materials for the project. However, on February 28, 2001, 48 rolls of 6-ounce per square yard (oz/yd^2) nonwoven geotextile (approximately 216,000 square feet (ft^2)) for the secondary leachate collection system were delivered to the site prior to sampling of the material at the plant. Golder obtained the required number of samples after the materials arrived at the site and shipped the samples to the laboratory for conformance testing in accordance with the Quality Assurance Manual. Five of the rolls were set aside and were not sampled since they were from four different batch numbers. The other 43 rolls were not installed in the liner system until the conformance test results and the quality control (QC) documentation were received and reviewed. All test results and QC documentation for these 43 rolls met the requirements of the Technical Specifications and the material was ultimately accepted for use on the project. The five rolls that were not sampled have been segregated from the approved materials and will not be permitted for use in the landfill liner system.

The only deviation to the QAM was the location where the samples were obtained, and all other requirements of the QAM were followed. No unapproved materials were installed in the liner system prior to completion of all required conformance testing and review of QC documentation. This letter is intended to inform the Florida Department of Environmental Protection (FDEP) of this minor deviation to the QAM prior to submittal of the Final Record

Documentation Report for Phases VA to VD. Golder intends to note this minor deviation in the report, and will include a copy of this letter in the appendices.

We trust that this minor deviation and the explanation are satisfactory to the FDEP. Should you have any questions or require additional information, please call Ms. Juanitta Bader Clem of England-Thims & Miller, Inc. at (904) 642-8990, or the undersigned at (904) 363-3430.

Very truly yours,

GOLDER ASSOCIATES INC.

Francis T. Adams

Francis T. Adams, P.E.
Senior Project Manager
Florida P.E. Registration No. 46417

cc: Ms. Juanitta Bader Clem, England-Thims & Miller, Inc.
Mr. Greg Mathes, Trail Ridge Landfill, Inc.
Mr. Carlos F. Benavente, Golder Associates Inc.

FN: G:\PROJECTS\003-3979\CORRES\mn032801ltr.doc

Boesch, Julia

From: Nogas, Mary
Sent: Friday, March 09, 2001 7:36 AM
To: Boesch, Julia
Subject: RE: trail ridge

i'll live with it -- which phase is this? the one we just accepted ?

-----Original Message-----
From: Boesch, Julia
Sent: Thursday, March 08, 2001 4:13 PM
To: Nogas, Mary
Subject: trail ridge

Mary, Juanitta Clem called regarding a construction issue at the Trail Ridge Landfill. Apparently there is an area appr 8 by 25 feet where they have 5.25 inches of clay. The area is in the 10 foot wide area interior to the anchor trench. Due to the difficulty in going back and reworking this area, they will like to utilize several layers of bentonitemat in this area to bring it to the proper level in lieu of the clay. She will like to know if we will accept their proposal.
THanks, Julia

I told Francis Dayo with England Thims & miller that we will live with their proposal and to include it as a deviation on the certification documentation.

[redacted] CMA/Landfill

Boesch, Julia

From: Nogas, Mary
Sent: Friday, March 09, 2001 7:36 AM
To: Boesch, Julia
Subject: RE: trail ridge

i'll live with it -- which phase is this? the one we just accepted ?

-----Original Message-----
From: Boesch, Julia
Sent: Thursday, March 08, 2001 4:13 PM
To: Nogas, Mary
Subject: trail ridge

Mary, Juanitta Clem called regarding a construction issue at the Trail Ridge Landfill. Apparently there is an area appr 8 by 25 feet where they have 5.25 inches of clay. The area is in the 10 foot wide area interior to the anchor trench. Due to the difficulty in going back and reworking this area, they will like to utilize several layers of bentonitemat in this area to bring it to the proper level in lieu of the clay. She will like to know if we will accept their proposal.
THanks, Julia

I told Francis Dayo with England Thims + Miller that we will live with their proposal and to include it as a deviation on the certification documentation.

OK
SP/MN 3-9-01

England-Thims & Miller, Inc.
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

March 9, 2001

Ms. Julia Boesch
Solid Waste Section
Department of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256

Reference: Trail Ridge Landfill – Phase VB Construction
3rd Construction Increment
ET&M Project No. 00-079

Dear Ms. Boesch:

This is to confirm our telephone conversation that the Department of Environmental Protection does not object in supplementing a section (approximately 10 ft. x 30 ft.) of the clay layer which is approximately 5 ¼ in. thick with a bentonite mat. This section is the 10-ft. interior flat of the anchor trench in Phase VB which will ultimately be covered with the geosynthetic liner system as well as the clay anchor berm. This deviation will be included in the certification documents for Phase VB.

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

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Francis Dayao

Francis Dayao, P.E.
Project Engineer

Cc: Greg Mathes
Chris Pearson

14775 ST. AUGUSTINE RD. • JACKSONVILLE, FL 32258 • TEL: (904) 642-8990 • FAX: (904) 646-9485

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.
Jeffrey A. Crammond, P.E., V.P.
Scott A. Wild, P.E., P.S.M., V.P.

FAX TRANSMITTAL LETTER

To: SAM PARK

FROM: FRANCIS DAYAD ATTN: _____

FAX: _____ PHONE: _____ DATE: 3/2/01 TIME: _____

NUMBER OF PAGES (INCLUDING COVER SHEET): 7

RE: TRAIL RIDGE LANDFILL - CLOSURE COST EST. (YR. 2000)

PROJECT NO.: _____

MESSAGE: PER YOUR REQUEST, ATTACHED HEREWITH ARE THE CERTIFICATIONS FOR THE SIDE SLOPE CLOSURES.

IF YOU NEED ANYTHING ELSE, PLEASE GIVE ME A CALL.

THANKS.

IF YOU HAVE NOT RECEIVED THE TOTAL NUMBER OF PAGES NOTED ABOVE, HAVE DIFFICULTY READING THIS DOCUMENT, OR IF YOU HAVE ANY QUESTIONS OR COMMENTS, PLEASE CALL US IMMEDIATELY.

14775 St. Augustine Road • Jacksonville, Florida 32258 • (904) 642-8990 • Fax (904) 646-9485

England-Thims & Miller, Inc.
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

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

December 5, 1997

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

Mr. David P. Apple, P.E.
Stormwater Section
Department of Environmental Protection
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256

Reference: Trail Ridge Landfill - Incremental Closure
Side Slope Units 1-4 (Partial), 7-8 (Partial), 12-17 (Partial) and 18-20
FDEP Permit No. SC16-184444
ET&M No. E96-92-4

Dear Ms. Nogas and Mr. Apple:

Please find herewith the Certification of Construction Completion for the Trail Ridge Landfill, Incremental Closure as well as certification of the stormwater pond modification. The construction Quality Assurance/Quality Control documentation and As-Built drawings are attached. QA/QC

Subject to your site inspection, Trail Ridge Landfill, Inc. respectfully requests your written verification that this closure and stormwater modification are accepted by the Department. ?

This is the certification for the Trail Ridge Landfill closure construction of Side Slope Units 1-4 (Partial), 7-8 (Partial), 12-17 (Partial) and 18-20 which commenced on April 21, 1997. Should you have any questions regarding these certifications, please do not hesitate to give me a call.

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Juanita Bader Clem

Juanita Bader Clem, P.E.
Vice President

Attachments: Certification of Construction Completion of a Solid Waste Management Facility
MSSW/Stormwater Certification
Quality Assurance and Quality Control Documentation
As-Built Drawings
Pump Test and Construction Drawing for Stormwater System Modification

cc: Greg Mathes w/attachments
Scott McCallister w/attachments
Chris Pearson w/attachments

Florida Department of Environmental Regulation

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

Certification of Construction Completion of a Solid Waste Management Facility

DER Construction Permit No: SC16-184444 County: Duval

Name of Project: Trail Ridge Landfill - Incremental Closure

Name of Owner: City of Jacksonville

Name of Engineer: England, Thims & Miller, Inc.

Type of Project: Class I Landfill - Incremental Closure

Side Slope Units 1-4 (Partial), 7-8 (Partial), 12-17 (Partial) and 18-20

Cost: Estimate $ 1,800,000 Actual $ 1,569,240

e Design: Quantity: 659,000 +/- (1990) ton/day Site Acreage: 12 +/- Acres

Deviations from Plans and Application Approved by DER:

Deviations are shown on the As-Built Drawing and/or outlined in the attachment. The As-Built Survey was prepared by Sunshine State Surveyors and reviewed by England, Thims & Miller, Inc.

Address and Telephone No. of Site: 5110 U.S. Highway 301, Baldwin, FL 32234

Phone: (904) 289-9100

Name(s) of Site Supervisor: Greg Mathes

Date Site inspection is requested: As soon as possible

This is to certify that, with the exception of any deviation noted above, the construction of the project has been completed in substantial accordance with the plans authorized by Construction Permit No.: SC16-184444 Dated: 12-24-91

England, Thims & Miller, Inc. relied upon the information and certifications provided by Law Engineering and Sunshine State Surveyors, Inc. in this certification.

Date: Dec. 3, 1997

Leonitta Bader Clem

Signature of Professional Engineer

REGfiles: 5/94

England-Thims & Miller, Inc.
Consulting & Design Engineers
3131 St. Johns Bluff Road S., Jacksonville, FL 32246
Tel. (904) 642-8990 Fax (904) 646-9485

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

April 17, 1995

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 -Side Slope Closure
Side Slope Units 9,10 and 11
FDER Permit No. SC16-184444
ET&M No. E94-17-3 (Certification File)

Dear Ms. Nogas:

Please find herewith the Certification of Construction Completion for the Trail Ridge Landfill - Side Slope Closure. The Construction Quality Assurance/Quality Control documentation and As-Built drawings are attached.

We request a site inspection on May 1, 1995 at 9:00 A.M. Subject to your site inspection, Trail Ridge Landfill, Inc. respectfully requests your written verification that this closure is accepted by the Department.

This is the certification for the Trail Ridge Landfill Closure construction of Side Slope Units 9, 10 and 11 which commenced on May 23, 1994. Should you have any questions concerning this certification, please do not hesitate to contact me or Juanitta Clem.

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Douglas C. Miller, P.E.
Vice President

DCM:cl

Attachments: Certification of Construction Completion
As-Built Drawing
Quality Assurance and Quality Control Documentation

cc: Greg Mathes w/attachments
Scott McCallister w/attachments
Chris Pierson w/attachments
DEP Stormwater Section w/attachments

Florida Department of Environmental Regulation
Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 32399-2400

DER Form # 17-701.900(3)
Form Title
Effective Date
DER Application no.
(Filled in by DER)

Certification of Construction Completion of a Solid Waste Management Facility

DER Construction Permit No: SC16-184444 **County:** Duval
Name of Project: Trail Ridge Landfill - Side Slope Closure of Units 9, 10 and 11
Name of Owner: City of Jacksonville; Trail Ridge Landfill, Inc. - Operator/Permittee
Name of Engineer: England, Thims & Miller, Inc.
Type of Project: Class I Landfill - Incremental Closure
Closure of Units 9, 10 and 11
Cost: Estimate $ N/A **Actual $** 606,041 +/-
te Design: Quantity: 2,600 (Avg) ton/day **Site Acreage:** 2.3 +/- Acres
Deviations from Plans and Application Approved by DER: Deviations are shown on the As-Built Drawing and/or outlined in the attachment. The As-Built survey was prepared by Sunshine State Surveyors, Inc. and reviewed by England, Thims & Miller, Inc.

Address and Telephone No. of Site: 5110 U.S. Highway 301, Baldwin, FL 32234
Phone (904) 289-9100
Name(s) of Site Supervisor: Greg Mathes
Date Site inspection is requested: May 1, 1995 @ 9:00 AM

This is to certify that, with the exception of any deviation noted above, the construction of the project has been completed in substantial accordance with the plans authorized by Construction Permit No.: SC16-184444 and Modifications **Dated:** 12-24-91

England, Thims & Miller relied upon the information and certifications provided by Law Engineering and Sunshine State Surveyors, Inc. in this certification.

Date: 4/19/95

Signature of Professional Engineer

REGfiles: 5/94

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.

February 3, 1994

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

Mr. Jai P. Prasad, P.E.
Stormwater Section
Department of Environmental Regulation
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256

Reference: Trail Ridge Landfill -Side Slope Closure
Side Slope Units 5, 6, 7 (Partial) and 8 (Partial)
FDER Permit No. SC16-184444
ET&M No. E93-143-3 (Certification File)

Dear Ms. Nogas and Mr. Prasad:

Please find herewith the Certification of Construction Completion for the Trail Ridge Landfill - Side Slope Closure. The construction Quality Assurance/Quality Control documentation and As-Built drawing are attached.

Subject to your site inspection, Trail Ridge Landfill, Inc. respectfully requests your written verification that this closure is accepted by the Department.

This is the certification for the Trail Ridge Landfill closure construction of Side Slope Units 5, 6, 7 (partial) and 8 (partial) which commenced on September 7, 1993. Should you have any questions concerning this certification, please do not hesitate to contact me or Juanita Clem.

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Douglas C. Miller, P.E.
Vice President

Attachments: Certification of Construction Completion
As-Built Drawing
Quality Assurance and Quality Control Documentation

cc: Greg Mathes w/attachments
Scott McCallister w/attachments

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CERTIFICATION OF CONSTRUCTION COMPLETION
OF A SOLID WASTE MANAGEMENT FACILITY

DER Construction Permit No.: SC16-184444 County: Duval

Name of Project: Trail Ridge Landfill - Side Slope Closure of Units 5, 6, 7 & 8

Name of Owner: City of Jacksonville; Trail Ridge Landfill, Inc. - Operator/Permittee

Name of Engineer: England, Thims & Miller, Inc.

Type of Project: Class I Landfill - Incremental Closure
Closure of Units 5, 6, 7 (Partial) and 8 (Partial)

Cost: Estimated $ 870,950 Actual $ 738,700+/-

Site Design: Quantity: 2,600 (Avg) ton/day Site Acreage: 5.0+/- Acres

Population: 659,000+/-(1990) Dumping Fees: $ 55 /Ton

Deviations from Plans and Application Approved by DER: Deviations are shown on the As-Built Drawing and/or outlined in the attachment. The As-Built survey was prepared by Sunshine State Surveyors, Inc. and reviewed by England, Thims and Miller, Inc.

Water Monitoring Data Submitted to DER, Date: Quarterly

Address and Telephone No. of Site: 5110 U.S. Highway 301, Baldwin, FL 32234
Phone: (904) 289-9100

Name(s) of Site Supervisor: Greg Mathes

Date Site Inspection is requested: As soon as possible

This is to certify that, with the exception of deviation noted above, the construction of the project has been completed in accordance with the plans authorized by Construction Permit No.: SC16-184444 and Modifications Dated: 12-24-91

England, Thims & Miller relied upon the information and certifications provided by Law Engineering and Sunshine State Surveyors, Inc. in this certification.

Date: 2-4-94

Signature of Professional Engineer

DER FORM 17-701.900(2) Effective January 6, 1993

REGfiles 1/5

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

February 26, 2001

VIA AIRBORNE

Mr. Wayne Tutt
Air and Water Quality Division
City Hall @ St. James Building
117 West Duval Street, Suite 225
Jacksonville, Florida 32202

Re: Annual Air Operating Report – 2000
Trail Ridge Landfill
Permit No.: 031-0358-001-AC

Dear Mr. Tutt:

In accordance with FAC Rule 62-210-370(3) and Specific Condition #22 of the referenced permit, enclosed is our 2000 Annual Air Operating Report for Trail Ridge Landfill.

If you have any questions concerning this submittal, please call me at (904) 289-9100.

Sincerely,

Greg Mathes
District Manager

GM:lh
Enclosure

cc: Mary Nogas, Department of Environmental Protection (w/o enclosure)
Chris Pearson, City of Jacksonville (w/ enclosure)
Matt Zinke, Waste Energy Technology (w/o enclosure)
Carolyn McCreedy, Waste Management, Inc. (w/o enclosure)

Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

February 26, 2001

CERTIFIED - RETURN RECEIPT

Greg Mathes, District Manager
Trail Ridge Landfill, Inc.
5110 U. S. Highway 301
Baldwin, Florida 32234

Dear Mr. Mathes:

Trail Ridge Landfill
Phase IVC, Construction of Double Synthetic Liner System and 6" Compacted Subbase
Modification No.0013493-006 to Permit No.0013493-002-SC

The Department has received the following documents submitted to comply with Florida Administrative Code Chapter 62-701 and the subject permit:

A. "Cover Letter and Certification of Construction Completion of a Solid Waste Management Facility," Form 62-701.900(2), signed and sealed by Juanitta Bader Clem, P.E.,England-Thims & Miller,Inc., dated January 31, 2001; "Trail Ridge Landfill Phase IVC Quality Assurance and Quality Control Documentation," prepared by England –Thims & Miller, Inc. and Law Engineering, dated January 31, 2001; and transmittal letter of "Deviation From Plans and Application," signed by Francis Dayao, P.E., on February 6, 2001, England-Thims & Miller, Inc.;

B. "Record Documentation Report For Geosynthetic Quality Assurance Of Construction Of Phase IVC Third Construction Increment," Volume 1 of 1, prepared by Golder Associates, January 2001;

C. "As-Built" Survey Drawing Numbers LS-7, LS-8, LS-9, D-5 and D-6, signed and sealed by Joseph Leslie Reynolds, III, L.S., Robert M. Angas Associates, Inc.

Based on the above listed documents and the inspection by Department personnel on February 20, 2001, the Department finds the construction of the Phase IVC Double Synthetic Liner System to be in conformance with the subject permit.

The department has no objection to the facility accepting waste in the Phase IVC area at this time providing that the "As-Built" engineering drawings will be followed.

Thank you for your cooperation in this matter. If you have any questions, please contact Sam Park at the letterhead address or telephone number (904) 448-4320, extension 366.

Sincerely,

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

MCN:spl

cc: Juanitta Bader Clem, P.E.
Francis T. Adams, P. E.

Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

February 15, 2001

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

Dear Mr. Mathes:

Duval County – Stormwater
Trail Ridge Landfill – Phase IVC
Permit No. 0013493-002-SC
Acceptance of Certification of Completion of Construction

On January 31, 2001, the Department received the Certification of Completion of Construction together with an as-built plan for the referenced project.

A compliance inspection was conducted on the stormwater system on February 13, 2001 to verify the compliance of the stormwater system with the permit issued by the Department on November 25, 1997. After reviewing the certification of completion and as–built plan along with a review of the permit and the inspection of the facility, the Department finds that the constructed stormwater system is in compliance with Chapter 373, F.S., Chapters 40C-4 and 40C-42, F.A.C. It is the Department's understanding that the permit will now move into the operational phase and Trail Ridge, Inc. will be the responsible entity for the operation and maintenance of the stormwater system. Trail Ridge, Inc. is responsibile for meeting all conditions of the permit and to provide information on monitoring to the Department.

If you have any questions, please contact me at (904) 448-4340, extension 348.

Sincerely,

R. Shayan

Reza Shayan, E.I.
Stormwater Compliance Engineer

RS/lgb

Cc: Juanita Bader Clem, P.E.
Francis Dayao, P.E.
Mary Nogas, P.E.
Jeremy Tyler
David Apple, P.E.

England-Thims & Miller, Inc.
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

February 22, 2001

Mr. Michael Fitzsimmons
Waste Program Administrator
Department of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256

Reference: Trail Ridge Landfill – Phase IVC
FDEP Permit No. 0013493-002-SC
ET&M Project No. 00-79

Dear Mr. Fitzsimmons:

This is to confirm our telephone conversation that Trail Ridge Landfill, Inc. has been given authorization by the Department of Environmental Protection to begin accepting solid waste in Phase IVC of the referenced facility. It is my understanding that an official letter will be sent by the Department to Trail Ridge Landfill, Inc. next week.

We appreciate your assistance and should you have any questions, please feel free to give me a call.

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Francis Dayao

Francis Dayao, P. E.
Project Engineer

Cc: Greg Mathes
Chris Pearson

14775 ST. AUGUSTINE RD. • JACKSONVILLE, FL 32258 • TEL: (904) 642-8990 • FAX: (904) 646-9485

Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

CONFERENCE

SUBJECT: Trail Ridge – Using Contaminated Soils As Cover DATE: 2/16/01

NAME/TITLE	AFFILIATION	PHONE NUMBER
M Nosari	FDEP	448-4320 ext 355
Mark Mechling	Ellis & Assoc	880-0960
Kirk Pachal	FDEP	448-4320
Chris Pearson	City of Jax	665-8081
Sam I. Poole	FDEP	448-4320 x 366

cc: Files

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.
Juanitta Bader Clem, P.E., V.P.
Scott A. Wild, P.E., P.S.M., V.P.

January 31, 2001

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

Mr. David P. Apple, P. E.
Stormwater Section
Department of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256

Reference: Trail Ridge Landfill – Phase IVC
FDEP Permit No. 0013493-002-SC
ET&M Project No. 00-079

Dear Ms. Nogas and Mr. Apple:

Please find herewith the Certification of Construction Completion for the Trail Ridge Landfill Phase IVC including the stormwater collection system for Phase IVC in accordance with Specific Condition #15 of the referenced permit. The Soils and Geosynthetic Quality Assurance documentation and As-Built Surveys are included as part of this certification.

We respectfully request a site inspection on or before February 20, 2001. Subject to your site inspection, Trail Ridge Landfill, Inc. respectfully request your written authorization to accept Class I Solid Waste in Phase IVC of Trail Ridge Landfill.

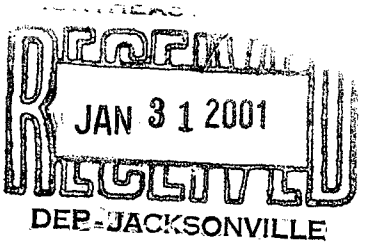
This is the certification for the Trail Ridge Landfill construction which commenced on May 24, 2000. Should you have any questions, please feel free to give me a call.

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Juanitta Bader Clem

Juanitta Bader Clem, P. E.
Vice President



Attachments: Certification of Construction Completion
QA/QC Documentation
Geosynthetic CQA Report
As-Built Survey

cc: Greg Mathes w/ attachments
Chris Pearson w/ attachments

14775 ST. AUGUSTINE RD. • JACKSONVILLE, FL 32258 • TEL: (904) 642-8990 • FAX: (904) 646-9485

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.
Juanitta Bader Clem, P.E., V.P.
Scott A. Wild, P.E., P.S.M., V.P.

January 24, 2001

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

Reference: Trail Ridge Landfill
Third Construction Increment – Phase VA
FDEP Permit No. 0013493-002-SC
ET&M Project No. E00-79

Dear Ms. Nogas:

As stated in my telephone conversation with Ms. Julia Boesch on January 27, 2001, we have tested the aggregate for the leachate collection system in Phase VA of the referenced facility and one of two results was slightly outside the specified gradation limits for AASHTO No. 3 course aggregate (the permitted and specified material). The attached letter from Law Engineering and Environmental Services explains the results in detail. The results indicated that the material is slightly coarser than the specified limits. However, the courser material will not compromised the intended use of the material (the gravel envelope around the leachate collection pipe). Therefore, we believe that the material is acceptable. It is my understanding, pursuant to my conversation with Ms. Boesch that the Department does not object to using the aggregate. As such, the material has been utilized in the Phase VA leachate collection system and this will be noted as a deviation in the certification documents for the project.

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

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Juanitta Bader Clem

Juanitta Bader Clem, P.E.
Vice President

Attachment

cc: Greg Mathes w/Attachment
Chris Pearson w/Attachment

NORTHEAST DISTRICT
RECEIVED
JAN 26 2001

14775 St. Augustine Rd. • Jacksonville, FL 32258 • Tel: (904) 642-8990 • Fax: (904) 646-9485

LAWGIBB GROUP

January 19, 2001

Ms. Juanitta Clem
England, Thims & Miller, Inc.
14775 St. Augustine Road
Jacksonville, Florida 32258

Subject: Leachate Trench Aggregate Gradation
Phase VA, 3rd Construction Increment
Trail Ridge Landfill
Duval County, Florida
LAW Project 40562-0-4105

Dear Ms. Clem:

Confirming our discussions, one of the two leachate trench aggregate samples sampled for gradation verification was slightly outside gradation limits on two of the sieves. Specifically, the material (specified as AASHTO No. 3 coarse aggregate) is supposed to have 100 percent of its material finer than the 2.5-inch sieve. The sample in question was 98.9 percent finer. For the 2-inch sieve, the limits are between 90 percent and 100 percent finer. The sample tested was 86.6 percent finer. Even though the sample is slightly coarser than the strict limits, we believe this material is acceptable for use. This recommendation is based on:

- The material is actually coarser than that specified and, since it is being used as a drainage medium, the function will not be compromised.
- The amount that the sample tested deviated from the specification was so small that it will likely be corrected when mixed with larger samples. Combining the two samples tested corrected the 2-inch sieve deviation and lowered the deviation on the 2.5-inch sieve to less than 1 percent.

In summary, in our opinion, this aggregate will function as intended and, as such, should be acceptable for use.

We are pleased to have been of service on this phase of your project. Please contact us if you have any questions or more information is needed.

Sincerely,

LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

Scott Marhold
Staff Professional

NORTHEAST DISTRICT
RECEIVED
JAN 26 2001
DEP - JACKSONVILLE

1/19/01
W. Ronald Woods, P.E.
Senior Principal
Registered, Florida 23122

LAW Engineering and Environmental Services, Inc.
3901 Carmichael Avenue • Jacksonville, FL 32207
904-396-5173 • Fax: 904-396-5703

WACS # 16/000 33628 / 13493

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

January 5, 2001

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

Re: Permit No. 0013493-002-SC
Waste Tire Processing Facility Quarterly Report
FourthQuarter 2000

Dear Ms. Nogas:

In accordance with specific condition 32e of the above referenced permit, please find enclosed, the Waste Tire Processing Facility Quarterly Report for Trail Ridge Landfill for the fourth calendar quarter of 2000.

Should you have any questions concerning this report, please call me at 289-9100.

Sincerely,

Greg Mathes
District Manager

GM:lh
Enclosure

cc: Carolyn McCreedy

RECEIVED
JAN 08 2001
STATE OF FLORIDA
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT/JAX

c:\my documents\word engineer 00\wastetire4thqtrr00.doc

Department of Environmental Protection

DEP Form # 62-701.900(21)
Waste Tire Processing Facility
Form Title Quarterly Report
Effective Date 12/23/96
DEP Application No. _____
(Filled in by DEP)

Waste Tire Processing Facility Quarterly Report

Pursuant to Rule 62-711.530, Florida Administrative Code, the owner or operator of a waste tire processing facility shall submit the following information to the Department quarterly.

Quarter covered by this report: 4TH QTR 2000 (First quarter begins on January 1 of any given year)

1. Facility name: TRAIL RIDGE LANDFILL
2. Facility mailing address: 5110 U.S. HIGHWAY 301 SOUTH

   City: BALDWIN County: DUVAL Zip: 32234-3608
3. Facility permit number: 0013493-002-SC
4. Facility telephone number: (904) 289-9100
5. Authorized person preparing report: GREG MATHES
6. Affiliation with facility: DISTRICT MANAGER
7. Telephone number (if different from above): ( )
8. Activity: Report in tons.

	Beginning Inventory	Received	Processed	Consumed	Removed	Adjustments	Ending Inventory
Used Tires	173	101					274
Other whole tires							
Processed tires							
Processing Waste							
Other							
Total	173	101					274

a. Explain all inventory adjustments. _____

b. List any period in which one or more category of inventory exceeded the permitted maximum for that category. How was that condition relieved? _____

For any excess inventory at the end of the quarter, state how and when this condition will be relieved. Attach additional sheets, if necessary. _____

9. Certification:

To the best of my knowledge and belief, I certify the information provided in this report is true, accurate and complete.

X GREG MATHES — Name of Authorized Agent

Signature of Authorized Agent

1/5/01 — Date

Mail complete form to the appropriate district office

RECEIVED

JAN 11 2001

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

Northwest District	Northeast District	Central District	Southwest District	South District	Southeast District
160 Governmental Center	7825 Baymeadows Way, Ste. B200	3319 Maguire Blvd., Ste. 232	3804 Coconut Palm Dr.	2295 Victoria Ave., Ste. 364	400 North Congress Ave.
Pensacola, FL 32501-5794	Jacksonville, FL 32256-7590	Orlando, FL 32803-3767	Tampa, FL 33619	Fort Myers, FL 33901-3881	West Palm Beach, FL 33401
904-444-8360	904-448-4300	407-894-7555	813-744-6100	941-332-6975	561-681-6600

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.
Juanitta Bader Clem, P.E., V.P.
Jeffrey A. Crammond, P.E., V.P.
Scott A. Wild, P.E., P.S.M., V.P.

December 21, 2000

Mr. David Apple, P. E.
Stormwater Section
Department of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256

Reference: Trail Ridge Landfill – Phase IIIC
FDEP Permit No. 0013493-002-SC
ET&M Project No. 00-79

Dear Mr. Apple:

Please find herewith the Certification of Construction Completion for the Trail Ridge Landfill – Phase IIIC stormwater collection system in accordance with Specific Condition No. 15 of the subject permit. Please note that Structure S-152 (located east of Phase IIIC) is the only stormwater structure associated with Phase IIIC.

Should you have any questions, please feel free to give me a call.

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Juanitta Bader Clem

Juanitta Bader Clem, P. E.
Vice President

Attachments: Certification of Construction Completion
As-Built Survey

cc: Mary Nogas w/Attachments
Greg Mathes w/Attachments
Chris Pearson w/Attachments

MSSW/STORMWATER AS-BUILT CERTIFICATION BY A REGISTERED PROFESSIONAL*

PERMIT NUMBER: 0013493-002-SC

PROJECT NAME: Trail Ridge Landfill - Phase IIIC

I hereby certify that all components of this stormwater management system have been built substantially in accordance with the approved plans and specifications and is ready for inspection. Any substantial deviations (noted below) from the approved plans and specifications will not prevent the system from functioning in compliance with the requirements of chapter 40C-4, 40C-41 or 40C-42, F.A.C. (as applicable), when properly maintained and operated. These determinations have been based upon on-site observation of the system conducted by me or by my designee under my direct supervision and/or my review of as-built plans certified by a registered professional or Land Surveyor licensed in the State of Florida.

Juanitta Bader Clem
Name (please print)

Juanitta Bader Clem
Signature of Professional

England, Thims & Miller, Inc.
Company Name

43245
Florida Registration Number

14775 St. Augustine Road
Company Address

Dec. 21, 2000
Date

Jacksonville, Fl. 32258
City, State, Zip Code

(904) 642-8990
Telephone Number

(Affix Seal)

Substantial deviations from the approved plans and specifications:

No deviations from the approved plans and specifications.

(Note: attach two copies of as-built plans when there are substantial deviations)

RECEIVED
DEC 22 2000
STATE OF FLORIDA
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT

Within 30 days of completion of the system, submit two copies of this form to:
Department of Permit Data Services
St. Johns River Water Management District
P.O. Box 1429
Palatka, FL 32178-1429.

*A registered professional is defined in subsection 40C-42.021(1) as "a professional registered in Florida with the necessary expertise in the fields of hydrology, drainage, flood control, erosion and sediment control, and stormwater pollution control to design and certify stormwater management systems. Examples of registered professionals may include professional engineers licensed under chapter 471, F.S., professional landscape architects licensed under chapter 481, F.S., and professional geologists licensed under chapter 492, F.S., who have the referenced skills.

District Form No. 40C-1.181(13)

England, Thims & Miller, Inc. relied upon the as-built drawings provided by Robert M. Angas Associates, Inc.

REGfiles: 4/93

M. Nogas

Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

December 27, 2000

Mr. Greg Mathes
Trail Ridge Landfill, Inc.
5110 U.S. Highway 301 South
Baldwin, Florida 32234

Dear Mr. Mathes:

Duval County – Stormwater
Permit No. 0013493-002-SC
Acceptance of Certification of Completion of Construction

On December 21, 2000, the Department received the Certification of Completion of Construction together with an as-built plan for the referenced project.

A compliance inspection was conducted on the stormwater system on December 21, 2000, to verify the compliance of the stormwater system with the Department's permit issued on November 25, 1997. After reviewing the certification of completion and as–built plan along with a review of the permit and the inspection of the facility, the Department finds that the constructed stormwater system is in compliance with Chapter 373, F.S., Chapters 40C-4 and 40C-42, F.A.C. It is the Department's understanding that the permit will now move into the operational phase and Trail Ridge, Inc. will be the responsible entity for the operation and maintenance of the stormwater system. It is Trail Ridge, Inc.'s responsibility to meet all conditions of the permit and provide information on monitoring to the Department,

If you have any questions, please contact me at (904) 448-4340, extension 348.

Sincerely,

R. Shayan

Reza Shayan, E.I.
Stormwater Compliance Engineer

RS/lgb

Cc: Juanita Bader Clem, P.E.
Mary Nogas, P.E. ✓
Jeremy Tyler JT
David Apple, P.E.

Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

December 21, 2000

CERTIFIED - RETURN RECEIPT

Greg Mathes
Trail Ridge Landfill, Inc.
5110 U.S. Highway 301
Baldwin, Florida 32234

Dear Mr. Mathes:

Trail Ridge Landfill-Phase IIIC
Certification of Construction Completion
FDEP Permit Number 0013493-002-SC
Duval County – Solid Waste

The department acknowledges receipt of the following documents submitted pursuant to Florida Administrative Code Chapter 62-701 and Specific Condition Number 15 of the subject Permit:

1. "Record documentation report for Geosynthetic Quality Assurance of Phase IIIC Third Construction Increment Trail Ridge Landfill, Baldwin, Florida," signed by Francis T. Adams, P.E., prepared by Golder Associates, Inc., received December 8, 2000.

2. "Trail Ridge Landfill Phase IIIC. Quality Assurance and Quality Control Documentation," signed and sealed by Juanitta B. Clem, P.E., prepared by England, Thims & Miller, Inc., received December 7, 2000.

3. "Certification of Construction Completion of a Solid Waste Management Facility," form dated December 7, 2000, signed and sealed by Juanitta B. Clem, P.E., prepared by England, Thims & Miller, Inc., received December 8, 2000.

4. As-Built Survey, "Trail Ridge Landfill Phase IIIC," signed and sealed by Joseph L. Reynolds III, P.S., received December 8, 2000.

In addition to the department's review of the aforementioned documents, department staff conducted a construction completion inspection of Phase IIIC of the Trail Ridge Landfill on December 19, 2000. Based on the department's review and inspection, the department has determined Phase IIIC to be acceptable for the receipt of solid waste as approved in your permit application.

Please be reminded that pursuant to Specific Condition number 16, the first layer of waste placed above the liner system shall be a minimum of four feet in compacted thickness, and shall consist of selected waste containing no large or rigid objects that may damage the liner or leachate collection system. Additionally, you are reminded that initial placement of select waste must be conducted under the supervision of a quality assurance engineer.

If you have any comments concerning this matter, please contact Michael Bogin at the letterhead address or telephone number (904) 448-4320.

Sincerely,

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

MCN:mbl

cc: Juanitta B. Clem, P.E., England, Thims & Miller, Inc.
Chris Pearson, City of Jacksonville

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

'00 OCT 11 PM 2 52

STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE

October 10, 2000

WACS #
16/000 33628

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

Re: Permit No. 0013493-002-SC
Waste Tire Processing Facility Quarterly Report
Third Quarter 2000

Dear Ms. Nogas:

In accordance with specific condition 32e of the above referenced permit, please find enclosed, the Waste Tire Processing Facility Quarterly Report for Trail Ridge Landfill for the third calendar quarter of 2000.

Should you have any questions concerning this report, please call me at 289-9100.

Sincerely,

Greg Mathes
District Manager

GM:lh
Enclosure

cc: Carolyn McCreedy

c:\my documents\word engineer 00\wastetire3rdqtr00.doc

Department of Environmental Protection

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

DEP Form # 62-711.900(4)
Form Title Waste Tire Processing Facility Quarterly Report
Effective Date February 28, 1994
DEP Application No. _____
(Filled in by DEP)

'00 OCT 11 PM 2 52

Waste Tire Processing Facility Quarterly Report

Pursuant to Rule 62-711.530, Florida Administrative Code, the owner or operator of a waste tire processing facility shall submit the following information to the Department quarterly.

Quarter covered by this report: THIRD QUARTER 2000 (First quarter begins on January 1 of any given year)

1. Facility name: TRAIL RIDGE LANDFILL
2. Facility mailing address: 5110 U.S. HIGHWAY 301 SOUTH

   City: BALDWIN County: DUVAL Zip: 32234-3608
3. Facility permit number: 0013493-002-SC
4. Facility telephone number: (904) 289-9100
5. Authorized person preparing report: GREG MATHES
6. Affiliation with facility: DISTRICT MANAGER
7. Telephone number (if different from above): ( )
8. Activity: Report in tons.

	Beginning Inventory	Received	Processed	Consumed	Removed	Adjustments	Ending Inventory
Used Tires	247	100	174				173
Other whole tires							
Processed tires							
Processing Waste							
Other							
Total	247	100	174				173

a. Explain all inventory adjustments. _____

b. List any period in which one or more category of inventory exceeded the permitted maximum for that category. How was that condition relieved? _____ For any excess inventory at the end of the quarter, state how and when this condition will be relieved. Attach additional sheets, if necessary. _____

9. Certification:

To the best of my knowledge and belief, I certify the information provided in this report is true, accurate and complete.

GREG MATHES		10/10/00
Name of Authorized Agent	Signature of Authorized Agent	Date

Mail complete form to
the appropriate district office
Page 1 of 1

Northwest District
160 Government Center
Pensacola, Florida 32501-5794
904-444-8300

Northeast District
7825 Baymeadows Way Suite B200
Jacksonville, Florida 32256-7577
904-448-4300

ATTACHMENT 7

Southeast District
1900 S. Congress Ave., Suite E
West Palm Beach, Florida 33406
407-433-2650

Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

September 28, 2000

CERTIFIED – RETURN RECEIPT

Mr. Bob McDonald
Jacksonville Eighteen Construction, Inc.
345 Cumberland Industrial Court
St. Augustine, Florida 32095

Dear Mr. McDonald:

Jacksonville Eighteen Construction, Inc
Temporary authorization to transport waste tires
Duval County - Solid Waste

Under the provisions of Florida Administrative Code Rule 62-711.520(12), the Department hereby grants temporary authorization to Jacksonville Eighteen Construction, Inc. of St. Augustine, Florida for the following vehicle to haul waste tires from a construction site along State Road 10 (US 90) at the Deep Creek construction site between Baldwin and Jacksonville approximately 1.8 miles west of CR 121, to the Trail Ridge Landfill located at 5110 U.S. Highway 301.

1999 Volvo Dump truck, Florida Tag Number M6951W
VIN: 4VHJCBPF7XN866571

This temporary authorization **expires October 10, 2000**. A copy of this letter shall be kept with the vehicle any time that waste tires are being transported.

Any questions regarding this letter should be addressed to Chris Roeder or Mary Nogas at the letterhead address. Thank you for you cooperation in this matter.

Sincerely,

M C Nogas

for Chris Roeder
Solid Waste Engineer

CR:ml

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

September 13, 2000

RECEIVED

SEP 15 2000

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

Ms. Mary C. Nogas, P.E.
Solid Waste Section Supervisor
Department of Environmental Protection
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7590

Re: Trail Ridge Landfill
DEP Permit No.: 0013493-002-SC

Dear Ms. Nogas:

We hereby notify the Department that Trail Ridge Landfill received 3,747 tons of waste on September 11, 2000. The facility was well prepared to handle the waste receipt with three compactors, as well as a fourth compactor when needed, operations personnel (spotters and equipment operators), as well as the District Manager, Site Manager and laborers.

We have been monitoring the waste receipt and are in the process of preparing a permit modification to increase the maximum daily tonnage. The application for the permit modification will be submitted to the Department within ten (10) days.

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

Sincerely,

Greg Mathes
District Manager

GM:jc/lh

cc: L. Chris Pearson
Juanitta Bader Clem

Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

August 25, 2000

CERTIFIED - RETURN RECEIPT

Ms. Juanitta Clem, Vice President
England, Thims, and Miller, Inc.
3131 St. Johns Bluff Road
Jacksonville, Florida 32246

Dear Ms. Clem:

Trail Ridge Landfill
FDEP Permit Number 0013493-002-SC
Quality Control Testing of Geotextile Material
Duval County - Solid Waste

The Department has reviewed your letter, received August 24, 2000, and concurs with your request to revise the Project Specific Addenda to the Quality Assurance Manual for the subject project. The quality control testing of the Geotextile material may be performed at a frequency of once per 90,000 square feet (SF), in lieu of once per 50,000 SF, as provided in the Project Specific Addenda.

Sincerely,

Stephen C. Garvey

Stephen C. Garvey, P. E.
Solid Waste Engineer

SCG:ml

cc: Greg Mathes
Chris Pearson

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.
Juanitta Bader Clem, P.E., V.P.
Jeffrey A. Crammond, P.E., V.P.
Scott A. Wild, P.E., P.S.M., V.P.

August 23, 2000

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

Reference: Trail Ridge Landfill - Permit Number 0013493-002-SC
Third Increment of Construction
ET&M No. E00-79

Dear Ms. Nogas:

On behalf of Trail Ridge Landfill, Inc., we hereby request a revision to the Project Specific Addenda to the Quality Assurance Manual for the referenced project. We request that the quality control testing of the Geotextile material be revised to a frequency of once per 90,000 square feet (SF), in lieu of once per 50,000 SF as provided in the DEP approved Project Specific Addenda. Please find attached herewith the revised Geotextile section of the Project Specific Addenda with the proposed revision (in strike-out and underline format). We will provide this revision as a deviation in the certification documents, if our request is approved by the Department.

According to the manufacturer of the Geotextile material, the industry standard is to test Geotextile material once per 90,000 SF. We have called several other manufacturers and they have verified the frequency of once per 90,000 SF.

We are not proposing to change the quality control testing of the Geomembrane (once per 50,000 SF).

If you have any questions regarding this request, please feel free to give me a call. Thank you for your assistance.

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Juanitta Bader Clem, P.E.
Vice President

cc: Greg Mathes w/attachments
Chris Pearson w/attachments

Attachment: Geotextile Section of the Project Specific Addenda

14775 ST. AUGUSTINE RD. • JACKSONVILLE, FL 32258 • TEL: (904) 642-8990 • FAX: (904) 646-9485

D. GEOTEXTILES

The lining system shall include two geotextiles. The following revisions shall be made to Section 10 of the "Quality Assurance Guidance Document for the Installation of Lining Systems" (WMI, August 1997) with regard to the geotextiles.

10.3-4.e. Add "e. Grab Elongation (ASTM D4632)"

10.3-4.f. Add "f. Burst Strength (ASTM D3786)"

10.3-4.g. Add "g. Apparent Size Opening (ASTM D4751)"

10.3-4.h. Add "h. Permittivity (ASTM D4491)"

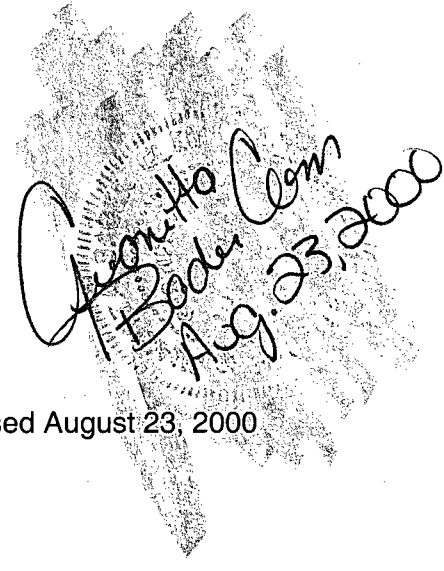
10.3-4.3. Replace "10,000 lbs" with ~~"50,000 ft^2"~~ "90,000 ft^2".

10.3-4 Add "5. Batch number" and "6. Date of manufacture" to the manufacturer's roll identification information.

10.4 Replace entire section as follows: "Conformance testing of geotextile will be conducted by an independent laboratory selected by the CQA Engineer. The laboratory will be accredited by the Geosynthetics Accreditation Institute (GAI) for the specific tests to be performed. The results of the conformance testing shall be reviewed by the Geosynthetic QAE and compared to the Project Specifications. Any nonconformance will be the basis of rejection of the material by the Geosynthetic QAE."

10.4.2 Delete columns that differentiate between different geotextiles. All tests listed shall be performed.

10.6 Replace second paragraph in its entirety with the following: "All geotextile seams shall be continuously sewn. Spot sewing or heat bonding is not allowed."



Revised August 23, 2000

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 21-Aug-2000 10:23am
From: Richard Tedder TAL 850/488-030
TEDDER_R@a1.epic1.dep.state.fl.us
Dept:
Tel No:

Subject: Re: FWD: Trail Ridge Landfill

Mary,

Sorry to take so long in getting back to you. I have looked at the documents I have available such as EPA's QA/QC guidance (EPA/600/R-93/182) and QA/QC submittals for other projects in the State. The general frequency for conformance testing of geotextiles seems to be approximately one sample per lot or one sample per 100,000 ft2, whichever is less. So, I think that Juanitta's suggestion of one sample per 90,000 ft2 should be fine.

We could ask if the geotextile is being used for a cushion or for a filter. You may want a slightly higher test frequency for use primarily as a filter than as a cushion, at least during initial construction. In either case, the one test per 90,000 ft2 seems to be in-line with what others recommend.

Hope all is well with you folks. - RT

8/23/00

J. Clem told to provide formal request letter with revised specification for review & approval with the test frequency change noted on the construction certification as a deviation. The letter needs to be signed & sealed

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

July 7, 2000

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

Re: Permit No. 0013493-002-SC
Waste Tire Processing Facility Quarterly Report
2nd Quarter 2000

Dear Ms. Nogas:

In accordance with specific condition 32e of the above referenced permit, please find enclosed, the Waste Tire Processing Facility Quarterly Report for Trail Ridge Landfill for the second calendar quarter of 2000.

Should you have any questions concerning this report, please call me at 289-9100.

Sincerely,

Greg Mathes
District Manager

GM:lh
Enclosure

cc: Carolyn McCreedy

c:\my documents\word engineer 00\wastetire2ndqtrr00.doc

RECEIVED

JUL 10 2000

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION JAX

Department of Environmental Protection

DEP Form # 62-701.900(21)
Form Title: Waste Tire Processing Facility Quarterly Report
Effective Date: 12/23/96
DEP Application No. _____ (Filled in by DEP)

Waste Tire Processing Facility Quarterly Report

Pursuant to Rule 62-711.530, Florida Administrative Code, the owner or operator of a waste tire processing facility shall submit the following information to the Department quarterly.

Quarter covered by this report: 2ND QUARTER 2000 (First quarter begins on January 1 of any given year)

1. Facility name: TRAIL RIDGE LANDFILL
2. Facility mailing address: 5110 U.S. HWY 301 SO.
   City: BALDWIN County: DUVAL Zip: 32234-3608
3. Facility permit number: 0013493-002-SC
4. Facility telephone number: (904) 289-9100
5. Authorized person preparing report: GREG MATHES
6. Affiliation with facility: DISTRICT MANAGER
7. Telephone number (if different from above): ( )
8. Activity: Report in tons.

	Beginning Inventory	Received	Processed	Consumed	Removed	Adjustments	Ending Inventory
Used Tires	196	51					247
Other whole tires							
Processed tires							
Processing Waste							
Other							
Total	196	51					247

a. Explain all inventory adjustments. _____

b. List any period in which one or more category of inventory exceeded the permitted maximum for that category. How was that condition relieved? _____

For any excess inventory at the end of the quarter, state how and when this condition will be relieved. Attach additional sheets, if necessary. _____

9. Certification:

To the best of my knowledge and belief, I certify the information provided in this report is true, accurate and complete.

GREG MATHES — Name of Authorized Agent

Signature of Authorized Agent

7 /7/ 00 — Date

Mail complete form to
the appropriate district office

Northwest District	Northeast District	Central District	Southwest District	South District	Southeast District
160 Governmental Center	7825 Baymeadows Way, Ste. B200	3319 Maguire Blvd., Ste. 232	3804 Coconut Palm Dr.	2295 Victoria Ave., Ste. 364	400 North Congress Ave.
Pensacola, FL 32501-5794	Jacksonville, FL 32256-7590	Orlando, FL 32803-3767	Tampa, FL 33619	Fort Myers, FL 33901-3881	West Palm Beach, FL 33401
904-444-8360	904-448-4300	407-894-7555	813-744-6100	941-332-6975	561-681-6600

Equal Opportunity Employer

DEPARTMENT OF PUBLIC WORKS
Engineering Division

'00 JUN 28 PM 2 21
STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE

June 27, 2000

Sally B. Heuer, Environmental Specialist
Florida Department of Environmental Protection
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

RE: Sediments from Stormwater Systems – Solid Waste Program

Dear Ms. Heuer:

In accordance with your letters in 1998 to managers of area landfills, concerning the referenced issue, the City of Jacksonville (COJ) has been disposing of stormwater sediments in a lined landfill (Trail Ridge Landfill). With both the high costs and overloading of our landfill that is associated with this activity, the COJ is extremely interested in alternative disposal opportunities for the material. Consequently, we are hopeful that your office has completed the material evaluation process and can now provide us with those disposal options.

Recall that your letter informed that the Florida Department of Environmental Protection "is continuing to collect data to further characterize these wastes and, hopefully, in the future, be able to authorize a widespread reuse of these materials". Having followed your direction over the past two years, we are hopeful that your findings will warrant a less stringent (more cost effective) disposal procedure that we can implement.

Thank you for assistance concerning this issue and I look forward to hearing from you in the near future. Should you have any questions, please call me at 630-1363.

Sincerely,

E. T. Hall, P.E.
Chief, Engineering Division

ETH:jp

xc: Lynn Westbrook, P.E., Chief, Streets and Drainage Division
John P. Pappas, P.E., Manager, Paving and Drainage Design Section

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

'00 JUN 7 PM 3 58
STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE

June 5, 2000

Ms. Mary C. Nogas, PE
Florida Department of Environmental Protection
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256

Re: Trail Ridge landfill

Dear Ms. Nogas:

In accordance with Chapter 62-701.510 (9) (a) F.A.C., this letter serves to inform you that we will be conducting water quality sampling for the second 2000 semi-annual monitoring event at Trail Ridge Landfill on July 10, 2000. Samples will be collected by Professional Technical Support Services, Inc. (ProTech) and transported to Columbia Analytical Services, Inc. in Jacksonville, Florida for analyses.

If you have any questions, please feel free to contact me at 289-9100.

Sincerely,

Greg Mathes
District Manager

GM:lh

cc: Carolyn McCreedy
L. Chris Pearson

Permitting Application - Permit Detail and Log Permit

SITE Permit

Site Name: TRAIL RIDGE LANDFILL LF1 | Site #: 0013493

County: DUVAL | Comments: Y | RPAs: N | # Cases: 0

Project

Permit #: - - | Project #: 009 | Received: 16-NOV-2001 | CRA#:

Permit Office: NED (DISTRICT) | Agency Action: Pending

Project Name: TRAIL RIDGE L/F FILL PHAS PLAN | Desc: (6A & 6B) MM (LFI)

Type/Sub/Des: SO / MM MINOR MODIFICATION | COE #:

Logged: 21-NOV-2001 | Issued: | Expires: | OGC:

Fee: 250.00 | Fee Recd: | Dele: | Override: NONE

Related Party

Role: APPLICANT | Begin: 21-NOV-2001 | End:

Name: MATHES, GREGORY | Company: TRAIL RIDGE LANDFILL, INC.

Addr: 5110 U.S. HWY 301

City: BALDWIN | State: FL | Zip: 32234 - | Country: U.S.A.

Phone: 904-289-9100 | Fax:

Processors

Processor: NOGAS_M | Y | Active: 21-NOV-2001 | Inactive: | Events

Comments

Comments

RECEIPT # 366746

AREA: NED Cash Receiving Application CRAF006A
Collection Point Log Remittance Tot: $44,022.85

SYS$REMT: 451423 Type: CP Recved Date: 19-NOV-2001 Status: RECEIVED
SYS$RCPT: 366746 PNR: Check #: 2094 Amount: 250.00
SSN/FEI#: Name: ENGLAND, THIMS & MILLER, INC
First: Middle: Title: Suf:
Address1: 14775 ST AUGUSTINE ROAD Short Comments:
Address2: ET/AW/SO0013493-009
City: JACKSONVILLE ST: FL Zip: 32258- Country:

P A Y M E N T (S)

SYS$PAYT	Distr CL Area	Object Code/Description	Payment Amount	Reference#	Applic/ Fund	S T A
481032	NED	002245 SOLID WASTE-OPE	$250.00	SO0013493-	PA PFTF	CO

COMMIT FREQUENTLY $250.00 Payment total
Press <TAB> to accept Collection Point or enter F&A.
Count: *64 ^ v <Replace>

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.
Juanitta Bader Clem, P.E., V.P.
Scott A. Wild, P.E., P.S.M., V.P.

November 16, 2001

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

Reference: Trail Ridge Landfill – Permit No. 0013493-002-SC
Application for Permit Modification – Fill Phasing Plan
ET&M Project No. E98-34-30

Dear Ms. Nogas:

On behalf of Trail Ridge Landfill, Inc., please find herein an application for Solid Waste Management Facility Permit Application for permit modification of the referenced permit for Trail Ridge Landfill. This application is to modify the Fill Phasing Plan with the addition of Fill Phases 6A and 6B (as shown on Sheet 12).

Please find herein four (4) copies of Page 25 and Drawing Nos. 12 and 13 from the Permit Documents for your review. We would appreciate your attention to the minor modification.

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

Sincerely,

ENGLAND, THIMS & MILLER, INC.

Francis D. Dayao, P.E.
Project Engineer

cc: Greg Mathes w/ attachments
Chris Pearson w/ attachments

Attachments: Permit Application – 4 copies
Page 25 of Permit Documents (Engineering Report) – 4 copies
Drawings Nos. 12 and 13 of Permit Documents – 4 copies
Minor Modification Fee - $250.00 (Check No. 2094)

3. Surface Water Management System

a. Maintain the existing stormwater management system (detention pond, structures, swales and ditches) as needed during construction.

b. Construct and maintain temporary stormwater conveyance system as needed during construction.

c. Clean existing stormwater management system, after construction is complete.

Future phases of the landfill liner construction will be a repeat of Items 1, 2 and 3.

B. FILL PHASING PLAN

The sequence of fill operations will initially correspond to the liner phasing, as described above. The overall sequence of the fill operations are shown on Permit Drawing Nos. 11, 12 and 13. As shown on the plans, Liner Phases I, II, IIIA and IIIB and IVA and IVB will be initially filled to EL. 210± and then EL. 250±. Next Phase IIIC and IVC will be filled to EL. 210±. Then Phases VA and VC, followed by Phase VB and VD, will be filled to just above the anchor berm (so stormwater will drain off the waste filled areas). Finally, Phases VA, VC, VB and then VD will be filled to EL. 210±. Then on the eastern half, the landfill will be filled to EL. 270± which leaves access to the top from the south west corner and western slopes. The next fill phase (the vertical expansion phase) is the filling of the eastern portion to EL. 330±. The final fill phase if filling the western slope (the operations access location) and the top area.

C. CLOSURE PHASING PLAN

The closure phasing shall correspond to the fill phasing. The Closure Phasing Plans are contained in Permit Drawing Nos. 14 and 15. When side slope units have been filled to their final design grade, they shall be closed in a close-as-you-go fashion.

Florida Department of Environmental Protection
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, FL 32399-2400

DEP Form # 62-701.900(1)
Form Title Solid Waste Management Facility Permit
Effective Date _____

DEP Application No _____
(Filled by DEP)

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

APPLICATION FOR A PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE A SOLID WASTE MANAGEMENT FACILITY

APPLICATION INSTRUCTIONS AND FORMS

REGfiles: 5/2001

Northwest District
160 Governmental Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. B200
Jacksonville, FL 32256-7590
904-448-4300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
3804 Coconut Palm Dr.
Tampa, FL 33619
813-744-6100

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
941-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600

INSTRUCTIONS TO APPLY FOR A SOLID WASTE MANAGEMENT FACILITY PERMIT

I. General

Solid Waste Management Facilities shall be permitted pursuant to Section 403.707, Flori Statutes, (FS) and in accordance with Florida Administrative Code (FAC) Chapter 62-701. A minimum of four copies of the application shall be submitted to the Department's District Office having jurisdiction over the facility. The appropriate fee in accordance with Rule 62-701.315, FAC, shall be submitted with the application by check made payable to the Department of Environmental Protection (DEP).

Complete appropriate sections for the type of facility for which application is made. Entries shall be typed or printed in ink. All blanks shall be filled in or marked "not applicable" or "no substantial change". Information provided in support of the application shall be marked "submitted" and the location of this information in the application package indicated. The application shall include all information, drawings, and reports necessary to evaluate the facility. Information required to complete the application is listed on the attached pages of this form.

II. Application Parts Required for Construction and Operation Permits

A. Landfills and Ash Monofills - Submit parts A,B,D through T
B. Asbestos Monofills - Submit parts A,B,D,E,F,G,J,L,N, P through S, and T
C. Industrial Solid Waste Facilities - Submit parts A,B, D through T
D. Non-Disposal Facilities - Submit parts A,C,D,E,J,N,S and T

NOTE: Portions of some parts may not be applicable.

NOTE: For facilities that have been satisfactorily constructed in accordance with their construction permit, the information required for A,B,C and D type facilities does not have to be resubmitted for an operation permit if the information has not substantially changed during the construction period. The appropriate portion of the form should be marked "no substantial change".

III. Application Parts Required for Closure Permits

A. Landfills and Ash Monofills - Submit parts A,B,M, O through T
B. Asbestos Monofills - Submit parts A,B,N, P through T
C. Industrial Solid Waste Facilities - Submit parts A,B, M through T
D. Non-Disposal Facilities - Submit parts A,C,N,S and T

NOTE: Portions of some parts may not be applicable.

IV. Permit Renewals

The above information shall be submitted at time of permit renewal in support of the new permit. However, facility information that was submitted to the Department to support the expiring permit, and which is still valid, does not need to be re-submitted for permit renewal. Portions of the application not re-submitted shall be marked "no substantial change" on the application form.

V. Application Codes

S	-	Submitted
LOCATION	-	Physical location of information in application
N/A	-	Not Applicable
N/C	-	No Substantial Change

VI. LISTING OF APPLICATION PARTS

PART A: GENERAL INFORMATION

PART B DISPOSAL FACILITY GENERAL INFORMATION

PART C: NON-DISPOSAL FACILITY GENERAL INFORMATION

PART D: PROHIBITIONS

PART E: SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL

PART F: LANDFILL PERMIT REQUIREMENTS

PART G: GENERAL CRITERIA FOR LANDFILLS

PART H: LANDFILL CONSTRUCTION REQUIREMENTS

PART I: HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS

PART J: GEOTECHNICAL INVESTIGATION REQUIREMENTS

PART K: VERTICAL EXPANSION OF LANDFILLS

PART L: LANDFILL OPERATION REQUIREMENTS

PART M: WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS

PART N: SPECIAL WASTE HANDLING REQUIREMENTS

PART O: GAS MANAGEMENT SYSTEM REQUIREMENTS

PART P: LANDFILL CLOSURE REQUIREMENTS

PART Q: CLOSURE PROCEDURES

PART R: LONG TERM CARE REQUIREMENTS

PART S: FINANCIAL RESPONSIBILITY REQUIREMENTS

PART T: CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
APPLICATION FOR A PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE
A SOLID WASTE MANAGEMENT FACILITY

Please Type or Print

A. GENERAL INFORMATION

1. Type of facility (check all that apply):

[X] Disposal
- [X] Class I Landfill
- [ ] Class II Landfill
- [ ] Class III Landfill
- [ ] Ash Monofill
- [ ] Asbestos Monofill
- [ ] Industrial Solid Waste
- [X] Other Describe: Waste Tire Processing

[ ] Non-Disposal
- [ ] Incinerator For Non-biomedical Waste
- [ ] Waste to Energy Without Power Plant Certification
- [ ] Other Describe: _____

NOTE: Waste Processing Facilities should apply on Form 62-701.900(4), FAC; Land Clearing Disposal Facilities should notify on Form 62-701.900(3), FAC; Compost Facilities should apply on Form 62-701.900(10), FAC; and C&D Disposal Facilities should apply on Form 62-701.900(6), FAC

2. Type of application:
- [ ] Construction
- [ ] Operation
- [X] Construction/Operation
- [ ] Closure

3. Classification of application:
- [ ] New
- [ ] Renewal
- [ ] Substantial Modification
- [ ] Intermediate Modification
- [X] Minor Modification

4. Facility name: Trail Ridge Landfill

5. DEP ID number: GMS3116P02787 County: Duval

6. Facility location (main entrance): 5110 U.S. Hwy. 301
Baldwin, Florida 32234

7. Location coordinates:
Section: 18, 19, 20, 21 Township: 3S Range: 23E

Latitude: 30 ° 14 ' 00 " Longitude: 82 ° 02 ' 30 "

8. **Applicant name (operating authority):** Trail Ridge Landfill, Inc.

Mailing address: 5110 U.S. Hwy. 301 (Street or P. O. Box) Baldwin (City) Florida (State) 32234 (Zip)

Contact person: Greg Mathes **Telephone:** (904) 289-9100

Title: General Manager

gmathes@wm.com
E-Mail address (if available)

9. **Authorized ~~agent~~/Consultant:** England, Thims & Miller, Inc.

Mailing address: 14775 St. Augustine Road, Jacksonville, Florida 32258 (Street or P. O. Box, City, State, Zip)

Contact person: Juanitta Clem **Telephone:** (904) 642-8990

Title: Vice President

clemj@etminc.com
E-Mail address (if available)

10. **Landowner(if different than applicant):** City of Jacksonville

Mailing address: 140 W. Monroe Street, Suite 200, Jacksonville, Florida 32202 (Street or P. O. Box, City, State, Zip)

Contact person: Chris Pearson **Telephone:** (904) 630-4593

chrisp@coj.net
E-Mail address (if available)

11. **Cities, towns and areas to be served:** City of Jacksonville (Duval County) and neighboring environs.

12. **Population to be served:**

Current: 759,900 (2000) **Five-Year Projection:** 793,500 (2005)

13. **Date site will be ready to be inspected for completion:** N/A

14. **Expected life of the facility:** 15± years

15. **Estimated costs:**

Total Construction: $ 21.4 Million ± **Closing Costs:** $ 12.43 Million ±

16. **Anticipated construction starting and completion dates:**

From: _____ **To:** _____

17. **Expected volume or weight of waste to be received:**

_____ yds³/day 5,000 * (peak) tons/day _____ gallons/day

3,900 Tons/day (monthly average)

* This waste receipt may increase in the case of a natural disaster and will vary due to market conditions.

B. DISPOSAL FACILITY GENERAL INFORMATION

1. Provide brief description of disposal facility design and operations planned under this application:

Modification of the Fill Phasing Plan as shown on the attached Drawing Nos. 12 and 13.

2. Facility site supervisor: Greg Mathes

Title: General Manager Telephone: (904) 289-9100

gmathes@wm.com
E-Mail address (if available)

3. Disposal area: Total 153 acres; Used 153 acres; Available 0 acres

4. Weighing scales used: [X] Yes [ ] No

5. Security to prevent unauthorized use: [X] Yes [ ] No

6. Charge for waste received: N/A $/yds^3 32.00 $/ton

7. Surrounding land use, zoning:

[ ] Residential
[ ] Agricultural
[ ] Commercial
[ ] Industrial
[ ] None
[X] Other Describe: Silviculture

8. Types of waste received:

[X] Residential
[X] Commercial
[ ] Incinerator/WTE ash
[X] Treated biomedical
[X] Water treatment sludge
[ ] Air treatment sludge
[X] Agricultural
[X] Asbestos
[X] Other Describe: Non-Hazardous Special Waste
[X] C & D debris
[X] Shredded/cut tires
[ ] Yard trash
[ ] Septic tank
[X] Industrial
[X] Industrial sludge
[X] Domestic sludge

9. Salvaging permitted: [ ] Yes [X] No

10. Attendant: [X] Yes [ ] No Trained operator: [X] Yes [ ] No

11. Spotters: Yes [X] No [ ] Number of spotters used: 2

12. Site located in: [ ] Floodplain [ ] Wetlands [X] Other Upland Pines Flatwoods

13. Property recorded as a Disposal Site in County Land Records: [ ] Yes [ ] No

14. Days of operation: Monday - Saturday

15. Hours of operation: 5:00 A.M. - 10:00 P.M.*

16. Days Working Face covered: Daily with cover dirt or tarpaulin

17. Elevation of water table: varies Ft. (NGVD 1929)

18. Number of monitoring wells: 43 (27 wells monitored)

19. Number of surface monitoring points: 3

20. Gas controls used: [X] Yes [ ] No Type controls: [X] Active [ ] Passive

Gas flaring: [X] Yes [ ] No Gas recovery: [ ] Yes [X] No

21. Landfill unit liner type:

[ ] Natural soils
[ ] Single clay liner
[ ] Single geomembrane
[ ] Single composite
[ ] Slurry wall
[ ] Other Describe: With Bentonite Mat and 6" clay subgrade
[X] Double geomembrane
[ ] Geomembrane & composite
[ ] Double composite
[ ] None

22. Leachate collection method:

[X] Collection pipes
[X] Geonets
[ ] Well points
[ ] Perimeter ditch
[ ] Other Describe:
[ ] Sand layer
[ ] Gravel layer
[ ] Interceptor trench
[ ] None

23. Leachate storage method:

[X] Tanks
[ ] Surface impoundments
[ ] Other Describe:

24. Leachate treatment method:

[ ] Oxidation
[ ] Secondary
[ ] Advanced
[ ] None
[X] Other off-site Treatment at a City Wastewater Treatment Facility
[ ] Chemical treatment
[ ] Settling

* May vary dependent upon waste receipt.

25. Leachate disposal method:

[X] Recirculated
[X] Transported to WWTP
[ ] Injection well
[ ] Evaporation
[ ] Other _____
[ ] Pumped to WWTP
[ ] Discharged to surface water
[ ] Percolation ponds

26. For leachate discharged to surface waters:

Name and Class of receiving water: N/A

27. Storm Water:

Collected: [X] Yes [ ] No

Type of treatment: wet detention

Name and Class of receiving water: Headwaters of Deep Creek - Class III

28. Environmental Resources Permit (ERP) number or status: Permitted as Solid Waste Permit (DEP File Nos. 184444, 184445 and 184447). Pond was permitted, constructed and certified.

C. **NON-DISPOSAL FACILITY GENERAL INFORMATION** N/A

1. Provide brief description of the non-disposal facility design and operations planned under this application:

_____

_____

_____

_____

2. Facility site supervisor: _____

Title: _____ Telephone: (___) _____

_____
E-Mail address (if available)

3. Site area: Facility _____ acres; Property _____ acres

4. Security to prevent unauthorized use: [ ] Yes [ ] No

5. Site located in: [ ] Floodplain [ ] Wetlands [ ] Other _____

6. Days of operation: _____

7. Hours of operation: _____

8. Number of operating staff: _____

9. Expected useful life: _____ Years

10. Weighing scales used: [ ] Yes [ ] No

11. Normal processing rate: _____ yd^3/day _____ tons/day _____ gal/day

12. Maximum processing rate: _____ yd^3/day _____ tons/day _____ gal/day

13. Charge for waste received: _____

14. Storm Water Collected: [ ] Yes [ ] No

Type of treatment: _____

Name and Class of receiving water: _____

15. Environmental Resources Permit (ERP) number or status: _____

_____

16. Final residue produced:

_____% of normal processing rate _____% of maximum processing rate

_____Tons/day _____Tons/day

Disposed of at:

Facility name: _____ County: _____

17. Estimated operating costs: $ _____

Total cost/ton: $ _____ Net cost/ton: $_____

18. Provide a site plan, at a scale not greater than 200 feet to the inch, which shows the facility location and identifies the proposed waste and final residue storage areas, total acreage of the site, and any other features which are relevant to the prohibitions or location restrictions in Rule 62-701.300, FAC, such as water bodies or wetlands on or within 200 feet of the site, and potable water wells on or within 500 feet of the site.

19. Provide a description of how the waste and final residue will be managed to not be expected to cause violations of the Department's ground water, surface water or air standards or criteria.

20. Provide an estimate of the maximum amount of waste and final residue that will be store on-site.

21. Provide a detailed description of the technology use at the facility and the functions of all processing equipment that will be utilized. The descriptions shall explain the flow of waste and residue through all the proposed unit operations and shall include: (1) regular facility operations as they are expected to occur; (2) procedures for start up operations, and scheduled and unscheduled shut down operations; (3) potential safety hazards and control methods, including fire detection and control; (4) a description of any expected air emissions and wastewater discharges from the facility which may be potential pollution sources; (5) a description and usage rate of any chemical or biological additives that will be used in the process; and (6) process flow diagrams for the facility operations.

22. Provide a description of the loading, unloading and processing areas.

23. Provide a description of the leachate control system that will be used to prevent discharge of leachate to the environment and mixing of leachate with stormwater. Note: Ground water monitoring may be required for the facility depending on the method of leachate control used.

24. Provide an operation plan for the facility which includes: (1) a description of general facility operations, the number of personnel responsible for the operations including their respective job descriptions, and the types of equipment that will be used at the facility; (2) procedures to ensure any unauthorized wastes received at the site will be properly managed; (3) a contingency plan to cover operation interruptions and emergencies such as fires, explosions, or natural disasters; (4) procedures to ensure operational records needed for the facility will be adequately prepared and maintained; and (5) procedures to ensure that the wastes and final residue will be managed to not be expected to cause pollution.

25. Provide a closure plan that describes the procedures that will be implemented when the facility closes including: (1) estimated time to complete closure; (2) procedures for removing and properly managing or disposing of all wastes and final residues; (3) notification of the Department upon ceasing operations and completion of final closure.

D. **PROHIBITIONS** (62-701.300, FAC)

S	LOCATION	N/A	N/C		
—	_____	___	X	1.	Provide documentation that each of the siting criteria will be satisfied for the facility; (62-701.300(2), FAC)
—	_____	X	___	2.	If the facility qualifies for any of the exemptions contained in Rules 62-701.300(12) through (16), FAC, then document this qualification(s).
—	_____	X	___	3.	Provide documentation that the facility will be in compliance with the burning restrictions; (62-701.300(3), FAC)
—	_____	___	X	4.	Provide documentation that the facility will be in compliance with the hazardous waste restrictions; (62-701.300(4), FAC)
—	_____	___	X	5.	Provide documentation that the facility will be in compliance with the PCB disposal restrictions; (62-701.300(5), FAC)
—	_____	___	X	6.	Provide documentation that the facility will be in compliance with the biomedical waste restrictions; (62-701.300(6), FAC)
—	_____	X	___	7.	Provide documentation that the facility will be in compliance with the Class I surface water restrictions; (62-701.300(7), FAC)
—	_____	___	X	8.	Provide documentation that the facility will be in compliance with the special waste for landfills restrictions; (62-701.300(8), FAC)
—	_____	___	X	9.	Provide documentation that the facility will be in compliance with the special waste for waste-to-energy facilities restrictions; (62-701.300(9), FAC)
—	_____	___	X	10.	Provide documentation that the facility will be in compliance with the liquid restrictions; (62-701.300(10), FAC)
—	_____	___	X	11.	Provide documentation that the facility will be in compliance with the used oil restrictions; (62-701.300(11), FAC)

E. SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL (62-701.320, FAC)

S	LOCATION	N/A	N/C		
X	Attached			1.	Four copies, at minimum, of the completed application form, all supporting data and reports; (62-701.320(5)(a),FAC)
X	Attached			2.	Engineering and/or professional certification (signature, date and seal) provided on the applications and all engineering plans, reports and supporting information for the application; (62-701.320(6),FAC)
X	Attached			3.	A letter of transmittal to the Department; (62-701.320(7)(a),FAC)
X	Attached			4.	A completed application form dated and signed by the applicant; (62-701.320(7)(b),FAC)
X	Attached			5.	Permit fee specified in Rule 62-701.315, FAC in check or money order, payable to the Department; (62-701.320(7)(c),FAC)
X	The Fill Phasing Plan (Page 25) only			6.	An engineering report addressing the requirements of this rule and with the following format: a cover sheet, text printed on 8 1/2 inch by 11 inch consecutively numbered pages, a table of contents or index, the body of the report and all appendices including an operation plan, contingency plan, illustrative charts and graphs, records or logs of tests and investigations, engineering calculations; (62-701.320(7)(d),FAC)
			X	7.	Operation Plan and Closure Plan; (62-701.320(7)(e)1.,FAC)
			X	8.	Contingency Plan; (62-701.320(7)(e)2.,FAC)
				9.	Plans or drawings for the solid waste management facilities in appropriate format (including sheet size restrictions, cover sheet, legends, north arrow, horizontal and vertical scales, elevations referenced to NGVD 1929) showing; (62-702.320(7)(f),FAC)
			X		a. A regional map or plan with the project location;
			X		b. A vicinity map or aerial photograph no more than 1 year old;
			X		c. A site plan showing all property boundaries certified by a registered Florida land surveyor;

LOCATION	N/A	N/C		PART E CONTINUED
		X		d. Other necessary details to support the engineering report.
		X	10.	Documentation that the applicant either owns the property or has legal authority from the property owner to use the site; (62-701.320(7)(g),FAC)
		X	11.	For facilities owned or operated by a county, provide a description of how, if any, the facilities covered in this application will contribute to the county's achievement of the waste reduction and recycling goals contained in Section 403.706,FS; (62-701.320(7)(h),FAC)
		X	12.	Provide a history and description of any enforcement actions taken by the Department against the applicant for violations of applicable statutes, rules, orders or permit conditions relating to the operation of any solid waste management facility in this state; (62-701.320(7)(i),FAC)
	X		13.	Proof of publication in a newspaper of general circulation of notice of application for a permit to construct or substantially modify a solid waste management facility; (62-702.320(8),FAC)
		X	14.	Provide a description of how the requirements for airport safety will be achieved including proof of required notices if applicable If exempt, explain how the exemption applies; (62-701.320(13),FAC)
		X	15.	Explain how the operator training requirements will be satisfied for the facility; (62-701.320(15), FAC)

F. LANDFILL PERMIT REQUIREMENTS (62-701.330, FAC)

S	LOCATION	N/A	N/C		
___	_____	___	X	1.	Vicinity map or aerial photograph no more than 1 year old and of appropriate scale showing land use and local zoning within one mile of the landfill and of sufficient scale to show all homes or other structures, water bodies, and roads other significant features of the vicinity. All significant features shall be labeled; (62-701.330(3)(a),FAC)
___	_____	___	X	2.	Vicinity map or aerial photograph no more than 1 year old showing all airports that are located within five miles of the proposed landfill; (62-701.330(3)(b),FAC)
___	_____	___	X	3.	Plot plan with a scale not greater than 200 feet to the inch showing; (62-701.330(3)(c),FAC)
___	_____	___	X		a. Dimensions;
___	_____	___	X		b. Locations of proposed and existing water quality monitoring wells;
___	_____	___	X		c. Locations of soil borings;
___	_____	___	X		d. Proposed plan of trenching or disposal areas;
___	_____	___	X		e. Cross sections showing original elevations and proposed final contours which shall be included either on the plot plan or on separate sheets;
___	_____	___	X		f. Any previously filled waste disposal areas;
___	_____	___	X		g. Fencing or other measures to restrict access.
				4.	Topographic maps with a scale not greater than 200 feet to the inch with 5-foot contour intervals showing; (62-701.330(3)(d),FAC):
___	_____	___	X		a. Proposed fill areas;
___	_____	___	X		b. Borrow areas;
___	_____	___	X		c. Access roads;
___	_____	___	X		d. Grades required for proper drainage;
___	_____	___	X		e. Cross sections of lifts;

S	LOCATION	N/A	N/C		PART F CONTINUED
			X		f. Special drainage devices if necessary;
			X		g. Fencing;
			X		h. Equipment facilities.
				5.	A report on the landfill describing the following; (62-701.330(3)(e),FAC)
			X		a. The current and projected population and area to be served by the proposed site;
			X		b. The anticipated type, annual quantity, and source of solid waste, expressed in tons;
			X		c. The anticipated facility life;
			X		d. The source and type of cover material used for the landfill.
			X	6.	Provide evidence that an approved laboratory shall conduct water quality monitoring for the facility in accordance with Chapter 62-160,FAC; (62-701.330(3)(h),FAC)
			X	7.	Provide a statement of how the applicant will demonstrate financial responsibility for the closing and long-term care of the landfill; (62-701.330(3)(i),FAC)

GENERAL CRITERIA FOR LANDFILLS (62-701.340,FAC)

			X	1.	Describe (and show on a Federal Insurance Administration flood map, if available) how the landfill or solid waste disposal unit shall not be located in the 100-year floodplain where it will restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain unless compensating storage is provided, or result in a washout of solid waste; (62-701.340(4)(b),FAC)
			X	2.	Describe how the minimum horizontal separation between waste deposits in the landfill and the landfill property boundary shall be 100 feet, measured from the toe of the proposed final cover slope; (62-701.340(4)(c),FAC)
			X	3.	Describe what methods shall be taken to screen the landfill from public view where such screening can practically be provided; (62-701.340(4)(d),FAC)

H. LANDFILL CONSTRUCTION REQUIREMENTS (62-701.400,FAC)

S	LOCATION	N/A	N/C	
___	_____	___	X	1. Describe how the landfill shall be designed so that solid waste disposal units will be constructed and closed at planned intervals throughout the design period of the landfill; (62-701.400(2),FAC)
				2. Landfill liner requirements; (62-701.400(3),FAC)
				a. General construction requirements; (62-701.400(3)(a),FAC):
___	_____	___	X	(1) Provide test information and documentation to ensure the liner will be constructed of materials that have appropriate physical, chemical, and mechanical properties to prevent failure;
___	_____	___	X	(2) Document foundation is adequate to prevent liner failure;
___	_____	___	X	(3) Constructed so bottom liner will not be adversely impacted by fluctuations of the ground water;
___	_____	___	X	(4) Designed to resist hydrostatic uplift if bottom liner located below seasonal high ground water table;
___	_____	___	X	(5) Installed to cover all surrounding earth which could come into contact with the waste or leachate.
				b. Composite liners; (62-701.400(3)(b),FAC)
___	_____	X	___	(1) Upper geomembrane thickness and properties;
___	_____	X	___	(2) Design leachate head for primary LCRS including leachate recirculation if appropriate;
___	_____	X	___	(3) Design thickness in accordance with Table A and number of lifts planned for lower soil component.

S	LOCATION	N/A	N/C
			X
			X
			X
			X
			X
			X
			X
			X
		X	
			X
			X
			X

PART H CONTINUED

c. Double liners; (62-701.400(3)(c),FAC)

(1) Upper and lower geomembrane thicknesses and properties;

(2) Design leachate head for primary LCRS to limit the head to one foot above the liner;

(3) Lower geomembrane sub-base design;

(4) Leak detection and secondary leachate collection system minimum design criteria ($k \geq 10$ cm/sec, head on lower liner ≤ 1 inch, head not to exceed thickness of drainage layer);

d. Standards for geosynthetic components; (62-701.400(3)(d),FAC)

(1) Field seam test methods to ensure all field seams are at least 90 percent of the yield strength for the lining material;

(2) Geomembranes to be used shall pass a continuous spark test by the manufacturer;

(3) Design of 24-inch-thick protective layer above upper geomembrane liner;

(4) Describe operational plans to protect the liner and leachate collection system when placing the first layer of waste above 24-inch-thick protective layer;

(5) HDPE geomembranes, if used, meet the specifications in GRI GM13;

(6) PVC geomembranes, if used, meet the specifications in PGI 1197;

(7) Interface shear strength testing results of the actual components which will be used in the liner system;

(8) Transmissivity testing results of geonets if they are used in the liner system;

(9) Hydraulic conductivity testing results of geosynthetic clay liners if they are used in the liner system;

S	LOCATION	N/A	N/C	PART H CONTINUED
				e. Geosynthetic specification requirements; (62-701.400(3)(e),FAC)
___	_____	___	X	(1) Definition and qualifications of the designer, manufacturer, installer, QA consultant and laboratory, and QA program;
___	_____	___	X	(2) Material specifications for geomembranes, geocomposites, geotextiles, geogrids, and geonets;
___	_____	___	X	(3) Manufacturing and fabrication specifications including geomembrane raw material and roll QA, fabrication personnel qualifications, seaming equipment and procedures, overlaps, trial seams, destructive and nondestructive seam testing, seam testing location, frequency, procedure, sample size and geomembrane repairs;
___	_____	___	X	(4) Geomembrane installation specifications including earthwork, conformance testing, geomembrane placement, installation personnel qualifications, field seaming and testing, overlapping and repairs, materials in contact with geomembrane and procedures for lining system acceptance;
___	_____	___	X	(5) Geotextile and geogrid specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil materials and any overlying materials;
___	_____	___	X	(6) Geonet and geocomposite specifications including handling and placement, conformance testing, stacking and joining, repair, and placement of soil materials and any overlying materials;
	_____	___	X	(7) Geosynthetic clay liner specifications including handling and placement, conformance testing, seams and overlaps, repair, and placement of soil material and any overlying materials;
				f. Standards for soil components (62-710.400(3)(f),FAC):
___	_____	___	X	(1) Description of construction procedures including overexcavation and backfilling to preclude structural inconsistencies and procedures for placing and compacting soil component in layers;

S	LOCATION	N/A	N/C
___	_____	___	X
___	_____	X	___
___	_____	___	X
___	_____	___	X
___	_____	___	X
___	_____	___	X
___	_____	___	X
___	_____	X	___
___	_____	___	X
___	_____	___	X
___	_____	___	X
___	_____	___	X
___	_____	___	X
___	_____	___	X

(2) Demonstration of compatibility of the soil component with actual or simulated leachate in accordance with EPA Test Method 9100 or an equivalent test method;

(3) Procedures for testing in-situ soils to demonstrate they meet the specifications for soil liners;

(4) Specifications for soil component of liner including at a minimum:

(a) Allowable particle size distribution, Atterberg limits, shrinkage limit;

(b) Placement moisture and dry density criteria;

(c) Maximum laboratory-determined saturated hydraulic conductivity using simulated leachate;

(d) Minimum thickness of soil liner;

(e) Lift thickness;

(f) Surface preparation (scarification);

(g) Type and percentage of clay mineral within the soil component;

(5) Procedures for constructing and using a field test section to document the desired saturated hydraulic conductivity and thickness can be achieved in the field.

3. Leachate collection and removal system (LCRS); (62-701.400(4),FAC)

a. The primary and secondary LCRS requirements; (62-701.400(4)(a),FAC)

(1) Constructed of materials chemically resistant to the waste and leachate;

(2) Have sufficient mechanical properties to prevent collapse under pressure;

(3) Have granular material or synthetic geotextile to prevent clogging;

(4) Have method for testing and cleaning clogged pipes or contingent designs for rerouting leachate around failed areas;

S	LOCATION	N/A	N/C	
				PART H CONTINUED
				b. Primary LCRS requirements; (62-701.400(4)(b),FAC)
___	_____	___	X	(1) Bottom 12 inches having hydraulic conductivity $\geq 1 \times 10^{-3}$ cm/sec;
___	_____	___	X	(2) Total thickness of 24 inches of material chemically resistant to the waste and leachate;
___	_____	___	X	(3) Bottom slope design to accomodate for predicted settlement;
___	_____	___	X	(4, Demonstration that synthetic drainage material, if used, is equivalent or better than granular material in chemical compatibility, flow under load and protection of geomembrane liner.
				4. Leachate recirculation; (62-701.400(5),FAC)
___	_____	___	X	a. Describe general procedures for recirculating leachate;
___	_____	___	X	b. Describe procedures for controlling leachate runoff and minimizing mixing of leachate runoff with storm water;
___	_____	___	X	c. Describe procedures for preventing perched water conditions and gas buildup;
___	_____	___	X	d. Describe alternate methods for leachate management when it cannot be recirculated due to weather or runoff conditions, surface seeps, wind-blown spray, or elevated levels of leachate head on the liner;
___	_____	___	X	e. Describe methods of gas management in accordance with Rule 62-701.530, FAC;
___	_____	X	___	f. If leachate irrigation is proposed, describe treatment methods and standards for leachate treatment prior to irrigation over final cover and provide documentation that irrigation does not contribute significantly to leachate generation.

S	LOCATION	N/A	N/C		PART H CONTINUED
				5	Leachate storage tanks and leachate surface impoundments; (62-701.400(6),FAC)
					a. Surface impoundment requirements; (62-701.400(6)(b),FAC)
		X			(1) Documentation that the design of the bottom liner will not be adversely impacted by fluctuations of the ground water;
		X			(2) Designed in segments to allow for inspection and repair as needed without interruption of service;
					(3) General design requirements;
		X			(a) Double liner system consisting of a upper and lower 60-mil minimum thickness geomembrane;
		X			(b) Leak detection and collection syste with hydraulic conductivity $\geq$ 1 cm/sec;
		X			(c) Lower geomembrane placed on subbase $\geq$ 6 inches thick with k $\leq$ $1x10^{-5}$ cm/sec or on an approved geosynthetic clay liner with k $\leq$ $1x10^{-7}$ cm/sec;
		X			(d) Design calculation to predict potential leakage through the upper liner;
		X			(e) Daily inspection requirements and notification and corrective action requirements if leakage rates exce that predicted by design calculations;
		X			(4) Description of procedures to prevent uplift, if applicable;
		X			(5) Design calculations to demonstrate minim two feet of freeboard will be maintained;
		X			(6) Procedures for controlling disease vecto and off-site odors.

S	LOCATION	N/A	N/C
___	_____	___	X
___	_____	X	___
___	_____	X	___
___	_____	___	X
___	_____	___	X
___	_____	___	X
___	_____	___	X
___	_____	X	___
___	_____	___	X
___	_____	___	X
___	_____	X	___
___	_____	X	___

PART H CONTINUED

b. Above-ground leachate storage tanks; (62-701.400(6)(c),FAC)

(1) Describe tank materials of construction and ensure foundation is sufficient to support tank;

(2) Describe procedures for cathodic protection if needed for the tank;

(3) Describe exterior painting and interior lining of the tank to protect it from the weather and the leachate stored;

(4) Describe secondary containment design to ensure adequate capacity will be provided and compatibility of materials of construction;

(5) Describe design to remove and dispose of stormwater from the secondary containment system;

(6) Describe an overfill prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overfilling;

(7) Inspections, corrective action and reporting requirements;

(a) Overfill prevention system weekly;

(b) Exposed tank exteriors weekly;

(c) Tank interiors when tank is drained or at least every three years;

(d) Procedures for immediate corrective action if failures detected;

(e) Inspection reports available for department review.

c. Underground leachate storage tanks; (62-701.400(6)(d),FAC)

(1) Describe materials of construction;

(2) A double-walled tank design system to be used with the following requirements;

S	LOCATION	N/A	N/C
—	_____	X	___
___	_____	X	___
___	_____	X	___
___	_____	X	___
___	_____	X	___
___	_____	X	___
___	_____	X	___
___	_____	___	X
—	_____	___	X
___	_____	___	X
___	_____	___	X
___	_____	___	X
___	_____	___	X
___	_____	___	X

PART H CONTINUED

(a) Interstitial space monitoring at least weekly;

(b) Corrosion protection provided for primary tank interior and external surface of outer shell;

(c) Interior tank coatings compatible with stored leachate;

(d) Cathodic protection inspected weekly and repaired as needed;

(3) Describe an overfill prevention system such as level sensors, gauges, alarms and shutoff controls to prevent overfilling and provide for weekly inspections;

(4) Inspection reports available for department review.

d. Schedule provided for routine maintenance of LCRS; (62-701.400(6)(e),FAC)

6. Liner systems construction quality assurance (CQA); (62-701.400(7),FAC)

a. Provide CQA Plan including:

(1) Specifications and construction requirements for liner system;

(2) Detailed description of quality control testing procedures and frequencies;

(3) Identification of supervising professional engineer;

(4) Identify responsibility and authority of all appropriate organizations and key personnel involved in the construction project;

(5) State qualifications of CQA professional engineer and support personnel;

(6) Description of CQA reporting forms and documents;

S	LOCATION	N/A	N/C	PART H CONTINUED
			X	b. An independent laboratory experienced in the testing of geosynthetics to perform required testing;
				7. Soil Liner CQA (62-701.400(8)FAC)
			X	a. Documentation that an adequate borrow source has been located with test results or description of the field exploration and laboratory testing program to define a suitable borrow source;
			X	b. Description of field test section construction and test methods to be implemented prior to liner installation;
			X	c. Description of field test methods including rejection criteria and corrective measures to insure proper liner installation.
				8. Surface water management systems; (62-701.400(9),FAC)
			X	a. Provide a copy of a Department permit for stormwater control or documentation that no such permit is required;
			X	b. Design of surface water management system to isolate surface water from waste filled areas and to control stormwater run-off;
			X	c. Details of stormwater control design including retention ponds, detention ponds, and drainage ways;
				9. Gas control systems; (62-701.400(10),FAC)
			X	a. Provide documentation that if the landfill is receiving degradable wastes, it will have a gas control system complying with the requirements of Rule 62-701.530, FAC;
			N/A	10. For landfills designed in ground water, provide documentation that the landfill will provide a degree of protection equivalent to landfills designed with bottom liners not in contact with ground water; (62-701.400(11),FAC)

I. **HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS** (62-701.410(1), FAC)

	LOCATION		N/A	N/C	
					1. Submit a hydrogeological investigation and site report including at least the following information:
___	_____	___		X	a. Regional and site specific geology and hydrogeology;
___	_____	___		X	b. Direction and rate of ground water and surface water flow including seasonal variations;
___	_____	___		X	c. Background quality of ground water and surface water;
___	_____	___		X	d. Any on-site hydraulic connections between aquifers;
___	_____	___		X	e. Site stratigraphy and aquifer characteristics for confining layers, semi-confining layers, and all aquifers below the landfill site that may be affected by the landfill;
___	_____	___		X	f. Description of topography, soil types and surface water drainage systems;
___	_____	___		X	g. Inventory of all public and private water wells within a one-mile radius of the landfill including, where available, well top of casing and bottom elevations, name of owner, age and usage of each well, stratigraphic unit screened, well construction technique and static water level;
___	_____	___		X	h. Identify and locate any existing contaminated areas on the site;
___	_____	___		X	i. Include a map showing the locations of all potable wells within 500 feet, and all community water suupply wells within 1000 feet, of the waste storage and disposal areas;
___	_____	___		X	2. Report signed, sealed and dated by PE or PG.

J. GEOTECHNICAL INVESTIGATION REQUIREMENTS (62-701.410(2),FAC)

S	LOCATION	N/A	N/C		
				1.	Submit a geotechnical site investigation report defining the engineering properties of the site including at least the following:
___	_____	___	X		a. Description of subsurface conditions including soil stratigraphy and ground water table conditions;
___	_____	___	X		b. Investigate for the presence of muck, previously filled areas, soft ground, lineaments and sink holes;
___	_____	___	X		c. Estimates of average and maximum high water table across the site;
					d. Foundation analysis including:
___	_____	___	X		(1) Foundation bearing capacity analysis;
___	_____	___	X		(2) Total and differential subgrade settlement analysis;
___	_____	___	X		(3) Slope stability analysis;
___	_____	___	X		e. Description of methods used in the investigation and includes soil boring logs, laboratory results, analytical calculations, cross sections, interpretations and conclusions;
___	_____	___	X		f. An evaluation of fault areas, seismic impact zones, and unstable areas as described in 40 CFR 258.13, 40 CFR 258.14 and 40 CFR 258.15.
___	_____	___	X	2.	Report signed, sealed and dated by PE or PG.

X. **VERTICAL EXPANSION OF LANDFILLS** (62-701.430,FAC) N/A

	LOCATION	N/A	N/C		
___	_____	___	___	1.	Describe how the vertical expansion shall not cause or contribute to leachate leakage from the existing landfill or adversely affect the closure design of the existing landfill;
___	_____	___	___	2.	Describe how the vertical expansion over unlined landfills will meet the requirements of Rule 62-701.400, FAC with the exceptions of Rule 62-701.430(1)(c),FAC;
___	_____	___	___	3.	Provide foundation and settlement analysis for the vertical expansion;
___	_____	___	___	4.	Provide total settlement calculations demonstrating that the final elevations of the lining system, that gravity drainage, and that no other component of the design will be adversely affected;
___	_____	___	___	5.	Minimum stability safety factor of 1.5 for the lining system component interface stability and deep stability;
___	_____	___	___	6.	Provide documentation to show the surface water management system will not be adversely affected by the vertical expansion;
	_____	___	___	7.	Provide gas control designs to prevent accumulation of gas under the new liner for the vertical expansion.

L. LANDFILL OPERATION REQUIREMENTS (62-701.500,FAC)

___	_____	___	X	1.	Provide documentation that landfill will have at least one trained operator during operation and at least one trained spotter at each working face; (62-701.500(1),FAC)
				2.	Provide a landfill operation plan including procedures for: (62-701.500(2), FAC)
___	_____	___	X	a.	Designating responsible operating and maintenance personnel;
___	_____	___	X	b.	Contingency operations for emergencies;
___	_____	___	X	c.	Controlling types of waste received at the landfill;
___	_____	___	X	d.	Weighing incoming waste;
___	_____	___	X	e.	Vehicle traffic control and unloading;
X	See Drawing Nos. 12 and 13	___	___	f.	Method and sequence of filling waste;
___	_____	___	X	g.	Waste compaction and application of cover;
___	_____	___	X	h.	Operations of gas, leachate, and stormwater controls;
___	_____	___	X	i.	Water quality monitoring;
___	_____	___	X	j.	Maintaining and cleaning the leachate collection system;
___	_____	___	X	3.	Provide a description of the landfill operation record to be used at the landfill; details as to location of where various operational records will be kept (i.e. FDEP permit, engineering drawings, water quality records, etc.) (62-701.500(3),FAC)
___	_____	___	X	4.	Describe the waste records that will be compiled monthly and provided to the Department quarterly; (62-701.500(4),FAC)
___	_____	___	X	5.	Describe methods of access control; (62-701.500(5),FAC)
___	_____	___	X	6.	Describe load checking program to be implemented at the landfill to discourage disposal of unauthorized wastes at the landfill; (62-701.500(6),FAC)
				7.	Describe procedures for spreading and compacting waste at the landfill that include: (62-701.500(7),FAC)
___	_____	___	X	a.	Waste layer thickness and compaction frequencies;

S	LOCATION	N/A	N/C	PART L CONTINUED
			X	b. Special considerations for first layer of waste placed above liner and leachate collection system;
			X	c. Slopes of cell working face and side grades above land surface, planned lift depths during operation;
			X	d. Maximum width of working face;
				e. Description of type of initial cover to be used at the facility that controls:
			X	(1) Disease vector breeding/animal attraction
			X	(2) Fires
			X	(3) Odors
			X	(4) Blowing litter
			X	(5) Moisture infiltration
			X	f. Procedures for applying initial cover including minimum cover frequencies;
			X	g. Procedures for applying intermediate cover;
			X	h. Time frames for applying final cover;
			X	i. Procedures for controlling scavenging and salvaging;
			X	j. Description of litter policing methods;
			X	k. Erosion control procedures.
				8. Describe operational procedures for leachate management including; (62-701.500(8),FAC)
			X	a. Leachate level monitoring, sampling, analysis and data results submitted to the Department;
			X	b. Operation and maintenance of leachate collection and removal system, and treatment as required;
			X	c. Procedures for managing leachate if it becomes regulated as a hazardous waste;
			X	d. Agreements for off-site discharge and treatment of leachate;
			X	e. Contingency plan for managing leachate during emergencies or equipment problems;

S	LOCATION	N/A	N/C	PART L CONTINUED
			X	f. Procedures for recording quantities of leachate generated in gal/day and including this in the operating record;
			X	g. Procedures for comparing precipitation experienced at the landfill with leachate generation rates and including this information in the operating record;
			X	h. Procedures for water pressure cleaning or video inspecting leachate collection systems.
			X	9. Describe how the landfill receiving degradable wastes shall implement a gas management system meeting the requirements of Rule 62-701.530, FAC; (62-701.500(9),FAC)
			X	10. Describe procedures for operating and maintaining the landfill stormwater management system to comply with the requirements of Rule 62-701.400(9); (62-701.500(10),FAC)
				11. Equipment and operation feature requirements; (62-701.500(11),FAC)
			X	a. Sufficient equipment for excavating, spreading, compacting and covering waste;
			X	b. Reserve equipment or arrangements to obtain additional equipment within 24 hours of breakdown;
			X	c. Communications equipment;
			X	d. Dust control methods;
			X	e. Fire protection capabilities and procedures for notifying local fire department authorities in emergencies;
			X	f. Litter control devices;
			X	g. Signs indicating operating authority, traffic flow, hours of operation, disposal restrictions.
			X	12. Provide a description of all-weather access road, inside perimeter road and other roads necessary for access which shall be provided at the landfill; (62-701.500(12),FAC)
				13. Additional record keeping and reporting requirements; (62-701.500(13),FAC)

S	LOCATION	N/A	N/C	PART L CONTINUED
___	_____	___	X	a. Records used for developing permit applications and supplemental information maintained for the design period of the landfill;
___	_____	___	X	b. Monitoring information, calibration and maintenance records, copies of reports required by permit maintained for at least 10 years;
___	_____	___	X	c. Maintain annual estimates of the remaining life of constructed landfills and of other permitted areas not yet constructed and submit this estimate annually to the Department;
___	_____	___	X	d. Procedures for archiving and retrieving records which are more than five year old.

M. **WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS** (62-701.510, FAC)

S	LOCATION	N/A	N/C		
___	_____	___	X	1.	Water quality and leachate monitoring plan shall be submitted describing the proposed ground water, surface water and leachate monitoring systems and shall meet at least the following requirements;
___	_____	___	X		a. Based on the information obtained in the hydrogeological investigation and signed, dated and sealed by the PG or PE who prepared it; (62-701.510(2)(a),FAC)
___	_____	___	X		b. All sampling and analysis preformed in accordance with Chapter 62-160, FAC; (62-701.510(2)(b),FAC)
					c. Ground water monitoring requirements; (62-701.510(3),FAC)
___	_____	___	X		(1) Detection wells located downgradient from and within 50 feet of disposal units;
___	_____	___	X		(2) Downgradient compliance wells as required;
___	_____	___	X		(3) Background wells screened in all aquifers below the landfill that may be affected by the landfill;
___	_____	___	X		(4) Location information for each monitoring well;
___	_____	___	X		(5) Well spacing no greater than 500 feet apart for downgradient wells and no greater than 1500 feet apart for upgradient wells unless site-specific conditions justify alternate well spacings;
___	_____	___	X		(6) Well screen locations properly selected;
___	_____	___	X		(7) Procedures for properly abandoning monitoring wells;
___	_____	X	___		(8) Detailed description of detection sensors if proposed.

S	LOCATION	N/A	N/C	PART M CONTINUED
				d. Surface water monitoring requirements; (62-701.510(4),FAC)
___	_____	___	X	(1) Location of and justification for all proposed surface water monitoring points;
___	_____	___	X	(2) Each monitoring location to be marked and its position determined by a registered Florida land surveyor;
___	_____	___	X	e. Leachate sampling locations proposed; (62-701.510(5),FAC)
				f. Initial and routine sampling frequency and requirements; (62-701.510(6),FAC)
___	_____	___	X	(1) Initial background ground water and surface water sampling and analysis requirements;
___	_____	___	X	(2) Routine leachate sampling and analysis requirements;
___	_____	___	X	(3) Routine monitoring well sampling and analysis requirements;
___	_____	___	X	(4) Routine surface water sampling and analysis requirements.
___	_____	___	X	g. Describe procedures for implementing evaluation monitoring, prevention measures and corrective action as required; (62-701.510(7),FAC)
___	_____	___	X	h. Water quality monitoring report requirements; (62-701.510(9),FAC)
___	_____	___	X	(1) Semi-annual report requirements;
___	_____	___	X	(2) Bi-annual report requirements signed, dated and sealed by PG or PE.

N. SPECIAL WASTE HANDLING REQUIREMENTS (62-701.520, FAC)

S	LOCATION	N/A	N/C		
___	_____	X	___	1.	Describe procedures for managing motor vehicles; (62-701.520(1),FAC)
___	_____	___	X	2.	Describe procedures for landfilling shredded waste; (62-701.520(2),FAC)
___	_____	___	X	3.	Describe procedures for asbestos waste disposal; (62-701.520(3),FAC)
___	_____	___	X	4.	Describe procedures for disposal or management of contaminated soil; (62-701.520(4), FAC)
_	_____	___	X	5.	Describe procedures for disposal of biological wastes; (62-701.520(5), FAC)

O. GAS MANAGEMENT SYSTEM REQUIREMENTS (62-701.530,FAC)

				1.	Provide the design for a gas management systems that will (62-701.530(1), FAC):
___	_____	___	X	a.	Be designed to prevent concentrations of combustible gases from exceeding 25% the LEL in structures and 100% the LEL at the property boundary;
___	_____	___	X	b.	Be designed for site-specific conditions;
___	_____	___	X	c.	Be designed to reduce gas pressure in the interior of the landfill;
___	_____	___	X	d.	Be designed to not interfere with the liner, leachate control system or final cover.
___	_____	___	X	2.	Provide documentation that will describe locations, construction details and procedures for monitoring gas at ambient monitoring points and with soil monitoring probes; (62-701.530(2), FAC):
___	_____	___	X	3.	Provide documentation describing how the gas remediation plan and odor remediation plan will be implemented; (62-701.530(3), FAC):
				4.	Landfill gas recovery facilities; (62-701.530(5), FAC):
___	_____	___	X	a.	Information required in Rules 62-701.320(7) and 62-701.330(3), FAC supplied;
___	_____	___	X	b.	Information required in Rule 62-701.600(4), FAC supplied where relevant and practical;
___	_____	___	X	c.	Estimate of current and expected gas generation rates and description of condensate disposal methods provided;

PART O CONTINUED

S	LOCATION	N/A	N/C		
___	_____	___	X	d.	Description of procedures for condensate sampling, analyzing and data reporting provided;

___	_____	___	X	e. Closure plan provided describing methods to control gas after recovery facility ceases operation and any other requirements contained in Rule 62-701.400(10), FAC;
___	_____	___	X	f. Performance bond provided to cover closure costs if not already included in other landfill closure costs.

P. LANDFILL FINAL CLOSURE REQUIREMENTS (62-701.600,FAC)

1. Closure schedule requirements; (62-701.600(2),FAC)

___	_____	___	X	a. Documentation that a written notice including a schedule for closure will be provided to the Department at least one year prior to final receipt of wastes;
___	_____	___	X	b. Notice to user requirements within 120 days of final receipt of wastes;
___	_____	___	X	c. Notice to public requirements within 10 days of final receipt of wastes.

2. Closure permit general requirements; (62-701.600(3),FAC)

___	_____	X	___	a Application submitted to Department at least 90 days prior to final receipt of wastes;
				b. Closure plan shall include the following:
___	_____	___	X	(1) Closure report;
___	_____	___	X	(2) Closure design plan;
___	_____	___	X	(3) Closure operation plan;
___	_____	___	X	(4) Closure procedures;
___	_____	___	X	(5) Plan for long term care;
___	_____	___	X	(6) A demonstration that proof of financial responsibility for long term care will be provided.

3. Closure report requirements; (62-701.600(4),FAC)

				a. General information requirements;
___	_____	X	___	(1) Identification of landfill;

S	LOCATION	N/A	N/C	PART B CONTINUED
___	_____	X	___	(2) Location, description and vicinity map;
___	_____	X	___	(3) Total acres of disposal areas and landfill property;
___	_____	X	___	(4) Legal property description;
___	_____	X	___	(5) History of landfill;
___	_____	X	___	(6) Identification of types of waste disposed of at the landfill.
___	_____	X	___	b. Geotechnical investigation report and water quality monitoring plan required by Rule 62-701.330(3),FAC;
___	_____	X	___	c. Land use information report indicating: identification of adjacent landowners; zoning; present land uses; and roads, highways right-of-way, or easements;
___	_____	X	___	d. Report on actual or potential gas migration at landfills containing degradable wastes which would allow migration of gas off the landfill property;
___	_____	X	___	e. Report assessing the effectiveness of the landfill design and operation including results of geotechnical investigations, surface water and storm water management, gas migration and concentrations, condition of existing cover, and nature of waste disposed of at the landfill;
				4. Closure design requirements to be included in the closure design plan: (62-701.600(5),FAC)
___	_____	___	X	a. Plan sheet showing phases of site closing;
___	_____	___	X	b. Drawings showing existing topography and proposed final grades;
___	_____	___	X	c. Provisions to close units when they reach approved design dimensions;
___	_____	___	X	d. Final elevations before settlement;
___	_____	___	X	e. Side slope design including benches, terraces, down slope drainage ways, energy dissipators and discussion of expected precipitation effects;
				f. Final cover installation plans including:
___	_____	___	X	(1) CQA plan for installing and testing final cover;

S	LOCATION	N/A	N/C	PART P CONTINUED
___	_____	___	X	(2) Schedule for installing final cover after final receipt of waste;
___	_____	___	X	(3) Description of drought-resistant species to be used in the vegetative cover;
___	_____	___	X	(4) Top gradient design to maximize runoff and minimize erosion;
___	_____	___	X	(5) Provisions for cover material to be used for final cover maintenance.
				g. Final cover design requirements:
___	_____	___	X	(1) Protective soil layer design;
___	_____	___	X	(2) Barrier soil layer design;
___	_____	___	X	(3) Erosion control vegetation;
___	_____	___	X	(4) Geomembrane barrier layer design;
___	_____	X	___	(5) Geosynthetic clay liner design if used;
___	_____	___	X	(6) Stability analysis of the cover system and the disposed waste.
___	_____	___	X	h. Proposed method of stormwater control;
___	_____	___	X	i. Proposed method of access control;
___	_____	___	X	j. Description of proposed final use of the closed landfill, if any;
___	_____	___	X	k. Description of the proposed or existing gas management system which complies with Rule 62-701.530, FAC.
				5. Closure operation plan shall include: (62-701.600(6),FAC)
___	_____	X	___	a. Detailed description of actions which will be taken to close the landfill;
___	_____	X	___	b. Time schedule for completion of closing and long term care;
___	_____	X	___	c. Describe proposed method for demonstrating financial responsibility;
___	_____	X	___	d. Indicate any additional equipment and personnel needed to complete closure;

S	LOCATION	N/A	N/C	PART P CONTINUED
___	_____	X	___	e. Development and implementation of the water quality monitoring plan required in Rule 62-701.510, FAC;
___	_____	X	___	f. Development and implementation of gas management system required in Rule 62-701.530, FAC.
___	_____	X	___	6. Justification for and detailed description of procedures to be followed for temporary closure of the landfill, if desired; (62-701.600(7),FAC)

Q. **CLOSURE PROCEDURES** (62-701.610,FAC)

	LOCATION	N/A	N/C		
___	_____	X	___	1.	Survey monuments; (62-701.610(2),FAC)
___	_____	X	___	2.	Final survey report; (62-701.610(3),FAC)
___	_____	X	___	3.	Certification of closure construction completion; (62-701.610(4),FAC)
___	_____	X	___	4.	Declaration to the public; (62-701.610(5),FAC)
___	_____	X	___	5.	Official date of closing; (62-701.610(6),FAC)
___	_____	X	___	6.	Use of closed landfill areas; (62-701.610(7),FAC)
___	_____	X	___	7.	Relocation of wastes; (62-701.610(8), FAC)

R. **LONG TERM CARE REQUIREMENTS** (62-701.620,FAC)

___	_____	___	X	1.	Maintaining the gas collection and monitoring system; (62-701.620(5), FAC)
___	_____	___	X	2.	Right of property access requirements; (62-701.620(6),FAC)
___	_____	___	X	3.	Successors of interest requirements; (62-701.620(7),FAC)
___	_____	___	X	4.	Requirements for replacement of monitoring devices; (62-701.620(9),FAC)
___	_____	X	___	5.	Completion of long term care signed and sealed by professional engineer (62-701.620(10), FAC).

S. **FINANCIAL RESPONSIBILITY REQUIREMENTS** (62-701.630,FAC)

___	_____	___	X	1.	Provide cost estimates for closing, long-term care, and corrective action costs estimated by a PE for a third party performing the work, on a per unit basis, with the source of estimates indicated; (62-701.630(3)&(7), FAC).
___	_____	___	X	2.	Describe procedures for providing annual cost adjustments to the Department based on inflation and changes in the closing, long-term care, and corrective action plans; (62-701.630(4)&(8), FAC).
___	_____	___	X	3.	Describe funding mechanisms for providing proof of financial assurance and include appropriate financial assurance forms; (62-701.630(5),(6),&(9), FAC).

T. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

1. Applicant:

The undersigned applicant or authorized representative of Trail Ridge Landfill, Inc. _____ is aware that statements made in this form and attached information are an application for a Minor Modification Permit from the Florida Department of Environmental Protection and certifies that the information in this application is true, correct and complete to the best of his/her knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.

Signature of Applicant or Agent

Gregory W. Mathes
Name and Title (please type)

gm@wm.com
E-Mail address (if available)

5110 U.S. Hwy. 301
Mailing Address

Baldwin, Florida 32234
City, State, Zip Code

(904) 289-9100
Telephone Number

Date: 11/16/01

Attach letter of authorization if agent is not a governmental official, owner, or corporate officer.

2. Professional Engineer registered in Florida (or Public Officer if authorized under Sections 403.707 and 403.7075, Florida Statutes):

This is to certify that the engineering features of this solid waste management facility have been designed/examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and operation of the facility.

Signature

Francis D. Dayao, Project Engineer
Name and Title (please type)

56120
Florida Registration Number
(please affix seal)

England, Thims & Miller, Inc.
14775 St. Augustine Road
Mailing Address

Jacksonville, Florida 32234
City, State, Zip Code

dayaof@etminc.com
E-Mail address (if available)

(904) 642-8990
Telephone Number

Date: 11-16-01

England-Thims & Miller, Inc.
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

February 28, 2000

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

Reference: Trail Ridge Landfill - Permit Number 0013493-002-SC
Third Increment of Construction
ET&M No. E99-92

Dear Ms. Nogas:

On behalf of Trail Ridge Landfill, Inc., please find herein the application for Solid Waste Management Facility Permit for a minor modification of the Fill Phasing Plan for Trail Ridge Landfill. This modification is to increase the fill height from EL. 210 to EL. 250 on the existing (constructed) liner phases as shown on the attached drawings. Intermediate cover, grass and temporary stormwater controls will be installed on all new slopes to accommodate the additional fill.

Please find herein four (4) copies of Page 25 and Drawing Nos. 11 and 12 from the Permit Documents for your review. We would appreciate your immediate attention to the minor modification.

I would respectfully request that any questions regarding this application be directed to me.

Sincerely,
ENGLAND, THIMS & MILLER, INC.

Juanitta Bacer Clem, P.E.
Vice President

cc: Greg Mathes w/attachments
Chris Pearson w/attachments

Attachments: Permit Application - 4 copies
Page 25 of Permit Documents (of engineering report) - 4 copies
Drawings Nos. 11 and 12 of Permit Documents - 4 copies
Minor Modification Fee - $250.00

14775 ST. AUGUSTINE RD. • JACKSONVILLE, FL 32258 • TEL: (904) 642-8990 • FAX: (904) 646-9485

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

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STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE

February 23, 2000

VIA FEDERAL EXPRESS

Mr. Wayne Tutt
Regulatory and Environmental Services Department
Air and Water Quality Division
117 West Duval Street, Suite 225
Jacksonville, Florida 32202
P. (904) 630-3484

Re: Title V Annual Statement of Compliance
Trail Ridge Landfill
Title V Permit No.: 0310358-002-AV

Dear Mr. Tutt:

In accordance with Condition 51, of Appendix TV-3, Title V Conditions, please find enclosed the Title V Annual Statement of Compliance for the above referenced site, as prepared by Waste Energy Technology, LLC (WET), on behalf of Trail Ridge Landfill. Also enclosed is a statement of certification for the compliance report signed by the Trail Ridge Landfill authorized representative and P.E. stamped by the engineer, WET. As noted in the statement of compliance, the facility is currently in compliance with the Title V Permit requirements.

If you have any comments or questions regarding this matter, please contact Matt Zinke at phone number (850) 243-0033 or myself at phone number (904) 289-9100.

Sincerely,

Greg Mathes
District Manager

Enc: As Noted Above

Cc: US EPA Region 4 (w/o enclosure)
Mary Nogas, Department of Environmental Protection (w/o enclosure)
Chris Pearson, City of Jacksonville (with enclosure)
James A. Getting, Waste Energy Technology (w/o enclosure)
Carolyn McCreedy, Waste Management, Inc. (w/o enclosure)

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

February 25, 2000

VIA FEDERAL EXPRESS

Mr. Wayne Tutt
Air and Water Quality Division
City Hall @ St. James Building
117 West Duval Street, Suite 225
Jacksonville, Florida 32202

Re: Annual Air Operating Report – 1999
Trail Ridge Landfill
Permit No.: 031-0358-001-AC

Dear Mr. Tutt:

In accordance with FAC Rule 62-210-370(3) and Specific Condition #22 of the referenced permit, enclosed is our 1999 Annual Air Operating Report for Trail Ridge Landfill.

If you have any questions concerning this submittal, please call me at (904) 289-9100.

Sincerely,

Greg Mathes
District Manager

GM:mk
Enclosure

cc: Mary Nogas, Department of Environmental Protection (w/o enclosure)
Chris Pearson, City of Jacksonville (w/ enclosure)
Matt Zinke, Waste Energy Technology (w/o enclosure)
Carolyn McCreedy, Waste Management, Inc. (w/o enclosure)

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

February 23, 2000

VIA FEDERAL EXPRESS

United States Environmental Protection Agency, Region 4
Air, Pesticides, & Toxics Management Division
Operating Permits Section
61 Forsyth Street
Atlanta, GA 30303
P: (404) 562-9099 f: (404)562-9095

Re: Title V Annual Statement of Compliance
Trail Ridge Landfill
Title V Permit No.: 0310358-002-AV

To Whom It May Concern:

In accordance with Condition 51, of Appendix TV-3, Title V Conditions, please find enclosed the Title V Annual Statement of Compliance for the above referenced site, as prepared by Waste Energy Technology, LLC (WET), on behalf of Trail Ridge Landfill. Also enclosed is a statement of certification for the compliance report signed by the Trail Ridge Landfill authorized representative and P.E. stamped by the engineer, WET. As noted in the statement of compliance, the facility is currently in compliance with the Title V Permit requirements.

If you have any comments or questions regarding this matter, please contact Matt Zinke at phone number (850) 243-0033 or myself at phone number (904) 289-9100.

Sincerely,

Greg Mathes
District Manager

Enc: As Noted Above

Cc: Mary Nogas, Department of Environmental Protection (w/o enclosure)
Wayne Tutt (w/o enclosure)
Chris Pearson, City of Jacksonville (w/o enclosure)
Matt Zinke, Waste Energy Technology (w/o enclosure)
Carolyn McCreedy (w/o enclosure)

Digital
Mapping
Associates, Inc.

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STATE OF FLORIDA
DEP-NE DISTRICT

SURVEY AND MAP REPORT

This document has been prepared in accordance with Chapter 61G17-6 of the Florida State Department of Business & Professional Regulation code, which addresses minimum technical standards for the surveying and mapping industry.

Survey Description:

Project No.	ASC71000112/F000105
Location:	Trail Ridge Landfill and Trail Ridge Landfill Borrow Area
Type of Survey:	Topographic Survey
Date of Original Photography:	January 21, 2000
Date of Survey:	January 21, 2000
Film Type:	Kodak 2445 Color Negative
Deliverable Items:	
Three Mylar Plots at 1"=100'	
Digital Files:	TR3001.DWG, TR3002.DWG, TRB3001.DWG

Photogrammetric methods were employed in the performance of this Topographic Survey. This survey was conducted by:

Digital Mapping Associates, Inc.
(LB 0006977)
479A North U.S. 1
Ormond Beach, FL 32174
904-677-7715 FAX 904-677-7626

This survey was performed for:

Trail Ridge, Inc.
5110 U.S. Highway 301
Baldwin, Florida 32234

This Report of Survey is not full and complete without the map sheets and/or digital files to which this report makes mention.

Unless it bears the signature and the original raised seal of a Florida licensed surveyor and mapper, this report is not valid. Additions or deletions to any signed survey report or map by other than the signing party is prohibited without the written consent of the signing party.

Ed Beute — March 8, 2000.

Edward C. Beute — Date
Professional Surveyor and Mapper LS 0005429
State of Florida

479A N. US1 • Ormond Beach, FL 32174 • Office (904) 677-7715 • Fax (904) 677-7626 • email: dmafl@iag.net

Measurement Methods

All map data were collected using photogrammetric methodology from aerial photography dated January 21, 2000 acquired at an altitude of 3,000 feet above ground elevation (1"=500' nominal negative scale). Fully analytical stereoplotter instruments were used in the collection of digital data with photogrammetric software specifically designed for the extraction of positional information from stereo imagery.

The relative location of the site improvements (i.e., roads, trails, streets, fences, buildings, and drainage features) has been accurately portrayed with respect to the control survey. Planimetric features and details were collected commensurate with the final output map scale and the ability of the operator to see and interpret these features from the photography. Areas where the ground was obscured due to heavy vegetation have been labeled and identified with dashed contours.

Survey and Map Accuracy

All mapped features meet or exceed the Minimum Technical Standards of the State of Florida.

- At least 90% of ground point elevations of well-identified features contained in this survey and map have been measured to an estimated **vertical** accuracy of: +/- 1.0 feet.
- The survey-measured verses ground truth coordinates of at least 90% of well-identified features contained in this survey and map have been measured to an estimated **horizontal** positional accuracy of: +/- 5.0 feet.

Horizontal and vertical accuracy is determined from the absolute orientation solution, which is based upon ground control values received from England, Thims & Miller, Inc., 3131 St.Johns Bluff Road S., Jacksonville, FL 32246. Digital mapping and/or coordinate data files are intended to be displayed at a scale of 1:1200 (1"=100') or smaller.

Additionally, this map has been compiled in accordance with procedures that have been demonstrated to comply with the National Standard For Spatial Data Accuracy (NSSDA), for target mapping scale of 1"=100' with a specified contour interval of two feet.

Datum

The **vertical** datum for the Trail Ridge Landfill and the Landfill Borrow Site is NGS mean Sea Level. The **horizontal** datum for the Trail Ridge Landfill and the Landfill Borrow Site is NAD83.

Intended Features

All features identified on the aerial photography were intended to be surveyed and mapped in their entirety. All line drawn features are shown edge to scale. Symbols do not represent the actual size of the object. Please refer to the Map Legend in the digital file for the cartographic representation of each feature.

Limitations

This mapping should be used for preliminary design work only and should not replace an actual field survey where the required accuracy is greater than the accuracy stated in this report.

This survey is restricted to the active areas of the landfill for which the company contracted to update. No responsibility is assumed for the areas outside this scope.

Areas of dense vegetation where the contours have been dashed should be field verified.

The signing party assumes no responsibility for the accuracy of the ground control provided by England, Thims & Miller, Inc.

End of Report.

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

'00 APR 21 PM 12 48
STATE OF FLORIDA
DEP - NE DISTRICT
JACKSONVILLE

April 18, 2000

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

Re: FDEP Permit Number: 0013493-002-SC
Trail Ridge Landfill
Annual Topographic Survey for 2000

Dear Ms. Nogas:

In accordance with Specific Condition 13 of the referenced permit, enclosed please find the annual topographical survey for Trail Ridge Landfill. The current permitted maximum design elevation is 350.6 feet MSL. The survey indicates the site is well below this elevation. The terraces, toe of slope, and other features of the site are easily identifiable from this survey.

Please give me a call at 289-9100 if you have any questions or comments concerning this enclosure.

Sincerely,

Greg Mathes
District Manager

GM:lh
Enclosure

cc: Carolyn McCreedy

LARGE NUMBER

OF MAPS

SCANNED

SEPARATELY