

**CONTINUING CONTRACT FOR PROFESSIONAL ENGINEERING SERVICES
SOLID WASTE LANDFILLS AND OTHER RELATED ANCILLARY FACILITIES
FOR NASSAU COUNTY, FLORIDA**

THIS AGREEMENT made and entered into this 22nd day of April 2019, by and between the **Board of County Commissioners of Nassau County**, a political subdivision of the State of Florida, hereinafter referred to as "County", and **S2L, Inc.**, a Florida Corporation, whose principle office address is located at 531 Versailles Drive, Suite 202, Maitland, Florida 32751 hereinafter referred to as "Consultant":

WHEREAS, the County desires to obtain continuing professional engineering services on an "as needed" project-by-project basis; and

WHEREAS, said services are more fully described in the *Scope of Services*, Attachment "A", which is attached hereto and made a part hereof; and

WHEREAS, Consultant desires to render certain professional engineering services as described in the *Scope of Services*, and has the qualifications, experience, staff and resources to perform those services; and

WHEREAS, the County, through a competitive selection process conducted in accordance with the requirements of law and County policy has determined that it would be in the best interest of the County to award a contract to Consultant for the rendering of those services described in the *Scope of Services*.

NOW THEREFORE, in consideration of the mutual covenants and agreements hereinafter contained, the parties hereto agree as follows:

ARTICLE 1 - EMPLOYMENT OF CONSULTANT

The County hereby agrees to engage Consultant, and Consultant hereby agrees to perform the services set forth in the *Scope of Services*.

ARTICLE 2 - SCOPE OF SERVICES

2.1 Consultant shall provide professional engineering services in accordance with the *Scope of Services* and any additional services as may be specifically designated and additionally authorized by the parties. Such additional authorizations will be in the form of a Work Authorization. Each Work Authorization shall set forth a specific scope of services, the amount of compensation and the required completion date.

2.2 The services shall be performed on an "as needed" basis per project and by Work Authorization to this contract. Each Work Authorization shall be approved by the Board of County Commissioners or their authorized designee.

ARTICLE 3 - THE COUNTY'S RESPONSIBILITY

Except as provided in the *Scope of Service*, the County's responsibilities are to furnish required information, services, render approvals and decisions as necessary for the orderly progress of Consultant's services. The County hereby designates Solid Waste/Engineering Services to act on the County's behalf with respect to the *Scope of Services*. The Director of Public Works, under the supervision of the County Manager shall have complete authority to transmit instructions, receive information, interpret and define County's policies and decisions with respect to materials, elements and systems pertinent to Consultant's services.

ARTICLE 4 - TERM OF AGREEMENT

The term of this Agreement shall be for a three (3) year period beginning on the date of its complete execution. The performance period of this Agreement may be extended upon mutual agreement between both parties. Any extension of performance period under this provision shall be in one (1) year increments. Total contract length and individual one (1) year extensions shall not exceed a total contract term of five (5) years.

Any agreement or amendment to the Agreement shall be subject to fund availability and mutual written agreement between the County and Consultant.

ARTICLE 5 - COMPENSATION

5.1 The County shall pay Consultant in accordance with the provisions contained in the *Loaded Billing Rates*, which is attached hereto as Attachment "B", and incorporated herein as if set forth in full.

5.2 Consultant shall prepare and submit to the Director of Public Works, for approval, a monthly invoice for the services rendered under this Agreement. Invoices for services shall be paid in accordance with the Florida Prompt Payment Act. All invoices shall be accompanied by a report identifying the nature and progress of the work performed. The statement shall show a summary of fees with an accrual of the total fees billed and credits for portions paid previously. The County reserves the right to withhold payment to Consultant for failure to perform the work in accordance with the provisions of this Agreement, and the County shall promptly notify Consultant if any invoice or report is found to be unacceptable and will specify the reasons therefor.

5.3 All representation, indemnifications, warranties and guaranties made in, required by or given in accordance with this Agreement, as well as all continuing obligations indicated in this Agreement, will survive final payment and termination or completion of this Agreement.

5.4 Final Invoice per Work Authorization: In order for both parties herein to close their books and records, Consultant will clearly state "Final Invoice" on Consultant's final/last billing to the County. This indicates that all services have been performed and all charges and costs have been invoiced to the County and that there is no further work to be performed on the specific project.

5.5 Each project shall have its own specific value on a "stand alone" basis.

5.6 Labor Unit rates shall be established at the beginning of this Agreement and may be adjusted annually upon written agreement of the parties beginning with the next assigned project issued after the anniversary date of the Agreement. The labor unit rates are set forth in Attachment "B".

ARTICLE 6 - STANDARD OF CARE

Consultant shall exercise the same degree of care, skill, and diligence in the performance of the Services as is ordinarily provided by a professional under similar circumstances and Consultant shall, at no additional cost to the County, re-perform services which fail to satisfy the foregoing standard of care.

ARTICLE 7 - DOCUMENTS

The documents which comprise this Agreement between the County and Consultant are attached hereto and made a part hereof and consist of the following:

- 7.1** This Agreement;
- 7.2** The *Scope of Services* attached hereto Attachment "A";
- 7.3** Fee Schedule/Billing Rates attached hereto as Attachment "B";
- 7.4** Applicable Permits attached hereto as Exhibit "1"
- 7.5** *General Information and Minimum Insurance Requirements* attached hereto as Exhibit "2"
- 7.6** Any work authorizations, written amendments, modifications or addenda to this Agreement.

ARTICLE 8 - EQUAL OPPORTUNITY EMPLOYMENT

In connection with the work to be performed under this Agreement, Consultant agrees to comply with the applicable provisions of State and Federal Equal Employment Opportunity statutes and regulations.

ARTICLE 9 - TRUTH-IN-NEGOTIATION/PUBLIC ENTITY CRIMES AFFIDAVIT

Consultant certifies that wage rates and other factual unit costs supporting the compensation are accurate, complete, and current at the time of contracting. The original contract price and any additions thereto shall be adjusted to exclude any significant sums by which the county determines the contract price was increased due to inaccurate, incomplete, or non-current wage rates and other factual unit costs. Consultant represents that it has furnished a Public Entity Crimes Affidavit pursuant to Section 287.133, Florida Statutes.

ARTICLE 10 - INDEMNIFICATION

10.1 Consultant shall indemnify and hold harmless the County and its officers and employees from liabilities, damages, losses, and costs, including but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of Consultant and other persons employed or utilized by consultant, in the performance of the contract.

ARTICLE 11 - INDEPENDENT CONTRACTOR

Consultant undertakes performance of the services as an independent contractor under this Agreement, and shall be wholly responsible for the methods of performance. The County shall have no right to supervise the methods used, but the County shall have the right to observe such performance. Consultant shall work closely with the County in performing services under this Agreement.

ARTICLE 12 – EXTENT OF AGREEMENT

12.1 This Agreement represents the entire and integrated agreement between the County and Consultant and supersedes all prior negotiations, representations, or agreement, either written or oral.

12.2 This Agreement may only be amended, supplemented, modified, changed or canceled by a duly executed written instrument.

ARTICLE 13 - COMPLIANCE WITH LAWS

In performance of the services, Consultant will comply with applicable regulatory requirements including federal, state, and local laws, rules regulations, orders, codes, criteria and standards.

ARTICLE 14 - INSURANCE

14.1 Consultant shall purchase and maintain such commercial (occurrence form) or comprehensive general liability, workers compensation, professional liability, and other insurance as is appropriate for the services being performed hereunder by Consultant, its employees or agents. The amounts and types of insurance shall conform to the requirements set forth in Exhibit "2"

ARTICLE 15 – ACCESS TO PREMISES

The County shall be responsible for providing access to all project sites, and for providing project-specific information.

ARTICLE 16 - TERMINATION OF AGREEMENT

16.1 Termination for Convenience: This Agreement may be terminated by the County for convenience, upon thirty (30) days of written notice to Consultant. In such event, Consultant shall be paid its compensation for services performed prior to the termination date. In the event that Consultant abandons this Agreement or causes it to be terminated, Consultant is liable to the County for any and all loss pertaining to this termination.

16.2 Default by Consultant: In addition to all other remedies available to the County, the County may terminate this Agreement for cause should Consultant neglect, fail to perform, or observe any of the terms, provisions, conditions, or requirements herein contained. Prior to termination the County shall provide written notice

of the specific conditions warranting default, and the County shall allow thirty (30) days for Consultant to cure.

ARTICLE 17 - NONDISCLOSURE OF PROPRIETARY INFORMATION

Consultant shall consider all information provided by County and all reports, studies, calculations, and other documentation resulting from Consultant's performance of the Services to be proprietary unless such information is available from public sources. Consultant shall not publish or disclose proprietary information for any purpose other than the performance of the services without the prior written authorization of County or in response to legal process.

ARTICLE 18 - UNCONTROLLABLE FORCES

18.1 Neither the County nor Consultant shall be considered to be in default of this Agreement if delays in or failure of performance shall be due to Uncontrollable Forces, the effect of which, by the exercise of reasonable diligence, the non-performing party could not avoid. The term "Uncontrollable Forces" shall mean any event which results in the prevention or delay of performance by a party of its obligations under this Agreement and which is beyond the reasonable control of the nonperforming party. It includes, but is not limited to fire, flood, earthquakes, storms, lightning, epidemic, war, riot, civil disturbance, sabotage, and governmental actions.

18.2 Neither party shall, however, be excused from performance if nonperformance is due to forces, which are preventable, removable, or remediable, and which the nonperforming party could have, with the exercise of reasonable diligence, prevented, removed, or remedied with reasonable dispatch. The nonperforming party shall, within a reasonable time of being prevented or delayed from performance by an uncontrollable force, give written notice to the other party describing the circumstances

and uncontrollable forces preventing continued performance of the obligations of this Agreement.

ARTICLE 19 - GOVERNING LAW AND VENUE

This Agreement shall be governed by the laws of the State of Florida. Any and all legal action necessary to enforce the Agreement will be held in Nassau County.

ARTICLE 20 - MISCELLANEOUS

20.1 Non-waiver: A waiver by either County or Consultant of any breach of this Agreement shall not be binding upon the waiving party unless such waiver is in writing. In the event of a written waiver, such a waiver shall not affect the waiving party's rights with respect to any other or further breach. The making or acceptance of a payment by either party with knowledge of the existence of a default or breach shall not operate or be construed to operate as a waiver of any subsequent default or breach.

20.2 Severability: Any provision in this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or affecting the validity or enforceability of such provisions in any other jurisdiction. The non-enforcement of any provision by either party shall not constitute a waiver of that provision nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

20.3 The provisions of this section shall not prevent the entire Agreement from being void should a provision, which is of the essence of the Agreement, be determined to be void.

ARTICLE 21 - SUCCESSORS AND ASSIGNS

The County and Consultant each binds itself and its director, officers, partners, successors, executors, administrators, assigns and legal representatives to the other

party to this Agreement and to the partners, successors, executors, administrators, assigns, and legal representatives.

ARTICLE 22 - CONTINGENT FEES

Consultant warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for Consultant to solicit or secure this Agreement and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, gift or any other consideration contingent upon or resulting from the award or making of this Agreement.

ARTICLE 23 - OWNERSHIP OF DOCUMENTS

Consultant shall be required to work in harmony with other consultants relative to providing information requested in a timely manner and in the specified form. Any and all documents, records, disks, original drawings, or other information shall become the property of the County upon completion for its use and distribution as may be deemed appropriate by the County.

ARTICLE 24 - FUNDING

This agreement shall remain in full force and effect only as long as the expenditures provided for in the Agreement have been appropriated by the County Commission of the County of Nassau in the annual budget for each fiscal year of this Agreement, and is subject to termination based on lack of funding.

ARTICLE 25 - NOTICE

25.1 Whenever either party desires or is required under this Agreement to give notice to any other party, it must be given by written notice either delivered in person, sent by U.S. Certified Mail, U.S. Express Mail, air or ground courier services, or by messenger service, as follows:

COUNTY

Nassau County Contract Management
96135 Nassau Place, Suite 6
Yulee, Florida 32097
904-491-7377
Fax: 904-321-2658
ghagins@nassaucountyfl.com

With a copy to the County Attorney at the same address.

CONSULTANT:

Samuel B. Levin
S2L, Inc.
531 Versailles Drive
Maitland, Florida 32751
Phone: 407-475-9163
Fax: 407-475-9169
Slevin@S2Li.com


25.2 Notices shall be effective when received at the address specified above.

Changes in the respective addresses to which such notice may be directed may be made from time to time by any party by written notice to the other party. Email and facsimile are acceptable notice effective when received, however, notices received (i.e.; printed) after 5:00 p.m. or on weekends or holidays, will be deemed received on the next business day. The original of the notice must additionally be mailed as required herein.

25.3 Nothing contained in this Article shall be construed to restrict the transmission of routine communications between representatives of Consultant and County.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of
the day and year first written above.

**Nassau County,
Board of County Commissioners**

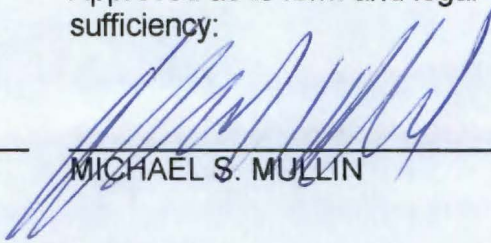

JUSTIN M. TAYLOR
Its: Chairman

Date: April 22, 2019

ATTEST TO CHAIR
SIGNATURE


JOHN A. CRAWFORD
Its: Ex-Officio Clerk

Approved as to form and legal
sufficiency:


MICHAEL S. MULLIN

MES
04-23-19

ATTEST:

S2L, Inc.

Robert E. Mackey
(Corporate Secretary)

Samuel B. Levin
Signature of President/Owner

Robert E. Mackey
Type/Print Name of Corporate Secy.

Samuel B. Levin
Type/Print Name of President/Owner

(CORPORATE SEAL)

Date: April 10, 2019

CORPORATE ACKNOWLEDGEMENT

STATE OF Florida :
:SS
COUNTY OF Orange :

I HEREBY CERTIFY that on this day, before me, an Officer duly authorized in the State aforesaid and in the County aforesaid to take acknowledgments, personally appeared Samuel Levin & Robert Mackey, of, S2L, Incorporated
A Florida Corporation, to me known to be the person(s) described in and who executed the foregoing instrument and acknowledged before me that he/she executed the same.

WITNESS my hand and official seal this 10th day of April, 2019.

Cheryl H. Hollister

Signature of Notary Public
State of Florida
Cheryl H Hollister
My Commission GG 043499
Expires 02/20/2021

Print, Type or Stamp
Name of Notary Public

☒ Personally known to me or
☐ Produced Identification

Type of I.D. Produced

☐ DID take an oath, or
☒ DID NOT take an oath.

SL

ATTACHMENT "A"

**Consultant Scope of Services for
Professional Engineering Services
Solid Waste Landfills and Other Related Ancillary Facilities
Board of County Commissioners, Nassau County, Florida**

Consultant will be required to provide the following services to the County for a period of three (3) years with the potential to renew for two (2) one-year terms, but in no case to exceed a total contract term of five (5) years. The scope of services outlined herein is the minimum scope of work to be provided. Work to be performed by the Consultant shall be on a negotiated, written assignment-by-assignment basis and shall include a "not to exceed" budget amount for the assignment. Work Authorizations shall be approved by the Nassau County Board of County Commissioners or their Designee.

The Consultant will provide Independent Consulting Engineering Services related to the needs of the County Solid Waste Department. The work may include but is not limited to the following:

1. Landfill Gas Operations and Maintenance – Provide all monitoring and adjustments for the Landfill gas collection and control system to determine compliance with Title V air quality regulations and the NSPS and Greenhouse Gas (GHG) Reporting rules. This includes all monitoring as it relates to the site's gas system permits, such as weekly GHG monitoring, quarterly surface methane monitoring, routine maintenance and repair of the gas wells and flare system, emergency response services, non-routine operation and maintenance and repair services, and flare testing, inspection, and service.
2. Permit Assistance – Assist the County in the preparation and submittal of permit applications and the renewal of environmental permits required for Long-Term Care including solid waste permits, NPDES, Title V permit, and any other permits required for the facilities.
3. Compliance Monitoring – Assist the County in the preparation and submittal of regulatory compliance reports, including Title V Annual Emissions Report, NSPS Semi-Annual Reports, GHG Report, Statement of Compliance, Annual operating Report, Visible Emissions Report, and any other reporting as required by the permits.
4. Inward Gradient Monitoring and Maintenance – Assist the County in conducting environmental monitoring programs including evaluation and analysis of results, FDEP report generation and making recommendations. This work includes monthly monitoring of the gradient system and evaluating the gradient monitoring program including hydrology with special consideration to hydrogeological influences and the negative gradient required on the site by permit conditions. Assist the County with the maintenance of the gradient system. Work may also include assessment of the slurry wall.
5. System Improvements – Analyze and recommend improvements to and/or adding existing facilities and programs including the preparations of construction and operating cost estimates. Assist the County in evaluating new technologies or systems that may be applicable to the County's solid waste system.

Nassau County Board of County Commissioners
 December 20, 2012
 Page 3

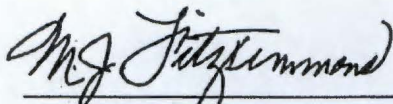
120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

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

Mediation is not available for this permit modification.

Executed in Duval County, Florida.

STATE OF FLORIDA DEPARTMENT
 OF ENVIRONMENTAL PROTECTION



Michael J. Fitzsimmons
 Waste Program Administrator
 Northeast District
 8800 Baymeadows Way West, Suite 100
 Jacksonville, Florida 32256-7590

SLR MB 2/4
 ecr:mb:nh:lp

Copies furnished to:

J. Scott Herring, P.E., Nassau County Public Works Director, sherring@nassaucountyfl.com
 Omar Smith, P.E., S2Li, Inc., osmith@s2li.com
 Solid Waste Financial Coordinator, FDEP, Solid.Waste.Financial.Coordinator@dep.state.fl.us
 Neil Hornick, FDEP, Neil.Hornick@dep.state.fl.us
 Jeffrey Schroer, FDEP, Jeffrey.Schroer@dep.state.fl.us

Initials





**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256

RICK SCOTT
GOVERNOR

JENNIFER CARROLL
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

Permit Issued to:

Nassau County Board of County Commissioners
96135 Nassau Place, Suite 1
Yulee, Florida 32097
904.491.7330

Facility WACS ID No.: 37138
Facility Name: Lofton Creek Class I Landfill (Closed)
Facility Address: 2.5 miles east of Yulee on the south side of State Road AIA
Lofton Creek, Nassau County, Florida

Contact Person:

J. Scott Herring, P.E., Nassau County Public Works Director
46026 Landfill Road
Callahan, Florida 32011
sherring@nassaucountyfl.com
904.491.7330

Solid Waste Long-Term Care Renewal Permit – Class I Landfill
Permit No.: 0064999-006-SF (which includes File No. 0064999-006)
Permit Modification No.: 64999-007-MM
Replaces Permit No.: 0064999-001-SF

Permit Issued: February 15, 2012
Permit Modification Issued: December 20, 2012
Permit Renewal Application Due Date: [see item 2.A.3]
Permit Expires: February 15, 2018

Permitting Authority

Florida Department of Environmental Protection
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256
Phone: 904.256.1700
Fax: 904.256.1587

Initials

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PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
Permit Modification No.: 64999-007-MM
Facility WACS ID: 37138

SECTION 1 - SUMMARY INFORMATION

A. Authorization

The Permittee is hereby authorized to monitor and maintain the Facility described below in accordance with the specific and general conditions of this permit and any documents attached to this permit or specifically referenced in this permit and made a part of this permit.

This solid waste long-term care permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4 and 62-701.

This permit does not relieve the Permittee from complying with any other appropriate local zoning or land use ordinances or with any other laws, rules or ordinances. Receipt of any permits from the Florida Department of Environmental Protection (Department) does not relieve the applicant from obtaining other federal, state, and local permits and/or modifications required by law, including those from other Sections within the Department or of the Water Management District.

B. Facility Location

Lofton Creek Landfill is located approximately 2.5 miles east of Yulee on the south side of State Road A1A at latitude/longitude N30°37'30"/W82°33'40", in Nassau County, Florida.

C. Facility Description

Lofton Creek Class I Landfill (Facility) is a closed landfill that began its 20-year long-term care period on August 11, 1997. The total site area is 62 acres of which 52± acres are capped. The final cover system consists of from top to bottom: a six-inch top soil layer; a 12-inch thick drainage layer; a 40-mil High Density Polyethylene synthetic geomembrane, a six-inch soil clay layer with a permeability of 1×10^{-7} cm/sec or less, and intermediate cover. The Facility design includes Groundwater and Surface Water Monitoring Systems, and a Stormwater Management System.

D. Appendices Made Part of This Permit

APPENDIX 1 - General Conditions

APPENDIX 2 - Approved Application Documents

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
Permit Modification No.: 64999-007-MM
Facility WACS ID: 37138

APPENDIX 3 – Water Quality Monitoring Plan

APPENDIX 3.1 – Monitoring Well and Surface Water Sample Locations

APPENDIX 3.2 – Initial Background Groundwater Parameters

APPENDIX 3.3 – Semi-annual Groundwater Parameters

APPENDIX 3.4 – Guidance for Submitting Electronic Water Quality Data to the Solid Waste Program

APPENDIX 3.5 - Initial Background and Semi-annual Surface Water Parameters

APPENDIX 4.1 - Gas Monitoring Well Locations

APPENDIX 4.2 - Passive Gas Venting Well Locations

APPENDIX 5 – Post-Closure Inspection Form

SECTION 2 - SPECIFIC CONDITIONS

A. Administrative Requirements

1. Documents Part of This Permit. The permit application as **finally revised, replaced or amended** in response to the Department's Request(s) for Additional Information are contained in the Department's files and are made a part of this permit. Those documents that make up the complete permit application are listed in APPENDIX 2.
2. Permit Modification. Any change to construction, operation, monitoring, or closure requirements of this permit may require a modification to this permit, in accordance with the provisions of Rule 62-701.320(4) F.A.C.
3. Permit Renewal. If the Permittee wishes to renew the permit, or if the long-term care period is extended such that a permit renewal is required, a permit renewal application shall be submitted at least 61 days prior to the expiration of this permit.
4. Transfer of Permit or Name Change. In accordance with Rule 62-701.320(11) F.A.C., the Department must be notified in writing within 30 days: (1) of any sale or

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
Permit Modification No.: 64999-007-MM
Facility WACS ID: 37138

conveyance of the Facility; (2) if a new or different person takes ownership or control of the Facility; or (3) if the Facility name is changed.

B. Construction Requirements

Construction requirements are not applicable to this Permit.

C. Operation Requirements

Operation requirements are not applicable to this Permit.

D. Water Quality Monitoring Requirements

1. Water Quality Monitoring Plan. The Water Quality Monitoring Plan for this permit is included in APPENDIX 3.

E. Gas Management System Requirements

1. Construction Requirements. All construction shall be done in accordance with the approved gas management system design, drawings, and specifications. The Department shall be notified before any changes, other than minor deviations, to the approved design are implemented in order to determine whether a permit modification is required.

- (a) Locations of soil monitoring probes are specified in APPENDIX 4.1.
- (b) Locations of gas venting wells are specified in APPENDIX 4.2.

2. Operational Requirements. Gas controls shall be operated and maintained in accordance with the Post-Closure Care Plan.

3. Monitoring Requirements. The methane gas monitoring requirement has been eliminated.

F. Closure Requirements

Closure requirements are not applicable to this Permit.

G. Long Term Care Requirements

1. Long-Term Care Period. The Permittee shall continue to monitor and maintain the integrity and effectiveness of the final cover as well as other appurtenances of the Facility, control erosion, fill subsidences, comply with the ground water monitoring

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
Permit Modification No.: 64999-007-MM
Facility WACS ID: 37138

plan, and maintain the stormwater system, in accordance with an approved Post-Closure Care Plan. A Post-Closure Inspection Form is presented as Table A-1 of APPENDIX 5 and shall be used for documenting the results of inspections. The long-term care period is scheduled to end on August 11, 2017.

2. Post-Closure Care Plan. A copy of the approved Post-Closure Care Plan, including the operating record as defined in Rule 62-701.500(3) F.A.C., shall be kept at the West Nassau Landfill's offices and shall be accessible to landfill operators.
- ✕ 3. Stabilization Report. By June 11, 2017, the Permittee shall submit a report to the Department that addresses stabilization of the landfill. The submittal shall include the technical report required in Rule 62-701.510(9)(b) F.A.C., and shall also address subsidence, barrier layer effectiveness, storm water management, and gas production and management.
4. Contingency Plan and Notification of Emergencies. The Permittee shall notify the Department in accordance with the approved Post-Closure Care Plan. Notification shall be made to the Solid Waste Section of Department's Northeast District Office at 904.256.1700. During non-regular business hours, the notification shall be made to Department's 24-hour emergency phone number 800.320.0519.
5. Final Certification. Following completion of the long-term care period for each solid waste management unit, the owner or operator shall submit to the Department a certification, signed and sealed by a professional engineer, verifying that long-term care has been completed in accordance with the closure plan has been placed in the operating record.

H. Financial Assurance and Cost Estimates

1. Financial Assurance Mechanism. The Permittee shall maintain, in good standing, the financial assurance mechanisms established to demonstrate proof of financial assurance.
2. Annual Cost Estimate Adjustments. The Permittee shall annually adjust the long-term care cost estimate(s) for inflation using Form 62-701.900(28). Adjustments shall be made in accordance with Rule 62-701.630(4) F.A.C. and, as applicable, 40 CFR Parts 264.142(a) and 264.144(a). An owner or operator using a letter of credit, guarantee bond, performance bond, financial test, corporate guarantee, trust fund or insurance shall submit the adjusted cost estimate(s) between January 1 and March 1. An owner or operator using an escrow account shall submit the adjusted estimate(s) between July 1

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

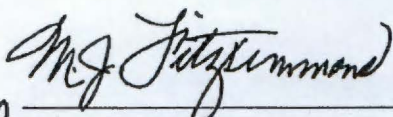
Permit No.: 64999-006-SF
Permit Modification No.: 64999-007-MM
Facility WACS ID: 37138

and September 1. All submittals in response to this specific condition shall be sent to the Northeast District Office and to:

Florida Department of Environmental Protection
Financial Coordinator - Solid Waste Section
2600 Blair Stone Road, MS 4565
Tallahassee, Florida 32399-2400

Executed in Duval County, Florida

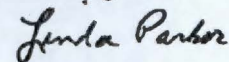
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



CCR Michael J. Fitzsimmons
Waste Program Administrator

FILING AND ACKNOWLEDGMENT

Filed on this date, pursuant to Section 120.52, F.S., with the designated Department Clerk, receipt of which is hereby acknowledged.



December 20, 2012

APPENDIX 3 Water Quality Monitoring Plan

1. **Groundwater Monitoring.** In accordance with Rules 62-701.510 and 62-520.600, F.A.C., the Permittee shall install, place into operation, and maintain a groundwater quality monitoring system.
 - a. General Requirements. The Permittee shall construct new wells, operate and maintain the groundwater monitoring system, and abandon wells in accordance with Chapters 62-520 and 62-701, F.A.C., and with the Groundwater Monitoring Plan, as presented in the Permit Documents noted at the beginning of this Permit and as modified by the conditions specified therein.
 - b. Zone of Discharge. The Zone of Discharge (ZOD) for the facility shall be a three dimensional volume that extends horizontally from the permitted edge of the solid waste disposal unit a distance of 100 feet, or to the property boundary; or to the shortest distance between the location of the detection monitoring wells and the solid waste disposal unit; whichever is less; and extends vertically from the top of the ground to the base of the surficial aquifer.
 - c. Class G-II Requirements. Pursuant to Rule 62-520.420, F.A.C., the Permittee shall ensure that the water quality standards for Class G-II groundwater shall not be exceeded at the boundary of the ZOD.
 - d. Minimum Criteria. The Permittee shall ensure that the minimum criteria for groundwater specified in Rule 62-520.400, F.A.C., are not violated within the ZOD.
 - e. Monitoring Plan. The Groundwater Monitoring Plan consists of the following wells and piezometers (whose locations and identifications shall be in accordance with Appendix 3.1):

Background Wells:

Well Cluster* MW-1 S,I
Well Cluster* MW-13 S,I

Detection Wells:

Well Cluster* MW-2 S,I
Well Cluster* MW-3 S
Well Cluster* MW-4 S,I
Well Cluster* MW-5 S,I
Well Cluster* MW-6 S,I
Well Cluster* MW-7 S,I
Well Cluster* MW-8 S,I
Well Cluster* MW-9 S,I
Well Cluster* MW-10 S,I

Initials



APPENDIX 3 Water Quality Monitoring Plan

	Well Cluster* MW-12 S,I
<u>Compliance Wells:</u>	Well Cluster* MW-15 S,I
	Well Cluster* MW-18 S,I
	Well Cluster* MW-19 S,I
	Well Cluster* MW-21 S,I
	Well Cluster* MW-22 S,I
	Well Cluster* MW-23 S,I
	Well Cluster* MW-25 S,I
<u>Water Level:</u>	MW-1 D
	MW-2 D
	MW-3 I,D
	MW-4 D
	MW-5 D
	MW-6 D
	MW-7 D
	MW-8 D
	MW-9 D
	MW-10 D
	MW-12 D
	MW-13 D
	MW-15 D
	MW-18 D
	MW-19 D
	MW-21 D
	MW-22 D
	MW-23 D
	MW-25 D

(*) Well clusters to consist of shallow (S), intermediate (I), and deep (D) screen interval wells

If monitoring parameters are detected in detection wells in concentrations that are significantly above background water quality, or that are at levels above groundwater standards or criteria, evaluation monitoring shall be initiated within 90 days of notification by DEP pursuant to Rule 62-701.510(7), F.A.C. including, but not limited to, the installation and sampling of compliance wells associated with the affected detection well(s).

- f. New Well Requirements. The Permittee shall submit, the following information to DEP within 15 days of completion of construction of any new groundwater monitoring well(s) (permanent and temporary):

APPENDIX 3 Water Quality Monitoring Plan

Well identification	Driller's Lithologic Log
Latitude/Longitude	Total well depth
Aquifer monitored	Casing diameter
Screen type and slot size	Casing type and length
Elevation at top of pipe	Well construction permit number
Elevation at land surface	Depth to groundwater

New groundwater monitoring wells shall be designed and constructed in accordance with Chapter 62-520, F.A.C., and ASTM Standard D-5092. A surveyed drawing shall be submitted showing the horizontal location of all monitoring wells by metes and bounds or equivalent surveying techniques. The surveyed drawing shall include the monitoring well identification number as well as the location and elevation of all permanent benchmark(s) and/or corner monument marker(s) at the site. The survey shall be conducted by a Florida Licensed Professional Surveyor and Mapper.

Unless they are replacement well(s), any newly installed monitoring well(s) shall be sampled and those samples shall be analyzed for the parameters listed Appendix 3.2, as required by Rule 62-701.510(8)(a) F.A.C., to establish background groundwater quality.

- g. Well Abandonment. Within 60 days of issuance of this Permit, all piezometers and wells not a part of the permit groundwater monitoring plan are to be plugged and abandoned in accordance with St. Johns River Water Management District Rule 40C-3.531. However, a written request for the abandonment of any piezometers or wells shall be submitted to DEP and written approval of the abandonment obtained prior to any abandonment. A written report documenting the plugging and abandonment activities shall be submitted to DEP within 30 days of field activities. All piezometers and wells not abandoned shall be properly maintained and routinely inspected in conjunction with the semiannual groundwater sampling.
- h. Well Inspection Requirements. A visual inspection of wells and piezometers to assess visible damage shall be conducted in conjunction with the semiannual sampling events. All wells are to be clearly labeled and easily visible at all times. The well components at and above ground surface shall be constructed in a manner that secures and protects the groundwater monitoring wells. At each well location, construction shall include a concrete surface pad and above ground vertical protective casing with a locking cap. The casing and top shall be maintained in good

APPENDIX 3

Water Quality Monitoring Plan

working order, intact and locked. A minimum of two protective bollards shall be placed at the edges of the concrete surface pad. Bollards shall, at a minimum, be the approximate height of the protective casing and constructed of materials capable of providing protection from accidental impact with machinery.

- i. Damaged Well Requirements. In the event any monitoring well becomes damaged or inoperable, the Permittee shall notify DEP within 72 hours and shall submit a detailed written report within seven days. The written report shall detail the problem that has occurred and remedial measures that have been taken to prevent a recurrence. Damaged wells shall be repaired or replaced within 60 days. If a monitoring well is unable to be sampled during its normal time frame, it shall be sampled within 30 days of repair or replacement and its analysis shall be submitted to DEP within 60 days of repair or replacement. All monitoring well design and replacement shall be approved by DEP prior to installation.
- j. Groundwater Levels. Groundwater levels shall be recorded no less than 48 hours after well installation and prior to evacuating the well for sample collection. Groundwater level measurements shall be collected semiannually from monitoring well clusters MW-1 (S,I,D), MW-2 (S,I,D), MW-3 (S,I,D), MW-4 (S,I,D), MW-5 (S,I,D), MW-6 (S,I,D), MW-7 (S,I,D), MW-8 (S,I,D), MW-9 (S,I,D), MW-10 (S,I,D), MW-12 (S,I,D), MW-13 (S,I,D), MW-15 (S,I,D), MW-18 (S,I,D), MW-19 (S,I,D), MW-21 (S,I,D), MW-22 (S,I,D), MW-23 (S,I,D) and MW-25 (S,I,D). Elevation measurements, referenced to a consistent, nationally recognized datum, shall include groundwater surface elevation, the top of well casing, and land surface at each site at a precision of plus or minus 0.01 feet. A groundwater surface contour map shall be constructed by a professional geologist or qualified professional engineer, depicting the locations of wells and corresponding groundwater elevations. This information shall be submitted to DEP in conjunction with the semiannual groundwater monitoring report forms. In the event that the data indicates a variation in the horizontal or vertical flow directions such that existing wells are not adequate to intercept contaminants that may be generated from the Facility, the Permittee shall propose additional wells to correct that deficiency or DEP shall require wells to be installed to correct that deficiency.
- k. Sampling. All groundwater background, detection, and compliance monitoring wells shall be sampled and analyzed semiannually for the parameters listed in Appendix 3.3. Specifically, the wells shall be sampled before June 30 and December 30 during each year of this Permit.

APPENDIX 3

Water Quality Monitoring Plan

Compliance with groundwater standards and/or criteria shall be determined by analysis of unfiltered groundwater samples, unless the requirements of Rule 62-520.310(5) F.A.C., are satisfied. Additional samples, wells, and parameters may be required based upon subsequent analyses.

The Permittee shall collect, analyze, report and retain sampling and monitoring data in accordance with Chapter 62-160 F.A.C. and Rule 62-520.600 F.A.C. Any laboratory test required by this permit shall be performed by a laboratory that is certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/analyte combinations that are used to comply with this permit. Biological evaluations shall follow the applicable procedures in DEP-SOP-002/01 (December 2008). All field activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP-002/01 (December 2008). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220 and 62-160.330, F.A.C. Minimum detection levels for all analytes shall be at or below groundwater standards and/or criteria for each analyte.

1. Analytical Data Reports. The Permittee shall submit all groundwater sampling results on the Parameter Monitoring Report Form [DEP Form 62-520.900(2)] along with the analytical laboratory reports and a groundwater contour map no later than 60 days from completion of laboratory analysis. Analytical results shall be accompanied by a brief narrative summary, and the Permittee shall include Form 62-701.900(31) Water Quality Monitoring Certification with each report certifying that the laboratory results have been reviewed and approved by the Permittee. The Permittee shall retain the original forms so that the necessary information is available to properly complete future reports.

In addition to the information provided on the Parameter Monitoring Form:

- 1) The laboratory report shall indicate the method on each data sheet, the detection limits and the dilution factor;
- 2) The report shall show, in columnar form, the analytical results and, where applicable, the corresponding Florida Groundwater Standards and/or criteria; and

APPENDIX 3
Water Quality Monitoring Plan

- 3) The report shall identify all peaks greater than the EPA specified detection limit for the analytical method.
- m. Exceedances. The Permittee shall notify DEP within 72 hours of discovering that any groundwater standards and/or criteria are exceeded, or that parameter concentrations in detection wells are significantly above unaffected background groundwater quality. If the Permittee chooses to resample the affected monitoring well(s) to verify the contamination analysis, the resample shall be taken within 30 days from the date the Permittee received the results, and shall submit to DEP the results of the resampled groundwater monitoring well water quality analysis and the original analysis no later than the 15th day of the following month.

Should the Permittee choose not to resample, DEP will consider the water quality analysis that exceeded the standards and/or criteria, or that significantly exceeded background groundwater quality, as representative of current groundwater conditions at the Facility.

- n. Report Submittals. All required water quality monitoring reports, including the groundwater sampling field measurements and results, and all groundwater and surface water analytical results, shall be submitted electronically, with one hard copy submitted to the District office, unless DEP indicates otherwise in writing. The water quality data Electronic Data Deliverable (EDD) shall be provided to DEP in an electronic format consistent with the requirements for importing the data into DEP's databases, and shall be submitted no later than the 15th day of the month immediately following the end of the sampling period. This format is presently one that is in accordance with the "Guidance for Submitting Electronic Water Quality Data to the Solid Waste Program" document, provided as Appendix 3.4 in this Permit, but may be changed by DEP in the future. The electronic water quality monitoring reports shall be provided in Adobe pdf format, and along with the hard copy, shall be submitted within 30 days of acceptance and approval of the EDD by DEP, unless requested earlier by DEP. Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations, and shall include the following:

- 1) A cover letter;
- 2) A summary of exceedances and recommendations;
- 3) Groundwater contour maps;
- 4) Chain of custody forms;

APPENDIX 3
Water Quality Monitoring Plan

- 5) Water levels on a water elevation table;
- 6) A Groundwater Monitoring Report Certification using the appropriate DEP form;
- 7) Appropriate sampling information on Form FD 9000-24 (DEP-SOP-001/01); and
- 8) Laboratory and Field EDDs and error logs, as applicable.

With the exception of the above-mentioned hard copy, all submittals in response to this specific condition shall be sent to the Florida Department of Environmental Protection, Northeast District Office - Solid Waste Section in Jacksonville, Florida.

- o. Technical Reports. The Permittee shall monitor site-specific conditions in addition to the data obtained from the ground and surface water monitoring systems. A technical report shall be submitted by June 11, 2017, which is 61 days prior to the expiration of the standard 20-year long term care period (which ends on August 11, 2017). It shall contain the following:


- 1) Tabular displays of any data that shows a monitoring parameter has been detected, and graphical displays of any detected leachate key indicator parameters (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium, and iron), including hydrographs for all monitoring wells;
- 2) Trend analyses of any monitoring parameters consistently detected;
- 3) Comparisons among shallow, middle, and deep zone wells;
- 4) Comparisons between background water quality and the water quality in detection and compliance wells;
- 5) Correlations between related parameters such as total dissolved solids and specific conductance;
- 6) Discussion of erratic and/or poorly correlated data;
- 7) An interpretation of the ground water contour maps, including an evaluation of ground water flow rates; and
- 8) An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

The report shall contain an evaluation of the ground and surface water monitoring programs, and the adequacy of the monitoring frequency and analyses shall be determined. The Permittee shall have this report prepared, signed, and sealed by a professional geologist or qualified professional engineer.

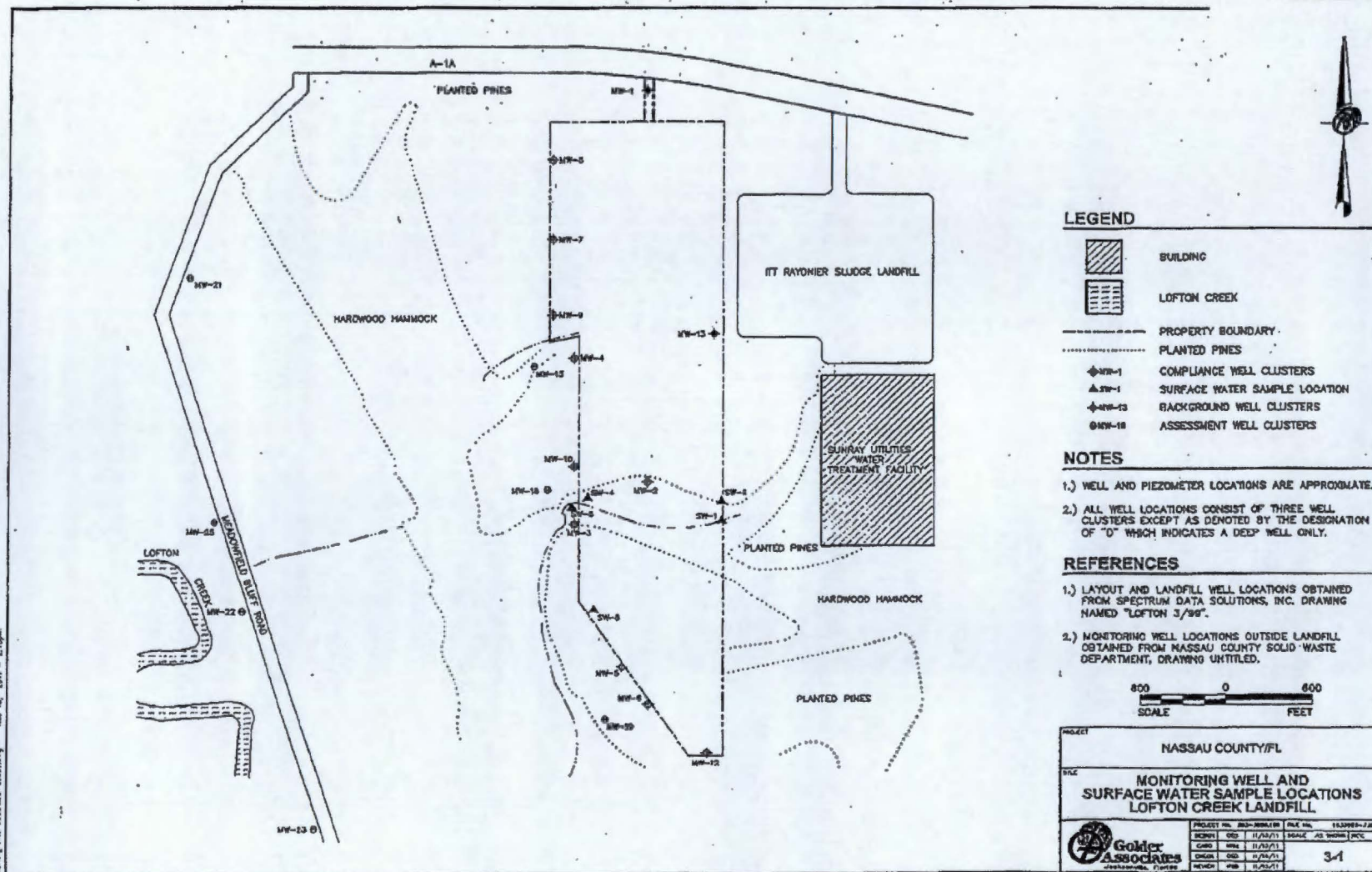
APPENDIX 3
Water Quality Monitoring Plan

- p. Monitoring Plan Amendments. Based on any information or data obtained after the effective date of this permit, DEP reserves the right to modify the conditions set forth herein pursuant to the latest state Rules and regulations (before or after the effective date of this permit); and may modify the permit conditions to address additional groundwater assessment, additional monitoring wells and/or analytical parameters and compliance monitoring.
2. **Surface Water Monitoring.** Surface waters shall be sampled and analyzed semiannually in conjunction with the groundwater monitoring program to assess how surface water quality has been affected by the landfill's activities. The following Surface Water Monitoring Program shall be implemented:
- a. General Requirements. The Surface Water Monitoring Program shall be conducted in accordance with plans submitted to DEP, as modified by the conditions specified in this Permit.
 - b. Surface Water Requirements. Pursuant to Rule 62-302.300, F.A.C., the Permittee shall ensure that the applicable surface water standards are not exceeded.
 - c. Sample Locations. Surface water samples shall be collected from the approximate locations designated as SW-1, SW-2, SW-4, SW-5, and SW-6 on Appendix 3.1. If the pond(s) are discharging, the sampling locations shall be at the point of discharge. If discharge is not occurring at the time of sampling, surface water samples shall be collected from the approximate center of the retention pond(s).
 - d. Surface Water Sampling. All surface water sampling points shall be sampled and analyzed on a semiannual basis for the parameters listed in Appendix 3.5. However, additional sampling points and parameters may be required based upon subsequent analyses.
 - e. Exceedances. If water standards and/or criteria are exceeded at any time and/or whenever a serious problem occurs at this Facility, the Permittee shall immediately notify DEP by telephone. Within seven days of telephone notification, the Permittee shall submit to DEP a written report explaining the extent of the problem, its cause, and what actions have been or will be taken to correct the problem.
 - f. Surface Water Reporting. All surface water sampling results shall be reported in accordance with Specific Conditions 1.n and 1.o and submitted as part of the semiannual groundwater monitoring reports.

APPENDIX 3.1
Monitoring Well and Surface Water Sample Locations

Initials 

APPENDIX 3.1



Initials *[Signature]*

APPENDIX 3.2
Initial Background Groundwater Parameters

Field Parameters

Static water level in wells before purging
Specified conductivity
pH
Dissolved oxygen
Turbidity
Temperature
Colors and sheens
(by observation)

Laboratory parameters

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

APPENDIX 3.3

Semi-Annual Groundwater Parameters

Field Parameters

Static Water Levels
 Specific Conductivity
 pH
 Dissolved Oxygen
 Turbidity
 Temperature
 Colors and Sheens

Specific Sampling Parameters

VOCs

Bromodichloromethane	1,1-Dichloroethene
Bromoform	1,2-Dichloroethane
Bromomethane	trans-1,2-Dichloroethene
Carbon Tetrachloride	cis-1,3-Dichloropropene
Chlorobenzene	trans-1,3-Dichloropropene
Chloroethane	1,2-Dichloropropane
2-Chloroethylvinyl Ether	Methylene Chloride
Chloroform	1,1,2,2-Tetrachloroethane
Chloromethane	Tetrachloroethene
Dibromochloromethane	1,1,1-Trichloroethane
1,2-Dichlorobenzene	1,1,2-Trichloroethane
1,3-Dichlorobenzene	Trichloroethene
1,4-Dichlorobenzene	Trichlorofluoromethane
Dichlorodifluoromethane	Vinyl Chloride
1,1-Dichloroethane	Xylenes
Benzene	Ethylbenzene
	Toluene

Field Parameters, Ammonia-Nitrogen, Bicarbonate, Arsenic, TDS, TOC, & Iron to be sampled from MW-1S [Background well], MW-1I [Background well], MW-13S [Background well], MW-13I [Background well], MW-2S, MW-2I, MW-3S, MW-4S, MW-4I, MW-5S, MW-5I, MW-6S, MW-6I, MW-7S, MW-7I, MW-8S, MW-8I, MW-9S, MW-9I, MW-10S, MW-10I, MW-12S, MW-12I, MW-15S, MW-15I, MW-18S, MW-18I, MW-19S, MW-19I, MW-21S, MW-21I, MW-22S, MW-22I, MW-23S, MW-23I, MW-25S & MW-25I.

Chromium only sampled in MW-1S [Background well], MW-1I [Background well], MW-13S [Background well], MW-13I [Background well], MW-6I & MW-19I.

 Initials
 

APPENDIX 3.3**Semi-Annual Groundwater Parameters**

Sodium only sampled in MW-1S [Background well], MW-1I [Background well], MW-13S [Background well], MW-13I [Background well], MW-4S, MW-7S, MW-7I, MW-8I, MW-9S, MW-9I, MW-21S, MW-21I, MW-22S, MW-22I, MW-23S, MW-23I, MW-24S, MW-24I, MW-25S & MW-25I.

VOCs only sampled in MW-1S [Background well], MW-1I [Background well], MW-13S [Background well], MW-13I [Background well], MW-3S, MW-4S, MW-4I, MW-5S, MW-6S, MW-7S, MW-7I, MW-8S, MW-8I, MW-9S, MW-9I, MW-10I, MW-15I, MW-18S, MW-18I, MW-21S, MW-21I, MW-23S & MW-25I.

Vanadium only sampled in MW-1S [Background well], MW-1I [Background well], MW-13S [Background well], MW-13I [Background well], MW-21S & MW-25S.

APPENDIX 3.4
Guidance for Submitting Electronic Water Quality Data
to the Solid Waste Program

I. General Information

Water quality monitoring reports and all ground and surface water analytical results for the Solid Waste Program shall be submitted to the Department electronically on compact disc or flash drive media readable by Microsoft Windows. Water quality monitoring reports shall be submitted in Adobe pdf format. Unless otherwise approved by the Department, the water quality Electronic Data Deliverable (EDD) shall be compatible with software called Florida DEP Automated Data Processing Tool (ADaPT). ADaPT¹ has been developed to evaluate and upload water quality data into the Department's Water Assurance Compliance System (WACS) database. A copy of this ADaPT software with installation instructions and EDD specifications can be downloaded from the following website address:

<http://www.dep.state.fl.us/waste/categories/shw/pages/ADaPT.htm>

II. Monitoring Report

The monitoring report shall be submitted in Adobe pdf format, with the EDD as an attachment, and shall include the following items:

1. Cover letter;
2. Summary of exceedences and recommendations;
3. Ground water contour maps;
4. Chain of custody forms;
5. Water levels, water elevation table;
6. Ground Water Monitoring Report Certification, using the appropriate Department form;
7. Appropriate sampling information on Form FD 9000-24 (DEP-SOP-001/01);
and,
8. Laboratory and Field EDDs that are compatible with ADaPT software and the ADaPT error log(s).

¹ The Department recognizes that many laboratories have been using software called Validator to prepare the water quality data EDDS for solid waste facilities. In the event ADaPT is not available or a laboratory preparing the EDDS has not yet transitioned to ADaPT, then Validator may continue to be used to prepare the EDDs for submittal to the Department. However, the laboratory should transition to ADaPT as soon as possible since at some date in the future Validator will no longer be supported and become obsolete.

APPENDIX 3.4
Guidance for Submitting Electronic Water Quality Data
to the Solid Waste Program

The monitoring report shall be sent both to:

Florida Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256

And to:

Florida Department of Environmental Protection
Solid Waste Section
2600 Blair Stone Road, MS 4565
Tallahassee, Florida, 32399-2400

III. ADaPT EDDs

The ADaPT EDD consists of two electronic deliverables: (1) a Laboratory EDD, identified as swldd.txt; and (2) a Field EDD identified as swfdd.txt. The format for the Laboratory EDD and the Field EDD are described below. In addition, as explained in Section V, a copy of the Laboratory EDD shall be prepared in Adobe Portable Document Format (PDF) file by the laboratory.

The Laboratory EDD shall be submitted in a comma separated (.csv format) text file which can be produced through Excel. The Laboratory EDD file name format shall be: WACS Facility I.D. underscore Begin Sampling Date (yyyymm) underscore swldd.txt. The period at the end would not be included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the Laboratory EDD file name should be: 12345_200811_swldd.txt.

The Field EDD shall be submitted in the same comma separated (.csv format) text file as the Laboratory EDD. The Field EDD file name format shall be: WACS Facility I.D. underscore Begin Sampling Date (yyyymm) underscore swfdd.txt. Again, the period at the end is not included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the file name should be: 12345_200811_swfdd.txt.

For confirmation sampling, add the term _conf to the EDD filenames as follows: 12345_200811_conf_swldd.txt for the Laboratory EDD or 12345_200811_conf_swfdd.txt for the Field EDD.

APPENDIX 3.4

Guidance for Submitting Electronic Water Quality Data to the Solid Waste Program

For data that is resubmitted, add _#, where # is the number of data submittals (greater than 1). For example, if the data was resubmitted for the first time, and was thus submittal number 2, then the EDD filenames would be as follows:
12345_200811_2_swldd.txt for the Laboratory EDD and 12345_200811_2_swfdd.txt for the Field EDD.

Finally, taking this to an extreme, if conformation data was resubmitted for say the 10th time, then the EDD filenames would be: 12345_200811_conf_10_swldd.txt for the Laboratory EDD or 12345_200811_conf_10_swfdd.txt for the Field EDD.

IV. Signatures Required

Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations. A sealed signature page may be submitted with the report provided that the seal is legible (gray the embossed seal and scan). Otherwise, you must separately mail the sealed and signed page.

V. Process Required

Three steps are generally required. First, two copies of the Laboratory EDD, one in comma separated text format and one as a PDF file, must be submitted by the laboratory. A digitally "signed" PDF copy² by the laboratory serves to maintain the integrity of the Laboratory EDD. In order to validate the QA/QC aspects of the Laboratory EDD, the permittee shall ensure the laboratory processes the Laboratory EDD through ADaPT using both their laboratory specific library and the Department's Solid Waste Master library and corrects all critical errors and explains all non-critical errors prior to submittal. Second, the appropriate entity (laboratory, consultant, or permittee) shall process the Field EDD through ADaPT using the Department's Solid Waste Master library and correct all critical errors and explain all non-critical errors prior to submittal. Finally, as a completeness check, the permittee or consultant shall process both the Laboratory EDD and the Field EDD through ADaPT and confirm a successful export to disk prior to submitting the Laboratory EDD, Field EDD and ADaPT error log(s) to the Department.

² This would be a read only file.

APPENDIX 3.4
Guidance for Submitting Electronic Water Quality Data
to the Solid Waste Program

VI. Resources

In the event help is needed to prepare these EDDs, you can contact the Department's Solid Waste staff at the appropriate District office. The information for the Department's District offices is as follows:

Northwest District Office
160 Governmental Center, Room 308
Pensacola, Florida 32502
(850) 595-8300

Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256-7590
(904) 256-1700

Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637
(813) 632-7600

Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803
(407) 894-7555

South District Office
P.O. Box 2549
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901
(239) 332-6975

Southeast District Office
400 North Congress Avenue, Suite 200
West Palm Beach, Florida 33401
(561) 681-6600

You can also receive help by contacting Mr. Clark Moore (850-245-8739) or Mr. Lee Martin (850-245-8734) in Tallahassee.

APPENDIX 3.5

Initial Background and Semi-Annual Surface Water Parameters

Field Parameters

Specified conductivity
pH
Dissolved Oxygen (DO)
Turbidity
Temperature
Water Temperature

Total Depth
Sample Depth
Stream Velocity
Secchi
Odors, Colors, Sheens

Laboratory parameters

Conductivity
pH
Alkalinity
Total Dissolved Solids (TDS)
Total Dissolved Volatile Solids (TDVS)
Total Suspended Solids (TSS)
Total Volatile Solids (TVS)
Total Fixed Solids (TFS)
NH₃
Total Kjeldahl Nitrogen (TKN)
NO₂ + NO₃
TPO₄
OPO₄
Hardness
Chloride
Sulfate
Zinc

Fluoride
Chemical Oxygen Demand (COD)
Total Nitrogen
Ammonium (NH₄)
Arsenic
Bicarbonate
Biological Oxygen Demand (BOD₅)
Cadmium
Chromium
Copper
Iron
Lead
Mercury
Nitrate
Sodium
Total Organic Carbon (TOC)

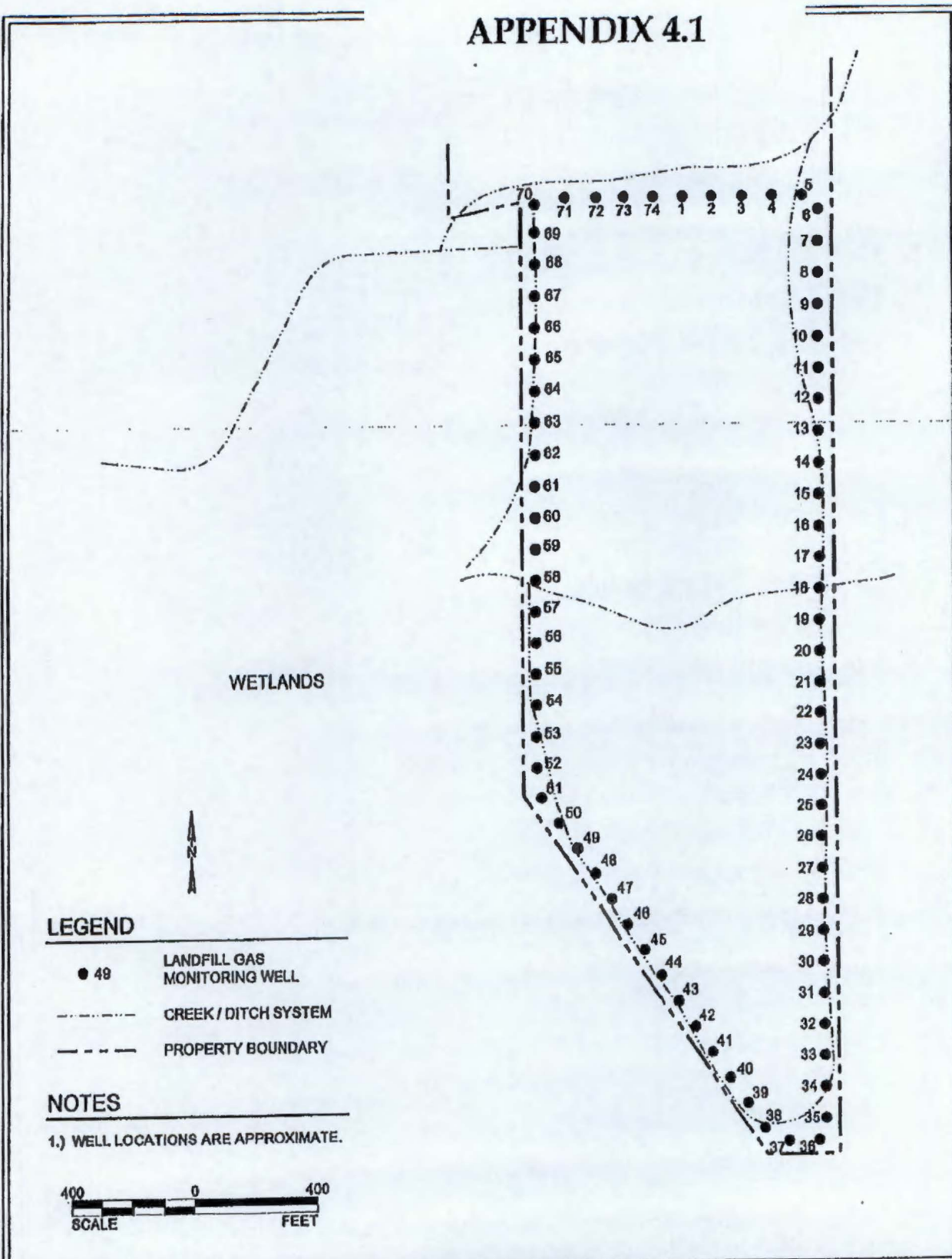
VOCs

Bromodichloromethane
Bromoform
Bromomethane
Carbon Tetrachloride
Chlorobenzene
Chloroethane
2-Chloroethylvinyl Ether
Chloroform
Chloromethane
Dibromochloromethane
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Dichlorodifluoromethane
1,1-Dichloroethane
Toluene
Xylenes

1,1-Dichloroethene
trans-1,2-Dichloroethene
cis-1,3-Dichloropropene
trans-1,3-Dichloropropene
1,2-Dichloropropane
Methylene Chloride
1,1,2,2-Tetrachloroethane
Tetrachloroethene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
Trichlorofluoromethane
Vinyl Chloride
1,2-Dichloroethane
Benzene
Ethylbenzene



APPENDIX 4.1

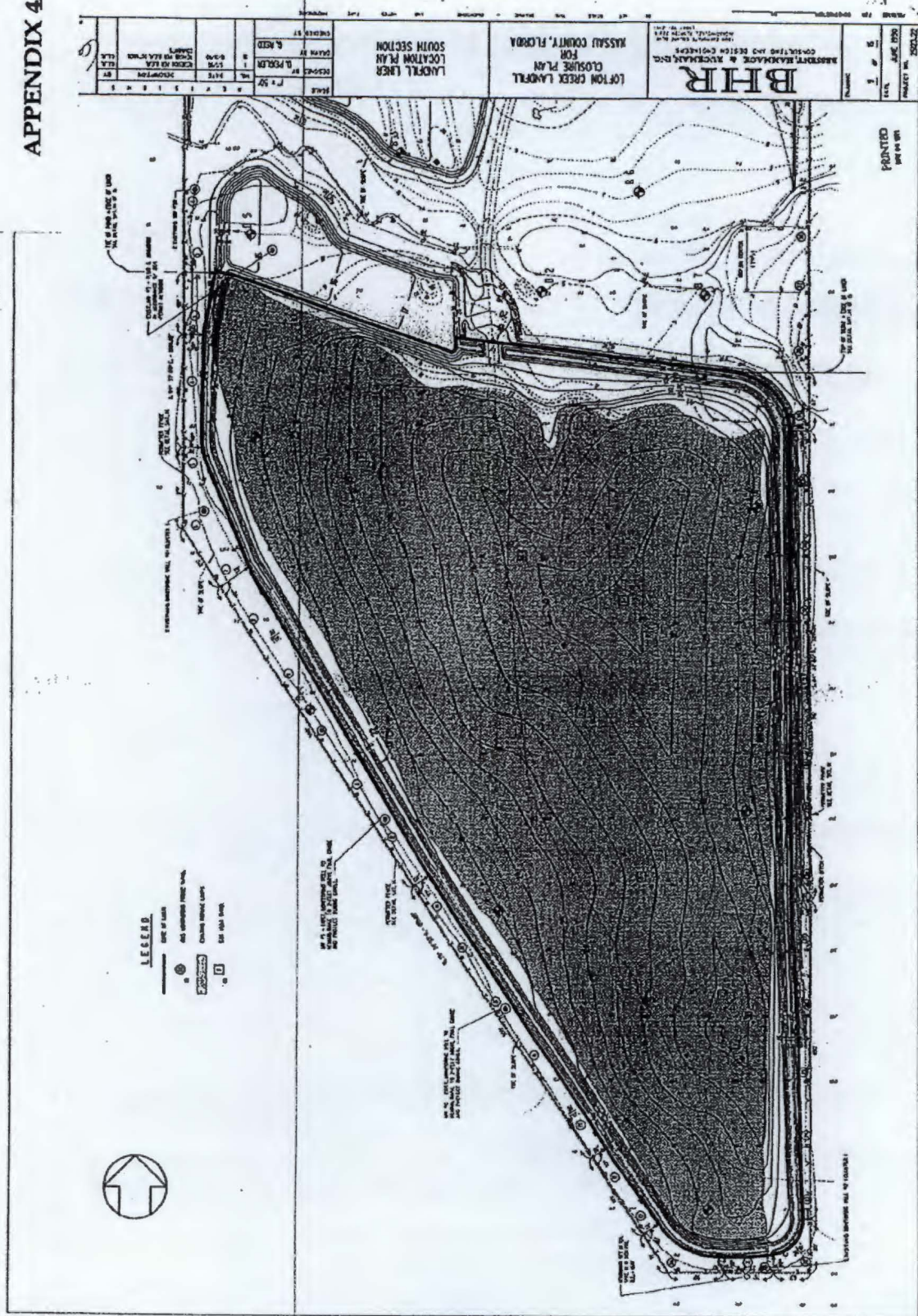

S2Li

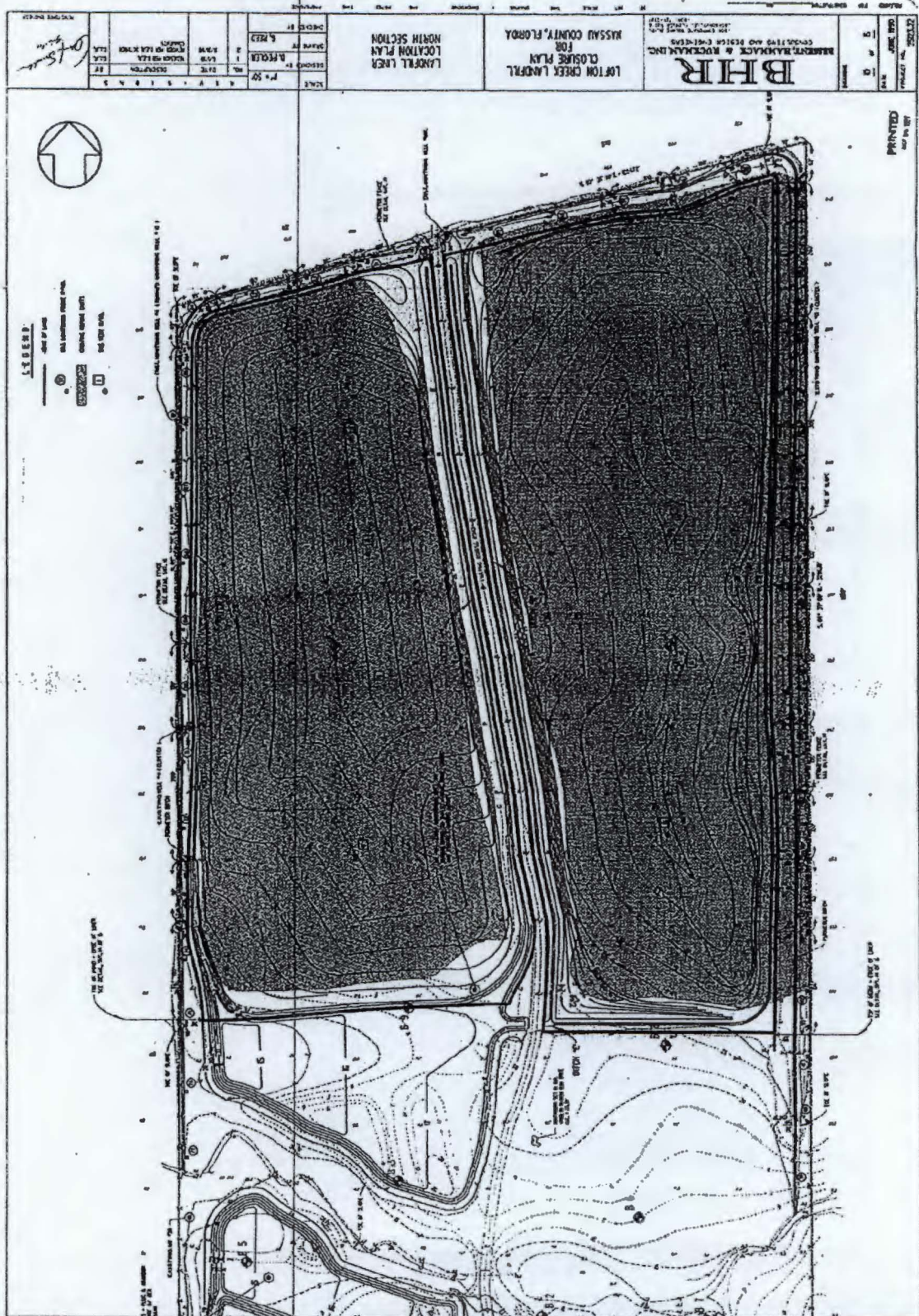
531 Versailles Drive, Suite 202
Melland, FL 32751
PHONE: (407) 475-9163
FAX: (407) 475-9169
Certification of Authorization #7831

**LANDFILL GAS MONITORING WELL LOCATIONS
LOFTON CREEK LANDFILL
NASSAU COUNTY, FLORIDA**

Initials

Initials





Initials

APPENDIX 5

Table A-1: Post-Closure Inspection Form (Page 1 of 3)

LANDFILL: _____		OWNER: _____			
Observation Report Number: _____		Date of Observation: ____/____/____			
Time Arrived Onsite: _____		Time Departed Site: _____			
Field Personnel: _____					
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section A: Site Security					
1. Entry sign damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Any corrosion or damage to perimeter fence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Any damage to gates and locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section B: Roads					
1. Access compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Perimeter road compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section C: Final Cover System					
1. Evidence of settlement or ponding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Evidence of erosion, cracks, or gullies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Evidence of erosion or sedimentation of slope runoff control terraces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Inadequate or stressed grass cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	45 days	_____
5. Grass height greater than 18 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
6. Growth of damaging weeds or saplings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
7. Evidence of leachate release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
8. Geomembrane liner impact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
a. Notify FDEP	<input type="checkbox"/>			72 hours	_____
b. Provide written report to FDEP	<input type="checkbox"/>			7 days	_____
Section D: Drainage Flumes					
1. Blockage at entrance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	_____
2. Settlement of the channel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Damage/cracks in channel lining	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Excessive silt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
(1) If yes, assign a comment number and see Page 3 for instructions.					
(2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____		Date of Observation: ____/____/____			

Initials




Table A-1: Post-Closure Inspection Form (Page 2 of 3)

LANDFILL: _____		OWNER: _____			
Observation Report Number: _____		Date of Observation: ____/____/____			
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section E: Perimeter Drainage System					
1. Sloughing of ditch slopes or berms ditches, Impairment of flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Damaged/malfunctioning detention ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Erosion of ditch slopes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Vegetation height greater than 18 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
5. Problems associated with siltting, sediment level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section F: Gas Vents					
1. Visible damage to system components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
a. Notify FDEP	<input type="checkbox"/>			Immediately In Writing	_____
2. Blockage in pipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
a. Notify FDEP	<input type="checkbox"/>			Immediately In Writing	_____
3. Local settlement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
Section G: Groundwater Monitoring Wells					
1. Protective casing missing or damaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
2. Concrete pads damaged or cracked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
3. Wells/probes unlocked, locks missing, damaged or inoperable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
a. Notify FDEP (if damaged or inoperable)	<input type="checkbox"/>			Immediately In Writing	_____
Section H: Limits of Waste Monuments					
1. Monuments in unacceptable condition and/or not visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 Days	_____
2. Limit of waste markers, damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 Days	_____
(1) If yes, assign a comment number and see Page 3 for instructions.					
(2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____		Date of Observation: ____/____/____			

Initials

JBL

Initials

S. 



Florida Department of Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

January 24, 2018

Transmitted via email to: bbray@nassaucountyfl.com

In the Matter of an
Application for Permit by:

DEP File No.: 64999-008
Facility WACS ID No.: 37138
Lofton Creek Class I Landfill (Closed)
Nassau County - Solid Waste

Ms. Rebecca Bray, P.E.,
Interim Public Works Director
Nassau County Board of County Commissioners
96135 Nassau Place, Suite 1
Yulee, Florida 32097

NOTICE OF PERMIT MODIFICATION

Enclosed is the State of Florida Department of Environmental Protection (Department or DEP) Permit Intermediate Modification Number 64999-008-IM of Permit Number 64999-006-SF to extend the existing Permit's term from the current six years to a total 10-year period with the new Permit's expiration date of February 15, 2022; to reduce the number of groundwater monitoring wells, to reduce the monitoring analytical parameters for groundwater, to reduce the number of surface water sampling locations, and to establish new dates for submission of the Stabilization/Technical reports as well as submission of the permit renewal application for the closed Lofton Creek Class I Landfill during its long-term care period. This Modified Permit is issued pursuant to Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-520, 62-550, and 62-701, Florida Administrative Code (F.A.C.).

This Notice of Permit Modification alters the expiration date, but does not alter the General Conditions, or the Specific Conditions, with the exception of the modifications and updates to the Section 2.A.3., Section 2.E.1., Section 2.G.1, Section 2.G.3, Section 2.H, Appendix 2, Appendix 3 Section 1.e., Appendix 3 Section 1.j., Appendix 3 Section 1.k, Appendix 3 Section 1.n., Appendix 3 Section 1.o., Appendix 3 Section 2.c., APPENDIX

Nassau County Board of County Commissioners
January 24, 2017
Page 2

3.1, APPENDIX 3.3, APPENDIX 3.4, APPENDIX 4.2, and the elimination of APPENDIX 4.1.

The revised and modified Specific Conditions and Appendices, are as now shown in the attached/enclosed modified Permit.

This Notice and the attached/enclosed Permit (modified) replaces the original permit.

This modified Permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed or unless a request for an extension of time in which to file a petition is filed within the time specified for filing a petition, and conforms to Rule 62-103.070, F.A.C. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, MS #35, Tallahassee, Florida 32399, within 14 days of receipt of this Permit. The Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information:

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

Nassau County Board of County Commissioners
January 24, 2017
Page 3

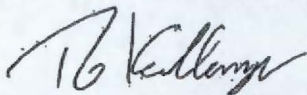
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, DEP's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of DEP with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of DEP. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

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

Mediation is not available for this permit modification.

Executed in Duval County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Thomas G. Kallemeyn
Permitting Program Administrator

Initials 

Nassau County Board of County Commissioners
January 24, 2017
Page 4

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

Omar E. Smith, P.E., S2L, Incorporated, osmith@s2li.com
Richard L. Potts, P.G., The Colinas Group, Inc., rickpotts@cfl.rr.com
Brian Durden, DEP, Brian.durden@dep.state.fl.us
Jeff Schroer, DEP, Jeffrey.Schroer@dep.state.fl.us
Craig Parke, DEP, Craig.Parke@dep.state.fl.us

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Merilee L. Palcu

Clerk

1/24/18

Date

Initials





Florida Department of Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

February 16, 2018

Transmitted via email to: bbray@nassaucountyfl.com

In the Matter of an
Application for Permit by:

DEP File No.: 64999-009
Facility WACS ID No.: 37138
Lofton Creek Class I Landfill (Closed)
Nassau County - Solid Waste

Ms. Rebecca Bray, P.E.,
Interim Public Works Director
Nassau County Board of County Commissioners
96135 Nassau Place, Suite 1
Yulee, Florida 32097

NOTICE OF PERMIT MODIFICATION

Enclosed is the State of Florida Department of Environmental Protection (Department or DEP) Permit Intermediate Modification Number 64999-008-IM of Permit Number 64999-006-SF to extend the existing Permit's term from the current six years to a total 10-year period with the new Permit's expiration date of February 15, 2022; to reduce the number of groundwater monitoring wells, to reduce the monitoring analytical parameters for groundwater, to reduce the number of surface water sampling locations, and to establish new dates for submission of the Stabilization/Technical reports as well as submission of the permit renewal application for the closed Lofton Creek Class I Landfill during its long-term care period. This Modified Permit is issued pursuant to Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-520, 62-550, and 62-701, Florida Administrative Code (F.A.C.).

Also, enclosed is the State of Florida Department of Environmental Protection (Department or DEP) Permit Modification Number 64999-009-MM of Permit Number 64999-006-SF to revise the number of reduced groundwater monitoring wells.

Nassau County Board of County Commissioners
February 16, 2018
Page 2

The Notice of Permit Intermediate Modification Number 64999-008-IM alters the expiration date, but does not alter the General Conditions, or the Specific Conditions, with the exception of the modifications and updates to the Section 2.A.3., Section 2.E.1., Section 2.G.1, Section 2.G.3, Section 2.H, Appendix 2, Appendix 3 Section 1.e., Appendix 3 Section 1.j., Appendix 3 Section 1.k, Appendix 3 Section 1.n., Appendix 3 Section 1.o., Appendix 3 Section 2.c., APPENDIX 3.1, APPENDIX 3.3, APPENDIX 3.4, APPENDIX 4.2, and the elimination of APPENDIX 4.1.

Also, this Notice of Permit Modification Number 64999-009-MM revises Appendix 3 Section 1.e. by deleting Well Cluster MW-8 S,I from groundwater monitoring requirements, but does not alter the expiration date, the General Conditions, or other Specific Conditions.

This Notice of Permit Modification and the attached revised Permit replaces the Permit Modification issued on January 24, 2018.

This modified Permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed or unless a request for an extension of time in which to file a petition is filed within the time specified for filing a petition, and conforms to Rule 62-103.070, F.A.C. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, MS #35, Tallahassee, Florida 32399, within 14 days of receipt of this Permit. The Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

Initials 

Nassau County Board of County Commissioners
February 16, 2018
Page 3

The Petition shall contain the following information:

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, DEP's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of DEP with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of DEP. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

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

Initials

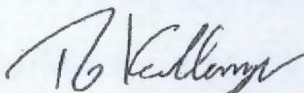


Nassau County Board of County Commissioners
February 16, 2018
Page 4

Mediation is not available for this permit modification.

Executed in Duval County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Thomas G. Kallemeyn
Permitting Program Administrator

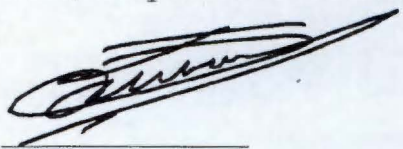
CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

Omar E. Smith, P.E., S2L, Incorporated, osmith@s2li.com
Richard L. Potts, P.G., The Colinas Group, Inc., rickpotts@cfl.rr.com
Brian Durden, DEP, Brian.durden@dep.state.fl.us
Jeff Schroer, DEP, Jeffrey.Schroer@dep.state.fl.us
Craig Parke, DEP, Craig.Parke@dep.state.fl.us

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

2/16/18

Date

Initials





Florida Department of Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

Permit Issued to:

Nassau County Board of County Commissioners
96135 Nassau Place, Suite 1
Yulee, Florida 32097
904.491.7330

Facility WACS ID No.: 37138
Facility Name: Lofton Creek Class I Landfill (Closed)
Facility Address: 2.5 miles east of Yulee on the south side of State Road AIA
Lofton Creek, Nassau County, Florida

Contact Person:

Rebecca Bray, P.E., Nassau County Interim Public Works Director
46026 Landfill Road
Callahan, Florida 32011
bbray@nassaucountyfl.com
904.530.6225

Solid Waste Long-Term Care Renewal Permit - Class I Landfill
Permit No.: 0064999-006-SF (which includes File No. 0064999-006)
Permit Modification No.: 64999-007-MM
Permit Modification No.: 64999-008-IM
Permit Modification No.: 64999-009-MM
Replaces Permit No.: 0064999-001-SF

Permit Issued: February 15, 2012
Permit Modification Issued: January 24, 2018
Permit Modification Revision Issued: February 16, 2018
Permit Renewal Application Due Date: [61 days before expiration]
Permit Expires: February 15, 2022

Permitting Authority

Florida Department of Environmental Protection
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256
Phone: 904.256.1700
Fax: 904.256.1587

Initials

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
Permit Modification No.: 64999-009-MM
Facility WACS ID: 37138

SECTION 1 - SUMMARY INFORMATION

A. Authorization

The Permittee is hereby authorized to monitor and maintain the Facility described below in accordance with the specific and general conditions of this permit and any documents attached to this permit or specifically referenced in this permit and made a part of this permit.

This solid waste long-term care permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4 and 62-701.

This permit does not relieve the Permittee from complying with any other appropriate local zoning or land use ordinances or with any other laws, rules or ordinances. Receipt of any permits from the Florida Department of Environmental Protection (Department) does not relieve the applicant from obtaining other federal, state, and local permits and/or modifications required by law, including those from other Sections within the Department or of the Water Management District.

B. Facility Location

Lofton Creek Landfill is located approximately 2.5 miles east of Yulee on the south side of State Road A1A at latitude/longitude N30°37'30"/W82°33'40", in Nassau County, Florida.

C. Facility Description

Lofton Creek Class I Landfill (Facility) is a closed landfill that began its 20-year long-term care period on August 11, 1997. The total site area is 62 acres of which 52± acres are capped. The final cover system consists of from top to bottom: a six-inch top soil layer; a 12-inch thick drainage layer; a 40-mil High Density Polyethylene synthetic geomembrane, a six-inch soil clay layer with a permeability of 1×10^{-7} cm/sec or less, and intermediate cover. The Facility design includes Groundwater and Surface Water Monitoring Systems, and a Stormwater Management System.

D. Appendices Made Part of This Permit

APPENDIX 1 - General Conditions

APPENDIX 2 - Approved Application Documents

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
Permit Modification No.: 64999-009-MM
Facility WACS ID: 37138

APPENDIX 3 - Water Quality Monitoring Plan

APPENDIX 3.1 - Monitoring Well and Surface Water Sample Locations

APPENDIX 3.2 - Initial Background Groundwater Parameters

APPENDIX 3.3 - Semi-annual Groundwater Parameters

APPENDIX 3.4 - Guidance for Submitting Electronic Water Quality Data to the Solid Waste Program

APPENDIX 3.5 - Initial Background and Semi-annual Surface Water Parameters

APPENDIX 4.2 - Passive Gas Venting Well Locations

APPENDIX 5 - Post-Closure Inspection Form

SECTION 2 - SPECIFIC CONDITIONS

A. Administrative Requirements

1. Documents Part of This Permit. The permit application as finally revised, replaced or amended in response to the Department's Request(s) for Additional Information are contained in the Department's files and are made a part of this permit. Those documents that make up the complete permit application are listed in APPENDIX 2.
2. Permit Modification. Any change to construction, operation, monitoring, or closure requirements of this permit may require a modification to this permit, in accordance with the provisions of Rule 62-701.320(4) F.A.C.
3. Permit Renewal. If the Permittee wishes to renew the permit, or if the long-term care period is extended such that a permit renewal is required, a permit renewal application shall be submitted by December 16, 2021, which is 61 days prior to the expiration of this permit.
4. Transfer of Permit or Name Change. In accordance with Rule 62-701.320(11) F.A.C., the Department must be notified in writing within 30 days: (1) of any sale or conveyance of the Facility; (2) if a new or different person takes ownership or control of the Facility; or (3) if the Facility name is changed.

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
Permit Modification No.: 64999-009-MM
Facility WACS ID: 37138

B. Construction Requirements

Construction requirements are not applicable to this Permit.

C. Operation Requirements

Operation requirements are not applicable to this Permit.

D. Water Quality Monitoring Requirements

1. Water Quality Monitoring Plan. The Water Quality Monitoring Plan for this permit is included in APPENDIX 3.

E. Gas Management System Requirements

1. Construction Requirements. All construction shall be done in accordance with the approved gas management system design, drawings, and specifications. The Department shall be notified before any changes, other than minor deviations, to the approved design are implemented in order to determine whether a permit modification is required.

(a) Locations of gas venting wells are specified in APPENDIX 4.2.

2. Operational Requirements. Gas controls shall be operated and maintained in accordance with the Post-Closure Care Plan.
3. Monitoring Requirements. The methane gas monitoring requirement has been eliminated.

F. Closure Requirements

Closure requirements are not applicable to this Permit.

G. Long Term Care Requirements

1. Long-Term Care Period. The Permittee shall continue to monitor and maintain the integrity and effectiveness of the final cover as well as other appurtenances of the Facility, control erosion, fill subsidences, comply with the ground water monitoring plan, and maintain the stormwater system, in accordance with an approved Post-Closure Care Plan. A Post-Closure Inspection Form is presented as Table A-1 of APPENDIX 5 and shall be used for documenting the results of inspections. The long-

PERMITTEE NAME: Nassau County
Board of County Commissioners
FACILITY NAME: Lofton Creek Class I Landfill

Permit No.: 64999-006-SF
Permit Modification No.: 64999-009-MM
Facility WACS ID: 37138

term care period was extended on May 25, 2017, and it is scheduled to end on February 15, 2022.

2. Post-Closure Care Plan. A copy of the approved Post-Closure Care Plan, including the operating record as defined in Rule 62-701.500(3) F.A.C., shall be kept at the West Nassau Landfill's offices and shall be accessible to landfill operators.

3. Stabilization Report. By June 15, 2021, the Permittee shall submit a report to the Department that addresses stabilization of the landfill. The submittal shall include the Technical Report required in Rule 62-701.510(9)(b) F.A.C., and shall also address subsidence, barrier layer effectiveness, storm water management, and gas production and management.

4. Contingency Plan and Notification of Emergencies. The Permittee shall notify the Department in accordance with the approved Post-Closure Care Plan. Notification shall be made to the Solid Waste Section of Department's Northeast District Office at 904.256.1700. During non-regular business hours, the notification shall be made to Department's 24-hour emergency phone number 800.320.0519.

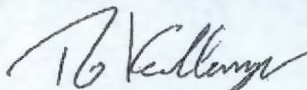
5. Final Certification. Following completion of the long-term care period for each solid waste management unit, the owner or operator shall submit to the Department a certification, signed and sealed by a professional engineer, verifying that long-term care has been completed in accordance with the closure plan has been placed in the operating record.

H. Financial Assurance and Cost Estimates

Financial Assurance and Annual Cost Estimate Adjustments were discontinued on August 11, 2017 and are not required anymore.

Executed in Duval County, Florida

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Thomas G. Kallemeyn
Permitting Program Administrator

APPENDIX 1

General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

APPENDIX 1

- (a) Have access to and copy any records that must be kept under conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of noncompliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
- The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit or a copy thereof shall be kept at the work site of the permitted activity.
12. The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all

APPENDIX 1

records will be extended automatically unless otherwise stipulated by the Department.

(b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

13. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.



APPENDIX 2

Approved Application Documents

This Permit includes DEP File Number 64999-006, and is issued in accordance with the application received on November 17, 2011, and the supplemental information provided on December 7, December 8, December 9, 2011, February 9, and February 15, 2012 and which are further specified below:

Document 1 - *Application for Closure Permit Renewal for Long-Term Care, Lofton Creek Landfill*, prepared by S2L, Incorporated and Golder Associates, Inc., signed and sealed by Omar E. Smith, P.E., dated November 15 and received November 17, 2011, respectively;

Document 2 - *LFG Monitoring Frequency, Request for Change in Closure Permit Renewal Application for Long-Term Care, Lofton Creek Landfill*, prepared by S2L, Incorporated, signed and sealed by Omar E. Smith, P.E., dated December 5 and received December 7, 2011 respectively;

Document 3 - *Changes to Application Form and Post-Closure Care Plan Language, Request for Changes in Closure Permit Renewal Application for Long-Term Care, Lofton Creek Landfill*, prepared by S2L, Incorporated, signed and sealed by Omar E. Smith, P.E., dated December 7 and received December 8, 2011 respectively,

Document 4 - Updated gas monitoring well locations plan for the Lofton Creek Landfill, prepared by S2L, Incorporated, emailed by Omar E. Smith, P.E. on December 9, 2011,

Document 5 - Passive gas venting well locations plan for the Lofton Creek Landfill, emailed by Omar E. Smith, P.E. of S2L, Incorporated on February 9, 2012, and

Document 6 - Clarification related to permit's groundwater monitoring parameters for the Lofton Creek Landfill, emailed by Omar E. Smith, P.E. of S2L, Incorporated on February 15, 2012.

The following document was provided with the subject permit modification application (DEP File Number 64999-008):

Document 7 - *Intermediate Modification Application for the Existing Long-Term Care Permit at the Lofton Creek Landfill, Nassau County, Florida*, prepared by S2L, Incorporated, signed and sealed by Omar E. Smith, P.E., dated January 11 and received January 12, 2018.

APPENDIX 3 Water Quality Monitoring Plan

1. **Groundwater Monitoring.** In accordance with Rules 62-701.510 and 62-520.600, F.A.C., the Permittee shall install, place into operation, and maintain a groundwater quality monitoring system.
 - a. General Requirements. The Permittee shall construct new wells, operate and maintain the groundwater monitoring system, and abandon wells in accordance with Chapters 62-520 and 62-701, F.A.C., and with the Groundwater Monitoring Plan, as presented in the Permit Documents noted at the beginning of this Permit and as modified by the conditions specified therein.
 - b. Zone of Discharge. The Zone of Discharge (ZOD) for the facility shall be a three dimensional volume that extends horizontally from the permitted edge of the solid waste disposal unit a distance of 100 feet, or to the property boundary; or to the shortest distance between the location of the detection monitoring wells and the solid waste disposal unit; whichever is less; and extends vertically from the top of the ground to the base of the surficial aquifer.
 - c. Class G-II Requirements. Pursuant to Rule 62-520.420, F.A.C., the Permittee shall ensure that the water quality standards for Class G-II groundwater shall not be exceeded at the boundary of the ZOD.
 - d. Minimum Criteria. The Permittee shall ensure that the minimum criteria for groundwater specified in Rule 62-520.400, F.A.C., are not violated within the ZOD.
 - e. Monitoring Plan. The Groundwater Monitoring Plan consists of the following wells and piezometers (whose locations and identifications shall be in accordance with Appendix 3.1):

Background Wells:


Well Cluster* MW-1 S,I
Well Cluster* MW-13 S,I

Detection Wells:

Well MW-3 S
Well Cluster* MW-4 S,I
Well MW-5 S
Well MW-6 S
Well Cluster* MW-7 S,I
Well Cluster* MW-9 S,I
Well Cluster* MW-10 S,I

Compliance Wells:

Well Cluster* MW-15 S,I
Well Cluster* MW-18 S,I



APPENDIX 3 Water Quality Monitoring Plan

Piezometers:

Well Cluster* MW-21 S,I,D
Well Cluster* MW-22 S,I,D
Well Cluster* MW-23 S,I,D
Well Cluster* MW-25 S,I,D

(*) Well clusters to consist of shallow (S), intermediate (I), and deep (D) screen interval wells

If monitoring parameters are detected in detection wells in concentrations that are significantly above background water quality, or that are at levels above groundwater standards or criteria, evaluation monitoring shall be initiated within 90 days of notification by DEP pursuant to Rule 62-701.510(7), F.A.C. including, but not limited to, the installation and sampling of compliance wells associated with the affected detection well(s).

- f. New Well Requirements. The Permittee shall submit, the following information to DEP within 15 days of completion of construction of any new groundwater monitoring well(s) (permanent and temporary):

Well identification	Driller's Lithologic Log
Latitude/Longitude	Total well depth
Aquifer monitored	Casing diameter
Screen type and slot size	Casing type and length
Elevation at top of pipe	Well construction permit number
Elevation at land surface	Depth to groundwater

New groundwater monitoring wells shall be designed and constructed in accordance with Chapter 62-520, F.A.C., and ASTM Standard D-5092. A surveyed drawing shall be submitted showing the horizontal location of all monitoring wells by metes and bounds or equivalent surveying techniques. The surveyed drawing shall include the monitoring well identification number as well as the location and elevation of all permanent benchmark(s) and/or corner monument marker(s) at the site. The survey shall be conducted by a Florida Licensed Professional Surveyor and Mapper.

Unless they are replacement well(s), any newly installed monitoring well(s) shall be sampled and those samples shall be analyzed for the

APPENDIX 3
Water Quality Monitoring Plan

parameters listed Appendix 3.2, as required by Rule 62-701.510(8)(a) F.A.C., to establish background groundwater quality.

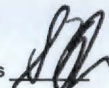
- g. Well Abandonment. Within 60 days of issuance of this Permit, all piezometers and wells not a part of the permit groundwater monitoring plan are to be plugged and abandoned in accordance with St. Johns River Water Management District Rule 40C-3.531. However, a written request for the abandonment of any piezometers or wells shall be submitted to DEP and written approval of the abandonment obtained prior to any abandonment. A written report documenting the plugging and abandonment activities shall be submitted to DEP within 30 days of field activities. All piezometers and wells not abandoned shall be properly maintained and routinely inspected in conjunction with the semiannual groundwater sampling.
- h. Well Inspection Requirements. A visual inspection of wells and piezometers to assess visible damage shall be conducted in conjunction with the semiannual sampling events. All wells are to be clearly labeled and easily visible at all times. The well components at and above ground surface shall be constructed in a manner that secures and protects the groundwater monitoring wells. At each well location, construction shall include a concrete surface pad and above ground vertical protective casing with a locking cap. The casing and top shall be maintained in good working order, intact and locked. A minimum of two protective bollards shall be placed at the edges of the concrete surface pad. Bollards shall, at a minimum, be the approximate height of the protective casing and constructed of materials capable of providing protection from accidental impact with machinery.
- i. Damaged Well Requirements. In the event any monitoring well becomes damaged or inoperable, the Permittee shall notify DEP within 72 hours and shall submit a detailed written report within seven days. The written report shall detail the problem that has occurred and remedial measures that have been taken to prevent a recurrence. Damaged wells shall be repaired or replaced within 60 days. If a monitoring well is unable to be sampled during its normal time frame, it shall be sampled within 30 days of repair or replacement and its analysis shall be submitted to DEP within 60 days of repair or replacement. All monitoring well design and replacement shall be approved by DEP prior to installation.
- j. Groundwater Levels. Groundwater levels shall be recorded no less than 48 hours after well installation and prior to evacuating the well for sample collection. Groundwater level measurements shall be collected

APPENDIX 3 Water Quality Monitoring Plan

semiannually from monitoring well clusters MW-1 (S,I), MW-3 (S), MW-4 (S,I), MW-5 (S), MW-6 (S), MW-7 (S,I), MW-9 (S,I), MW-10 (S,I), MW-13 (S,I), MW-15 (S,I), MW-18 (S,I), and piezometers MW-21 (S,I,D), MW-22 (S,I,D), MW-23 (S,I,D), MW-25 (S,I,D). Elevation measurements, referenced to a consistent, nationally recognized datum, shall include groundwater surface elevation, the top of well casing, and land surface at each site at a precision of plus or minus 0.01 feet. A groundwater surface contour map shall be constructed by a professional geologist or qualified professional engineer, depicting the locations of wells and corresponding groundwater elevations. This information shall be submitted to DEP in conjunction with the semiannual groundwater monitoring report forms. In the event that the data indicates a variation in the horizontal or vertical flow directions such that existing wells are not adequate to intercept contaminants that may be generated from the Facility, the Permittee shall propose additional wells to correct that deficiency or DEP shall require wells to be installed to correct that deficiency.

- k. Sampling. All groundwater background, detection, and compliance monitoring wells shall be sampled and analyzed semiannually for the parameters listed in Appendix 3.3. Specifically, the wells shall be sampled before June 30 and December 30 during each year of this Permit. Compliance with groundwater standards and/or criteria shall be determined by analysis of unfiltered groundwater samples, unless the requirements of Rule 62-520.310(5) F.A.C., are satisfied. Additional samples, wells, and parameters may be required based upon subsequent analyses.

The Permittee shall collect, analyze, report and retain sampling and monitoring data in accordance with Chapter 62-160 F.A.C. and Rule 62-520.600 F.A.C. Any laboratory test required by this permit shall be performed by a laboratory that is certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/analyte combinations that are used to comply with this permit. Biological evaluations shall follow the applicable procedures in DEP-SOP-002/01 (July 30, 2014). All field activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP-002/01 (July 30, 2014). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220 and 62-160.330, F.A.C. Minimum detection levels for all analytes shall be at or below groundwater standards and/or criteria for each analyte.



APPENDIX 3
Water Quality Monitoring Plan

1. Analytical Data Reports. The Permittee shall submit all groundwater sampling results on the Parameter Monitoring Report Form [DEP Form 62-520.900(2)] along with the analytical laboratory reports and a groundwater contour map no later than 60 days from completion of laboratory analysis. Analytical results shall be accompanied by a brief narrative summary, and the Permittee shall include Form 62-701.900(31) Water Quality Monitoring Certification with each report certifying that the laboratory results have been reviewed and approved by the Permittee. The Permittee shall retain the original forms so that the necessary information is available to properly complete future reports.

In addition to the information provided on the Parameter Monitoring Form:

- 1) The laboratory report shall indicate the method on each data sheet, the detection limits and the dilution factor;
 - 2) The report shall show, in columnar form, the analytical results and, where applicable, the corresponding Florida Groundwater Standards and/or criteria; and
 - 3) The report shall identify all peaks greater than the EPA specified detection limit for the analytical method.
- m. Exceedances. The Permittee shall notify DEP within 72 hours of discovering that any groundwater standards and/or criteria are exceeded, or that parameter concentrations in detection wells are significantly above unaffected background groundwater quality. If the Permittee chooses to resample the affected monitoring well(s) to verify the contamination analysis, the resample shall be taken within 30 days from the date the Permittee received the results, and shall submit to DEP the results of the resampled groundwater monitoring well water quality analysis and the original analysis no later than the 15th day of the following month.

Should the Permittee choose not to resample, DEP will consider the water quality analysis that exceeded the standards and/or criteria, or that significantly exceeded background groundwater quality, as representative of current groundwater conditions at the Facility.

- n. Report Submittals. Required water quality monitoring reports and all groundwater analytical results shall be submitted electronically as specified in Appendix 3.4. Water quality monitoring reports shall be

APPENDIX 3 Water Quality Monitoring Plan

submitted in Adobe pdf format. The water quality data Electronic Data Deliverable (EDD) shall be provided to the Department in an electronic format consistent with requirements for importing the data into the Department's databases. Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations and shall include the following:

- 1) Cover letter;
- 2) Summary of exceedances and sampling problems, if any (e.g., variation from SOP field criteria);
- 3) Conclusions and recommendations;
- 4) Ground water contour maps;
- 5) Chain of custody forms;
- 6) Water levels, water elevation table;
- 7) Ground Water Monitoring Report Certification, using the appropriate Department form;
- 8) Appropriate sampling information on Form FD 9000-24 (DEP-SOP-July 30, 2014); and,
- 9) Laboratory and Field EDDs and error logs, as applicable.

All submittals in response to this specific condition shall be sent to the District Office and to:

Florida Department of Environmental Protection
Solid Waste Section, MS 4565
2600 Blair Stone Road
Tallahassee, Florida, 32399-2400

- o. Technical Reports. The Permittee shall monitor site-specific conditions in addition to the data obtained from the ground and surface water monitoring systems. A technical report shall be submitted by June 15, 2021. It shall contain the following:

- 1) Tabular displays of any data that shows a monitoring parameter has been detected, and graphical displays of any detected leachate key indicator parameters (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium, and iron), including hydrographs for all monitoring wells;
- 2) Trend analyses of any monitoring parameters consistently detected;
- 3) Comparisons among shallow, middle, and deep zone wells;
- 4) Comparisons between background water quality and the water quality in detection and compliance wells;

APPENDIX 3
Water Quality Monitoring Plan

- 5) Correlations between related parameters such as total dissolved solids and specific conductance;
- 6) Discussion of erratic and/or poorly correlated data;
- 7) An interpretation of the ground water contour maps, including an evaluation of ground water flow rates; and
- 8) An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

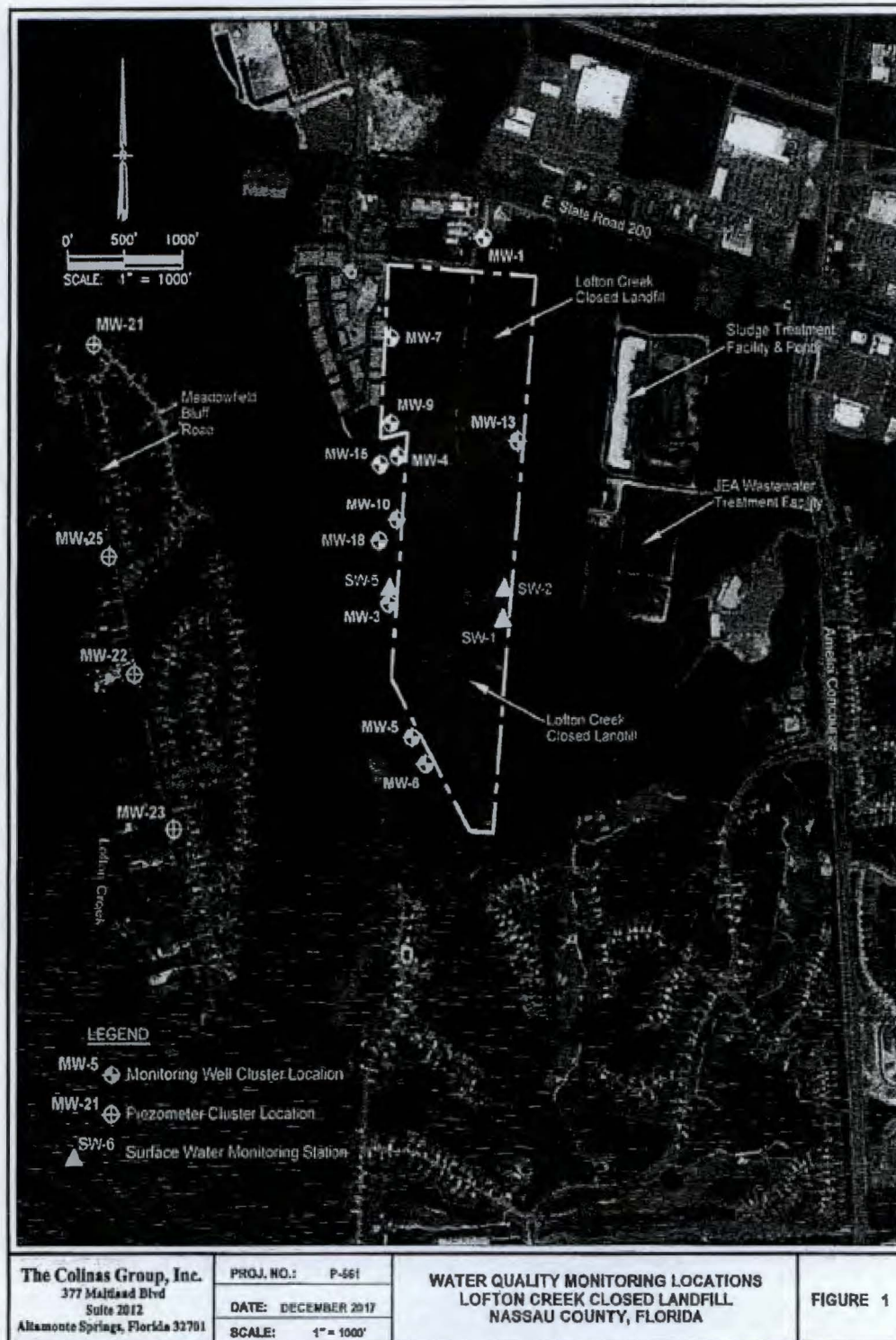
The report shall contain an evaluation of the ground and surface water monitoring programs, and the adequacy of the monitoring frequency and analyses shall be determined. The Permittee shall have this report prepared, signed, and sealed by a professional geologist or qualified professional engineer.

- p. Monitoring Plan Amendments. Based on any information or data obtained after the effective date of this permit, DEP reserves the right to modify the conditions set forth herein pursuant to the latest state Rules and regulations (before or after the effective date of this permit); and may modify the permit conditions to address additional groundwater assessment, additional monitoring wells and/or analytical parameters and compliance monitoring.
2. **Surface Water Monitoring.** Surface waters shall be sampled and analyzed semiannually in conjunction with the groundwater monitoring program to assess how surface water quality has been affected by the landfill's activities. The following Surface Water Monitoring Program shall be implemented:
- a. General Requirements. The Surface Water Monitoring Program shall be conducted in accordance with plans submitted to DEP, as modified by the conditions specified in this Permit.
 - b. Surface Water Requirements. Pursuant to Rule 62-302.300, F.A.C., the Permittee shall ensure that the applicable surface water standards are not exceeded.
 - c. Sample Locations. Surface water samples shall be collected from the approximate locations designated as SW-1, SW-2 and SW-5 on Appendix 3.1. If the pond(s) are discharging, the sampling locations shall be at the point of discharge. If discharge is not occurring at the time of sampling, surface water samples shall be collected from the approximate center of the retention pond(s).

APPENDIX 3
Water Quality Monitoring Plan

- d. Surface Water Sampling. All surface water sampling points shall be sampled and analyzed on a semiannual basis for the parameters listed in Appendix 3.5. However, additional sampling points and parameters may be required based upon subsequent analyses.
- e. Exceedances. If water standards and/or criteria are exceeded at any time and/or whenever a serious problem occurs at this Facility, the Permittee shall immediately notify DEP by telephone. Within seven days of telephone notification, the Permittee shall submit to DEP a written report explaining the extent of the problem, its cause, and what actions have been or will be taken to correct the problem.
- f. Surface Water Reporting. All surface water sampling results shall be reported in accordance with Specific Conditions 1.n and 1.o and submitted as part of the semiannual groundwater monitoring reports.

APPENDIX 3.1 **Monitoring Well and Surface Water Sample Locations**



APPENDIX 3.2
Initial Background Groundwater Parameters

Field Parameters

Static water level in wells before purging
Specified conductivity
pH
Dissolved oxygen
Turbidity
Temperature
Colors and sheens
(by observation)

Laboratory parameters

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

APPENDIX 3.3

Semi-Annual Groundwater Parameters

Field Parameters

Static Water Levels

Specific Conductivity

pH

Dissolved Oxygen

Turbidity

Temperature

Colors and Sheens

Well ID	General Chemistry Parameters			Volatile Organic Compounds		
	Ammonia	Iron	Sodium	Benzene	PCE	V. Chloride
MW-1s	*	*	*	*	*	*
MW-1i	*	*	*	*	*	*
MW-3s	*	*				
MW-4s	*	*				
MW-4i	*	*				
MW-5s	*	*		*		
MW-6s	*	*				
MW-7s	*	*		*		
MW-7i	*	*	*	*		
MW-9s	*	*	*			*
MW-9i	*	*	*	*	*	
MW-10s	*	*				
MW-10i	*	*				*
MW-13s	*	*	*	*	*	*
MW-13i	*	*	*	*	*	*
MW-15s	*	*				
MW-15i	*	*				*
MW-18s	*	*		*		
MW-18i	*	*		*		

* Required analyte at each monitoring well

PCE – Tetrachloroethene

V. Chloride - Vinyl chloride

 Background Monitoring Wells

APPENDIX 3.4
GUIDANCE FOR SUBMITTING ELECTRONIC WATER QUALITY
DATA TO THE SOLID & HAZARDOUS WASTE PROGRAMS
October 20, 2017

I. General Information

Water quality monitoring reports and all groundwater, surface water, and leachate (when required) analytical results for the Solid & Hazardous Waste Programs shall be submitted to the Department electronically via email, FTP site, compact disc, or flash drive media readable by Microsoft Windows. Water quality monitoring reports shall be submitted in Adobe PDF format. Unless otherwise approved by the Department, the water quality Electronic Data Deliverable (EDD) shall be compatible with software called Florida DEP Automated Data Processing Tool (ADaPT). ADaPT has been developed to evaluate and upload water quality data into the Department's Water Assurance Compliance System (WACS) database. A copy of this ADaPT software with installation instructions and EDD specifications can be downloaded from the following website address:
<https://www.floridadep.gov/waste/waste/content/adapt>

II. Monitoring Report

The groundwater monitoring report shall be submitted in Adobe PDF format, with the EDD as an attachment, and shall include the following items:

1. Cover letter;
2. Summary of exceedances and recommendations;
3. Groundwater contour maps;
4. Chain of custody forms;
5. Water levels, water elevation table;
6. Groundwater Monitoring Report Certification, using the appropriate Department form;
7. Appropriate sampling information on Form FD 9000-24 (DEP-SOP-001/01); and,
8. Laboratory EDDs and associated Lab EDD ErrorLogs, Field EDDs that are compatible with ADaPT software and ADaPT export file(s).

The monitoring report (including ADaPT EDDs) should be emailed to Tallahassee using the following email address: ADaPT.EDDs.and.Reports@dep.state.fl.us. Refer to Section III below for file nomenclature details.

Submit all ADaPT files in a single zip file named as follows: 12345_200811_swldd.zip
Submit the monitoring report in a single (text, no scanned content) PDF file named as follows:

12345_200811_swgwmr.pdf

Guidance for Electronic Water Quality Data Submittal for Solid & Hazardous Waste Programs
October 20, 2017

Please do not submit multiple documents for the monitoring report; combine all documents in a single PDF document. Less preferable, zip these documents into a single zip file named as follows:

12345_200811_swgwmr.zip

If attachments are too large to email, monitoring reports may also be transmitted to the FDEP Solid Waste program in Tallahassee using the following FTP site:
ftp://ftp.dep.state.fl.us/pub/WACS-ADaPT/EDDS_and_Reports

Note: When submitting files to the FTP site, please combine all ADaPT EDDs and the groundwater monitoring report into a single zip file (sw_12345_200811_gwmr.zip). Please email us at ADaPT.EDDs.and.Reports@dep.state.fl.us informing us of what files were transmitted via FTP for which facility sampling event.

If you are unable to submit the groundwater monitoring report electronically via email or FTP, it can also be sent by regular mail to:

Florida Department of Environmental Protection
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

And to:

Florida Department of Environmental Protection
Solid Waste Section, MS 4565
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Please see a list of District Office addresses at the end of this document.

III. ADaPT EDDs

The ADaPT EDD consists of two electronic deliverables: (1) a Laboratory EDD, identified as swlidd.txt; and (2) a Field EDD identified as swfdd.txt

The Laboratory EDD shall be submitted in a comma separated (csv format) text file using the .txt filename extension. The Laboratory EDD file name format shall be: [WACS Facility I.D] underscore [Begin Sampling Year and Month (yyyymm)] underscore SWlidd.txt. The period at the end would not be included. For example, with

Guidance for Electronic Water Quality Data Submittal for Solid & Hazardous Waste Programs
October 20, 2017

WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the Laboratory EDD file name should be: 12345_200811_swldd.txt

The Field EDD shall be submitted in the same comma separated (.csv format) text file as the Laboratory EDD. The Field EDD file name format shall be:

[WACS Facility I.D.] underscore [Begin Sampling Year and Month (yyyymm)] underscore swfdd.txt. Again, the period at the end is not included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the file name should be: 12345_200811_swfdd.txt

For confirmation sampling, add the term "_conf" to the EDD filenames as follows:
12345_200811_conf_swldd.txt for the Laboratory EDD or
12345_200811_conf_swfdd.txt for the Field EDD.

For radiochemistry results, add the term "_rad" similar to confirmation sampling indicated above.

IV. Signatures Required

Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations. An electronic signed and sealed signature page may be submitted with the report provided a stamped seal is used. If a raised seal is used, ensure that the seal is legible (gray the embossed seal and scan). Otherwise, you must separately mail the signed and sealed page.

V. Process Required

Three steps are generally required. First, the Laboratory EDD, in comma separated text format, must be submitted by the laboratory. In order to validate the QA/QC aspects of the Laboratory EDD, the permittee shall ensure the laboratory processes the Laboratory EDD through ADaPT using both their laboratory specific library and the Department's Division of Waste Management Master library and corrects all critical errors and explains all non-critical errors prior to submittal. Second, the appropriate entity (laboratory, consultant, or permittee) shall process the Field EDD through ADaPT and correct all Field EDD errors prior to submittal. Finally, as a completeness check, the laboratory, permittee or consultant shall process both the Laboratory EDD and the Field EDD through ADaPT and confirm a successful export to disk and submit the ADaPT generated export file (ADaPTYYYYMMDDHHMMSS.txt).

Guidance for Electronic Water Quality Data Submittal for Solid & Hazardous Waste Programs
October 20, 2017

VI. Resources

In the event help is needed to prepare these EDDs, you can contact Clark Moore, clark.b.moore@dep.state.fl.us, (850) 245-8739 or by emailing ADaPT.EDDs.and.Reports@dep.state.fl.us

If monitoring testsite information needs updating in the WACS Oracle database, or if you need help in submitting the groundwater monitoring report, please contact the Department's Solid Waste staff at the appropriate District office:

Northwest District Office
160 Governmental Center, Suite 308
Pensacola, Florida 32502
(850) 595-8300

Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, FL 32256
(904) 256-1700

Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803
(407) 897-4100

Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637
(813) 470-5700

Southeast District Office
3301 Gun Club Road, MSC7210-1
West Palm Beach, Florida 33406
(561) 681-6600

South District Office
P.O. Box 2549
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33902
(239) 344-5600

APPENDIX 3.5

Initial Background and Semi-Annual Surface Water Parameters

Field Parameters

Specified conductivity
pH
Dissolved Oxygen (DO)
Turbidity
Temperature
Water Temperature

Total Depth
Sample Depth
Stream Velocity
Secchi
Odors, Colors, Sheens

Laboratory parameters

Conductivity
pH
Alkalinity
Total Dissolved Solids (TDS)
Total Dissolved Volatile Solids (TDVS)
Total Suspended Solids (TSS)
Total Volatile Solids (TVS)
Total Fixed Solids (TFS)
NH₃
Total Kjeldahl Nitrogen (TKN)
NO₂ + NO₃
TPO₄
OPO₄
Hardness
Chloride
Sulfate
Zinc

Fluoride
Chemical Oxygen Demand (COD)
Total Nitrogen
Ammonium (NH₄)
Arsenic
Bicarbonate
Biological Oxygen Demand (BOD₅)
Cadmium
Chromium
Copper
Iron
Lead
Mercury
Nitrate
Sodium
Total Organic Carbon (TOC)

VOCs

Bromodichloromethane
Bromoform
Bromomethane
Carbon Tetrachloride
Chlorobenzene
Chloroethane
2-Chloroethylvinyl Ether
Chloroform
Chloromethane
Dibromochloromethane
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Dichlorodifluoromethane
1,1-Dichloroethane
Toluene
Xylenes

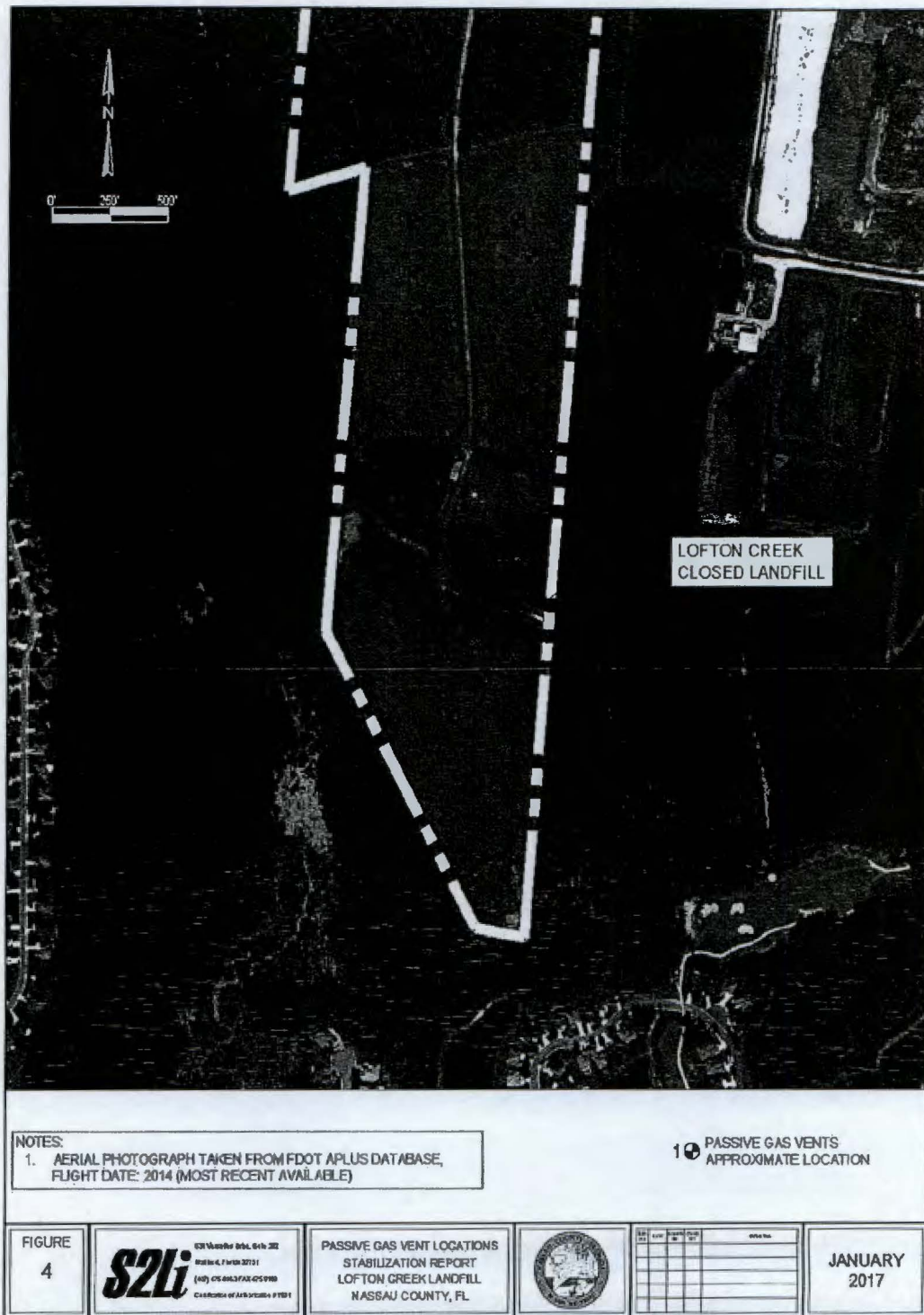
1,1-Dichloroethene
trans-1,2-Dichloroethene
cis-1,3-Dichloropropene
trans-1,3-Dichloropropene
1,2-Dichloropropane
Methylene Chloride
1,1,2,2-Tetrachloroethane
Tetrachloroethene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
Trichlorofluoromethane
Vinyl Chloride
1,2-Dichloroethane
Benzene
Ethylbenzene

APPENDIX 4.1
Gas Monitoring Well Locations

The methane gas monitoring requirement has been eliminated.

APPENDIX 4.2

Passive Gas Venting Well Locations



APPENDIX 5 Post-Closure Inspection Form

APPENDIX 5

Table A-1: Post-Closure Inspection Form (Page 1 of 3)

LANDFILL: _____		OWNER: _____			
Observation Report Number: _____		Date of Observation: ____/____/____			
Time Arrived Onsite: _____		Time Departed Site: _____			
Field Personnel: _____					
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section A: Site Security					
1. Entry sign damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Any corrosion or damage to perimeter fence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Any damage to gates and locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section B: Roads					
1. Access compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Perimeter road compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section C: Final Cover System					
1. Evidence of settlement or ponding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Evidence of erosion, cracks, or gullies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Evidence of erosion or sedimentation of slope/stable runoff control terraces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Inadequate or stressed grass cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	45 days	_____
5. Grass height greater than 18 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
6. Growth of damaging weeds or saplings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
7. Evidence of leachate release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
8. Geomembrane liner impact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
a. Notify FDEP	<input type="checkbox"/>			72 hours	_____
b. Provide written report to FDEP	<input type="checkbox"/>			7 days	_____
Section D: Drainage Flumes					
1. Blockage at entrance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	_____
2. Settlement of the channel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Damage/cracks in channel lining	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Excessive silling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
(1) If yes, assign a comment number and see Page 3 for instructions.					
(2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____		Date of Observation: ____/____/____			

APPENDIX 5 **Post-Closure Inspection Form**

Table A-1: Post-Closure Inspection Form (Page 2 of 3)

LANDFILL: _____		OWNER: _____			
Observation Report Number: _____		Date of Observation: ____/____/____			
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section E: Perimeter Drainage System					
1. Sloughing of ditch slopes or berms ditches, impairment of flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
2. Damaged/malfunctioning detention ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
3. Erosion of ditch slopes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
4. Vegetation height greater than 18 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
5. Problems associated with sitting, sediment level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	_____
Section F: Gas Vents					
1. Visible damage to system components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
a. Notify FDEP	<input type="checkbox"/>			Immediately in Writing	_____
2. Blockage in pipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
a. Notify FDEP	<input type="checkbox"/>			Immediately in Writing	_____
3. Local settlement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
Section G: Groundwater Monitoring Wells					
1. Protective casing missing or damaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
2. Concrete pads damaged or cracked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
3. Wells/probes unlocked, locks missing, damaged or inoperable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	_____
a. Notify FDEP (if damaged or inoperable)	<input type="checkbox"/>			Immediately in Writing	_____
Section H: Limits of Waste Monuments					
1. Monuments in unacceptable condition and/or not visible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 Days	_____
2. Limit of waste markers, damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 Days	_____
(1) If yes, assign a comment number and see Page 3 for instructions.					
(2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____		Date of Observation: ____/____/____			

6. Landfill Post Closure – Evaluate and update the long-term care programs including the preparation of permit applications, as applicable.
7. Stormwater Pollution Prevention Plan – Assist the County with updating and maintaining the Stormwater Pollution Prevention Plan (SWPPP) and the Spill Prevention Plan (SPP) and any necessary training.
8. Financial Assurance – Provide post closure and long-term care cost estimates and assist the County in meeting financial responsibility requirements.
9. Coordination – The Consultant will be required to coordinate with other contracted Professional Service Providers, as necessary, for monitoring, reporting, or permitting requirements;
10. Miscellaneous Services
 - Regulatory Issues – Monitor EPA and FDEP rulemaking, as well as state and federal legislative initiatives and advise the County of the affect of legislation and/or rule changes on its facilities and operations.
 - Survey – Assist the County in conducting surveys as required for landfill operation and permitting as well as to support other activities and projects.
 - Meetings and Presentations – Assist the County in preparing for, and participating in meetings and presentations to local government, citizen groups and regulatory agencies.
 - Engineering support for Bryceville Landfill, as requested.
11. Ad Hoc Engineering – Recommendation, design, and permitting support for the facilities and systems, as may be required, including landfill closure areas, stormwater facilities, leachate treatment system, landfill gas systems, Convenience facility, roadways, and monitoring systems. Work may include design, specifications, and assistance during bidding, and construction services.
12. Groundwater and Surface Water Monitoring Services for the West Nassau and Lofton Creek Landfill- Completion of regularly-occurring, semi-annual groundwater and surface water monitoring requirements at each of the two landfills in accordance with the requirements of each landfill's WQMP issued by the FDEP. Primary service components include: Collection of groundwater/surface water samples, field sample testing and recording; Provision of a qualified analytical laboratory for sample analysis and reporting, and; Preparation of a written Semi-Annual Monitoring Report in accordance with, and addressing each of the reporting requirement of, each landfill WQMP and electronic submission of the report to the FDEP. Additional groundwater/surface water monitoring as requested.
13. The Consultant shall also provide services not otherwise described, or any other tasks associated with the County's solid waste permits and operations, which may be required by the County during the course of the Agreement.



Attachment "B"

**Proposed Loaded Billing Rates for 2019/2020 for
Services Provided by S2Li on Behalf of Nassau County**

Contract Position	Hourly Rates
Project Director/Principal-in-Charge	\$250.00
Regional Manager/QC Officer	\$232.25
Principal Engineer	\$190.26
Senior Engineer	\$137.09
Project Engineer	\$ 97.92
Associate Engineer/CADD	\$ 74.21
Field Technician	\$ 52.38
Office Manager	\$ 76.24

1. Billing rate based on applying a 10% profit to S2Li's breakeven multiplier. Project Director was capped at \$250.00 per hour.
2. Rates include typical expenses such as reproduction, travel costs (except for field vehicle), lodging, and printing. Any other extraordinary direct expenses shall be negotiated on a case by case basis and will be identified in the Work proposal.
3. Subconsultant costs and parts purchased on the County's behalf will be billed as pass-through costs with no profit or markup added by S2Li in addition to actual costs.
4. Field vehicle (truck) will be billed at \$100/day.

Fee Quotation Proposal

Re: Nassua County Bid #NC19-001

As requested, the following is our information regarding overhead multipliers and personnel hourly rates for projects with Nassua County. These are the determined rates for Grove Scientific & Engineering Company that is standard proposals for any and all government entities:

RATE SCHEDULE

<u>LABOR</u>	<u>BILLABLE</u>
Senior Scientist/Principal	\$126.57
Senior Engineer/Professional Engineer	\$225.00
Professional Geologist	\$57.92
Environmental Scientist	\$84.38
Environmental Specialist	\$70.38
Paraprofessional	\$59.67
Technician	\$35.10

Rates include all direct costs.

Under penalty of perjury, I declare that I have read the foregoing and the facts stated in it are true. False statements may result in criminal prosecution for a felony of the third degree as provided for in Section 92.525(3), Florida Statutes.

Sara Greivell, CEO

Printed Name and Title

Grove Scientific & Engineering Company

Sara Greivell

Signature

4/4/2019

Date

Initials





April 8, 2019

Mr. Omar E. Smith, P.E.
S2L, Inc.
529 Versailles Drive, Suite 202
Maitland, FL 32751

Re: Landfill Operations and Maintenance Fee Schedule
S2L, Inc. / Nassau County Continuing Contract for Engineering Services

Dear Mr. Smith:

Sullivan Environmental, Inc. (SEI) herein presents to S2Li our proposed Field Services Fee Schedule for landfill operations and maintenance services at the West Nassau Landfill located in Callahan, FL.

**S2L, Inc. / Nassau County
Landfill Operations and Maintenance Services Contract Support
April 8, 2019**

Personnel Classification	Billing Rate (1)
Project Manager/Sr. Superintendent	\$138.28 (2)
Sr. Field Technician/Equipment Operator	\$126.80 (2)
Field Technician	\$106.80 (2)
Laborer	\$50.00 (2)
Secretarial	\$65.00 (2)

- (1) Billing Rates include typical travel expenses such as lodging, meals and mileage.
(2) As required, on a project-by-project basis, equipment rental and/or project materials will be coordinated and paid for by S2L, Inc. or Nassau County.

The above billing rates will remain in force throughout the duration of S2Li's contract term with Nassau County.

Sincerely,

Kristine Sullivan
Vice- President
Sullivan Environmental, Inc.

THE COLINAS GROUP

Mr. Omar Smith, P.E.
S2L, Inc.
529 Versailles Drive, Suite 202
Maitland, FL 32751

April 4, 2019

Subj: Professional Hydrogeologic Services Fee Schedule
S2L, Inc - Nassau County Continuing Contract for Engineering Services

Dear Mr. Levin:

The Colinas Group, Inc. (TCG) herein presents our proposed Professional Services Fee Schedule for hydrogeologic services that may be required from time to time in support of specific projects assigned to S2Li by Nassau County:

**S2L, Inc. / Nassau County
Continuing Professional Engineering Services Contract Support
April 4, 2019**

Personnel Classification	Billing ^{1/} Rate
Principal Consultant/Project Manager (PG)	\$ 152.80
Sr. Hydrogeologist (PG)	\$ 123.50
Staff Hydrogeologist	\$ 90.50
Environmental Field Technician	\$ 88.35 ^{2/}
Draftsperson/CAD Operator	\$ 62.00
Clerk/Word Processor	\$ 39.50

^{1/}. Billing Rates include typical expenses such as mileage, reproduction and communication costs.

^{2/}. Billing Rate includes mileage, field-testing instrument rental and water sampling supplies.

^{3/}. As required, on a project-by-project basis, specialized field investigation equipment rental and subcontract drilling and well construction services will be billed as pass through costs with no profit or other fees added to actual cost.

The above billing rates will remain in force throughout the duration of S2Li's contract term with Nassau County.

Very truly yours,
THE COLINAS GROUP, INC.

Richard L. Potts, Jr., P.G
Principal Consultant
FL P.G. Reg. No.1113

Initials

PRW GROUP, LLC

PLANNING • DESIGN • UTILITIES • MANAGEMENT • LEACHATE • WASTEWATER • WATER • REUSE

April 2, 2019

Mr. Sam Levin, P.E.
President
S2L, Incorporated.
531 Versailles Drive, Suite 202
Maitland, Florida 32751-7301

RE: Professional Engineering Services Fee Schedule
S2L, Inc. / Nassau County Continuing Contract for Engineering Services

Dear Mr. Levin:

The Professional Services Fee Schedule for PRW Group, LLC for the referenced contract is presented below. The billing rates will remain in force throughout the duration of the contract with Nassau County.

PRW Group, LLC
Professional Services Fee Schedule

Labor Category	Position Code	Billing Rate (1)
Sr. Principal	P8	\$172.74
Principal	P7	\$157.03
Sr. Project Manager	P6	\$133.38
Project Manager	P5	\$128.48
Sr. Professional II	P4	\$109.21
Sr. Professional I	P3	\$98.29
Professional II	P2	\$83.55
Professional I	P1	\$75.19
Sr. CADD Tech	T2	\$77.25
CADD Technician I	T1	\$59.48
Administrative Assistant II	A2	\$49.45
Administrative Assistant I	A1	\$38.07

1. Billing Rates include typical expenses such as mileage, reproduction and communication costs.

Sincerely,



Richard Wilson, P.E.
President
PRW Group, LLC





A Certified JSEB Vendor for COJ, JEA & JPA

A Certified SBE Vendor for JAA

9770 Baymeadows Road, Suite #125, Jacksonville FL 32256

Phone # (904) 260-6300 Fax# (904) 646-3272

Florida Certificate of Authorization No. # LB 6755

ATTACHMENT "A"

STANDARD CONSTRUCTION BILLING RATES

(Hourly Unit Prices - Effective January 01, 2019)

1) Principal (Professional Partner)	\$180.00
2) Project Surveyor (Professional)	\$150.00
3) Three Man Survey Crew	\$175.00
4) Two Man GPS Survey Crew	\$165.00
5) Two Man Survey Crew	\$150.00
6) Robotic Crew	\$165.00
7) Survey Technician (Computational)	\$100.00
8) CADD Technician	\$100.00
9) Clerical Services	\$ 45.00
10) Research Services (Technician)	\$ 65.00
11) Expert Witness (Professional)	\$250.00

Direct Expenses are invoiced to the client at cost plus 10% and may include, but are not limited to, the following items: long distance telephone calls and telecopier transmissions, vehicular mileage expenses, travel and per diem costs, reproduction costs, mailing and shipping charges, overnight courier charges, extra monumentation costs, non-ordinary consumables, special requested items, subcontracted work items, specialized personal protective equipment, etc. Reproductive costs are as follows, each;

CD ROM	\$10.00
letter/legal Xerox copy	0.03
11" x 17" Xerox copy	1.00
18" x 24" Blueline Copy	2.00
24" x 36" Blueline Copy	3.00
30" x 42" Blueline Copy	10.00
24" x 36" Mylar Sepia Copy	\$30.00



2019 RATE SCHEDULE

Labor: Professional services will be provided at the billing rates set out below. These rates include all overhead and direct and indirect costs. KCI shall provide additional personnel as needed and approved by the Client to perform the services specified by the contract. KCI invoices monthly for work completed, and payment is due upon receipt of the invoice.

POSITION	HOURLY RATE
PRINCIPAL	\$220
PROJECT DIRECTOR	\$180
PROJECT MANAGER	\$170
SENIOR CONSULTANT II	\$145
SENIOR CONSULTANT I	\$140
CONSULTANT II	\$115
CONSULTANT I	\$100
RESEARCH ANALYST II	\$85
RESEARCH ANALYST I	\$75
ADMIN / TECH SUPPORT	\$70



AVCON, INC.
Engineers & Planners

5555 E. Michigan Street, Suite 200
 Orlando, Florida 32822
 Phone: (407) 599-1122
 Fax: (407) 599-1133
 www.avconinc.com

S2L, Inc. / Nassau County
Continuing Professional Engineering Services Contract Support
April 3, 2019

Personnel Classification	Billing Rate ¹
Principal	\$230.00
QC Reviewer	\$230.00
Senior Project Manager	\$210.00
Project Manager	\$175.00
Senior Engineer	\$128.00
Project Engineer/Designer	\$102.00
Engineer/Designer	\$84.00
Senior CADD Designer	\$94.00
Contract Administrator	\$85.00
Senior Construction Manager	\$127.00
Construction Inspector	\$92.00
CADD Technician	\$71.00
Administrative/Clerical	\$58.00

¹ Billing Rate includes typical expenses such as mileage, reproduction and communication costs.

Toland Environmental Consulting
Continuing Professional Services
Nassau County, Florida
April 4, 2019

Personnel Classification	Billing Rate ¹
Lead Ecologist/Project Manager	\$110.00
Environmental Scientist	\$72.00
Environmental Field Technician	\$38.50
Clerk/Word Processor	\$30.75

¹ Billing rates are fully loaded and include typical business operating expenses such as mileage, reproduction, communication costs, field equipment and field supplies.


Initials 

Exhibit "1"

**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256

RICK SCOTT
GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

March 15, 2013

Transmitted via email to: sherring@nassaucountyfl.com

In the Matter of a
Permit Modification for:

DEP File No. 66724-007
Facility WACS I.D. No. 37139
Bryceville Landfill
Nassau County - Solid Waste

J. Scott Herring, P.E.
Nassau County Public Works Director
46026 Landfill Road
Callahan, Florida 32011

NOTICE OF PERMIT MODIFICATION

Enclosed is Florida Department of Environmental Protection (DEP or Department) Permit Modification Number 66724-007-MM of Permit Number 66724-006-SF to reduce the monitoring requirements of the closed Bryceville Landfill during its long-term care period. This Modification is being issued under the Northeast District Solid Waste Section's cost reduction initiative, and is pursuant to Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-520, 62-550, and 62-701, to incorporate the rescission of the Facility's gas monitoring requirements and a reduction of its groundwater monitoring requirements.

This Notice of Modification does not alter the expiration date, the General Conditions, or the Specific Conditions, with the exception of the revision of Specific Condition E of Section 2, Condition 1.e of Appendix 3, and Appendix 3.3.

This Notice of Permit Modification, including Attachments A and Appendix 3.3, must be included as part of the original permit.

This modification is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the below paragraphs, or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to F.A.C. Rule 62-103.070, or unless all parties reach a written agreement as an alternate remedy

Bryceville Landfill
March 15, 2013
Page 2 of 3

under Section 120.573, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, MS #35, Tallahassee, Florida 32399, within 14 days of receipt of this Permit. The Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing.

Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information:

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, DEP's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of DEP with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of DEP. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to F.A.C. Rule 28-5.207.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of

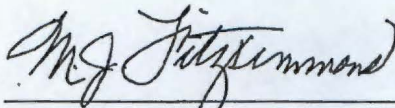
Bryceville Landfill
March 15, 2013
Page 3 of 3

General Counsel, 3900 Commonwealth Boulevard, MS #35, Tallahassee, Florida 32399; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Mediation is not available for this permit modification.

Executed in Duval County, Florida.

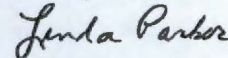
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Michael J. Fitzsimmons
Waste Program Administrator
Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

ECR MB/nh
ecr/mb/nh/lp

FILING AND ACKNOWLEDGMENT
Filed on this date, pursuant to Section
120.52, F.S., with the designated
Department Clerk, receipt of which is
hereby acknowledged.



March 15, 2013

Attachments

ec: Becky Hiers, P.E. – Nassau County Engineering Services, BHiers@NassauCountyFL.com
Solid Waste Financial Assurance, DEP, Solid.Waste.Financial.Coordinator@dep.state.fl.us
Neil Hornick, DEP, Neil.Hornick@dep.state.fl.us

Initials



Attachment A

Bryceville Landfill
Permit Modification No. 66724-007-MM

Part E of Section 2 (Specific Conditions) shall now read as follows:

E. Gas Management System Requirements

The Facility's gas monitoring requirement has been terminated, and is no longer applicable to this permit.

Condition 1.e of Appendix 3 (Water Quality Monitoring Plan) shall now read as follows:

- e. Monitoring Plan. The Groundwater Monitoring Plan consists of the following wells and piezometers (whose locations and identifications shall be in accordance with Appendix 3.1):

Background Well: MW-1

Compliance Wells: MW-2S & MW-2I
MW-3S & MW-3I
MW-4S & MW-4D
MW-5I

Groundwater Elevation Only: MW-4I
MW-5S
MW-6S & MW-6I

If monitoring parameters are detected in detection wells in concentrations that are significantly above background water quality, or that are at levels above groundwater standards or criteria, evaluation monitoring shall be initiated within 90 days of notification by DEP pursuant to F.A.C. Rule 62-701.510(7) including, but not limited to, the installation and sampling of compliance wells associated with the affected detection well(s).

APPENDIX 3.3**Semi-Annual Groundwater Parameters****FIELD PARAMETERS**

Static water levels
(prior to purging)
Specific conductivity
pH
Dissolved Oxygen (DO)
Turbidity
Colors and Sheens (by observation)
Temperature

SPECIFIC SAMPLING PARAMETERS

Field Parameters, Iron, TDS & TOC to be sampled from MW-1S [Background], MW-2S, MW-2I, MW-3S, MW-3I & MW-4S.

Lead only sampled in MW-1S [Background], MW-2S, MW-2I, MW-3S & MW-3I.

Arsenic only sampled in MW-1S [Background], MW-4D & MW-5I.

Cadmium only sampled in MW-1S [Background] & MW-2I.



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256

RICK SCOTT
GOVERNOR

JENNIFER CARROLL
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

December 20, 2012

In the Matter of an
Application for Permit by:

DEP File No.: 64999-007
Facility WACS ID No.: 37138
Nassau County – Solid Waste

Nassau County Board of County Commissioners
96135 Nassau Place, Suite 1
Yulee, Florida 32097

NOTICE OF PERMIT MODIFICATION

Enclosed is the State of Florida Department of Environmental Protection (Department or DEP) Permit Modification Number 0064999-007-MM of Permit Number 0064999-006-SF to reduce the monitoring requirements of the closed Lofton Creek Class I Landfill during its long-term care period. This Modified Permit is being issued under the Northeast District Solid Waste Section's cost reduction initiative and is pursuant to Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-520, 62-550, and 62-701, to incorporate a reduction in the Facility's gas and groundwater monitoring requirements.

To make your consultant aware of these changes and for your convenience, he is being copied on this Modification.

This Notice of Permit Modification does not alter the expiration date, the General Conditions, or the Specific Conditions, with the exception of the elimination of Specific Condition E.3, the revision of paragraph 1.e in APPENDIX 3, and the revision of APPENDIX 3.3 of the Permit. The elimination of Specific Condition E.3 removes the gas monitoring requirement, while the other revisions reduce the groundwater monitoring requirements.

This modification is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the below paragraphs, or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 62-103.070, F.A.C., or unless all parties reach a written agreement as an alternate remedy under Section 120.573, F.S.,

Nassau County Board of County Commissioners
December 20, 2012
Page 2

before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, MS #35, Tallahassee, Florida 32399, within 14 days of receipt of this Permit. The Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing.

Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information:

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, DEP's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of DEP with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of DEP. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section

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Florida Department of Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

February 16, 2018

Transmitted via email to: bbray@nassaucountyfl.com

In the Matter of an
Application for Permit by:

DEP File No.: 64999-009
Facility WACS ID No.: 37138
Lofton Creek Class I Landfill (Closed)
Nassau County - Solid Waste

Ms. Rebecca Bray, P.E.,
Interim Public Works Director
Nassau County Board of County Commissioners
96135 Nassau Place, Suite 1
Yulee, Florida 32097

NOTICE OF PERMIT MODIFICATION

Enclosed is the State of Florida Department of Environmental Protection (Department or DEP) Permit Intermediate Modification Number 64999-008-IM of Permit Number 64999-006-SF to extend the existing Permit's term from the current six years to a total 10-year period with the new Permit's expiration date of February 15, 2022; to reduce the number of groundwater monitoring wells, to reduce the monitoring analytical parameters for groundwater, to reduce the number of surface water sampling locations, and to establish new dates for submission of the Stabilization/Technical reports as well as submission of the permit renewal application for the closed Lofton Creek Class I Landfill during its long-term care period. This Modified Permit is issued pursuant to Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-520, 62-550, and 62-701, Florida Administrative Code (F.A.C.).

Also, enclosed is the State of Florida Department of Environmental Protection (Department or DEP) Permit Modification Number 64999-009-MM of Permit Number 64999-006-SF to revise the number of reduced groundwater monitoring wells.

Nassau County Board of County Commissioners
February 16, 2018
Page 2

The Notice of Permit Intermediate Modification Number 64999-008-IM alters the expiration date, but does not alter the General Conditions, or the Specific Conditions, with the exception of the modifications and updates to the Section 2.A.3., Section 2.E.1., Section 2.G.1, Section 2.G.3, Section 2.H, Appendix 2, Appendix 3 Section 1.e., Appendix 3 Section 1.j., Appendix 3 Section 1.k, Appendix 3 Section 1.n., Appendix 3 Section 1.o., Appendix 3 Section 2.c., APPENDIX 3.1, APPENDIX 3.3, APPENDIX 3.4, APPENDIX 4.2, and the elimination of APPENDIX 4.1.

Also, this Notice of Permit Modification Number 64999-009-MM revises Appendix 3 Section 1.e. by deleting Well Cluster MW-8 S,I from groundwater monitoring requirements, but does not alter the expiration date, the General Conditions, or other Specific Conditions.

This Notice of Permit Modification and the attached revised Permit replaces the Permit Modification issued on January 24, 2018.

This modified Permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed or unless a request for an extension of time in which to file a petition is filed within the time specified for filing a petition, and conforms to Rule 62-103.070, F.A.C. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, MS #35, Tallahassee, Florida 32399, within 14 days of receipt of this Permit. The Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

Initials



Nassau County Board of County Commissioners
February 16, 2018
Page 3

The Petition shall contain the following information:

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, DEP's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of DEP with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of DEP. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

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

Initials

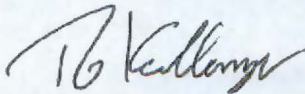


Nassau County Board of County Commissioners
February 16, 2018
Page 4

Mediation is not available for this permit modification.

Executed in Duval County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Thomas G. Kallemeyn
Permitting Program Administrator


CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

Omar E. Smith, P.E., S2L, Incorporated, osmith@s2li.com
Richard L. Potts, P.G., The Colinas Group, Inc., rickpotts@cfl.rr.com
Brian Durden, DEP, Brian.durden@dep.state.fl.us
Jeff Schroer, DEP, Jeffrey.Schroer@dep.state.fl.us
Craig Parke, DEP, Craig.Parke@dep.state.fl.us

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

2/16/18

Date

Initials





FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

October 29, 2018

Rebecca Hiers-Bray
Nassau County Board of County Commissioners
96161 Nassau Place
Yulee, FL 32097

RE: **Facility ID: FLR05G139**
West Nassau Landfill
County: Nassau

Dear Permittee:

The Florida Department of Environmental Protection has received and processed your *National Pollutant Discharge Elimination System Stormwater Notice of Termination* (NOT). This letter acknowledges that your coverage under **FLR05G139** has been terminated.

Please be advised of the following:

- This letter does not release you from liability for any previous violations of the conditions of the permit.
- If any regulated activity continues to occur at the above-referenced facility after the date of this letter stormwater discharges are unlawful unless covered by either (1) a new permit for stormwater discharge associated with the regulated activity or (2) a conditional no exposure exclusion from NPDES Stormwater permitting as applicable.

Sites that discharged stormwater under **FLR05G139** to a municipal separate stormwater system (MS4) shall submit a copy of the NOT or the Acknowledgement Letter within 7 days of receipt to the operator of the MS4.

If you have any questions concerning this letter, please contact the NPDES Stormwater Notices Center at (866) 336-6312 (toll-free).

Sincerely,

A handwritten signature in black ink, appearing to read "Krishna Baral".

Krishna Baral
NPDES Stormwater Program

Initials

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Florida Department of Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Interim Secretary

July 24, 2015

Transmitted via email to: sherring@nassaucountyfl.com

In the Matter of an
Application for Permit by:

DEP File No.: 0002870-017
Facility WACS I.D. No.: 86315
West Nassau Class I Landfill
Nassau County – Solid Waste

Mr. J. Scott Herring, P.E.
Public Works Director
Nassau County Board of County Commissioners
96160 Nassau Place
Yulee, Florida 32097

NOTICE OF PERMIT ISSUANCE

Enclosed is the State of Florida Department of Environmental Protection (Department or DEP) Permit Number 0002870-017-SF to continue to operate, monitor, and maintain the closed 42-acre lined Class I Landfill during its 30-year long-term period and the closed 11-acre unlined Class I Landfill during its 20-year long-term period. This Permit is issued pursuant to Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-520, 62-550, and 62-701 Florida Administrative Code (F.A.C.).

This Permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed or unless a request for an extension of time in which to file a petition is filed within the time specified for filing a petition, and conforms to Rule 62-103.070, F.A.C. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of DEP at 3900 Commonwealth Boulevard MS #35, Tallahassee, Florida 32399-3000, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

PERMIT NO.: 0002870-017-SF
WACS Facility ID: 86315

The Petition shall contain the following information:

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, DEP's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of DEP with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of DEP. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

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

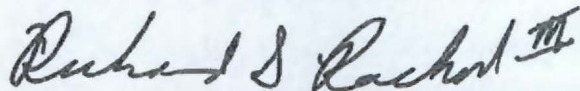
PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

PERMIT NO.: 0002870-017-SF
WACS Facility ID: 86315

Mediation is not available for this permit renewal.

Executed in Duval County, Florida.

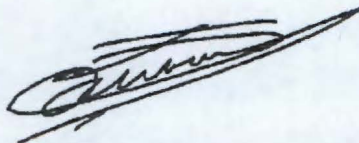
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Richard S. Rachal III, P.G.
Permitting Program Administrator *MB*
Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

FILING AND ACKNOWLEDGEMENT/CERTIFICATE OF SERVICE

Filed on this date pursuant to § 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged. The undersigned hereby certifies that this Permit Renewal and all copies were sent before the close of business on July 24, 2015 to the listed persons.



Clerk

7/24/15

Date

Enclosure/Attachments

Electronic copies furnished to:

Omar E. Smith, P.E., S2L, Incorporated, osmith@s2li.com
Richard L. Potts, P.G., The Colinas Group, Inc., rickpotts@cfl.rr.com
Becky Hiers-Bray, P.E., Nassau County Engineering Services, bbray@nassaucountyfl.com
Brian Durden, DEP, Brian.durden@dep.state.fl.us
Solid Waste Financial Coordinator, DEP, Solid.Waste.Financial.Coordinator@dep.state.fl.us



Florida Department of Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Interim Secretary

Permit Issued to:

Nassau County Board of County Commissioners
96160 Nassau Place
Yulee, Florida 32097
Phone # 904.491.7330

WACS Facility ID No.: 86315
Facility Name: West Nassau Class I Landfill
Facility Address: 46026 Landfill Road
Callahan, Florida 32011

Contact Person:
J. Scott Herring, P.E., Public Works Director
Nassau County Board of County Commissioners
96161 Nassau Place
Yulee, Florida 32097
Email address: sherring@nassaucountyfl.com
Phone # 904.491.7330

Solid Waste Long Term Care Renewal Permit – Closed Class I Landfill
Renewal Permit No.: 0002870-017-SF
Replaces Permit No.: 0002870-014-SF

Permit Issued: July 24, 2015
Permit Renewal Application Due Date: date 61 days prior to expiration
Permit Expires: July 24, 2025

Permitting Authority
Florida Department of Environmental Protection
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256
Phone # 904.256.1700
Fax # 904.256.1587

www.dep.state.fl.us

Initials

A handwritten signature in black ink, appearing to be "JSH", is written over the "Initials" label.

PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

PERMIT NO.: 0002870-017-SF
WACS Facility ID: 86315

SECTION 1 - SUMMARY INFORMATION

A. Authorization

The Permittee is hereby authorized to continue to operate, monitor, and maintain the closed 42-acre lined Class I Landfill during its 30-year long-term period and the closed 11-acre unlined Class I Landfill during its 20-year long-term period. The Permittee is required to be in compliance with the specific and general conditions of this Permit and any documents attached to this Permit or specifically referenced in this Permit and made a part of this Permit.

This solid waste renewal without construction is issued under the provisions of Chapter 403, Florida Statutes (F.S.), Florida Administrative Code (F.A.C.) Chapters 62-4, 62-520, 62-550, and 62-701.

This permit does not relieve the Permittee from complying with any other appropriate local zoning or land use ordinances or with any other laws, rules or ordinances. Receipt of any permits from the Department does not relieve the applicant from obtaining other federal, state, and local permits and/or modifications required by law, including those from other Sections within the Department or of the Water Management District.

B. Facility Location

The West Nassau Landfill (Facility) is located on the east side of U.S. Highway 301 (Route 177) approximately three miles north of Callahan at 46026 Landfill Road in Nassau County, Florida. The location is further identified as latitude 30°36'16"N and longitude 81°49'14"W, which is in Section 8, Township 2 North, Range 25 East. Aerial and Vicinity Map of the Facility is provided as ATTACHMENT 1.

C. Facility Description

The Facility property encompasses 140 acres. The total disposal area is approximately 53 acres, and consists of an 11-acre landfill presently identified as the Unlined Class I Landfill, and an approximate 42-acre landfill presently identified as the Lined Class I Landfill. The Lined Landfill was constructed partially overlying the previously operated Unlined Landfill, with the two being separated by a geomembrane above grade and a slurry wall below grade. Additionally, the entire waste-filled area was surrounded by the slurry wall to a depth of approximately 50-55 feet below ground surface between 1992 and 1993. Furthermore, Unlined Landfill has a French Drain System to control water elevations inside the slurry wall and to inhibit the release of leachate. Also, the Lined Landfill has a Recovery Well System with a series of six pumps to control water elevations inside of the slurry wall system. The location the slurry wall system and the French Drain System is shown on ATTACHMENT 2.

The construction of the Lined Landfill was performed in cells. The below-grade portion of the constructed cells sloped at 3H:1V (horizontal to vertical) to the base of the excavation, which is extended to an elevation of approximately 40 feet below ground surface. The first three cells (Cells 1, 2, and 3) of the Lined Landfill were constructed between 1991 and 1993; Cells 4 and 5 were constructed in 1996; Cells 6 and 8 were constructed in 1997; Cells 10, 12, and 14 were constructed in 1998; Cells 7, 9, 11, and 13 were constructed in 2001. On April 22, 1994, the Department approved of a modification to vertically expand the Facility. The construction of the

PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

PERMIT NO.: 0002870-017-SF
WACS Facility ID: 86315

Vertical Expansion was performed in two portions. The Western Portion of the Vertical Expansion with base liner and leachate collection system was constructed in advance of Cells 4 and 5 in 1996. The construction of the East Portion of Vertical Expansion was divided into two phases. Phase I consisted of the 3H:1V slope extension connecting onto the north slope of Cell 4 and was completed in 1996. The construction of Phase II consisted of the slope and upper top deck and was completed in 1997.

The bottom of the Lined Landfill Cells 1, 2, 3, 4, 5, 6, 8, 10, 12, and 14 was constructed with a single composite liner system that consists of (from bottom to top):

- 24-inch compacted clay layer with a minimum hydraulic permeability of 1×10^{-7} cm/sec;
- Smooth 60-mil HDPE geomembrane on the floor or a textured 60-mil HDPE geomembrane on the side slopes;
- Geonet draining netting;
- 8-oz/square yard non-woven geotextile;
- 12-inch sand drainage layer with a minimum hydraulic conductivity of 1×10^{-3} cm/sec;
- 12-inch protective cover layer.

The bottom of the Lined Landfill Cells 7, 9, 11, and 13 was constructed with a double-liner system that consists of (from bottom to top):

- A compacted subgrade;
- Geosynthetic Clay Liner (GCL);
- Smooth 60-mil HDPE secondary geomembrane on the bottom or a textured 60-mil HDPE secondary geomembrane on the side slopes;
- HDPE geonet secondary leachate collection layer on the bottom of the cells;
- Double-sided geocomposite secondary leachate collection layer on the side slopes;
- Smooth 60-mil HDPE primary geomembrane on the bottom or a textured 60-mil HDPE primary geomembrane on the side slopes;
- Single-sided geocomposite primary leachate collection layer on the bottom of the cells;
- Double-sided geocomposite primary leachate collection layer on the side slopes;
- 12-inch sand drainage layer with a minimum hydraulic conductivity of 1×10^{-3} cm/sec on the bottom of the cells;
- 24-inch protective cover layer on the side slopes.

The leachate collection system installed on the side slopes the Lined Landfill included:

- Drainage netting (geocomposite drainage netting for Cells 10, 12, and 14);
- 24-inch protective cover layer.

The Unlined Landfill was capped with a geomembrane and geotextile in the early 1990's.

The 9.2 acre partial closure of the western and southwestern sideslopes of the Lined Landfill was completed in October 2007 and the liner system consisted of (from bottom to top):

- 12-inch thick layer of bedding soil;
- 40-mil, textured, low density polyethylene (LLDPE) geomembrane liner;
- 200-mil drainage net with an 8-oz/square yard geotextile bonded on both sides;
- 18-inch protective soil layer; and
- 6-inch vegetative layer consisting of topsoil and bahia sod.

PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

PERMIT NO.: 0002870-017-SF
WACS Facility ID: 86315

The final cover system for the remaining 32.8 acres of the Lined Landfill closure was completed in 2013 and consists of (from bottom to top):

- 12-inch thick layer of bedding soil;
- 50-mil textured LLDPE geomembrane liner;
- 8-oz/square yard non-woven geotextile;
- 18-inch protective soil layer; and
- 6-inch vegetative layer consisting of topsoil and bahia sod.

The leachate collection system of the Lined Landfill consists of 12 inches of sand with a permeability of 1×10^{-3} cm/sec or greater lying above a geocomposite drainage net that is placed directly over the primary HDPE geomembrane liner. Collection laterals and header pipes installed within aggregate filter and wrapped in a non-woven geotextile, collection mains, and ancillary components convey leachate through 8-inch diameter perforated pipes to the leachate collection sumps from where it is pumped through below grade force mains to the leachate storage tanks. Leachate from the Unlined Landfill is collected by the French Drain System from which it is pumped directly via HDPE piping to the leachate storage tanks.

Leachate collected from the facility is stored on site in the three 20,000-gallon steel storage tanks, and then is transported via tanker truck to the Liquid Environmental Solutions in Jacksonville for proper treatment and disposal.

The Facility design includes groundwater, surface water, and methane gas monitoring systems. Additionally, a stormwater management system was authorized by DEP's Environmental Resource Program (ERP) Permit Nos. MS45-200912, MS45-174996, and subsequent modification 45-127028-001-EM.

This permit also coordinates DEP's Solid Waste requirements with the Title V and New Source Performance Standards (NSPS) requirements for the operation, maintenance, and monitoring requirements of the landfill's existing gas collection and control system as permitted by DEP's Air Program.

D. Appendices Made Part of This Permit

APPENDIX 1 - General Conditions

APPENDIX 2 – Approved Application Documents

APPENDIX 3 – Water Quality Monitoring Plan

APPENDIX 3.1 – Monitoring Well and Surface Water Sample Locations

APPENDIX 3.2 – Initial Background Groundwater Parameters

APPENDIX 3.3 – Semi-annual Groundwater Parameters

APPENDIX 3.4 – Guidance for Submitting Electronic Water Quality Data to the Solid Waste Program

PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

PERMIT NO.: 0002870-017-SF
WACS Facility ID: 86315

APPENDIX 3.5 – Initial Background and Semi-annual Surface Water Parameters

E. Attachment Made Part of This Permit

ATTACHMENT 1 – Vicinity Map

ATTACHMENT 2 – Aerial Map

ATTACHMENT 3 – Approximate Locations of French Drain, Slurry Wall, and Underdrain

ATTACHMENT 4 – Monthly Inspection Checklist

ATTACHMENT 5 – Site Plan with Gas Monitoring Probes Locations

ATTACHMENT 6 – Site Plan with Gas Extraction Wells Locations

SECTION 2 - SPECIFIC CONDITIONS

A. Administrative Requirements

1. Documents Part of This Permit. The Permit Application as revised in final form replaced or amended in response to the Department's Request(s) for Additional Information are contained in the Department's files and are made a part of this permit. Those documents that make up the complete Permit Application are listed in APPENDIX 2.
2. Permit Modification. Any change to construction, operation, monitoring, or closure requirements of this permit may require a modification to this permit, in accordance with the provisions of Rule 62-701.320(4), F.A.C.
3. Permit Renewal. In order to ensure uninterrupted operation of this Facility, a timely and sufficient permit renewal application must be submitted to the Department in accordance with Rule 62-701.320(10), F.A.C. A permit application submitted at least 61 days prior to the expiration of this permit is considered timely and sufficient.
4. Transfer of Permit or Name Change. In accordance with Rule 62-701.320(11), F.A.C., the Department must be notified by submitting Form 62-701.900(8) within 30 days: (a) of any sale or conveyance of the facility; (b) if a new or different person takes ownership or control of the facility; or (c) if the facility name or Permittee's legal name is changed.

B. Construction Requirements

Construction requirements are not applicable to this Permit.

C. Operation Requirements

1. General Operating Requirements. The Permittee shall operate, monitor, and maintain the Facility in accordance with the approved Long-Term Care Plan provided in Document 1, as listed in APPENDIX 2 of this permit. The Department shall be notified before any

PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

PERMIT NO.: 0002870-017-SF
WACS Facility ID: 86315

changes, other than minor deviations, to the approved Long-Term Care Plan are implemented in order to determine whether a permit modification is required.

2. Operation Plan. A copy of the approved Long-Term Care Plan, including the operating record as defined in paragraph Rule 62-701.500(3), F.A.C., shall be kept at the Facility office and shall be accessible to the facility operators.
3. Erosion Control. Erosion control measures shall be employed to correct any erosion which exposes waste or causes malfunction of the storm water management system.
4. Contingency Plan and Notification of Emergencies. The Permittee shall notify the Department in accordance with the approved Contingency Plan. Notification shall be made to the Solid Waste Section of the Department's Northeast District 904.256.1700.
5. Housekeeping. The Facility shall be operated to control dust, vectors, litter and objectionable odors. If objectionable odors are confirmed beyond the landfill property boundary, the owner or operator shall comply with the gas management requirement in Section 2, Part E.
6. Leachate Management.
 - a. Management. The Permittee shall operate the leachate management system (including the collection, removal, and storage systems), and maintain the system as designed, so that leachate is not discharged from the system except as provided in the Long-Term Care Plan.
 - b. Inspections and Maintenance. Routine inspections and maintenance of the leachate management system shall be conducted in accordance with the schedule established in the Long-Term Care Plan.
 - c. Recording. The Permittee shall record quantities of leachate generated on a daily basis in gal/day, shall record precipitation at the Facility, and shall compare these measurements. If measurements indicate a significant discrepancy between leachate generation rates and precipitation records, the Permittee shall notify the Department and conduct an assessment to determine the cause of the discrepancy.
7. Stormwater. The existing stormwater system consists of series of channels and terraces that drain to downslope channels lined with grout-filled fabric revetment or to downslope pipes. Additionally, stormwater that infiltrates into the cover soils flows to the base of the lined slopes (on the east and south) where it is collected in the underdrain pipes. All stormwater from the entire disposal area shall be routed to the perimeter ditch, from where it shall flow into the North Detention Pond, which was designed as the primary pond for collection, treatment, and discharge of stormwater runoff from the site to an unnamed tributary of Alligator Creek. The South Detention Pond shall be maintained as the main overflow for the North Detention Pond, such that when the North Pond is full, the water backs up into perimeter ditch and flows into the South Detention Pond. Leachate shall not be discharged into the stormwater management system. Stormwater or other surface water which comes into contact with or mixes with the solid waste or

PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

PERMIT NO.: 0002870-017-SF
WACS Facility ID: 86315

leachate shall be considered leachate and is subject to the requirements of Rule 62-701.500(8), F.A.C.

8. Groundwater Pumping.

- a. Maintaining Inward Gradient at the Unlined Landfill. The Permittee shall continue pumping leachate/groundwater from the French Drain System that was installed around the slurry wall to maintain an inward gradient from the area outside the slurry wall to the area inside the slurry wall. The effectiveness of the French Drain System shall be determined by monitoring the water levels inside and outside the slurry wall.

If groundwater elevation data obtained from the piezometers or wells around the Unlined Landfill indicates that an inward gradient no longer exists between groundwater inside the area of the slurry wall and the groundwater outside the area of the slurry wall, as evidenced by comparison of data from any existing or future wells, piezometers, and/or measurement points within the slurry wall to data from the existing or future wells, piezometers, and or measuring points outside the slurry wall, the Permittee shall notify the Department within 30 days of such measurements. Within 30 calendar days of such measurement, the Permittee shall begin accelerated removal of groundwater from within the slurry wall surrounding the northern Landfill portion to restore the inward gradient. The accelerated pumping shall continue in order to maintain the inward gradient at all required measurement points within the slurry wall. All pumps shall be properly maintained in accordance with the manufacturer's recommendations and shall be repaired or when necessary, replaced within seven days.

- b. Maintaining Inward Gradient at the Lined Landfill. The Permittee may discontinue groundwater withdrawal through use of the Recovery Well System in the southeast corner of the Landfill for a testing period until July 1, 2020 to demonstrate that turning the system off will not result in violations of State water quality standards outside of the slurry wall. During this testing period the Permittee does not need to maintain an inward gradient at the slurry wall for the southern portion of the Landfill, but will continue to monitor water level measurements inside and outside the slurry wall during this period. If the results of groundwater and/or surface water sampling indicate an exceedance of water quality standards that can be attributed to migration of groundwater from inside the slurry wall, the recovery well system shall be reactivated within 30 days of receipt of laboratory test results to re-establish an inward hydraulic gradient. Water level measurements inside and outside the slurry wall shall be conducted monthly for both the northern and southern portions of the Landfill.
- c. Measurements Recording. The quantity of water removed from inside the slurry wall to establish and/or maintain an inward gradient (e.g., from the French Drain and underdrain systems) shall be measured as well as any additional water removed from within the slurry wall. These measurements/recordings shall be summarized, compiled monthly with the leachate generation reports, and shall be maintained and made available to the Department upon request.



PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

PERMIT NO.: 0002870-017-SF
WACS Facility ID: 86315

D. Water Quality Monitoring Requirements

1. Zone of Discharge. The zone of discharge for this Facility shall be a three dimensional volume defined in the horizontal plane as extending 100 feet from the permitted edge of the solid waste disposal unit; or to the property boundary; whichever is less, as depicted in APPENDIX 3.1 of the Water Quality Monitoring Plan, and defined vertically as extending from the top of the ground to the bottom of the surficial aquifer.
2. Water Quality Standards. The Permittee shall ensure that Class G-II water quality standards will not be exceeded at the boundary of the zone of discharge, per Rule 62-520.420, F.A.C., and that ground water minimum criteria will not be exceeded outside the boundary of the zone of discharge, per Rule 62-701.320(17), F.A.C.
3. Water Quality Monitoring Plan. The Water Quality Monitoring Plan for this permit is included in APPENDIX 3.

E. Gas Management System Requirements

1. Construction Requirements. All construction shall be done in accordance with the approved gas management system design, drawings, and specifications. The Department shall be notified before any changes, other than minor deviations, to the approved design are implemented in order to determine whether a permit modification is required. Locations of gas monitoring probes are specified in ATTACHMENT 5. Locations of gas extraction wells are specified in ATTACHMENT 6.
2. Certification of Construction Completion. After construction is completed the engineer of record shall certify to the Department in accordance with Rule 62-701.320(9)(b), F.A.C., that the permitted construction is complete and was performed in substantial conformance with the approved construction plans except where minor deviations were necessary. All deviations shall be described and the reasons therefore enumerated.
3. Operational Requirements. The gas collection and control system (GCCS) consists of: 50 vertical gas extraction wells and 12 tie-ins (extraction points) to the leachate collection system cleanout risers, associated header and lateral pipes that direct the extracted gas to an on-site flare station, a skid mounted flare/blower system, and appurtenances. The flare skid contains the gas mover equipment (blower) and the thermal destruction device (open candlestick type flare). Condensate generated from the gas shall be collected at low spots in the system, pumped to leachate collection points, and then to the existing on-site leachate storage tanks. Operation, maintenance, and monitoring of the GCCS (including the analysis of air intrusion into the GCCS) shall be conducted in accordance with the Facility's Air Permit.
4. Monitoring Requirements. Monitoring for methane gas at the property boundary and within structures on the property shall be performed to determine the effectiveness of the gas migration controls. Gas monitoring probes GP-1 through GP-29 shall be properly monitored on a semi-annual basis throughout the duration of this Permit. Specifically, the monitoring probes shall be monitored by July 31 and January 31 of each year of this Permit. The gas monitoring results shall be reported as a percent of the lower explosive limit (LEL), calibrated to methane. The report shall be submitted to the Department

PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

PERMIT NO.: 0002870-017-SF
WACS Facility ID: 86315

under separate cover no later than 15 days after the end of the period in which the monitoring occurred.

5. Gas Remediation Plan. The facility landfill gas management system shall be operated to prevent the concentration of combustible gases from exceeding 25% of the lower explosive limit in structures, excluding gas control or recovery components, and from exceeding the lower explosive limit at or beyond the property boundary. If either of these limits is exceeded then a gas remediation plan shall be designed and implemented in accordance with Rule 62-701.530(3)(a), F.A.C.
6. Odor Remediation Plan. The Facility shall be operated to control objectionable odors. If objectionable odors are confirmed beyond the property boundary then upon notification by the Department the Permittee shall develop and implement an odor remediation plan in accordance with the requirements of Rule 62-701.530(3)(b), F.A.C.

F. Financial Assurance and Cost Estimates

1. Financial Assurance Mechanism. The Permittee shall maintain, in good standing, the financial assurance mechanisms established to demonstrate proof of financial assurance. Support documentation and evidence of inflation adjustment increases shall be submitted within the time frames specified in Rule 62-701.630, F.A.C. All submittals in response to this specific condition shall be sent to:

Florida Department of Environmental Protection
Financial Coordinator - Solid Waste Section
2600 Blair Stone Road, MS 4565
Tallahassee, Florida 32399-2400

2. Annual Cost Estimates. The Permittee shall annually adjust the closure cost estimate(s) for inflation using Form 62-701.900(28). Adjustments shall be made in accordance with Rule 62-701.630(4), F.A.C. and, as applicable, 40 CFR Part 264.142(a) and 264.144(a). An owner or operator using a letter of credit, guarantee bond, performance bond, financial test, corporate guarantee, trust fund or insurance shall submit the adjusted cost estimate(s) between January 1 and March 1. An owner or operator using an escrow account shall submit the adjusted estimate(s) between July 1 and September 1. All submittals in response to this specific condition shall be sent to the District Office and a copy to the address identified in Specific Condition F.1. or to the following email address: Solid.Waste.Financial.Coordinator@dep.state.fl.us.
3. Cost Estimates. Pursuant to Rule 62-701.630(4)(b), F.A.C., every fifth year of the Permit (i.e., by September 1, 2020 and at the time of the Permit renewal) the Permittee shall revise, and provide the updated cost estimates to the Department. Revisions shall be made by recalculating (by a professional engineer) the total cost of long-term care, in current dollars, for a third party to perform the work.

G. Closure Requirements

Closure requirements are not applicable to this Permit.

PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

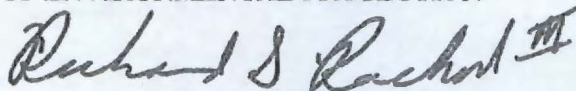
PERMIT NO.: 0002870-017-SF
WACS Facility ID: 86315

H. Long-Term Care Requirements

1. Long-Term Care Period. The Permittee shall continue to monitor and maintain the integrity and effectiveness of the final cover as well as other appurtenances of the Facility, control erosion, fill subsidences, comply with the ground water monitoring plan, maintain the gas production and management, the leachate collection and removal system, the underdrain piping system, and the stormwater system, in accordance with the Long-Term Care Plan, provided in Document 1. Checklist for the Monthly Inspection is provided as ATTACHMENTS 4. The Long-Term Care period is scheduled to end on March 25, 2043 for the Lined West Nassau Class I Landfill. The Long-Term Care period is scheduled to end on March 25, 2033 for the Unlined West Nassau Class I Landfill.
2. Stabilization Report. Every five years after issuance of a permit for long-term care (i.e., by July 1, 2020 and at the time of the Permit renewal), the Permittee shall submit a report to the Department that addresses stabilization of the Landfill. The submittal shall include the technical report required in Rule 62-701.510(9)(b), F.A.C., and shall also address subsidence, barrier layer effectiveness, storm water management, and gas production and management. For lined landfills, the submittal shall also address leachate collection and removal system effectiveness and leachate quantity.
3. Long-Term Care Plan. Pursuant to Rule 62-701.320(10)(b), F.A.C., at least once every five years (i.e., by July 1, 2020, and at the time of the Permit renewal) the Permittee shall update the Closure Plan to reflect changes in closure design, long-term care requirements, and financial assurance requirements.
4. Certification. Following completion of the long-term care period, the owner or operator shall submit to the Department a certification, signed and sealed by a professional engineer, verifying that long-term care has been completed in accordance with the closure plan has been placed in the operating record.

Executed in Duval County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



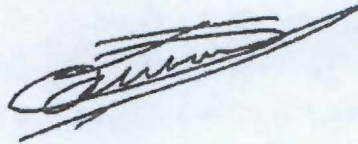
Richard S. Rachal III, P.G.
Permitting Program Administrator MB
Northeast District

PERMITTEE NAME: Nassau County Board of County Commissioners
FACILITY NAME: West Nassau Class I Landfill

PERMIT NO.: 0002870-017-SF
WACS Facility ID: 86315

FILING AND ACKNOWLEDGEMENT/CERTIFICATE OF SERVICE

Filed on this date pursuant to § 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged. The undersigned hereby certifies that this Permit Modification and all copies were sent before the close of business on July 24, 2015 to the listed persons.



Clerk

7/24/15
Date



APPENDIX 1
General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The Permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the Permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The Permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the Permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The Permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - (a) Have access to and copy any records that must be kept under conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and



APPENDIX 1
General Conditions

(c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reason, the Permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the Permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

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

9. In accepting this permit, the Permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The Permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the Permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit or a copy thereof shall be kept at the work site of the permitted activity.

12. The Permittee shall comply with the following:

(a) Upon request, the Permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(b) The Permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

(c) Records of monitoring information shall include:

APPENDIX 1
General Conditions

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

13. When requested by the Department, the Permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the Permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.



APPENDIX 2
Approved Application Documents

This Permit includes Department File Number 0002870-017, and is issued in accordance with the application received on July 16, 2015 and supplemented information provided on July 21, 2015, July 24, 2015 and which is further specified below:

Document 1 – *Permit Application to Continue long Term Care Operations, West Nassau Class I Landfill*, prepared by S2L, Incorporated, signed and sealed by Omar E. Smith, P.E., dated July 15 and received July 16, 2014;

Document 2 – *Gas Monitoring Probes Plan*, prepared by S2L, Incorporated, submitted by Omar E. Smith, P.E., on July 21, 2015;

Document 3 – *Gas Extraction Wells*, prepared by S2L, Incorporated, submitted by Omar E. Smith, P.E., on July 21, 2015; and

Document 4 – Revised Figure L-1, prepared by The Colinas Group, Inc., submitted by Richard L. Potts, Jr. P.G., on July 24, 2015.



APPENDIX 3 Water Quality Monitoring Plan

1. **Groundwater Monitoring.** In accordance with Rules 62-701.510 and 62-520.600, F.A.C., the Permittee shall install, place into operation, and maintain a groundwater quality monitoring system.
 - a. General Requirements. The Permittee shall construct new wells, operate, and maintain the groundwater monitoring system and abandon wells in accordance with Chapters 62-520 and 62-701 F.A.C. and with the Groundwater Monitoring Plan, as presented in the Permit Documents noted at the beginning of this Permit and as modified by the conditions specified therein.
 - b. Zone of Discharge. The Zone of Discharge (ZOD) for this facility shall be a three dimensional volume defined in the horizontal plane as extending 100 feet from the permitted edge of the solid waste disposal unit; or to the property boundary; whichever is less, and defined vertically as extending from the top of the ground to the bottom of the surficial aquifer.
 - c. Class G-II Requirements. Pursuant to Rule 62-520.420, F.A.C., the Permittee shall ensure that the water quality standards for Class G-II groundwater shall not be exceeded at the boundary of the ZOD.
 - d. Minimum Criteria. The Permittee shall ensure that the minimum criteria for groundwater specified in Rule 62-520.400, F.A.C., are not violated within the ZOD.
 - e. Monitoring Plan. The Groundwater Monitoring Plan consists of the following wells and piezometers (whose locations and identifications shall be in accordance with APPENDIX 3.1):

Background Well: MW-25

Detection Wells outside slurry wall:

- MW-2 (C-18)
- MW-3R (C-20)
- MW-4 (C-4)
- MW-5 (C-19)
- MW-8 (C-3)
- MW-9 (C-7)
- C-9 through C-14
- C-17
- PZ-CF-12
- PZ-CF-13

Piezometers for water level measurements only:

PZ-CF-1 through PZ-CF-11



APPENDIX 3 Water Quality Monitoring Plan

Piezometers (if needed) for water level measurements only:

MW-3D
MW-10
MW-10D
MW-12
MW-14
D-8 through D-17

Groundwater elevations shall be taken from all Background, Detection, and Groundwater Elevation Only wells during each monitoring event.

If monitoring parameters are detected in detection wells in concentrations that are significantly above background water quality, or that are at levels above groundwater standards or criteria, evaluation monitoring shall be initiated within 90 days of notification by the Department pursuant to Rule 62-701.510(6), F.A.C. including, but not limited to, the installation and sampling of compliance wells associated with the affected detection well(s).

- f. New Well Requirements. The Permittee shall submit, the following information to the Department within 15 days of completion of construction of any new groundwater monitoring well(s) (permanent and temporary):

Well identification	Driller's Lithologic Log
Latitude/Longitude	Total well depth
Aquifer monitored	Casing diameter
Screen type and slot size	Casing type and length
Elevation at top of pipe	Well construction permit number
Elevation at land surface	Depth to groundwater

New groundwater monitoring wells shall be designed and constructed in with Chapter 62-520, F.A.C. and ASTM Standard D-5092. A surveyed drawing shall be submitted showing the horizontal location of all monitoring wells by metes and bounds or equivalent surveying techniques. The surveyed drawing shall include the monitoring well identification number as well as the location and elevation of all permanent benchmark(s) and/or corner monument marker(s) at the site. The survey shall be conducted by a Florida Licensed Professional Surveyor and Mapper.

Unless they are replacement well(s), any newly installed monitoring well(s) shall be sampled and those samples shall be analyzed for the parameters listed APPENDIX 3.2, as required by Rule 62-701.510(7)(a), F.A.C., to establish background groundwater quality.

- g. Well Abandonment. Within 60 days of issuance of this Permit, all piezometers and wells not a part of the permit groundwater monitoring plan are to be plugged and abandoned in accordance with St. Johns River Water Management District Rule 40C-3.531. However, a written request for the abandonment of any

APPENDIX 3

Water Quality Monitoring Plan

piezometers or wells shall be submitted to the Department and written approval of the abandonment obtained prior to any abandonment. A written report documenting the plugging and abandonment activities shall be submitted to the Department within 30 days of field activities.

- h. Well Inspection Requirements. A visual inspection of wells and piezometers to assess visible damage shall be conducted in conjunction with the semiannual sampling events. All wells are to be clearly labeled and easily visible at all times. The well components at and above ground surface shall be constructed in a manner that secures and protects the groundwater monitoring wells. At each well location, construction shall include a concrete surface pad and above ground vertical protective casing with a locking cap. The casing and top shall be maintained in good working order, intact and locked. A minimum of two protective bollards shall be placed at the edges of the concrete surface pad. Bollards shall, at a minimum, be the approximate height of the protective casing and constructed of materials capable of providing protection from accidental impact with machinery.
- i. Damaged Well Requirements. In the event any monitoring well becomes damaged or inoperable, the Permittee shall notify the Department within 72 hours and shall submit a detailed written report within seven days. The written report shall detail the problem that has occurred and remedial measures that have been taken to prevent a recurrence. Damaged wells shall be repaired or replaced within 60 days. If a monitoring well is unable to be sampled during its normal time frame, it shall be sampled within 30 days of repair or replacement and its analysis shall be submitted to the Department within 60 days of repair or replacement. All monitoring well design and replacement shall be approved by the Department prior to installation.
- j. Groundwater Levels. Groundwater level measurements shall be collected semiannually from all monitoring wells and piezometers as specified in Specific Condition 1.e. Elevation measurements, referenced to a consistent, nationally recognized datum, shall include groundwater surface elevation, the top of well casing and land surface at each site at a precision of plus or minus 0.01 feet. A groundwater surface contour map shall be constructed by a professional geologist or qualified professional engineer, depicting the locations of wells and corresponding groundwater elevations. This information shall be submitted to the Department in conjunction with the semiannual groundwater monitoring report forms. In the event that the data indicates a variation in the horizontal or vertical flow directions such that existing wells are not adequate to intercept contaminants that may be generated from the Facility, the Permittee shall propose additional wells to correct that deficiency or the Department shall require wells to be installed to correct that deficiency.
- k. Sampling. Background and detection groundwater monitoring wells shall be sampled and analyzed semi-annually, as specified in Specific Condition 1.e, for the parameters listed in APPENDIX 3.3. The wells shall be sampled before June 30 and December 31 during each year of this Permit. Compliance with

APPENDIX 3 Water Quality Monitoring Plan

groundwater standards and/or criteria shall be determined by analysis of unfiltered groundwater samples, unless the requirements of Rule 62-520.310(5), F.A.C., are satisfied. Additional samples, wells and parameters may be required based upon subsequent analyses.

The Permittee shall collect, analyze, report and retain sampling and monitoring data in accordance with F.A.C. Chapter 62-160 and Rule 62-520.600, F.A.C. Any laboratory test required by this permit shall be performed by a laboratory that is certified by the Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/analyte combinations that are used to comply with this permit. Biological evaluations shall follow the applicable procedures in DEP-SOP (July 30, 2014). All field activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP (July 30, 2014). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220 and 62-160.330, F.A.C. Minimum detection levels for all analytes shall be at or below groundwater standards and/or criteria for each analyte.

1. Analytical Data Reports. The Permittee shall submit all groundwater sampling results on the Parameter Monitoring Report Form [DEP Form 62-520.900(2)] along with the analytical laboratory reports and a groundwater contour map no later than 60 days from completion of laboratory analysis. Analytical results shall be accompanied by a brief narrative summary and the Permittee shall include Form 62-701.900(31), Water Quality Monitoring Certification with each report certifying that the laboratory results have been reviewed and approved by the Permittee. The Permittee shall retain the original forms so that the necessary information is available to properly complete future reports.

In addition to the information provided on the Parameter Monitoring Form:

- 1) The laboratory report shall indicate the method on each data sheet, the detection limits and the dilution factor;
 - 2) The report shall show, in columnar form, the analytical results and, where applicable, the corresponding Florida Groundwater Standards and/or criteria; and
 - 3) The report shall identify all peaks greater than the EPA specified detection limit for the analytical method.
- m. Exceedances. If parameters are detected in monitoring wells in concentrations that are significantly above background water quality, or that are at levels above the Department's water quality standards or criteria specified in Chapter 62-520, F.A.C., the Permittee may resample the wells within 30 days after the sampling data is received to confirm the data. Should the Permittee choose not to resample, the Department will consider the water quality analysis as representative of current groundwater conditions at the facility. If the data is confirmed, or if the

APPENDIX 3
Water Quality Monitoring Plan

Permittee chooses not to resample, the Permittee shall notify the Department in writing within 14 days of this finding.

- n. Report Submittals. Required water quality monitoring reports and all groundwater and surface water analytical results shall be submitted electronically, with one hard copy submitted to the District office, unless the Department indicates otherwise in writing. Water quality monitoring reports shall be submitted in Adobe pdf format. The water quality data Electronic Data Deliverable (EDD) shall be provided to the Department in an electronic format consistent with requirements for importing the data into the Department's databases. Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations and shall include the following:

- 1) Cover letter;
- 2) Summary of exceedances and sampling problems, if any (e.g., variation from SOP field criteria);
- 3) Conclusions and recommendations;
- 4) Ground water contour maps;
- 5) Chain of custody forms;
- 6) Water levels, water elevation table;
- 7) Ground Water Monitoring Report Certification, using the appropriate Department form;
- 8) Appropriate sampling information on Form FD 9000-24 (DEP-SOP July 30, 2014); and,
- 9) Laboratory and Field EDDs and error logs, as applicable.

All submittals in response to this specific condition shall be sent to the District Office and to:

Florida Department of Environmental Protection
Solid Waste Section, MS 4565
2600 Blair Stone Road
Tallahassee, Florida, 32399-2400

- o. Technical Reports. The Permittee shall monitor site-specific conditions in addition to the data obtained from the ground water monitoring system. A technical report shall be submitted by July 1, 2020 and by 61 days prior to the expiration of the standard 10-year long term care period. The technical reports shall contain the following:

- 1) Tabular displays of any data that shows a monitoring parameter has been detected and graphical displays of any detected leachate key indicator parameters (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium and iron), including hydrographs for all monitoring wells;
- 2) Trend analyses of any monitoring parameters consistently detected;
- 3) Comparisons among shallow, middle and deep zone wells;

APPENDIX 3

Water Quality Monitoring Plan

- 4) Comparisons between background water quality and the water quality in detection and compliance wells;
- 5) Correlations between related parameters such as total dissolved solids and specific conductance;
- 6) Discussion of erratic and/or poorly correlated data;
- 7) An interpretation of the ground water contour maps, including an evaluation of ground water flow rates; and
- 8) An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

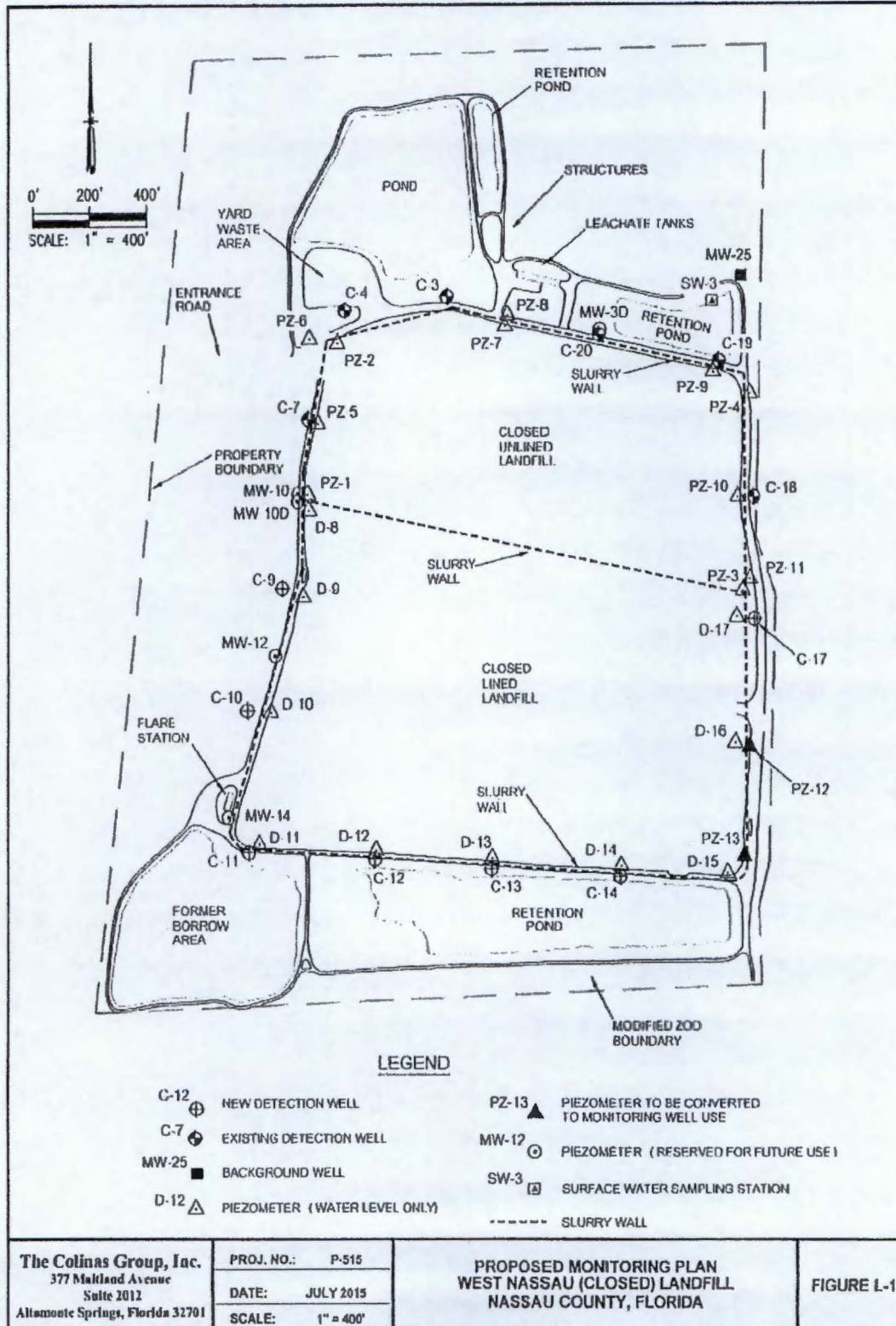
The report shall contain an evaluation of the ground and surface water monitoring programs and the adequacy of the monitoring frequency and analyses shall be determined. The Permittee shall have this report prepared, signed and sealed by a professional geologist or qualified professional engineer.

- p. Monitoring Plan Amendments. Based on any information or data obtained after the effective date of this permit, the Department reserves the right to modify the conditions set forth herein pursuant to the latest state Rules and regulations (before or after the effective date of this permit); and may modify the permit conditions to address additional groundwater assessment, additional monitoring wells and/or analytical parameters and compliance monitoring.
2. **Surface Water Monitoring.** Surface waters shall be sampled and analyzed semi-annually in conjunction with the groundwater monitoring program to assess how surface water quality has been affected by the landfill's activities. The following Surface Water Monitoring Program shall be implemented:
 - a. General Requirements. The Surface Water Monitoring Program shall be conducted in accordance with plans submitted to the Department, as modified by the conditions specified in this Permit.
 - b. Surface Water Requirements. Pursuant to Rule 62-302.300, F.A.C., the Permittee shall ensure that the applicable surface water standards are not exceeded.
 - c. Sample Locations. Surface water sampling shall be conducted in accordance with Section 62-701.510(4), F.A.C. at the outfall when the stormwater pond is discharging to waters of the state or from the property, whichever is closer. The sampling results shall be compared to the surface water standards specified in Chapter 62-302, F.A.C. The approximate location of the surface water monitoring point SW-3 is designated on APPENDIX 3.1.
 - d. Surface Water Sampling. Surface water sampling point shall be sampled and analyzed on a semi-annual basis for the parameters listed in APPENDIX 3.5. However, additional sampling points and parameters may be required based upon subsequent analyses.

APPENDIX 3
Water Quality Monitoring Plan

- e. Surface Water Reporting. All surface water sampling results shall be reported in accordance with Specific Conditions 1.n and 1.o and submitted as part of the semiannual groundwater monitoring reports.

APPENDIX 3.1 **Water Quality Monitoring Plan**



APPENDIX 3.2
Initial Background Groundwater Parameters

Field Parameters

Static water level in wells before purging
Specific Conductivity
pH
Dissolved Oxygen
Turbidity
Temperature
Colors and Sheens (by observation)

Laboratory Parameters

Total Ammonia – N
Chlorides
Iron
Mercury
Nitrate
Sodium
Total Dissolved Solids (TDS)
Those parameters listed in 40 CFR Part
258 Appendix I & II

APPENDIX 3.3
Semi-Annual Groundwater Parameters

Field Parameters

Static water level in wells before purging
Specific Conductivity
pH
Dissolved Oxygen
Turbidity
Temperature
Colors and Sheens (by observation)

Laboratory Parameters

Total Ammonia – N
Chlorides
Iron
Mercury
Nitrate
Sodium
Total Dissolved Solids (TDS)
Those parameters listed in 40 CFR Part
258 Appendix I

APPENDIX 3.4
Guidance for Submitting Electronic Water Quality Data
to the Solid Waste Program

I. General Information

Water quality monitoring reports and all ground water, surface water and leachate analytical results for the Solid Waste Program shall be submitted to the Department electronically on compact disc or flash drive media readable by Microsoft Windows. Water quality monitoring reports shall be submitted in Adobe pdf format. Unless otherwise approved by the Department, the water quality Electronic Data Deliverable (EDD) shall be compatible with software called Florida DEP Automated Data Processing Tool (ADaPT). ADaPT¹ has been developed to evaluate and upload water quality data into the Department's Water Assurance Compliance System (WACS) database. A copy of this ADaPT software with installation instructions and EDD specifications can be downloaded from the following website address:

<http://www.dep.state.fl.us/waste/categories/shw/pages/ADaPT.htm>

II. Monitoring Report

The monitoring report shall be submitted in Adobe pdf format, with the EDD as an attachment, and shall include the following items:

1. Cover letter;
2. Summary of exceedances and recommendations;
3. Ground water contour maps;
4. Chain of custody forms;
5. Water levels, water elevation table;
6. Ground Water Monitoring Report Certification, using the appropriate Department form;
7. Appropriate sampling information on Form FD 9000-24 (DEP-SOP July 30, 2014); and,
8. Laboratory and Field EDDs that are compatible with ADaPT software and the ADaPT error log(s).

¹ The Department recognizes that many laboratories have been using software called Validator to prepare the water quality data EDDs for solid waste facilities. In the event ADaPT is not available or a laboratory preparing the EDDs has not yet transitioned to ADaPT, then Validator may continue to be used to prepare the EDDs for submittal to the Department. However, the laboratory should transition to ADaPT as soon as possible since at some date in the future Validator will no longer be supported and become obsolete.

APPENDIX 3.4
Guidance for Submitting Electronic Water Quality Data
to the Solid Waste Program

The monitoring report shall be sent both to:

Florida Department of Environmental Protection
 Northeast District Office
 8800 Baymeadows Way West, Suite 100
 Jacksonville, Florida 32256

And to:

Florida Department of Environmental Protection
 Solid Waste Section
 2600 Blair Stone Road, MS 4565
 Tallahassee, Florida, 32399-2400

III. ADaPT EDDs

The ADaPT EDD consists of two electronic deliverables: (1) a Laboratory EDD, identified as swldd.txt; and (2) a Field EDD identified as swfdd.txt. The format for the Laboratory EDD and the Field EDD are described below. In addition, as explained in Section V, a copy of the Laboratory EDD shall be prepared in Adobe Portable Document Format (PDF) file by the laboratory.

The Laboratory EDD shall be submitted in a comma separated (.csv format) text file which can be produced through Excel. The Laboratory EDD file name format shall be: WACS Facility I.D. underscore Begin Sampling Date (yyyymm) underscore swldd.txt. The period at the end would not be included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the Laboratory EDD file name should be: 12345_200811_swldd.txt.

The Field EDD shall be submitted in the same comma separated (.csv format) text file as the Laboratory EDD. The Field EDD file name format shall be: WACS Facility I.D. underscore Begin Sampling Date (yyyymm) underscore swfdd.txt. Again, the period at the end is not included. For example, with WACS Facility I.D. # 12345 where sampling started in November and ended in December of 2008, the file name should be: 12345_200811_swfdd.txt

For confirmation sampling, add the term _conf to the EDD filenames as follows:
 12345_200811_conf_swldd.txt for the Laboratory EDD or 12345_200811_conf_swfdd.txt for the Field EDD.

For data that is resubmitted, add _#, where # is the number of data submittals (greater than 1). For example, if the data was resubmitted for the first time, and was thus submittal number 2, then the EDD filenames would be as follows: 12345_200811_2_swldd.txt for the Laboratory EDD and 12345_200811_2_swfdd.txt for the Field EDD.

Finally, taking this to an extreme, if conformation data was resubmitted for say the 10th time, then the EDD filenames would be: 12345_200811_conf_10_swldd.txt for the Laboratory EDD or 12345_200811_conf_10_swfdd.txt for the Field EDD.

APPENDIX 3.4
Guidance for Submitting Electronic Water Quality Data
to the Solid Waste Program

IV. Signatures Required

Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations. A sealed signature page may be submitted with the report provided that the seal is legible (gray the embossed seal and scan). Otherwise, you must separately mail the sealed and signed page.

V. Process Required

Three steps are generally required. First, two copies of the Laboratory EDD, one in comma separated text format and one as a PDF file, must be submitted by the laboratory. A digitally "signed" PDF copy² by the laboratory serves to maintain the integrity of the Laboratory EDD. In order to validate the QA/QC aspects of the Laboratory EDD, the Permittee shall ensure the laboratory processes the Laboratory EDD through ADaPT using both their laboratory specific library and the Department's Solid Waste Master library and corrects all critical errors and explains all non-critical errors prior to submittal. Second, the appropriate entity (laboratory, consultant, or Permittee) shall process the Field EDD through ADaPT using the Department's Solid Waste Master library and correct all critical errors and explain all non-critical errors prior to submittal. Finally, as a completeness check, the Permittee or consultant shall process both the Laboratory EDD and the Field EDD through ADaPT and confirm a successful export to disk prior to submitting the Laboratory EDD, Field EDD and ADaPT error log(s) to the Department.

² This would be a read only file.



APPENDIX 3.4
Guidance for Submitting Electronic Water Quality Data
to the Solid Waste Program

VI. Resources

In the event help is needed to prepare these EDDs, you can contact the Department's Solid Waste staff at the appropriate District office. The information for the Department's District offices is as follows:

Northwest District Office
160 W. Government Street, Room 308
Pensacola, Florida 32502-5740
(850) 595-8300

Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256-7590
(904) 256-1700

Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637-0926
(813) 632-7600

Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3710
(407) 897-4100

South District Office
P.O. Box 2549
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901-2549
(239) 344-5600

Southeast District Office
400 North Congress Avenue, Suite 200
West Palm Beach, Florida 33401-2913
(561) 681-6600

You can also receive help by contacting Mr. Clark Moore (850-245-8739) in Tallahassee.

APPENDIX 3.5
Initial Background and Semi-annual Surface Water Parameters

Field Parameters

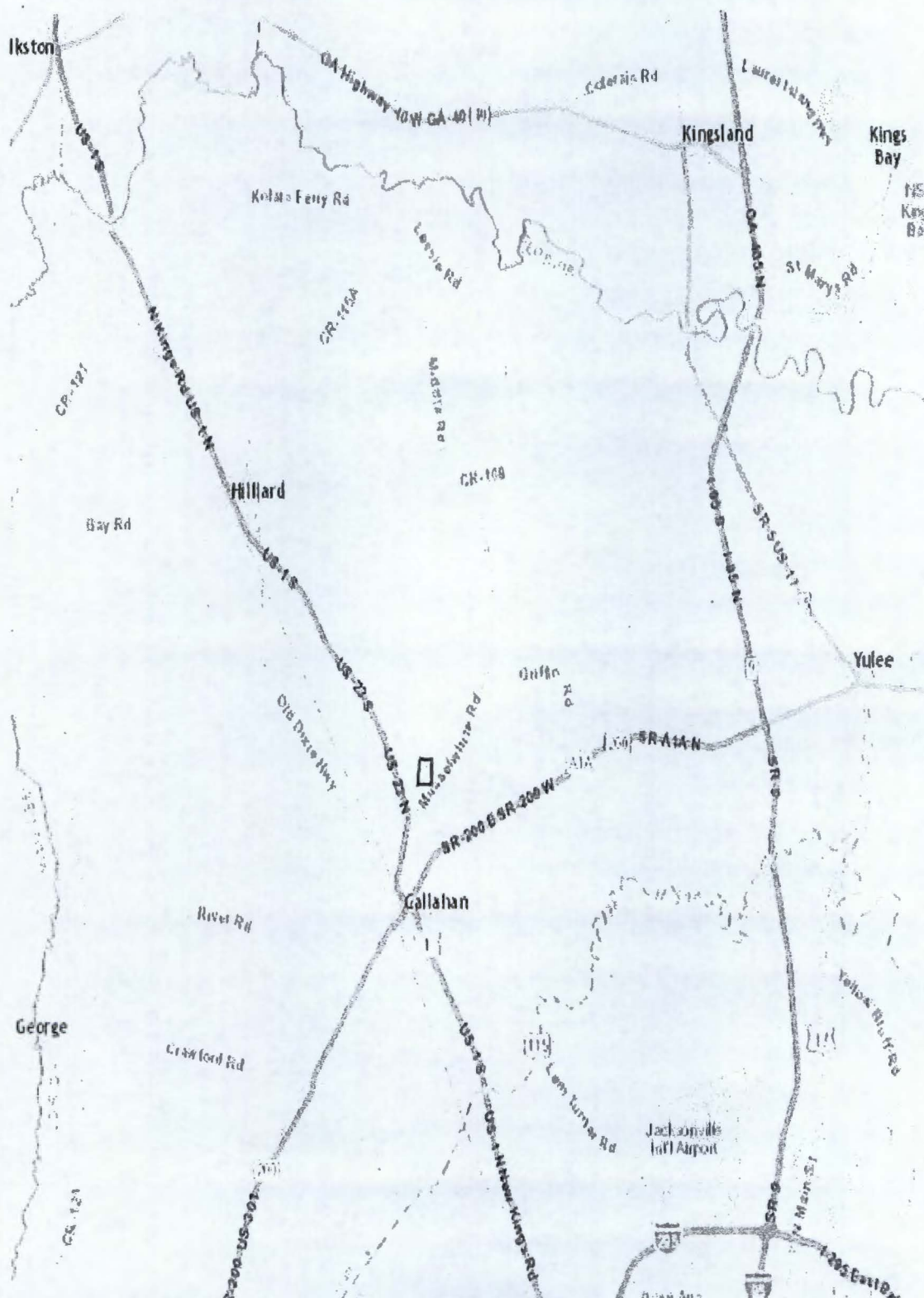
Specific Conductivity
pH
Dissolved Oxygen
Turbidity
Temperature
Colors, Sheens (by observation)

Laboratory Parameters

Unionized Ammonia
Total Hardness (as mg/L CaCO₃)
Biochemical Oxygen Demand (BOD5)
Iron
Mercury
Nitrate
Total Dissolved Solids (TDS)
Total organic carbon (TOC)
Fecal Coliform
Total Phosphorus
Chlorophyll-A
Total Nitrogen
Chemical Oxygen Demand (COD)
Total Suspended Solids (TSS)
Those Parameters listed in 40 CFR 258,
Appendix I

ATTACHMENT 1

Vicinity Map



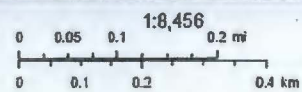
als

ATTACHMENT 2
Aerial Map

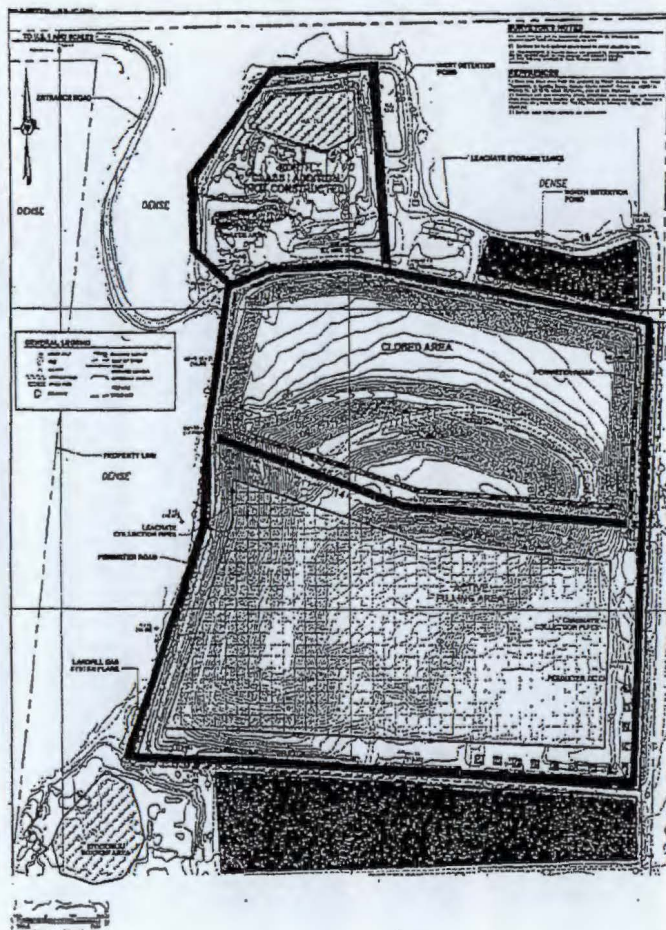
West Nassau Landfill Aerial Map









July 17, 2015



AM



LEGEND

-  Approximate location of French drain
-  Approximate location of slurry Wall
-  Approximate location of underdrain
-  Location of ponds that likely recharge SAS
-  Location of ponds that likely discharge from SAS
-  Approximate location of leachate collection system

Approximate Scale Shown

PROJECT	W. Nassau County Landfill Model		
TITLE	Landfill Project Features		
 Golder Associates	PROJECT No	993-33626	SCALE AS SHOWN
	DESIGN	CAD 16 Mar 07	REV.
	MAN	CAD 16 Mar 07	
	CHECK	CAD 16 Mar 07	
	ISSUED	GP 20 Mar 07	

Figure 4

ATTACHMENT 3

Leachate Collection Pipe and Pump Station Locations

CM12685

ATTACHMENT 4 **Monthly Inspection Checklist**

TABLE 1 LONG-TERM CARE INSPECTION FORM (Page 1 of 3)					
LANDFILL: _____			OWNER: _____		
Observation Report Number: _____			Date of Observation: ____/____/____		
Time Arrived On-Site: _____			Time Departed Site: _____		
Field Personnel: _____					
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section A: Site Security					
1. Entry sign damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
2. Any corrosion or damage to perimeter fence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
3. Any damage to gates and locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
Section B: Roads					
1. Access compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
2. Perimeter road compromised by road conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
Section C: Final Cover System					
1. Evidence of settlement or ponding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
2. Evidence of erosion, cracks or gullies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
3. Evidence of erosion or sedimentation of sideslope runoff control terraces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
4. Inadequate or stressed grass cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
5. Evidence of blockage/clogging of underdrain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
6. Grass height generally greater than 18 to 30 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	
7. Growth of damaging weeds or saplings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	
8. Evidence of leachate release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
Section D: Leachate Collection System					
1. Visible damage to pumps, berms, sumps, force mains or storage tanks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
2. Abnormal flowrates or odors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60 days	
Section E: Drainage Structures					
1. Blockage at entrance or obstructions in path flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	
2. Settlement of the structures/pipes/channels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
3. Settlement in the terraces/channels/pipe cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
4. Excessive siltting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
5. Damage/cracks in structures/pipes/channels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
(1) If yes, assign a comment number and see Page 3 for instructions.					
(2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____				Date of Observation: ____/____/____	

ATTACHMENT 4
Monthly Inspection Checklist (Cont.)

TABLE 1 LONG-TERM CARE INSPECTION FORM (Page 2 of 3)					
LANDFILL: _____			OWNER: _____		
Observation Report Number: _____			Date of Observation: ____/____/____		
	YES (1)	NO	NOT OBSERVED	APPROXIMATE TIME PERIOD FOR CORRECTION (2)	COMMENT NO.
Section F: Perimeter Drainage System					
1. Sloughing of ditch slopes or berms ditches, impairment of flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
2. Blockage or obstructions in the discharge structures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
3. Damaged/malfunctioning detention ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
4. Erosion of ditch slopes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
5. Vegetation height generally greater than 18 to 30 inches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 days	
6. Problems associated with silting, sediment level or deposits in ditches, piping, or ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
Section G: Landfill Gas Management System					
1. Visible damage to system components (i.e. wells, condensate piping header piping, flare station components)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 days	
2. Blockage in pipes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 days	
3. Local settlement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 days	
4. Odors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 days	
Section H: Ground Water Monitoring Wells/Gas Monitoring Probes					
1. Protective casing missing or damaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
2. Concrete pads damaged or cracked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
3. Well/Probe Labels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
Section I: Benchmarks and Limits					
1. Benchmarks in unacceptable condition and/or not visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
2. Limit of waste markers, damaged or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30 days	
Section J: Miscellaneous (Site Specific)					
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	____ days	
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	____ days	
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	____ days	
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	____ days	
(1) If yes, assign a comment number and see Page 3 for instructions.					
(2) Approximate number of days from detection for correction of the inspection item.					
Signature of Observer: _____				Date of Observation: ____/____/____	

ATTACHMENT 4
Monthly Inspection Checklist (Cont.)

TABLE 1 LONG-TERM CARE INSPECTION FORM (Page 3 of 3)	
LANDFILL: _____	OWNER: _____
Observation Report Number: _____	Date of Observation: ____/____/____
INSTRUCTIONS: If any item is checked yes, please provide details of the problem and remediation or maintenance recommendations below.	
COMMENT NUMBER	COMMENT
COMMENT NUMBER	CORRECTIVE ACTION PERFORMED
Signature of Observer: _____ Date of Observation: ____/____/____	

Waste Tire Inspection Form

(Page 1 of 2)

Landfill: _____		Owner: _____	
Observation Report Number: _____		Date of Observation: ____/____/____	
Time Arrived on-Site: _____		Time Departed Site: _____	
Field Personnel: _____			
	YES (1)	NO	NOT OBSERVED
	APPROXIMATE TIME PERIOD FOR CORRECTION (2)		COMMENT NO.
Section A: Waste Tire Collection Trailer & Area			
1. Any corrosion or damage to storage trailer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Any corrosion or damage to perimeter fence/gate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Blockage or reduced accessibility of the fire lane	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Any excess lot storage area undergrowth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Firefighting equipment damage or missing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Malfunctioning storm water management system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Containment soil berm erosion or damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Section B: Miscellaneous (Site Specific)			
1. _____			
2. _____			
3. _____			
4. _____			
(1) If yes, assign a comment number and see Page 2 for instructions.			
(2) Approximate number of days from detection for correction of the inspection item.			
Signature of Observer: _____			Date of Observation: ____/____/____

Initials

Waste Tire Inspection Form

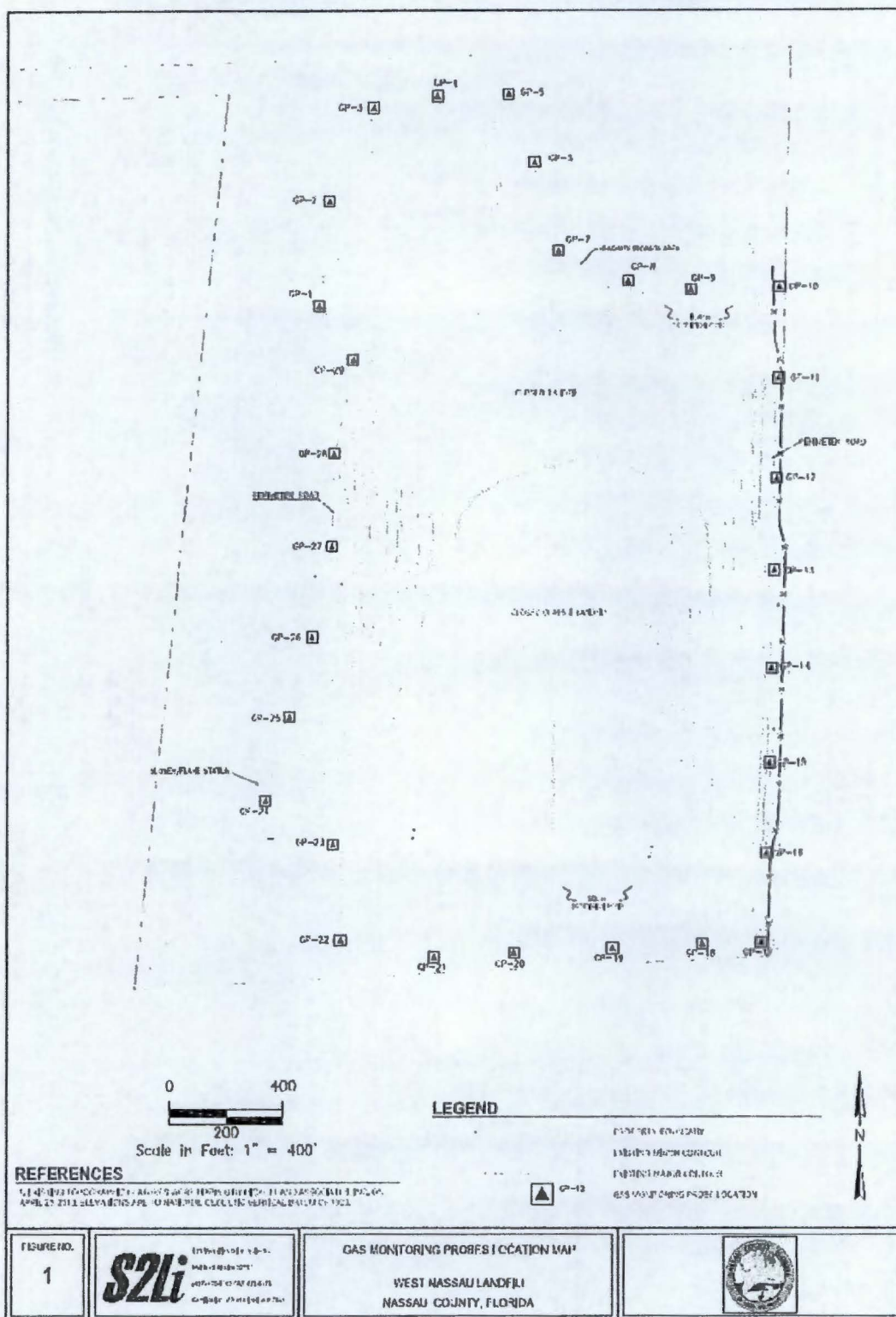
(Page 2 of 2)

Landfill: _____	Owner: _____
Observation Report Number: _____	Date of Observation: ____/____/____
INSTRUCTIONS: If any items is checked yes, please provide details of the problem and remediation or maintenance recommendations below.	
COMMENT NUMBER	COMMENT
COMMENT NUMBER	CORRECTIVE ACTIONS PERFORMED
Signature of Observer: _____ Date of Observation: ____/____/____	

Initials

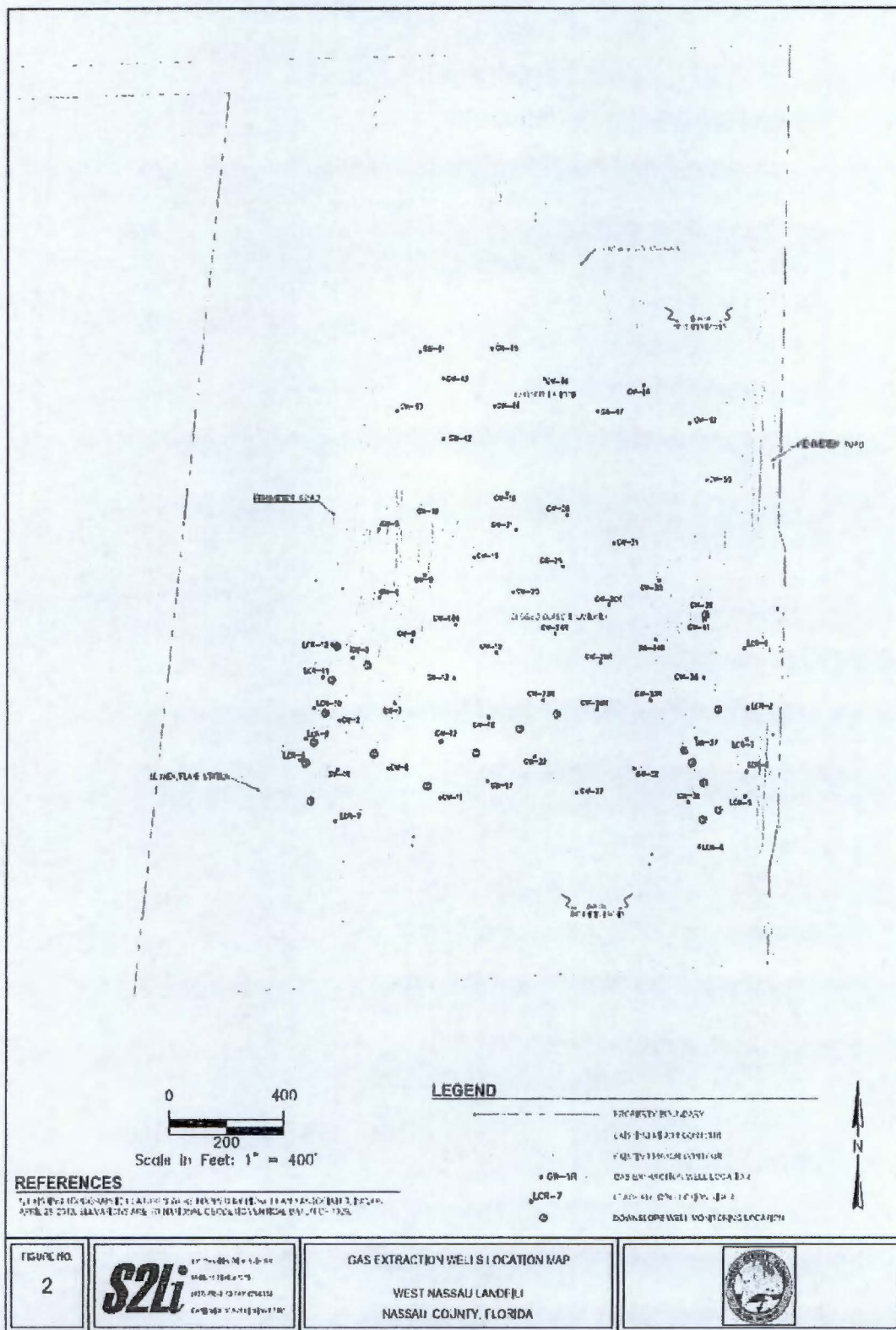


ATTACHMENT 5 **Site Plan with Gas Monitoring Probes Locations**



ATTACHMENT 6

Site Plan with Gas Extraction Wells Locations





Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Ryan E. Matthews
Interim Secretary

NOTICE OF FINAL PERMIT

*In the Matter of an
Application for Permit by:*

Nassau County Board of County Commissioners
96161 Nassau Place
Yulee, Florida 32097

Permit No. 0890428-013-AV
West Nassau Class I Landfill
Title V Air Operation Permit Revision
Nassau County

Responsible Official:

J. Scott Herring, Public Works Director

Enclosed is the final permit package to revise the Title V air operation permit for the West Nassau Class I Landfill. The existing facility is in Nassau County at 46026 Landfill Road, Callahan, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

David Lyle Read, P.E.

David Lyle Read, P.E.
2017.03.22 10:26:22 -04'00'

For:

Syed Arif, P.E., Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

SA/dlr/jpd

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final Permit and Final Determination), or a link to these documents available electronically on a publicly accessible server, was sent by electronic mail with received receipt requested to the persons listed below:

J. Scott Herring, Public Works Director, Nassau County (sherring@nassaucountyfl.com)
Sara Greivell, Grove Scientific & Engineering Company (sara@grovescientific.com)
James Show, P.E., Grove Scientific & Engineering Company (j_sshow@bellsouth.net)
Julie Hudson, DEP Northeast District (julie.hudson@dep.state.fl.us)
EPA Region 4 (R4TitleVFL@epa.gov)
Lynn Searce, DEP OPC (lynn.searce@dep.state.fl.us)
Barbara Friday, DEP OPC (barbara.friday@dep.state.fl.us)

NOTICE OF FINAL PERMIT

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on
this date, pursuant to Section 120.52(7), Florida
Statutes, with the designated agency clerk, receipt of
which is hereby acknowledged.

Lynn Seance

2017.03.22 10:57:42
-04'00'

Nassau County Board of County Commissioners
West Nassau Class I Landfill

Facility ID No. 0890428
Nassau County

Title V Air Operation Permit Revision

Permit No. 0890428-013-AV

(Revision of Title V Air Operation Permit No. 0890428-009-AV)



Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance
2600 Blair Stone Road
Mail Station #5505
Tallahassee, Florida 32399-2400
Telephone: (850) 717-9000
Email: DARM_Permitting@dep.state.fl.us

Compliance Authority:

Department of Environmental Protection
Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256-7590
Telephone: (904) 256-1700

Title V Air Operation Permit Revision

Permit No. 0890428-013-AV

Table of Contents

<u>Section</u>	<u>Page Number</u>
Placard Page	Error! Bookmark not defined.
I. Facility Information.	
A. Facility Description.	2
B. Summary of Emissions Units.	2
C. Applicable Regulations.	2
II. Facility-wide Conditions.	4
III. Emissions Units and Conditions.	
A. Emission Unit 001, Municipal Solid Waste Landfill.	7
B. Emission Unit 002, Landfill Gas Flare (800 scfm blower).	22
C. Emission Unit 003, East Side Emergency Diesel Generator (40.2 HP).	27
D. Emission Units 004 and 007, Up Front and West Side Emergency Diesel Generators (67.1 HP and 50 HP).	31
E. Emission Unit 005, Flare Emergency Diesel Generator (167.6 HP).	35
F. Emission Unit 006, Leachate Tanks Emergency Diesel Generator (174.3 HP).	39
IV. Appendices.	Attached
Appendix A, Glossary.	
Appendix AO, Alternate Operating Parameter Values – Wells.	
Appendix AS, Alternate Standards for Low Gas Production Wells and Leachate Risers.	
Appendix ASP, Leachate Collection Cleanout Risers – Oxygen Intrusion.	
Appendix I, List of Insignificant Emissions Units and/or Activities.	
Appendix NESHAP, Subpart A of 40 CFR 61 – General Provisions.	
Appendix NESHAP, Subpart M – National Emission Standards for Asbestos.	
Appendix NESHAP, Subpart A of 40 CFR 63 – General Provisions.	
Appendix NESHAP, Subpart AAAA – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste (MSW) Landfills.	
Appendix NSPS, Subpart A of 40 CFR 60 – General Provisions.	
Appendix NSPS, Subpart WWW – Standards of Performance for MSW Landfills.	
Appendix NSPS, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.	
Appendix RR, Facility-wide Reporting Requirements.	
Appendix TR, Facility-wide Testing Requirements.	
Appendix TV, Title V General Conditions.	
Referenced Attachments.	At End of Appendices Document
Figure 1, Summary Report-Gaseous and Opacity Excess Emission and, Monitoring System Performance (40 CFR 60, July, 1996).	
Table H, Permit History.	
Table 1, Summary of Air Pollutant Standards and Terms.	
Table 2, Compliance Requirements.	





Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Ryan E. Matthews
Interim Secretary

PERMITTEE:

Nassau County Board of County Commissioners
96161 Nassau Place
Yulee, Florida 32097

Permit No. 0890428-013-AV
West Nassau Class I Landfill
Facility ID No. 0890428
Title V Air Operation Permit Revision

The purpose of this permit is to revise the Title V air operation permit for the above referenced facility. The existing West Nassau Class I Landfill is located in Nassau County at 46026 Landfill Road, Callahan, Florida. UTM Coordinates are: Zone 17, 421.15 kilometers (km) East and 3,386.33 km North. Latitude is: 30° 36' 25" North; and, Longitude is: 81° 49' 21" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Executed in Tallahassee, Florida.

0890428-009-AV Effective Date: April 8, 2015
0890420-013-AV Effective Date: March 22, 2017
Renewal Application Due Date: August 27, 2019
Expiration Date: April 8, 2020

David Lyle Read, P.E.

David Lyle Read, P.E.
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For:

Syed Arif, P.E., Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

SA/dlr/jpd

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

West Nassau Class I Landfill is an existing municipal solid waste (MSW) landfill, which is categorized under Standard Industrial Classification Code No. 4953.

The landfill is comprised of closed unlined cells and closed lined cells. The landfill stopped accepting waste for disposal on October 1, 2009 and entered long-term care on March 25, 2013. The final capacity of the lined portion of the landfill is approximately 3,920,000 cubic yards (2,997,100 cubic meters), and the unlined portion of the landfill is approximately 730,000 cubic yards (562,100 cubic meters). The total permitted landfill capacity (by solid waste program) is approximately 4.65 million cubic yards (3,555,000 cubic meters).

The landfill consists of an active gas collection system that uses a mechanical blower to create a vacuum that draws landfill gas through deposited refuse and into gas collection wells. The system currently consists of 50 landfill gas extraction wells and approximately 11,000 linear feet of header pipe (ranging from 14 inches (") in diameter to 8" in diameter). The facility also consists of 12 leachate collection system cleanout risers that can be used to extract landfill gas. The collected landfill gas is controlled by 2,000 standard cubic feet per minute (scfm) candlestick flare with a limited maximum throughput from an 800 scfm blower. The landfill also includes five diesel fired emergency generators (EU 003 – EU 007). The landfill does not contain a bioreactor.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
<i>Regulated Emissions Units</i>	
001	Municipal Solid Waste Landfill
002	Landfill Gas Flare (800 scfm blower)
003	East Side Emergency Diesel Generator (40.2 HP)
004	Up Front Emergency Diesel Generator (67.1 HP)
005	Flare Emergency Diesel Generator (167.6 HP)
006	Leachate Tanks Emergency Diesel Generator (174.3 HP)
007	West Side Emergency Diesel Generator (50 HP)

Also included in this permit are miscellaneous insignificant emissions units and/or activities (see Appendix I, List of Insignificant Emissions Units and/or Activities).

Subsection C. Applicable Regulations.

Based on the Title V air operation permit revision application received January 17, 2017, this facility is not a major source of hazardous air pollutants (HAP). This facility is no longer classified as a prevention of significant deterioration (PSD) major source. According to LandGem model, landfill gas generated from the closed landfill has reduced and the blower was replaced to accommodate the actual volumetric flow rate of the landfill gas to the flare from 2,000 scfm to 800 scfm. The closed landfill is currently showing all pollutants to be less than 100 tons/year, which is below the 250 tons/year PSD threshold.

A summary of applicable regulations is shown in the following table.

Regulation	EU Nos.
<i>Federal Rule Citations</i>	
40 CFR 60, Subpart A, NSPS General Provisions	001 – 007
40 CFR 60, Subpart WWW: NSPS Standards of Performance for MSW Landfills	001 & 002
40 CFR 60, Subpart IIII: NSPS Standards of Performance for Stationary CI ICE	003 - 007

SECTION I. FACILITY INFORMATION.

40 CFR 61, Subpart A: NESHAP General Provisions	001
40 CFR 61, Subpart M: NESHAP for Asbestos	001
40 CFR 63, Subpart A: NESHAP General Provisions	001 & 007
40 CFR 63, Subpart AAAA: NESHAP MSW Landfills	001 & 002
<i>State Rule Citations</i>	
Rule 62-4, F.A.C.: Permits	001 - 007
Rule 62-204, F.A.C.: Air Pollution Control – General Provisions	
Rule 62-210, F.A.C.: Stationary Sources – General requirements	
Rule 62-213, F.A.C.: Operation Permits for Major Sources of Air Pollution	
Rule 62-296, F.A.C.: Stationary Sources – Emission Standards	
Rule 62-297, F.A.C.: Stationary Sources – Emissions Monitoring	001 - 007

SECTION II. FACILITY-WIDE CONDITIONS.

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Not federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. Odor Remediation Plan. The facility shall be operated to control objectionable odors in accordance with subsection 62-296.320(2), F.A.C. After being notified by the Department that objectionable odors have been confirmed beyond the landfill property boundary, the owner or operator shall:

- a. Immediately take steps to reduce the objectionable odors. Such steps may include applying or increasing initial cover, reducing the size of the working face, and ceasing operations in the areas where odors have been detected;
- b. Submit to the Department for approval an odor remediation plan for the gas releases. The plan shall describe the nature and extent of the problem and the proposed long-term remedy. The remedy shall be initiated within 30 days of approval.
- c. Implement a routine odor monitoring program to determine the timing and extent of any off-site odors, and to evaluate the effectiveness of the odor remediation plan.

[Rule 62-701.530(3)(b), F.A.C.]

FW4. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

{Permitting Note: Nothing is deemed necessary and ordered at this time.}

FW5. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), F.A.C.]

FW6. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- a. Paving and maintenance of roads, parking areas and yards as needed.
- b. Application of water as necessary to minimize particulate emissions from miscellaneous activities onsite.
- c. Landscaping and maintenance of vegetation, including regular mowing.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received July 28, 2014.]

Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements, for additional details and requirements.

SECTION II. FACILITY-WIDE CONDITIONS.

FW7. Electronic Annual Operating Report and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection's Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP's Electronic Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1st of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070.** Additional information is available by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: <http://www.dep.state.fl.us/air/emission/tvfee.htm>. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: <http://www.dep.state.fl.us/air/emission/eaor>. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.}

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit and to the US. EPA at the address shown below within 60 days after the end of each calendar year during which the Title V air operation permit was effective. (See also Appendix RR, Conditions RR1 and RR7.) [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303
Attn: Air Enforcement Branch

FW9. Prevention of Accidental Releases (Section 112(r) of CAA). If, and when, the facility becomes subject to 112(r), the permittee shall:

- a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent electronically through EPA's Central Data Exchange system at the following address: <https://cdx.epa.gov>. Information on electronically submitting risk management plans using the Central Data Exchange system is available at: <http://www2.epa.gov/rmp>. The RMP Reporting Center can be contacted at: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
- b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

SECTION II. FACILITY-WIDE CONDITIONS.

[40 CFR 68]

FW10. Semi-Annual Monitoring Reports. The permittee shall monitor compliance with the terms and conditions of this permit and shall submit reports of any deviations from the requirements of these conditions at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports, including reference to the specific requirement and the duration of such deviation. All reports shall be accompanied by a certification by a responsible official, pursuant to subsection 62-213.420(4), F.A.C. (See also Conditions RR2. – RR4. of Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements related to deviations.) [Rule 62-213.440(1)(b)3.a., F.A.C.]

{Permitting Note: EPA has clarified that, pursuant to 40 CFR 70.6(a)(3), the word "monitoring" is used in a broad sense and means monitoring (i.e., paying attention to) the compliance of the source with all emissions limitations, standards, and work practices specified in the permit.}

FW11. Submission of Reports. All reports shall be submitted to the Department's Compliance Authority listed on the cover page of this permit. However, if a condition contained within this permit (including the incorporated appendices listed in the Table of Contents) allows or requires the electronic submission of a report directly to the EPA using their Electronic Reporting Tool (ERT), that report does not also have to be submitted to the Compliance Authority, provided the permittee complies with all of the specific requirements of that condition and notifies the Compliance Authority in writing (email) on the same day that a report has been submitted to the ERT. See Appendix TR, Facility-wide Testing Requirements, for specific emission test report submission requirements. [Rules 62-4.130, 62-4.160, 62-213.440(1)(b) & 62-297.310(10), F.A.C.]

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
001	Municipal Solid Waste Landfill (Collection System)

The West Nassau Landfill is a closed Class I Landfill with a design capacity greater than 2.5 million megagrams by mass or 2.5 million cubic meters by volume. The landfill is comprised of closed unlined cells and closed lined cells. The unlined portion of the landfill started accepting waste in 1974 and the lined portion of the landfill started accepting waste in 1993. The landfill stopped accepting waste for disposal on October 1, 2009 and entered long-term care on March 25, 2013. The final capacity of the lined portion of the landfill is approximately 3,920,000 cubic yards (2,997,100 cubic meters), and the unlined portion of the landfill is approximately 730,000 cubic yards (562,100 cubic meters). The total permitted landfill capacity (by solid waste program) is approximately 4.65 million cubic yards (3,555,000 cubic meters).

This landfill does not contain a bioreactor and does contain asbestos waste. Landfill gas emissions are collected and controlled through an extraction well field system with one open "candlestick-type" utility flare. Currently the landfill consists of 62 NSPS Gas Extraction Wells (including 12 leachate collection system cleanout risers).

{Permitting Note: This Landfill is subject to NSPS Subpart A (General Provisions) and Subpart WWW (Standards of Performance for MSW Landfills) of 40 CFR 60 adopted by reference in Rule 62-204.800(8)(b)76, F.A.C.; NESHAP Subpart A (General Provisions) and Subpart M (National Emission Standards for Asbestos) of 40 CFR 61 adopted by reference in Rule 62.204.800(10)(b)8, F.A.C.; and NESHAP Subpart A (General Provisions) and Subpart AAAA (NESHAP for MSW Landfills) of 40 CFR 63 adopted by reference in Rule 62.204.800(11)(b)59, F.A.C. In August 2016, US EPA published a set of emissions guidelines in 40 CFR 60, Subpart Cf. These emissions guidelines impose requirements on states to develop plans to apply to existing landfills. Therefore, this landfill will likely become subject to a state or federal plan for existing landfills, reflecting the limits in Subpart Cf. This facility would likely be classified as a "closed landfill" under Subpart Cf.}

Essential Potential to Emit (PTE) Parameters

- A.1. Design Capacity.** The landfill is a closed Class I Landfill with a design capacity greater than 2.5 million megagrams by mass or 2.5 million cubic meters by volume. The landfill shall operate the existing collection and control system that captures the gas generated within the landfill in accordance with NSPS Subpart WWW of 40 CFR 60. [Rules 62-4.160(2), 62-210.200(PTE), 62-204.800(8)(b)76, F.A.C.; and 40 CFR 60.752]
- A.2. Hours of Operation.** This emissions unit may operate continuously (8,760 hours/year). However, a closure report has been submitted to the Department, no additional waste may be placed into the landfill without filing a notification of modification. [Rule 62-210.200(PTE), F.A.C.]

Control Technology

A.3. Landfill Gas Collection and Control System.

- a. The owner or operator shall operate the existing collection and control system that captures the gas generated within the landfill.
 - (1) An active collection system shall:
 - (a) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;
 - (b) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:
 - (i) 5 years or more if active; or
 - (ii) 2 years or more if closed or at final grade.

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

- (c) Collect gas at a sufficient extraction rate;
 - (d) Be designed to minimize off-site migration of subsurface gas.
 - b. Route all the collected gas to a control system that complies with the following requirements:
 - (1) An open flare designed and operated in accordance with 40 CFR 60.18 except as noted in Condition **B.15** (60.754(e));
 - (2) A control system designed and operated to reduce NMOC by 98 weight-percent (%), or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight-% or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry (ppmvd) basis as hexane at 3% oxygen (O₂) using the test methods specified in 40 CFR 60.754(d).
 - (a) The control device shall be operated within the parameter ranges established during the most recent performance test. The operating parameters to be monitored are specified in 40 CFR 60.756.
 - (3) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph b.(1) or (2) above.
 - c. Operate the collection and control device installed in accordance with the provisions of 40 CFR 60.753, 60.755 and 60.756.
- [Rule 62-204.800(8)(b)76, F.A.C.; and 40 CFR 60.752]

Operation Procedures

A.4. Active Collection Systems Specifications.

- a. The owner or operator seeking to comply with submitting collection and control system design plan (60.752(b)(2)(i)) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Department as provided in 40 CFR 60.752(b)(2)(i)(C) and (D):
 - (1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.
 - (2) The sufficient density of gas collection devices determined in a(1) above (60.759(a)(1)) shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.
 - (3) The placement of gas collection devices determined in a(1) above (60.759(a)(1)) shall control all gas producing areas, except as provided by in (a) and (b) below (60.759(a)(3)(i) and (a)(3)(ii)).
 - (a) Any segregated area of asbestos or non-degradable material may be excluded from collection if documented as provided in Condition **A.31.c** (40 CFR 60.758(d)). The documentation shall provide the nature, date of deposition, location and amount of asbestos or non-degradable material deposited in the area, and shall be provided to the Department upon request.
 - (b) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1% of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Department upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2 k L_o M_i (e^{-kt}) (C_{NMOC}) (3.6 \times 10^{-9})$$



SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

where,

Q_i = NMOC emission rate from the i^{th} section, Mg/year

K = methane generation rate constant, year^{-1}

L_0 = methane generation potential, cubic meters per megagram (M^3/Mg) solid waste

M_i = mass of the degradable solid waste in the i^{th} section, Mg

t_i = age of the solid waste in the i^{th} section, years

C_{NMOC} = concentration of NMOC, ppmv

3.6×10^{-9} = conversion factor

- (c) The values for k and C_{NMOC} determined in field testing shall be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k , L_0 and C_{NMOC} provided in 40 CFR 60.754(a)(1) or the alternative values from 40 CFR 60.754(a)(5) shall be used. The mass of non-degradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the non-degradable material is documented as provided in 40 CFR 60.759(a)(3)(i).

{Permitting Note: Pursuant to 40 CFR 60.759(a)(3)(ii), the West Nassau Landfill has met the requirements of this regulation for Well Nos. GW-41 and GW-45. The Permittee shall continue to monitor Well No. GW-48 for a future determination pursuant to this regulation.}

- b. The owner or operator seeking to comply with Collection and Control System design requirements (60.752(b)(2)(i)(A)) shall construct the gas collection devices using the following equipment or procedures:
- (1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.
 - (2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.
 - (3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.
- c. Each owner or operator seeking to comply with Collection and Control System design requirements (60.752(b)(2)(i)(A)) shall convey the landfill gas to a control system in compliance with routing the collected gas to the control system (60.752(b)(2)(iii)) through the collection header pipes. The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:
- (1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in c(2) below (60.759(c)(2)) shall be used.

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

- (2) For new collection systems, the maximum flow rate shall be in accordance with Condition A.8 below (60.755(a)(1)).

{Permitting Note: Gas extraction wells and leachate cleanout risers, that have undergone formal review by the Department and determined as low producing gas extraction wells, may also be subject to the requirements in Appendix AS - Alternative Standards for Low Gas Production Extraction Wells and Leachate Cleanout Riser Connections.}

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.759]

A.5. Operational Standards. The owner or operator of an of an MSW landfill with a gas collection and control system used to comply with the captured gas generated within the landfill (40 CFR 60.752(b)(2)(ii)) shall:

- a. *Collection and Control System.* Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

- (1) 5 years or more if active; or
- (2) 2 years or more if closed or at final grade.

- b. *Well Head Operation – Pressure.* Operate the collection system with negative pressure at each wellhead except under the following conditions:

- (1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in Condition A.29 (60.757(f)(1)).
- (2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan.
- (3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Department.

{Permitting Note: The landfill has been closed and is covered with a geomembrane cover. The well head may operate pressures of up to 1.0 psi. In addition, the Department authorized an alternate sampling procedure allowing the O₂ concentrations up to 21% in the leachate collection cleanout riser system (LCR00001 through LCR0012) as identified in Appendix ASP.}

- c. *Well Head Operation – Temperature, Nitrogen or O₂ Level.* Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius (°C) and with either a nitrogen level less than 20% or an O₂ level less than 5%. The owner or operator may establish a higher operating temperature, nitrogen, or O₂ value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

- (1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i) of NSPS Subpart WWW.
- (2) Unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i) of NSPS Subpart WWW, the O₂ shall be determined by an O₂ meter using Method 3A or 3C except that:
 - (a) The span shall be set so that the regulatory limit is between 20% – 50% of the span;
 - (b) A data recorder is not required;
 - (c) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;
 - (d) A calibration error check is not required;
 - (e) The allowable sample bias, zero drift, and calibration drift are ±10%.

- d. *Surface Methane Concentration.* Operate the collection system so that the methane concentration is less than 500 ppm above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

- e. *Landfill Gas Collection system – Operable/Inoperable.* Operate the system such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and
- f. Operate the control or treatment system at all times when the collected gas is routed to the system.
- g. *Landfill Gas Collection System – Corrective Action.* If monitoring demonstrates that the operational requirements in b, c or d above (60.753(b), (c), or (d)) are not met, corrective action shall be taken as specified in 40 CFR 60.755(a)(3) through (5) or 40 CFR 60.755(c) of NSPS Subpart WWW. If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in 40 CFR 60.753.

{Permitting Note: Landfill gas extraction wells with approval for higher operating parameter values are stated in Appendix AO of this Title V air operation permit.}

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.753]

A.6. Asbestos Disposal. The owner or operator of any inactive waste disposal site shall comply with the following requirements:

- a. Comply with one of the following:
 - (1) Either discharge no visible emissions to the outside air from an inactive waste disposal site subject to this paragraph; or
 - (2) Cover the asbestos-containing waste material with at least 15 centimeters (cm) (6") of compacted nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material. In desert areas where vegetation would be difficult to maintain, at least 8 additional centimeters (3") of well-graded, nonasbestos crushed rock may be placed on top of the final cover instead of vegetation and maintained to prevent emissions; or
 - (3) Cover the asbestos-containing waste material with at least 60 cm (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste; or
 - (4) For inactive waste disposal sites for asbestos tailings, a resinous or petroleum-based dust suppression agent that effectively binds dust to control surface air emissions may be used instead of the methods in paragraphs a(1) - (3) of this section. Use the agent in the manner and frequency recommended for the particular asbestos tailings by the manufacturer of the dust suppression agent to achieve and maintain dust control. Obtain prior written approval of the Department to use other equally effective dust suppression agents. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.
- b. Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as follows, or comply with A.6.a(2) or a(3) above.
 - (1) Display warning signs at all entrances and at intervals of 100 meters (m) (328 feet) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:
 - (a) Be posted in such a manner and location that a person can easily read the legend; and
 - (b) Conform to the requirements for 51 cm×36 cm (20"×14") upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and
 - (c) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend	Notation
Asbestos Waste Disposal Site	2.5 cm (1 inch) Sans Serif, Gothic or Block

SB

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

Do Not Create Dust	1.9 cm (3/4 inch) Sans Serif, Gothic or Block
Breathing Asbestos is Hazardous to Your Health	14 Point Gothic.

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

- (2) Fence the perimeter of the site in a manner adequate to deter access by the general public.
 - (3) When requesting a determination on whether a natural barrier adequately deters public access, supply information enabling the Department to determine whether a fence or a natural barrier adequately deters access by the general public.
 - c. Cover the asbestos-containing waste material with at least 15 cm (6") of compacted nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material. In desert areas where vegetation would be difficult to maintain, at least 8 additional centimeters (3") of well-graded, nonasbestos crushed rock may be placed on top of the final cover instead of vegetation and maintained to prevent emissions; or
 - d. Cover the asbestos-containing waste material with at least 60 cm (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste.
 - e. The owner or operator may use an alternative control method that has received prior approval of the Administrator rather than comply with the requirements of a or b above.
- [Rule 62.204.800(10)(b)8, F.A.C.; and, 40 CFR 61.151(a) - (d)]

Compliance ProvisionsA.7. Requirements of 40 CFR Part 63, Subpart AAAA.

- a. The owner or operator shall comply with the requirements of 40 CFR part 60, Subpart WWW.
- b. If you are required by 40 CFR 60.752(b)(2) of Subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan to install a collection and control system, you must comply with the requirements in 40 CFR 63.1960 through 63.1985 and with the general provisions of 40 CFR 63 specified in Table 1 of NESHAP Subpart AAAA.
- c. *Collection and Control System Alternatives.* For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, you must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have already been approved under 40 CFR part 60 Subpart WWW or the Federal plan, or EPA approved and effective State or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the SSM requirements in Subpart A of 40 CFR 63 as specified in Table 1 of NESHAP Subpart AAAA and all affected sources must submit compliance reports every 6 months as specified in 40 CFR 63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3-hour monitoring block average.

[Rule 62-204.800(11)(b)59, F.A.C.; and, 40 CFR 63.1955]

A.8. Gas Collection System. Except as provided in the collection and control system design plan for alternatives in the operational procedures provided in 40 CFR 60.752(b)(2)(i)(B)), the specified methods in 40 CFR 60.755(a)(1) - (a)(6) shall be used to determine whether the gas collection system is in compliance with 40 CFR 60.752(b)(2)(ii).

- a. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with 40 CFR 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and L₀ kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Department. If k has been determined as specified in 40 CFR 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

- (1) For sites with unknown year-to-year solid waste acceptance rate:

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

$$Q_M = 2L_0 R (e^{-kc} - e^{-kt})$$

where,

Q_M = maximum expected gas generation flow rate, cm^3/year

L_0 = methane generation potential, cm^3/Mg solid waste

R = average annual acceptance rate, Mg/year

k = methane generation rate constant, year^{-1}

t = (age of the landfill at equipment installation) + (the time the owner or operator intends to use the gas mover equipment) or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years

c = time since closure, years (for an active landfill $c = 0$ and $e^{-kc} = 1$)

(2) For sites with known year-to-year solid waste acceptance rate:

$$Q_M = \sum_{i=1}^n 2kL_0 M_i (e^{-kt_i})$$

where,

Q_M = maximum expected gas generation flow rate, cm^3/year

k = methane generation rate constant, year^{-1}

L_0 = methane generation potential, cm^3/Mg solid waste

M_i = mass of solid waste in the i^{th} section, Mg

t_i = age of the i^{th} section, years

(3) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in a.(1) and a.(2) above.

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.755(a)(1)]

A.9. Gas Collectors – Density. For the purposes of determining sufficient density of gas collectors for compliance with 40 CFR 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Department, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards. [Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.755(a)(2)]

A.10. Gas Collection System – Flow Rate. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with 40 CFR 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under 40 CFR 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Department for approval. The owner or operator is not required to expand the system as required in 40 CFR 60.755(a)(3) during the first 180 days after gas collection system startup. {Permitting Note: As allowed under NSPS Subpart WWW §60.753(b)(2), the Department authorized the well head operating pressures of up to 1.0 psi since the landfill was capped with a geomembrane cover and it has been demonstrated that well head operations at 1.0 psi or less will not affect the designed final cover system.} [Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.755(a)(3) and (4)] [Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.755(a)(3) and (4)]

A.11. Excess Air Infiltration. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or O_2 as provided in 40 CFR 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Department for approval. [Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.755(a)(5)]

- A.12. Alternative Off-Site Migration.** The owner or operator seeking to demonstrate compliance with being designed to minimize off-site mitigation of subsurface gas (60.752(b)(2)(ii)(A)(4)) through the use of a collection system not conforming to the specifications for an active collection system (60.759) shall provide information satisfactory to the Department as specified in 40 CFR 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled. [Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.755(a)(6)]
- A.13. Surface Methane Monitoring.** The following procedures shall be used for compliance with the surface methane operational standard as provided in 40 CFR 60.753(d).
- a. After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR 60.755(d).
 - b. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.
 - c. Surface emission monitoring shall be performed in accordance with Section 4.3.1 of Method 21 of Appendix A of 40 CFR 60, except that the probe inlet shall be placed within 5 to 10 cm of the ground. Monitoring shall be performed during typical meteorological conditions.
 - d. Any reading of 500 ppm or more above background at any location shall be recorded as a monitored exceedance and the actions specified in 40 CFR 60.755(c)(4)(i) – (v) shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 40 CFR 60.753(d).
 - (1) The location of each monitored exceedance shall be marked and the location recorded.
 - (2) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.
 - (3) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in 40 CFR 60.755(c)(4)(v) shall be taken, and no further monitoring of that location is required until the action specified in 40 CFR 60.755(c)(4)(v) has been taken.
 - (4) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in 40 CFR 60.755(c)(4) (ii) or (iii) shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in 40 CFR 60.755(c)(4) (iii) or (v) shall be taken.
 - (5) For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Department for approval.
 - e. The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.
- [Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.755(c)]

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

- A.14. Surface Methane Concentration Monitoring.** The owner or operator seeking to comply with the provisions in 40 CFR 60.755(c) shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:
- a. The portable analyzer shall meet the instrument specifications provided in Section 3 of Method 21 of Appendix A of 40 CFR 60, except that "methane" shall replace all references to VOC.
 - b. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air.
 - c. To meet the performance evaluation requirements in section 3.1.3 of Method 21 of Appendix A of 40 CFR 60, the instrument evaluation procedures of Section 4.4 of Method 21 of Appendix A of 40 CFR 60 shall be used.
 - d. The calibration procedures provided in Section 4.2 of Method 21 of Appendix A of 40 CFR 60 shall be followed immediately before commencing a surface monitoring survey.
[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.755(d)]
- A.15. Startup – Shutdown – Malfunction (SSM).** The provisions of this subpart apply at all times, except during periods of SSM, provided that the duration of SSM shall not exceed 5 days for collection systems and shall not exceed 1 hour of free venting for treatment or control devices.
[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.755(e)]
- A.16. Compliance Determination.** Compliance is determined in the same way it is determined for 40 CFR 60, Subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of Subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, you have failed to meet the control device operating conditions described in this subpart and have deviated from the requirements of this subpart. Finally, you must develop a written SSM plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failure to write, implement or maintain a copy of the SSM plan is a deviation from the requirements of NESHAP 40 CFR 63 Subpart AAAA.
{Permitting Note: An SSM Plan has been developed and implemented.}
[Rule 62-204.800(11)(b)59, F.A.C.; and, 40 CFR 63.1960]
- A.17. Deviation Determination.** A deviation is defined in 40 CFR 63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in 40 CFR 63.1965(a) - (c).
- a. A deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c)(1) of Subpart WWW are exceeded.
 - b. A deviation occurs when 1-hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.
 - c. A deviation occurs when a SSM plan is not developed or maintained on site.
[Rule 62-204.800(11)(b)59, F.A.C.; and, 40 CFR 63.1965]
- A.18. 3-Hour Block Average Determination.** Averages are calculated in the same way as they are calculated in 40 CFR 60 Subpart WWW, except that the data collected during the following events are not to be included in any average computed under 40 CFR 63 Subpart AAAA:
- a. Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.
 - b. Startup, shutdown and malfunction.
[Rule 62-204.800(11)(b)59, F.A.C.; and, 40 CFR 63.1975]

Monitoring of Operations

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

- A.19. Gas Collection System Monitoring Requirements.** The owner or operator seeking to comply with 40 CFR 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:
- Measure the gauge pressure in the gas collection header on a monthly basis as provided in Condition A.10 (§60.755(a)(3)); and
 - Monitor nitrogen or O₂ concentration in the landfill gas on a monthly basis as provided in Condition A.11 (§60.755(a)(5)); and
 - Monitor temperature of the landfill gas on a monthly basis as provided in Condition A.11 (§60.755(a)(5)).

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.756(a)]

- A.20. Alternative System Monitoring Requirements.** The owner or operator seeking to install a collection system that does not meet the specifications for an active collection system (60.759) or seeking to monitor alternative parameters to the operational standards for collection and control systems, test methods and procedures, compliance provisions, and monitoring of operations (60.753) through 60.756) shall provide information satisfactory to the Department as provided in 60.752(b)(2)(i) (B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Department may specify additional appropriate monitoring procedures. [Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.756(e)]

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

- A.21. Test Methods.** When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
21	Fugitive Methane Leaks
25C	Determination of NMOC in MSW landfill gases

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.]

- A.22. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- A.23. NMOC Calculations.** Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall calculate an NMOC emission rate for the landfill using the following equation (§60.754). The NMOC emission rate shall be recalculated annually, except as provided in Condition A.24 (§60.757(b)(1)(ii)). The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements. If the calculated NMOC emission rate is less than 50 MG/year, the owner or operator shall:
- The landfill owner or operator shall calculate the NMOC emission rate using either Equation No. 1 or Equation No. 2 (60.754(a)(1)(i) and (ii)). Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in Equation No. 1, for part of the life of the landfill and the



SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

actual year-to-year solid waste acceptance rate is unknown, as specified in Equation No. 2, for part of the life of the landfill. The values to be used in this equation is 0.05 per year for k , 170 cm/Mg for L_0 , and 4,000 ppmv as hexane for the C_{NMOC} . For landfills located in geographical areas with a 30 year annual average precipitation of less than 25", as measured at the nearest representative official meteorological site, the k value to be used is 0.02 per year.

Equation No. 1. The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^n 2kL_0M_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9})$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, Mg/year

K = methane generation rate constant, year⁻¹

L_0 = methane generation potential, cm/Mg solid waste

M_i = mass of solid waste in the i^{th} section, megagrams

t_i = age of the i^{th} section, years

C_{NMOC} = concentration of NMOC, ppmv as hexane

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained.

Equation No. 2. The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_0R(e^{-kc} - e^{-kt})C_{NMOC}(3.6 \times 10^{-9})$$

Where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

L_0 = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year⁻¹

t = age of landfill, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

c = time since closure, years; for active landfill $c=0$ and $e^{-kc}=1$

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R , if documentation of the nature and amount of such wastes is maintained.

- b. Submit an annual emission report to the Department, except as provided Condition A.24. (§60.757(b)(1)(ii)); and
- c. Recalculate the NMOC emission rate annually using the equation in Condition A.25.a. above (§60.754(a)(1)) until such time as the calculated NMOC emission rate is equal to or greater than 50 Mg/year, or the landfill is closed.

{Permitting Note: Tier II testing was conducted in May and June 2004, which resulted in NMOC concentration of 590.4 ppmv.} [Rule 62-204.800(8)(b)76, F.A.C.; 40 CFR 60.752(b); and, 40 CFR 60.754(a)(1)(i)]

A.24. NMOC Annual Report. If the estimated NMOC emission rate as reported in the annual report is less than 50 Mg/year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Department. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Department. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate. [62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.757(b)(ii)]

- A.25. Collection and Control System Removal Determination.** After the installation of a collection and control system in compliance with 40 CFR 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in 40 CFR 60.752(b)(2)(v), using the following equation:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$$

where,

M_{NMOC} = mass emission rate of NMOC, Mg/year

Q_{LFG} = flow rate of landfill gas (LFG), cm³/minute

C_{NMOC} = NMOC concentration, ppmv as hexane

- The flow rate of landfill gas, Q_{LFG} , shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of Section 4 of Method 2E of Appendix A of 40 CFR 60.
- The average NMOC concentration, C_{NMOC} , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of Appendix A of 40 CFR 60. If using Method 18 of Appendix A of 40 CFR 60, the minimum list of compounds to be tested shall be those published in the most recent AP-42. The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The owner or operator shall divide the NMOC concentration from Method 25C of Appendix A of 40 CFR 60 by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.
- The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Department.

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.754(b)]

Recordkeeping and Reporting Requirements

- A.26. Reporting Schedule.** The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Conditions
Equipment Removal Report	30 days prior to removal or cessation of operation	A.28
Collection and Control System Reports	Initially and every 6 months thereafter	A.29

[Rule 62-213.440(1)(b), F.A.C.]

- A.27. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]
- A.28. Equipment Removal Report.** The owner or operator of a controlled landfill shall submit an equipment removal report to the Department 30 days prior to removal or cessation of operation of the control equipment.
- The equipment removal report shall contain all of the following items:
 - (1) A copy of the closure report submitted in accordance with Condition A.36;
 - (2) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

(3) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 Mg or greater of NMOC/year.

b. The Department may request such additional information as may be necessary to verify that all of the conditions for removal in Condition A.34 have been met.

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.757(e)]

- A.29. Collection and Control System Reports.** The owner or operator seeking to comply with 40 CFR 60.752(b)(2) using an active collection system designed in accordance with 40 CFR 60.752(b)(2)(ii) shall submit to the Department semi-annual reports of the following recorded information. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR 60.758(c).
- Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a)-(d).
 - Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under 40 CFR 60.756.
 - Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.
 - All periods when the collection system was not operating in excess of 5 days.
 - The location of each exceedance of the 500 ppm methane concentration as provided in 40 CFR 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.
 - The date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 60.755(a)(3), (b), and (c)(4).

[Rule 62-204.800(8)(b)76 and (11)(b)59, F.A.C.; 40 CFR 60.757(f); and, 40. CFR 63.1980(a)]

- A.30. Excavating Asbestos Containing Material.** Notify the Department in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site under this section, and follow the procedures specified in the notification. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Department at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

- Scheduled starting and completion dates.
- Reason for disturbing the waste.
- Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Department may require changes in the emission control procedures to be used.
- Location of any temporary storage site and the final disposal site.

[Rule 62-204.800(10)(b)8, F.A.C.; 40 CFR 61.151(d)]

A.31. Landfill Records.

- Except as provided in 40 CFR 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of 40 CFR 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered 40 CFR 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
- Control Equipment Records.** Except as provided in 40 CFR 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the following data as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.
 - Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.752(b)(2)(ii):

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

- (a) The maximum expected gas generation flow rate as calculated in §60.755(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Department.
- (b) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.759(a)(1).
- c. *Collection System Records.* Except as provided in §60.752(b)(2)(i)(B), each owner or operator subject to the provisions of NSPS Subpart WWW shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.
 - (1) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under §60.755(b).
 - (2) Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or non-degradable waste excluded from collection as provided in §60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.759(a)(3)(ii).

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.758(a), (b)(1) and (d)]

A.32. 40 CFR Part 63, Subpart AAAA Records.

- a. Keep records and reports as specified in 40 CFR 60, Subpart WWW, or in the Federal plan, EPA approved State plan or tribal plan that implements 40 CFR 60, Subpart Cc, whichever applies to your landfill, with one exception: You must submit the annual report described in 40 CFR 60.757(f) every 6 months.
 - b. You must also keep records and reports as specified in the general provisions of 40 CFR 60 and 40 CFR 63 as shown in Table 1 of 40 CFR 63.
 - c. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports.
- [Rule 62-204.800(11)(b)59, F.A.C.; and, 40 CFR 63.1980]

A.33. Recordkeeping Requirements.

- a. Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any SSM in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- b. Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

[Rule 62-204.800(4)(a), F.A.C.; and, 40 CFR 60.7]

Landfill Closure Requirements

A.34. Collection and Control System Capping or Removal Requirements. The collection and control system may be capped or removed provided that the following conditions are met:

- a. The landfill shall be a closed landfill as defined in 40 CFR 60.751 of NSPS Subpart WWW. A closure report shall be submitted to the Department as provided in 40 CFR 60.757(d);
- b. The collection and control system shall have been in operation a minimum of 15 years; and
- c. Following the procedures specified in 40 CFR 60.754(b) of NSPS Subpart WWW, the calculated NMOC gas produced by the landfill shall be less than 50 Mg/year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

SECTION III. EMISSION UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.752(b)(2)(v)]

A.35. Landfill Closure. When a MSW landfill subject to NSPS Subpart WWW is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met:

- a. The landfill was never subject to the requirement for a control system under 40 CFR 60.752(b)(2); or
- b. The owner or operator meets the conditions for control system removal specified in 40 CFR 60.752(b)(2)(v).

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.752(d)]

A.36. Landfill Closure Reporting Requirements. A closure report has been submitted to the Department, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4). [Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.757(d)]

A.37. Surface Methane Concentration Monitoring. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. [Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.755(f)]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
002	Landfill Gas Flare (800 scfm blower)

The landfill gas flare is an open "candlestick-type" utility flare, manufactured by Landfill Gas Specialties, Inc. (Model PCF1025110), with a maximum volumetric flow rate of 2,000 scfm. The maximum landfill gas throughput to the flare is limited by an 800 scfm blower. The open flare stack is 0.83 feet in diameter with a height of 27 feet above ground. The flare is designed for an overall 98% destruction efficiency of total hydrocarbons at a design flow with a landfill gas methane content of 40% to 60%. The existing flare is equipped with the following: a set of associated flex couplings and manual valves; 10" all aluminum flame arrestor; automatic propane pilot system; 10" pneumatic fail safe automatic header valve; 36" condensate knockout pot with 20 micron demister; thermal dispersion flow meter and circular chart recorder; Raco Guard-it Autodialer; data logger; and a control rack.

{Permitting Note: These emissions units are regulated under NSPS Subpart A (General Provisions) and NSPS Subpart WWW (Standards of Performance for Municipal Solid Waste Landfills) of 40 CFR 60, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C.}

Essential Potential to Emit (PTE) Parameters

- B.1. Permitted Capacity.** The open "candlestick-type" utility flare shall have a maximum landfill gas flow rate of 800 scfm from the blower. [Rule 62-210.200(PTE), F.A.C.; and, Permit Nos. 0890428-010-AC and 0890428-011-AC]
- B.2. Authorized Fuels.** Only landfill gas and propane (pilot Fuel) shall be fired in the flare. [Rule 62-210.200(PTE), F.A.C.; and, Permit No. 0890428-010-AC]
- B.3. Hours of Operation.** This emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.]

Operation Procedures

- B.4. Operational Standards.**
- Operate the control or treatment system at all times when the collected gas is routed to the system.
 - Flares shall be steam-assisted, air-assisted, or non-assisted.
 - Flares shall be operated with a flame present at all times.
 - Flares shall be operated at all times when emissions may be vented to them.
- [Rule 62-204.800(8), F.A.C.; 40 CFR 60.18; and, 40 CFR 60.753(f)]
- B.5. Heat Content Specifications.**
- Net Heating Value - Flare.** Flares shall be used only with the net heating value of the gas being combusted being 11.2 mega joules/standard cubic meter (MJ/scm) (300 British thermal units/standard cubic feet (Btu/scf)) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated by the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25°C and 760 millimeters (mm) mercury (Hg), but the standard temperature for determining the volume corresponding to one mole is 20°C;

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

$$K = \text{Constant} \left(\frac{1}{1.740 \times 10^{-7}} \right) \left(\frac{\text{g mole}}{\text{ppm}} \right) \left(\frac{\text{MJ}}{\text{scm}} \right) \left(\frac{\text{kcal}}{\text{scm}} \right)$$

where the standard temperature for $\left(\frac{\text{g mole}}{\text{scm}} \right)$ is 20°C

- C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and CO by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in 40 CFR 60.17); and
- H_i = Net heat of combustion of sample component i, kcal/g mole at 25°C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.
- b. *Exit Velocity - Flare.* The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.
- c. The maximum permitted velocity, V_{max} , for flares complying with 40 CFR 60.18 (c)(4)(iii) shall be determined by the following equation:

$$\log_{10}(V_{max}) = (H_T + 28.8)/31.7$$

where,

V_{max} = Maximum permitted velocity, m/sec

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in 40 CFR 60.18 (f)(3).

[Rule 62-204.800(8), F.A.C.; and, 40 CFR 60.18(c)(4) and (f)]

- B.6. Maximum Tip Velocity Specifications. Steam-assisted and non-assisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60(f)(4), less than 18.3 m/sec (60 feet/sec), except as provided:
- Steam-assisted and non-assisted flares designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60(f)(4), equal to or greater than 18.3 m/sec (60 feet/sec) but less than 122 m/sec (400 feet/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf);
 - Steam-assisted and non-assisted flares designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60(f)(4), less than the velocity, V_{max} , as determined by the methods specified in 40 CFR 60(f)(5), and less than 122 m/sec (400 feet/sec) are allowed.
- [Rule 62-204.800(8), F.A.C.; and, 40 CFR 60.18(c)]
- B.7. Air-Assisted Flares. Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max} , as determined by the method specified in 40 CFR 60(f)(6).
[Rule 62-204.800(8), F.A.C.; and, 40 CFR 60.18(c)]
- B.8. Circumvention. The owner or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.; and, Permit No. 0890428-006-AC]

Emission Limitations and StandardsB.9. Visible Emissions.

- Flares shall be designed for, and operated with, no visible emissions as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any 2

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

consecutive hours. [Rule 62-204.800(8), F.A.C.; and, 40 CFR 60.18(c)]

- b. Visible emission from the utility flare shall not exceed 20% opacity. [Permit No. 0890428-010-AC]

Monitoring of Operations

- B.10. Flare Monitoring.** Owners or operators of flares shall monitor these control devices to ensure that the flares are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.
[Rule 62-204.800(8), F.A.C.; and, 40 CFR 60.18(d)]

- B.11. Monitoring of Operations.** Each owner or operator seeking to comply with routing the collected gas to a control system (60.752(b)(2)(iii)) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

- a. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.
- b. A device that records flow to or bypass of the flare. The owner or operator shall either:
 - (1) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or
 - (2) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

{Permitting Note: The flare is equipped with a UV flame detector and is monitored continuously. The flare system automatically shuts down if no flame is present. The unit is not equipped with a bypass system. The gas flow rate to the flare is continuously recorded using a flow meter.}

[Rule 62-204.800(8), F.A.C.; 40 CFR 60.18(f), 40 CFR 60.756(c); and, Permit No. 0890428-006-AC]

Test Methods and Procedures

- B.12. Test Methods.** When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
3C	Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
22	Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.]

- B.13. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

- B.14. Annual Compliance Tests Required.** During each calendar year (January 1st to December 31st), the flare shall be tested to demonstrate compliance with the emissions standards for opacity in accordance with EPA Method 22. The observation period shall be 2-hours. [Rules 62-204.800(8) and 62-297.310(7), F.A.C.; and, 40 CFR 60.18(f)(1)]

- B.15. Test Methods and Procedures for Methane Concentration.** For the performance test required in 40 CFR 60.752(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in 40 CFR 60.18(f)(3)

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and CO is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR 60.18(f)(4).

[Rule 62-204.800(8), F.A.C.; and, 40 CFR 60.754(e)]

Recordkeeping and Reporting Requirements

B.16. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance

Authority:

Report	Reporting Deadline	Related Conditions
Equipment Removal	30 days prior to removal or cessation	B.18
Semi-annual Reports	30 days after the end of the semi-annual period	B.19

[Rule 62-213.440(1)(b), F.A.C.]

B.17. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

B.18. Equipment Removal Reporting Requirement. Each owner or operator of a controlled landfill shall submit an equipment removal report to the Department 30 days prior to removal or cessation of operation of the control equipment.

- a. The equipment removal report shall contain all of the following items:
 - (1) A copy of the closure report submitted in accordance with 40 CFR 60.757(d);
 - (2) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and
 - (3) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 Mg or greater of NMOC per year.
- b. The Department may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 60.752(b)(2)(v) have been met.

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.757(e)]

B.19. Semi-annual Reports. Each owner or operator of a landfill seeking to comply with installing a collection and control system (60.752(b)(2)) using an active collection system designed in accordance with 40 CFR 60.752(b)(2)(ii) shall submit to the Department semi-annual reports of the recorded information in **B.19a through f** below. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR 60.758(c).

- a. Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d).
- b. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under 40 CFR 60.756.
- c. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.
- d. All periods when the collection system was not operating in excess of 5 days.
- e. The location of each exceedance of the 500 ppm methane concentration as provided in 40 CFR 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.
- f. The date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 60.755(a)(3), (b), and (c)(4).

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.757(f)]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

B.20. Flare Records. Except as provided in 40 CFR 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the following data as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

- a. Where an owner or operator subject to the provisions of NSPS Subpart WWW seeks to demonstrate compliance with 40 CFR 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.758(b)(2)]

B.21. Operation Parameter Records. Except as provided in 40 CFR 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of NSPS Subpart WWW shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 40 CFR 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

- a. Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 40 CFR 60.756.
- b. Each owner or operator seeking to comply with the provisions of this subpart by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under 40 CFR 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

[Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.758(c)]

B.22. Exceedance Records. Except as provided in 40 CFR 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of NSPS Subpart WWW shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 40 CFR 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. [Rule 62-204.800(8)(b)76, F.A.C.; and, 40 CFR 60.758(e)]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 003

The specific conditions in this section apply to the following emissions unit:

EU No.	Emission Unit Description
003	East Side Emergency Diesel Generator (40.2 HP)

This emissions unit is a stationary compressions ignition (CI) reciprocating internal combustion engine (RICE) that has a maximum engine rating of 40.2 brake-horsepower (bhp) at 100% load. The electrical generator has a nominal power rating of 30 kilowatt (kW). This emergency generator is located on the east side of the landfill.

The following table provides important details for this engine:

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
East Side Emergency Diesel Engine	40 (30 kW)	01/2012	2012	1	Caterpillar	D30-85

{Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition RICE, adopted in Rules 62.204.800(11)(b) & (8)(b), F.A.C., respectively. This RICE is not a fire pump. This is a "new" stationary emergency CI RICE with a displacement of less than 10 liters per cylinder, located at an area source of HAP, that has been modified, reconstructed or commenced construction on or after 7/11/2005, and that has a post-2007 model year. In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII, satisfies compliance with the requirements of Subpart ZZZZ.}

Essential Potential to Emit (PTE) Parameters

C.1. Authorized Fuel. This Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

- Sulfur Content.** The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra-low sulfur) for non-road fuel.
- Cetane and Aromatic.** The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
- Marking Provisions.** The diesel fuel fired shall be free of marker solvent yellow 124 until November 30, 2014. After December 1, 2014, there are no requirements or restrictions on the use of marker solvent yellow 124.
- Use of Existing Fuel.** Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[40 CFR 60.4207(b), 80.510(c), 80.510(f)(2) & 80.510(f)(7)]

C.2. Hours of Operation.

- Emergency Situations.** There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 60.4211(f)(1)]
- Other Situations.** You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs C.2.b.(1) through (3) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph C.2.c. of this section counts as part of the 100 hours per calendar year allowed by this paragraph C.2.b.
 - Maintenance and Testing.** Each RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 003

- that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours/year. [40 CFR 60.4211(f)(2)(i)]
- (2) **Emergency Demand Response.** Each RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 60.4211(f)(2)(ii)]
- (3) **Voltage or Frequency Deviations.** Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency. [40 CFR 60.4211(f)(2)(iii)]
- c. **Non-emergency Situations.** These RICE may be operated for up to 50 hours per calendar year in nonemergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph b., above. The 50 hours/year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4211(f)(3)]
- C.3. Operation and Maintenance.** The owner or operator must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in Conditions C.4. through C.6. over the entire life of the engine. [40 CFR 60.4206, 4211(a)(1), (2) & (3)]

Emissions Standards

- C.4. NO_x + NMHC Emissions.** Emissions of Nitrogen oxide (NO_x) plus non-methane hydrocarbons (NMHC) shall not exceed 7.5 grams per kilowatt hour (g/kW-hr) (5.6 grams per horsepower hour (g/HP-hr)). [40 CFR 60.4205(b) (Table 2) & 89.112 (Table 1)]
- C.5. CO Emissions.** CO emissions shall not exceed 5.5 g/kW-hr (4.1 g/HP-hr). [40 CFR 60.4205(b) (Table 2) & 89.112 (Table 1)]
- C.6. PM Emissions.**
- PM emissions shall not exceed 0.6 g/kW-hr (0.44 g/HP-hr). [40 CFR 60.4205(b) & 89.112 (Table 1)]
 - PM emissions shall not exceed 0.3 g/kW-hr (0.22 g/HP-hr). [40 CFR 60.4205(b) & Table 2]

Testing and Compliance Requirements

- C.7. Engine Certification Requirements.** The owner or operator must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in Condition C.8. [40 CFR 60.4211(c)]
- C.8. Compliance Requirements Due to Loss of Certification.** If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 003

manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. [40 CFR 60.4211(g)(3)]

- C.9. Testing Requirements.** In the event performance tests are required pursuant to Condition C.8., the following requirements shall be met:
- Testing Procedures.** The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F. [Link to Subpart F](#)
 - NTE Standards.** Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in Conditions C.4. through C.6., determined from the following equation:

$$\text{NTE Requirement For Each Pollutant} = (1.25) \times (\text{STD}) \quad (\text{Eq. 1})$$

[40 CFR 60.4212(a) & (c)]

- C.10. Common Testing Requirements.** Unless otherwise specified and if required, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Monitoring Requirements

- C.11. Hour Meter.** The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

Records and Reports

- C.12. Hours of Operation Records.** The owner or operator must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]
- C.13. Maintenance Records.** To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to Condition C.8., the owner or operator must keep the following records:
- Engine manufacturer documentation and certification indicating compliance with the standards.
 - A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
 - A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.
- [Rule 62-213.440(1), F.A.C.]
- C.14. Testing Notification.** At such time that the requirements of Condition C.8. become applicable, the owner or operator shall notify the compliance authority of the date by which the initial compliance test must be performed. [Rule 62-213.440(1)]
- C.15. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

General Provisions

- C.16. 40 CFR 60 Subpart A, General Provisions.** The owner or operator shall comply with the applicable requirements of 40 CFR 60 Subpart A, General Provisions, as specified below. [Link to 40 CFR 60, Subpart A - General Provisions.](#)

General Provisions Citation	Subject of Citation
§ 60.1	General applicability of the General Provisions
§ 60.2	Definitions (see also § 60.4219)

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 003

General Provisions Citation	Subject of Citation
§ 60.3	Units and abbreviations
§ 60.4	Address
§ 60.5	Determination of construction or modification
§ 60.6	Review of plans
§ 60.9	Availability of information
§ 60.10	State Authority
§ 60.12	Circumvention
§ 60.14	Modification
§ 60.15	Reconstruction
§ 60.16	Priority list
§ 60.17	Incorporations by reference
§ 60.19	General notification and reporting requirements

[40 CFR 60.4218]

Table of Contents

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 004 and 007

The specific conditions in this section apply to the following emissions units:

EU No.	Emission Unit Description
004	Up Front Emergency Diesel Generator (67.1 HP)
007	West Side Emergency Diesel Generator (50 HP)

These emissions units are stationary CI RICE that have a maximum engine rating of 67.1 bhp and 50 bhp at 100% load. The electrical generators have a nominal power rating of 50 kW and 37 kW, respectively. The Up Front emergency generator is located in the front of the landfill, and the West Side emergency generator is located on the west side of the landfill.

The following table provides important details for these engines:

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Up Front Emergency Diesel Engine	67.1 (50 kW)	01/2009	2009	1	Caterpillar	D6-6
West Side Emergency Diesel Engine	50 (37 kW)	3/2015	2015	0.725	John Deere	3029TFG89

{Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition RICE, adopted in Rules 62.204.800(11)(b) & (8)(b), F.A.C., respectively. This RICE is not a fire pump. This is a "new" stationary emergency CI RICE with a displacement of less than 10 liters per cylinder, located at an area source of HAP, that has been modified, reconstructed or commenced construction on or after 7/11/2005, and that has a post-2007 model year. In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII, satisfies compliance with the requirements of Subpart ZZZZ.}

Essential Potential to Emit (PTE) Parameters

D.1. Authorized Fuel. This Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

- Sulfur Content.** The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra-low sulfur) for non-road fuel.
- Cetane and Aromatic.** The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
- Marking Provisions.** The diesel fuel fired shall be free of marker solvent yellow 124 until November 30, 2014. After December 1, 2014, there are no requirements or restrictions on the use of marker solvent yellow 124.
- Use of Existing Fuel.** Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[40 CFR 60.4207(b), 80.510(c), 80.510(f)(2) & 80.510(f)(7)]

D.2. Hours of Operation.

- Emergency Situations.** There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 60.4211(f)(1)]
- Other Situations.** You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs D.2.b.(1) through (3) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph D.2.c. of this section counts as part of the 100 hours per calendar year allowed by this paragraph D.2.b.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 004 and 007

- (1) **Maintenance and Testing.** Each RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours/year. [40 CFR 60.4211(f)(2)(i)]
 - (2) **Emergency Demand Response.** Each RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 60.4211(f)(2)(ii)]
 - (3) **Voltage or Frequency Deviations.** Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency. [40 CFR 60.4211(f)(2)(iii)]
 - c. **Non-emergency Situations.** These RICE may be operated for up to 50 hours per calendar year in nonemergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph b., above. The 50 hours/year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4211(f)(3)]
- D.3. Operation and Maintenance.** The owner or operator must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in Conditions D.4. through D.6. over the entire life of the engine. [40 CFR 60.4206, 4211(a)(1), (2) & (3)]

Emissions Standards

- D.4. NO_x + NMHC Emissions.** Emissions of NO_x plus NMHC shall not exceed 4.7 g/kW-hr (3.5 grams per horsepower hour (g/HP-hr)). [40 CFR 60.4205(b) & 89.112 (Table 1)]
- D.5. CO Emissions.** CO emissions shall not exceed 5.0 g/kW-hr (3.7 g/HP-hr). [40 CFR 60.4205(b) & 89.112 (Table 1)]
- D.6. PM Emissions.** PM emissions shall not exceed 0.4 g/kW-hr (0.3 g/HP-hr). [40 CFR 60.4205(b) & 89.112 (Table 1)]

Testing and Compliance Requirements

- D.7. Engine Certification Requirements.** The owner or operator must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in Condition D.8. [40 CFR 60.4211(c)]
- D.8. Compliance Requirements Due to Loss of Certification.** If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 004 and 007

In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. [40 CFR 60.4211(g)(3)]

- D.9. Testing Requirements.** In the event performance tests are required pursuant to Condition D.8., the following requirements shall be met:
- a. Testing Procedures. The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F. Link to Subpart F
 - b. NTE Standards. Exhaust emissions from these engines must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in Conditions D.4. through D.6., determined from the following equation:

$$\text{NTE Requirement For Each Pollutant} = (1.25) \times (\text{STD}) \text{ (Eq. 1)}$$

[40 CFR 60.4212(a) & (c)]

- D.10. Common Testing Requirements.** Unless otherwise specified and if required, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Monitoring Requirements

- D.11. Hour Meter.** The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

Records and Reports

- D.12. Hours of Operation Records.** The owner or operator must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]
- D.13. Maintenance Records.** To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to Condition D.8., the owner or operator must keep the following records:
- a. Engine manufacturer documentation and certification indicating compliance with the standards.
 - b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
 - c. A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.
- [Rule 62-213.440(1), F.A.C.]
- D.14. Testing Notification.** At such time that the requirements of Condition D.8. become applicable, the owner or operator shall notify the compliance authority of the date by which the initial compliance test must be performed. [Rule 62-213.440(1)]

- D.15. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

General Provisions

- D.16. 40 CFR 60 Subpart A, General Provisions.** The owner or operator shall comply with the applicable requirements of 40 CFR 60 Subpart A, General Provisions, as specified below. Link to 40 CFR 60, Subpart A - General Provisions.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 004 and 007

General Provisions Citation	Subject of Citation
§ 60.1	General applicability of the General Provisions
§ 60.2	Definitions (see also § 60.4219)
§ 60.3	Units and abbreviations
§ 60.4	Address
§ 60.5	Determination of construction or modification
§ 60.6	Review of plans
§ 60.9	Availability of information
§ 60.10	State Authority
§ 60.12	Circumvention
§ 60.14	Modification
§ 60.15	Reconstruction
§ 60.16	Priority list
§ 60.17	Incorporations by reference
§ 60.19	General notification and reporting requirements

[40 CFR 60.4218]

Table of Contents

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit 005

The specific conditions in this section apply to the following emissions unit:

EU No.	Emission Unit Description
005	Flare Emergency Diesel Generator (167.6 HP)

This emissions unit is a stationary CI RICE that has a maximum engine rating of 167.6 bhp at 100% load. The electrical generator has a nominal power rating of 125 kW. This emergency generator is located at the flare station.

The following table provides important details for this engine:

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Flare Emergency Diesel Engine	167.6 (125 kW)	01/2012	2012	1	Perkins	PJ38420

{Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition RICE, adopted in Rules 62.204.800(11)(b) & (8)(b), F.A.C., respectively. This RICE is not a fire pump. This is a "new" stationary emergency CI RICE with a displacement of less than 10 liters per cylinder, located at an area source of HAP, that has been modified, reconstructed or commenced construction on or after 7/11/2005, and that has a post-2007 model year. In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII, satisfies compliance with the requirements of Subpart ZZZZ.}

Essential Potential to Emit (PTE) Parameters

E.1. Authorized Fuel. This Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

- Sulfur Content.** The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra-low sulfur) for non-road fuel.
- Cetane and Aromatic.** The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
- Marking Provisions.** The diesel fuel fired shall be free of marker solvent yellow 124 until November 30, 2014. After December 1, 2014, there are no requirements or restrictions on the use of marker solvent yellow 124.
- Use of Existing Fuel.** Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[40 CFR 60.4207(b), 80.510(c), 80.510(f)(2) & 80.510(f)(7)]

E.2. Hours of Operation.

- Emergency Situations.** There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 60.4211(f)(1)]
- Other Situations.** You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs E.2.b.(1) through (3) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph E.2.c. of this section counts as part of the 100 hours per calendar year allowed by this paragraph E.2.b.
 - Maintenance and Testing.** Each RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit 005

- that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours/year. [40 CFR 60.4211(f)(2)(i)]
- (2) **Emergency Demand Response.** Each RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 60.4211(f)(2)(ii)]
 - (3) **Voltage or Frequency Deviations.** Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency. [40 CFR 60.4211(f)(2)(iii)]
- c. **Non-emergency Situations.** These RICE may be operated for up to 50 hours per calendar year in nonemergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph b., above. The 50 hours/year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4211(f)(3)]
- E.3. Operation and Maintenance.** The owner or operator must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in Conditions E.4. through E.6. over the entire life of the engine. [40 CFR 60.4206, 4211(a)(1), (2) & (3)]

Emissions Standards

- E.4. NO_x + NMHC Emissions.** Emissions of NO_x plus NMHC shall not exceed 4.0 g/kW-hr (3.0 g/HP-hr). [40 CFR 60.4205(b) & 89.112 (Table 1)]
- E.5. CO Emissions.** CO emissions shall not exceed 5.0 g/kW-hr (3.7 g/HP-hr). [40 CFR 60.4205(b) & 89.112 (Table 1)]
- E.6. PM Emissions.** PM emissions shall not exceed 0.3 g/kW-hr (0.22 g/HP-hr). [40 CFR 60.4205(b) & 89.112 (Table 1)]

Testing and Compliance Requirements

- E.7. Engine Certification Requirements.** The owner or operator must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in Condition E.8. [40 CFR 60.4211(c)]
- E.8. Compliance Requirements Due to Loss of Certification.** If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit 005

years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.
[40 CFR 60.4211(g)(3)]

- E.9. Testing Requirements.** In the event performance tests are required pursuant to Condition E.8., the following requirements shall be met:
- Testing Procedures.** The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F. Link to Subpart F
 - NTE Standards.** Exhaust emissions from these engines must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in Conditions E.4. through E.6., determined from the following equation:

$$\text{NTE Requirement For Each Pollutant} = (1.25) \times (\text{STD}) \text{ (Eq. 1)}$$

[40 CFR 60.4212(a) & (c)]

- E.10. Common Testing Requirements.** Unless otherwise specified and if required, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Monitoring Requirements

- E.11. Hour Meter.** The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

Records and Reports

- E.12. Hours of Operation Records.** The owner or operator must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

- E.13. Maintenance Records.** To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to Condition E.8., the owner or operator must keep the following records:
- Engine manufacturer documentation and certification indicating compliance with the standards.
 - A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
 - A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.
- [Rule 62-213.440(1), F.A.C.]

- E.14. Testing Notification.** At such time that the requirements of Condition E.8. become applicable, the owner or operator shall notify the compliance authority of the date by which the initial compliance test must be performed. [Rule 62-213.440(1)]

- E.15. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

General Provisions

- E.16. 40 CFR 60 Subpart A, General Provisions.** The owner or operator shall comply with the applicable requirements of 40 CFR 60 Subpart A, General Provisions, as specified below. Link to 40 CFR 60, Subpart A - General Provisions.

General Provisions Citation	Subject of Citation
§ 60.1	General applicability of the General Provisions
§ 60.2	Definitions (see also § 60.4219)
§ 60.3	Units and abbreviations

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit 005

General Provisions Citation	Subject of Citation
§ 60.4	Address
§ 60.5	Determination of construction or modification
§ 60.6	Review of plans
§ 60.9	Availability of information
§ 60.10	State Authority
§ 60.12	Circumvention
§ 60.14	Modification
§ 60.15	Reconstruction
§ 60.16	Priority list
§ 60.17	Incorporations by reference
§ 60.19	General notification and reporting requirements

[40 CFR 60.4218]

Table of Contents

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Unit 006

The specific conditions in this section apply to the following emissions unit:

EU No.	Emission Unit Description
006	Leachate Tanks Emergency Diesel Generator (174.3 HP)

This emissions unit is a stationary CI RICE that has a maximum engine rating of 174.3 bhp at 100% load. The electrical generator has a nominal power rating of 130 kW. This emergency generator is located at the leachate tanks.

The following table provides important details for this engine:

Engine Identification	Engine Brake HP	Date of Construction	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Leachate Tanks Emergency Diesel Engine	174.3 (130 kW)	01/2014	2014	1	John Deere	JD4045TF280

{Permitting Note: This CI RICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE and 40 CFR 60, Subpart IIII, NSPS for Stationary Compression Ignition RICE, adopted in Rules 62.204.800(11)(b) & (8)(b), F.A.C., respectively. This RICE is not a fire pump. This is a "new" stationary emergency CI RICE with a displacement of less than 10 liters per cylinder, located at an area source of HAP, that has been modified, reconstructed or commenced construction on or after 7/11/2005, and that has a post-2007 model year. In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII, satisfies compliance with the requirements of Subpart ZZZZ.}

Essential Potential to Emit (PTE) Parameters

F.1. Authorized Fuel. This Stationary RICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

- Sulfur Content.** The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra-low sulfur) for non-road fuel.
- Cetane and Aromatic.** The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
- Marking Provisions.** The diesel fuel fired shall be free of marker solvent yellow 124 until November 30, 2014. After December 1, 2014, there are no requirements or restrictions on the use of marker solvent yellow 124.
- Use of Existing Fuel.** Any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[40 CFR 60.4207(b), 80.510(c), 80.510(f)(2) & 80.510(f)(7)]

F.1. Hours of Operation.

- Emergency Situations.** There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 60.4211(f)(1)]
- Other Situations.** You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs F.2.b.(1) through (3) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph F.2.c. of this section counts as part of the 100 hours per calendar year allowed by this paragraph F.2.b.
 - Maintenance and Testing.** Each RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours/year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Unit 006

that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours/year. [40 CFR 60.4211(f)(2)(i)]

- (2) **Emergency Demand Response.** Each RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 60.4211(f)(2)(ii)]

- (3) **Voltage or Frequency Deviations.** Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency. [40 CFR 60.4211(f)(2)(iii)]

- c. **Non-emergency Situations.** These RICE may be operated for up to 50 hours per calendar year in nonemergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph b., above. The 50 hours/year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4211(f)(3)]

- F.2. Operation and Maintenance.** The owner or operator must operate and maintain the stationary CI internal combustion engines according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. This RICE must be maintained and operated to meet the emissions limits in Conditions F.4. through F.6. over the entire life of the engine. [40 CFR 60.4206, 4211(a)(1), (2) & (3)]

Emissions Standards

- F.3. NO_x + NMHC Emissions.** Emissions of NO_x plus NMHC shall not exceed 4.0 g/kW-hr (3.0 g/HP-hr). [40 CFR 60.4205(b) & 89.112 (Table 1)]

- F.4. CO Emissions.** CO emissions shall not exceed 3.5 g/kW-hr (2.6 g/HP-hr). [40 CFR 60.4205(b) & 89.112 (Table 1)]

- F.5. PM Emissions.** PM emissions shall not exceed 0.2 g/kW-hr (0.15 g/HP-hr). [40 CFR 60.4205(b) & 89.112 (Table 1)]

Testing and Compliance Requirements

- F.6. Engine Certification Requirements.** The owner or operator must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in Condition F.8. [40 CFR 60.4211(c)]

- F.7. Compliance Requirements Due to Loss of Certification.** If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3

ABR

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Unit 006

years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. [40 CFR 60.4211(g)(3)]

- F.8. Testing Requirements.** In the event performance tests are required pursuant to Condition F.8., the following requirements shall be met:
- Testing Procedures.** The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F. [Link to Subpart F](#)
 - NTE Standards.** Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in Conditions F.4. through F.6., determined from the following equation:

$$\text{NTE Requirement For Each Pollutant} = (1.25) \times (\text{STD}) \text{ (Eq. 1)}$$

[40 CFR 60.4212(a) & (c)]

- F.9. Common Testing Requirements.** Unless otherwise specified and if required, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Monitoring Requirements

- F.10. Hour Meter.** The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

Records and Reports

- F.11. Hours of Operation Records.** The owner or operator must keep records of the operation of the engine in emergency and non-emergency services that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

- F.12. Maintenance Records.** To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to Condition F.8., the owner or operator must keep the following records:
- Engine manufacturer documentation and certification indicating compliance with the standards.
 - A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
 - A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.
- [Rule 62-213.440(1), F.A.C.]

- F.13. Testing Notification.** At such time that the requirements of Condition F.8. become applicable, the owner or operator shall notify the compliance authority of the date by which the initial compliance test must be performed. [Rule 62-213.440(1)]

- F.14. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

General Provisions

- F.15. 40 CFR 60 Subpart A, General Provisions.** The owner or operator shall comply with the applicable requirements of 40 CFR 60 Subpart A, General Provisions, as specified below. [Link to 40 CFR 60, Subpart A - General Provisions.](#)

General Provisions Citation	Subject of Citation
§ 60.1	General applicability of the General Provisions
§ 60.2	Definitions (see also § 60.4219)
§ 60.3	Units and abbreviations

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Unit 006

General Provisions Citation	Subject of Citation
§ 60.4	Address
§ 60.5	Determination of construction or modification
§ 60.6	Review of plans
§ 60.9	Availability of information
§ 60.10	State Authority
§ 60.12	Circumvention
§ 60.14	Modification
§ 60.15	Reconstruction
§ 60.16	Priority list
§ 60.17	Incorporations by reference
§ 60.19	General notification and reporting requirements

[40 CFR 60.4218]

Table of Contents

Initials SAC



Florida Department of Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

March 11, 2016

NOTICE OF PERMIT ISSUANCE

In the Matter of an
Application for a Permit by:

Nassau County Board of County Commissioners
96135 Nassau Place, Suite 1
Yulee, Florida 32097
sherring@nassaucountyfl.com

WACS Facility ID: 86315
DEP File No.: 303416-002
Nassau County Waste Tire Collection Center
Nassau County – Solid Waste

Attention: Mr. Herring:

Enclosed is the State of Florida Department of Environmental Protection (Department or DEP) Permit Number 303416-002-WT, to continue to operate the Nassau County Waste Tire Collection Center. This Permit is issued pursuant to Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-701, and 62-711.

This Permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed or unless a request for an extension of time in which to file a petition is filed within the time specified for filing a petition, and conforms to F.A.C. Rule 62-103.070. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of DEP at 3900 Commonwealth Boulevard MS #35, Tallahassee, Florida 32399-3000, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

Initials

Nassau County Waste Tire Collection Center
Notice of Permit Issuance
Page 2 of 3

The Petition shall contain the following information:

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, DEP's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of DEP with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of DEP. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to F.A.C. Rule 28-5.207.

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

Initials

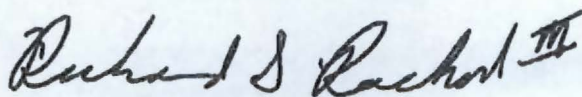
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Nassau County Waste Tire Collection Center
Notice of Permit Issuance
Page 3 of 3

Mediation is not available for this permit renewal.

Executed in Duval County, Florida.

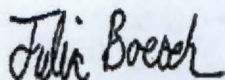
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Richard S. Rachal III, P.G.
Permitting Program Administrator
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

FILING AND ACKNOWLEDGEMENT/CERTIFICATE OF SERVICE

Filed on this date pursuant to § 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged. The undersigned hereby certifies that this Permit and all copies were sent before the close of business on March 11, 2016 to the listed persons.



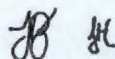
Clerk

March 11, 2016

Date

Enclosure/Attachment

Jb/Jh



Electronic copies furnished to:

Chairman Walter J. Boatwright, Nassau BOCC - wboatright@nassaucountyfl.com
Brian Durden, DEP - Brian.durden@dep.state.fl.us

Initials





Florida Department of Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

Permit Issued to:

Nassau County Board of County Commissioners
96135 Nassau Place, Suite 1
Yulee, Florida 32097
Telephone No.: 904.530.6225

Facility WACS ID No.: 86315
Nassau County Waste Tire Collection Center
Facility Address: 46026 Landfill Road
Callahan, Florida 32011, Nassau County

Contact Person: J. Scott Herring
Nassau County Public Works Director
96135 Nassau Place, Suite 1
Yulee, Florida 32097
sherring@nassaucountyfl.com
Telephone No.: 904.530.6225

Solid Waste Operation Permit Renewal for the Waste Tire Collection Center
Permit No.: 303416-002-WT

Permit Issued: March 11, 2016
Permit Renewal Application Due Date: date 61 days prior to expiration
Permit Expires: March 11, 2026

Permitting Authority
Florida Department of Environmental Protection - Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256
Phone: 904.256.1700
Fax: 904.256.1587

www.dep.state.fl.us

Initials

SHC

PERMITTEE NAME: Nassau County Board of County Commissioners PERMIT No.: 303416-002-WT
FACILITY NAME: Nassau County Waste Tire Collection Center WACS Facility ID: 86315

SECTION 1 - SUMMARY INFORMATION

A. Authorization

The permittee is hereby authorized to continue to operate the existing waste tire collection center, as described below, and in accordance with the specific and general conditions of this permit and any documents attached to this permit or specifically referenced in this permit and made a part of this permit. While, the waste tire collection center (WTCC) is co-located at the Nassau County Convenience Recycle Center (NCCRC), this permit is just for the authorization of the WTCC itself. The NCCRC on condition it continues to meet the exemption requirements of Rule 62-701.710(1)(c), F.A.C., is exempt from permitting under Chapter 62-701, F.A.C.

This solid waste operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-701, and 62-711.

This permit does not relieve the permittee from complying with any other appropriate local zoning or land use ordinances or with any other laws, rules or ordinances. Receipt of any permits from the Department does not relieve the applicant from obtaining other federal, state, and local permits and/or modifications required by law, including those from other Sections within the Department or of the Water Management District.

B. Facility Location

The Nassau County Waste Tire Collection Center (WTCC or Facility) is co-located at the Nassau County Convenience Recycle Center (NCCRC). The WTCC entrance is located at 46026 Landfill Road, Callahan, Florida 32011, Nassau County. The Facility's latitude and longitude coordinates are: 30°36'31.96" and 81°50'13.09", respectively.

C. Facility Description

This permit renewal is to continue to operate and maintain the Nassau County Waste Tire Collection Center (WTCC or Facility). Waste tires are to only be placed and stored within the semi-trailer located on the existing pad that has existing berms along the north and south sides of it, until their removal from the Facility. Tires are removed from the facility by a vendor/person, who is either registered or permitted to haul the tires, and are removed to a facility permitted/authorized to accept them.

D. Appendices Made Part of This Permit

APPENDIX 1 - General Conditions

APPENDIX 2 - Approved Application Documents

Initials

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PERMITTEE NAME: Nassau County Board of County Commissioners PERMIT No.: 303416-002-WT
FACILITY NAME: Nassau County Waste Tire Collection Center WACS Facility ID: 86315

SECTION 2 - SPECIFIC CONDITIONS

A. Administrative Requirements

1. Documents Part of This Permit. The permit application as revised in final form replaced or amended in response to the Department's Request(s) for Additional Information are contained in the Department's files and are made a part of this permit. Those documents that make up the complete permit application are listed in APPENDIX 2 to this permit.
2. Permit Modification. Any change to construction, operation, monitoring, or closure requirements of this permit may require a modification to this permit, in accordance with the provisions of Rule 62-701.320(4), F.A.C.
3. Permit Renewal. In order to ensure uninterrupted operation of this facility, a timely and sufficient permit renewal application must be submitted to the Department in accordance with Rule 62-701.320(10), F.A.C. A permit application submitted at least 61 days prior to the expiration of this permit is considered timely and sufficient.
4. Transfer of Permit or Name Change. In accordance with Rule 62-701.320(11), F.A.C., the Department must be notified by submitting Form 62-701.900(8) within 30 days: (a) of any sale or conveyance of the facility; (b) if a new or different person takes ownership or control of the facility; or (c) if the facility name or permittee's legal name is changed.

B. Operation Requirements

1. General Operating Requirements. The Permittee shall operate the waste tire collection center (WTCC) in accordance with the approved Emergency Preparedness Manual & General Operating Procedures for Waste Tire Handling plan (provided in Document 1 and listed in Appendix 2 to this permit). The Department shall be notified before any changes, other than minor deviations, to the approved Operation Plan are implemented in order to determine whether a permit modification is required.
2. Authorized Waste and Material Types. The WTCC is authorized to manage only waste tires as defined in Rule 62-701.200, F.A.C., and which have not been sized reduced or processed into chips.
3. Unauthorized Waste Types and Waste Activities. The WTCC is not authorized to accept or manage any waste types not listed in C.2. above. In addition, the Facility is not authorized to process tires at the site, nor to accept or manage tires which have been sized reduced or processed into chips.
4. Maximum Number of Tires. The maximum number of tires stored at the Facility shall be no more than 1,500 tires on any given day. The operator of the WTCC shall keep and

Initials 

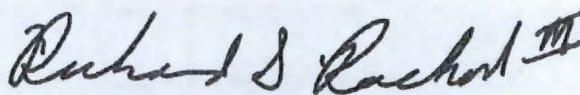
PERMITTEE NAME: Nassau County Board of County Commissioners PERMIT No.: 303416-002-WT
FACILITY NAME: Nassau County Waste Tire Collection Center WACS Facility ID: 86315

maintain records of the quantity of waste tires received at the site, stored at the site, and shipped from the site.

5. Facility Capacity and Removal. If the Facility has reached its permitted capacity for storage of waste tires, either by number of tires, or by filling up the semi-trailer; whichever occurs first, the permittee shall not accept additional waste tires until sufficient capacity has been restored.
6. Tire Storage. Tires shall only be placed and stored within the semi-trailer, out of the rain, until their removal from the Facility to a facility/site permitted/authorized to accept them. The semi-trailer shall be located on the existing pad, with the existing berms maintained along the north and south sides of the pad, as shown on the 'Exhibit A' figure, provided with Document 1.
7. Fire Lane and Safety. The facility shall maintain a minimum 50-foot wide fire lane around the perimeter of the waste tire storage area. Access to the fire lane for emergency vehicles shall remain unobstructed at all times. A fire safety survey shall be conducted annually pursuant to Rule 62-711.540(1)(d), F.A.C.
8. Emergency Preparedness Manual and Notification of Emergencies. In the event of an emergency at the WTCC (e.g., a fire), the Permittee shall implement the procedures addressed in the approved Emergency Preparedness Manual provided with Document 1, listed in Appendix 2 to this permit, and shall also notify the Department of the event, accordingly.

Executed in Duval County, Florida.

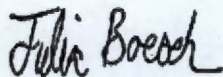
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Richard S. Rachal III, P.G.
Permitting Program Administrator
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256



FILED, on this date, pursuant to Section 120.52, F.S. with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

March 11, 2016
Date

Initials



APPENDIX 1

General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.727, or 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of rights, nor any infringement of federal, State, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - (a) Have access to and copy any records that must be kept under conditions of the permit;

APPENDIX 1

General Conditions

- (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

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

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

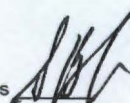
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit or a copy thereof shall be kept at the work site of the permitted activity.
12. The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring

APPENDIX 1

General Conditions

instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

- (c) Records of monitoring information shall include:
1. the date, exact place, and time of sampling or measurements;
 2. the person responsible for performing the sampling or measurements;
 3. the dates analyses were performed;
 4. the person responsible for performing the analyses;
 5. the analytical techniques or methods used;
 6. the results of such analyses.
13. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.



APPENDIX 2

Approved Application Documents

The following Documents were provided with the 2016 permit renewal application file number 303416-002:

Document 1 –West Nassau Waste Tire Collection Center, Permit Renewal Application, including the Emergency Preparedness Manual & General Operating Procedures for Waste Tire Handling plan, dated and partially received March 3, 2016, with the cover letter requesting a 10-year permit and the associated permit processing fee received March 10, 2016.

EXHIBIT "2"**GENERAL INFORMATION AND MINIMUM INSURANCE REQUIREMENTS****COMMERCIAL GENERAL LIABILITY INSURANCE**

The Contractor/Vendor shall purchase and maintain at the Contractor/Vendor's expense Commercial General Liability insurance coverage (ISO or comparable Occurrence Form) for the life of this Contract. Modified Occurrence or Claims Made forms are not acceptable.

The Limits of this insurance shall not be less than the following limits:

Each Occurrence Limit	\$1,000,000
Personal & Advertising Injury Limit	\$1,000,000
Fire Damage Limit (any one fire)	\$ 300,000
Medical Expense Limit (any one person)	\$ 10,000
Products & Completed Operations Aggregate Limit	\$2,000,000
General Aggregate Limit (other than Products & Completed Operations) Applies Per Project	\$2,000,000

General liability coverage shall continue to apply to "bodily injury" and to "property damage" occurring after all work on the Site of the covered operations to be performed by or on behalf of the additional insureds has been completed and shall continue after that portion of "your work" out of which the injury or damage arises has been put to its intended use.

WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE

The Contractor/Vendor shall purchase and maintain at the Contractor/Vendor's expense Workers' Compensation and Employer's Liability insurance coverage for the life of this Contract.

The Limits of this insurance shall not be less than the following limits:

<u>Part One</u> – Workers' Compensation Insurance – Unlimited	
Statutory Benefits as provided in the Florida Statutes and	
<u>Part Two</u> – Employer's Liability Insurance	
Bodily Injury By Accident	\$500,000 Each Accident
Bodily Injury By Disease	\$500,000 Policy Limit
Bodily Injury By Disease	\$500,000 Each Employee

*If leased employees are used, policy must include an Alternate Employer's Endorsement

AUTOMOBILE LIABILITY INSURANCE

The Contractor/Vendor shall purchase and maintain at the Contractor/Vendor's expense Automobile Liability insurance coverage for the life of this Contract.

The Limits of this insurance shall not be less than the following limits:

Combined Single Limit – Each Accident	\$1,000,000
---------------------------------------	-------------

Covered Automobiles shall include any auto owned or operated by the insured Contractor/Vendor, insured Sub-Contractor/Vendor including autos which are leased, hired, rented or borrowed, including autos owned by their employees which are used in connection with the business of the respective Contractor/Vendor or Sub-Contractor/Vendor.

UMBRELLA LIABILITY INSURANCE

The Contractor/Vendor shall purchase and maintain at the Contractor/Vendor's expense Umbrella/Excess Liability (Umbrella Form) insurance coverage for the life of this Contract.

The Limits of this insurance shall not be less than the following limits:

Each Occurrence Limit	\$1,000,000
-----------------------	-------------

Aggregate Limit

\$1,000,000

PROFESSIONAL LIABILITY (ERRORS & OMISSIONS)

This additional coverage will be required for all projects involving consultants, engineering services, architectural or design/build projects, independent testing firms and similar exposures.

The Contractor/Vendor shall purchase and maintain at the Contractor/Vendor's expense Professional Liability insurance coverage for the life of this Contract.

If the contract includes a requirement for Professional Liability or Errors and Omissions insurance, the minimum amount of such insurance shall be as follows:

Each Occurrence/Annual Aggregate – Project Specific Form	\$1,000,000
OR	
Each Occurrence/Annual Aggregate – Non Project Specific Form	\$3,000,000

Design Professional Liability coverage will be provided on an Occurrence Form or a Claims Made Form with a retroactive date to at least the first date of this Agreement. If provided on a Claims Made Form, the coverages must respond to all claims reported within three years following the period for which coverage is required and which would have been covered had the coverage been on an occurrence basis.

ENVIRONMENTAL LIABILITY INSURANCE

This additional coverage will be required by any Contractor performing environmental and/or other investigations involving excavation, drilling, or other site disturbance activities.

The Contractor shall purchase and maintain at the Contractor's expense Environmental Liability insurance (Contractors Pollution Liability) coverage for the life of this Contract.

The Limits of insurance shall not be less than the following limits: \$1,000,000 Each Loss/Aggregate

Such Coverage will include bodily injury, sickness, and disease, mental anguish or shock sustained by any person, including death; property damage including physical injury to destruction of tangible property including resulting loss of use thereof, cleanup costs, and the loss of use of tangible property that has not been physically injured or destroyed; defense including costs charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages; coverage for losses caused by pollution conditions that arises from the operations of the contractor including transportation.

Contractor/Vendor shall require each of his Sub-Contractor/Vendors to likewise purchase and maintain at their expense Commercial General Liability insurance, Workers' Compensation and Employer's Liability coverage, Automobile Liability insurance and Umbrella Liability insurance, Professional Liability, Environmental Liability, insurance coverage (as applicable) meeting the same limit and requirements as the Contractor/Vendors insurance.

Certificates of Insurance acceptable to Nassau County Board of County Commissioners for the Contractor/Vendor's insurance must be received within ten (10) days of Notification of Selection and at time of signing Agreement.

Certificates of Insurance and the insurance policies required for this Agreement shall contain an endorsement that coverage afforded under the policies will not be cancelled or allowed to expire until at least thirty (30) days prior written notice has been given to Nassau County Board of County Commissioners.

Certificates of Insurance and the insurance policies required for this Agreement will include a provision that policies, except Workers' Compensation and Professional Liability, are primary and noncontributory to any insurance maintained by the Contractor/Vendor.

Nassau County Board of County Commissioners must be named as an Additional Insured and endorsed onto the Commercial General Liability (CGL), Auto Liability, Umbrella Liability and Environmental Liability policy (ies). A

copy of the endorsement(s) must be supplied to Nassau County Board of County Commissioners ten (10) days following the execution of the agreement or prior to the first date of services, whichever comes first.

CGL policy Additional Insured Endorsement must include Ongoing and Completed Operations (Form CG2010 11 84 **OR** Form CG2010 04 13 and GC2037 04 13 edition or equivalent). Other Additional Insured forms might be acceptable but only if modified to delete the word "ongoing" and insert the sentence "Operations include ongoing and completed operations".

CGL policy shall not be endorsed with Exclusion - Damage to Work performed by SubContractor/Vendors on Your Behalf (CG2294 or CG2295)

CGL policy shall not be endorsed with Contractual Liability Limitation Endorsement (CG2139) or Amendment of Insured Contract Definition (CG 2426)

CGL policy shall not be endorsed with Exclusion - Damage to Premises Rented to you (CG 2145)

CGL policy shall include broad form contractual liability coverage for the Contractor/Vendors covenants to and indemnification of the Authority under this Contract

Certificates of Insurance and the insurance policies required for this Agreement shall contain a provision under General Liability, Auto Liability, Environmental Liability and Workers' Compensation to include a Waiver of Subrogation clause in favor of Nassau County Board of County Commissioners.

All Certificates of Insurance shall be dated and shall show the name of the insured Contractor/Vendor, the specific job by name and job number, the name of the insurer, the policy number assigned its effective date and its termination date and a list of any exclusionary endorsements.

All Insurers must be authorized to transact insurance business in the State of Florida as provided by Florida Statute 624.09(1) and the most recent Rating Classification/Financial Category of the insurer as published in the latest edition of "Best's Key Rating Guide" (Property-Casualty) must be at least A- or above.

All of the above referenced Insurance coverage is required to remain in force for the duration of this Agreement and for the duration of the warranty period. Accordingly, at the time of submission of final application for payment, Contractor/Vendor shall submit an additional Certificate of Insurance evidencing continuation of such coverage.

If the Contractor/Vendor fails to procure, maintain or pay for the required insurance, Nassau County Board of County Commissioners shall have the right (but not the obligation) to secure same in the name of and for the account of Contractor/Vendor, in which event, Contractor/Vendor shall pay the cost thereof and shall furnish upon demand, all information that may be required to procure such insurance. Nassau County Board of County Commissioners shall have the right to back-charge Contractor/Vendor for the cost of procuring such insurance. The failure of Nassau County Board of County Commissioners to demand certificates of insurance and endorsements evidencing the required insurance or to identify any deficiency in Contractor/Vendors coverage based on the evidence of insurance provided by the Contractor/Vendor shall not be construed as a waiver by Nassau County Board of County Commissioners of Contractor/Vendor's obligation to procure, maintain and pay for required insurance.

The insurance requirements set forth herein shall in no way limit Contractor/Vendors liability arising out of the work performed under the Agreement or related activities. The inclusions, coverage and limits set forth herein are minimum inclusion, coverage and limits. The required minimum policy limits set forth shall not be construed as a limitation of Contractor/Vendor's right under any policy with higher limits, and no policy maintained by the Contractor/Vendor shall be construed as limiting the type, quality or quantity of insurance coverage that Contractor/Vendor should maintain. Contractor/Vendor shall be responsible for determining appropriate inclusions, coverage and limits, which may be in excess of the minimum requirements set forth herein.

If the insurance of any Contractor/Vendor or any Sub-Contractor/Vendor contains deductible(s), penalty(ies) or self-insured retention(s), the Contractor/Vendor or Sub-Contractor/Vendor whose insurance contains such provision(s) shall be solely responsible for payment of such deductible(s), penalty(ies) or self-insured retention(s).

The failure of Contractor/Vendor to fully and strictly comply at all times with the insurance requirements set forth herein shall be deemed a material breach of the Agreement.