PRELIMINARY DETERMINATION

PERMIT MINOR MODIFICATION

Waste Away Group, Inc.
4210 Lee Road 183
Opelika, Alabama 36801

Salem Waste Disposal Center
Permit No. 41-03

August 13, 2025

Waste Away Group, Inc. applied to the Alabama Department of Environmental Management (ADEM) for minor modification of the Solid Waste Disposal Facility Permit for the Salem Waste Disposal Center. The requested modification would update the Landfill Gas Monitoring Plan to include the renewable natural gas plant being constructed at the facility.

The waste stream for the Salem Waste Disposal Center would remain non-hazardous solid wastes, non-infectious putrescible and non-putrescible wastes including but not limited to household garbage, industrial waste, construction and demolition debris, commercial waste, appliances, tires, trees, limbs, stumps, sludge, paper, and other similar type materials. Special waste approved by ADEM may also be accepted. The service area for the Salem Waste Disposal Center would remain the State of Alabama Counties: Autauga, Barbour, Bullock, Butler, Chambers, Chilton, Crenshaw, Clay, Coosa, Elmore, Lee, Lowndes, Macon, Montgomery, Pike, Randolph, Russell, Talladega, and Tallapoosa, and the State of Georgia Counties: Harris, Muscogee, and Troup. The maximum average daily volume of waste disposed at the Salem Waste Disposal Center would remain 1500 tons a day.

The landfill is located in Section 8, Township 19 North, Range 28 East in Lee County, Alabama. The permitted facility consists of approximately 221.6 acres with 156.5 acres for disposal operations.

The Land Division has determined that the permit modification application meets the applicable requirements of ADEM's Administrative Code Division 13 regulations.

Technical Contact:

Isabel G. Bela
Solid Waste Engineering Section
Land Division
(334) 271-7954

Alabama Department of Environmental Management

SOLID WASTE DISPOSAL FACILITY PERMIT

PERMITTEE:	**Waste Away Group, Inc.**
FACILITY NAME:	**Salem Waste Disposal Center**
FACILITY LOCATION:	**Section 8, Township 19 North, Range 28 East in Lee County, Alabama. The total permitted area is approximately 221.6 acres with 156.5 acres approved for disposal.**
PERMIT NUMBER:	**41-03**
PERMIT TYPE:	**Municipal Solid Waste (MSW) Landfill**
WASTE APPROVED FOR DISPOSAL:	**Non-hazardous solid wastes, non-infectious putrescible and non-putrescible wastes including but not limited to household garbage, industrial waste, construction and demolition debris, commercial waste, appliances, tires, trees, limbs, stumps, sludge, paper, and other similar type materials. Special waste approved by ADEM may also be accepted.**
APPROVED WASTE VOLUME:	**Maximum Daily Volume of 1500 tons per day**
APPROVED SERVICE AREA:	**State of Alabama Counties: Autauga, Barbour, Bullock, Butler, Chambers, Chilton, Crenshaw, Clay, Coosa, Elmore, Lee, Lowndes, Macon, Montgomery, Pike, Randolph, Russell, Talladega, and Tallapoosa, State of Georgia Counties: Harris, Muscogee, and Troup.**

In accordance with and subject to the provisions of the Alabama Solid Wastes and Recyclable Materials Management Act, as amended, Code of Alabama 1975, SS 22-27-1 to 22-27-27 ("SWRMMA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, SS 22-22A-1 to 22-22A-15, and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to dispose of the above-described solid wastes at the above-described facility location.

ISSUANCE DATE:	**May 21, 2025**
EFFECTIVE DATE:	**May 21, 2025**
MODIFICATION DATE:	**XXX XX, 2025**
EXPIRATION DATE:	**May 20, 2035**

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Alabama Department of Environmental Management

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
SOLID WASTE PERMIT

Permittee:	Waste Away Group, Inc. 4210 Lee Road 183 Opelika, AL 36801
Landfill Name:	Salem Waste Disposal Center
Landfill Location:	Section 8, Township 19 North, Range 28 East in Lee County, Alabama. The total permitted area consists of 221.6 acres with a disposal area consisting of 156.5 acres
Permit No.	41-03
Landfill Type:	Municipal Solid Waste

Pursuant to the Solid Wastes & Recyclable Materials Management Act, Code of Alabama 1975, §§22-27-1, *et seq*., as amended, and attendant regulations promulgated thereunder by the Alabama Department of Environmental Management (ADEM), this permit is issued to Waste Away Group, Inc. (hereinafter called the Permittee), to operate a solid waste disposal facility, known as the Salem Waste Disposal Center.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions set forth herein (including those in all attachments), and the applicable regulations contained in Chapters 335-13-1 through Ch. 335-13-16 of the ADEM Administrative Code (referred to as the "ADEM Admin. Code"). Rules cited are set forth in this document for the purpose of Permittee reference. A Rule that is cited incorrectly in this document does not constitute grounds for noncompliance on the part of the Permittee. Applicable ADEM Administrative Codes are those that are in effect on the date of issuance of this permit or the revisions approved after permit issuance.

This permit is based on the information submitted to ADEM on March 23, 2023 and on April 16, 2024, for permit renewal and modification and on July 9, 2025 for permit modification, and as amended (hereby incorporated by reference and hereinafter referred to as the Application). Inaccuracies found in this information could lead to the termination or modification of this permit and potential enforcement action. The Permittee must inform ADEM of deviations from or changes in the information in the Application that would affect the Permittee's ability to comply with the applicable ADEM Admin. Code or permit conditions.

This permit is effective as of **May 21, 2025,** modified on **XXX XX, 2025,** and shall remain in effect until **May 20, 2035**, unless suspended or revoked.

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Alabama Department of Environmental Management Date Signed

SECTION I. STANDARD CONDITIONS.

A. Effect of Permit. The Permittee is allowed to dispose of nonhazardous solid waste in accordance with the conditions of this permit and ADEM Admin. Code 335-13. Issuance of this permit does not convey property rights of any sort or an exclusive privilege, nor does it authorize the injury to persons or property, the invasion of other private rights, or the infringement of state or local laws or regulations. Except for actions brought under Code of Alabama 1975, §§22-27-1, *et seq*., as amended, compliance with the conditions of this permit shall be deemed to be compliance with applicable requirements in effect as of the date of issuance of this permit and future revisions.

B. Permit Actions. This permit may be suspended, revoked or modified for cause. The filing of a request for a permit modification or the notification of planned changes or anticipated noncompliance on the part of the Permittee, and the suspension or revocation does not stay the applicability or enforceability of permit condition.

C. Severability. The provisions of this permit are severable, and if a provision of this permit, or the application of a provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

D. Definitions. For the purpose of this permit, terms used herein shall have the same meaning as those in ADEM Admin. Code 335-13, unless this permit specifically provides otherwise; where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

1. "EPA" means the United States Environmental Protection Agency.

2. "Permit Application" means all permit application forms, design plans, operational plans, closure plans, technical data, reports, specifications, plats, geological and hydrological reports, and other materials which are submitted to ADEM in pursuit of a solid waste disposal permit.

E. Duties and Requirements.

1. Duty to Comply. The Permittee must comply with all conditions of this permit except to the extent and for the duration such noncompliance is authorized by a variance granted by ADEM. Any permit noncompliance constitutes a violation of Code of Alabama 1975, §§22-27-1 et seq., as amended, and is grounds for enforcement action, permit suspension, revocation, modification, and/or denial of a permit renewal application.

2. Duty to Reapply. If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit. The renewal application must be submitted to ADEM at least 180 days before this permit expires.

3. Permit Expiration. This permit and all conditions therein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application as required by Section I.E.2., and, through no fault of the Permittee, ADEM has not made a final decision regarding the renewal application.

4. Need to Halt or Reduce Activity Not A Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit.

5. Duty to Mitigate. In the event of noncompliance with this permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

6. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with the conditions of this permit.

7. Duty to Provide Information. If requested, the Permittee shall furnish to ADEM, within a reasonable time, the information that ADEM may reasonably need to determine whether cause exists for denying, suspending, revoking, or modifying this permit, or to determine compliance with this permit. If requested, the Permittee shall also furnish ADEM with copies of records kept as a requirement of this permit.

8. Inspection and Entry. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the employees of ADEM or their authorized representative to:

   a. Enter at reasonable times the Permittee's premises where the regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.

   b. Have access to and copy, at reasonable times, the records that must be kept under the conditions of this permit.

   c. Inspect, at reasonable times, the facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.

   d. Sample or monitor, at reasonable times, the substances or parameters at a location for the purposes of assuring permit compliance or as otherwise authorized by Code of Alabama 1975, §§22-27-1 *et seq*.

9. Monitoring, Corrective Actions, and Records.

   a. Samples and measurements taken for the purpose of monitoring or corrective action shall be representative of the monitored activity. The methods used to obtain representative samples to be analyzed must be the appropriate method from ADEM Admin. Code 335-13-4 or the methods as specified in the Application attached hereto and incorporated by reference. Laboratory methods must be those specified in Standard Methods for the Examination of Water and Wastewater (American Public Health Association, latest edition), Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (EPA Publication SW-846, latest edition), other appropriate EPA methods, or as specified in the Application. All field tests must be conducted using approved EPA test kits and procedures.

   b. The Permittee shall retain records, at the location specified in Section I.I., of all monitoring, or corrective action information, including all calibration and maintenance records, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least three years from the date of the sample, measurement, report or record or for periods elsewhere specified in this permit. These periods may be extended by the request of ADEM at any time and are automatically extended during the course of an unresolved enforcement action regarding this facility.

   c. Records of monitoring and corrective action information shall include.

      i. The exact place, date, and time of sampling or measurement.

      ii. The individual(s) and company who performed the sampling or measurements.

      iii. The date(s) analyses were performed.

      iv. The individual(s) and company who performed the analyses.

v. The analytical techniques or methods used.

vi. The results of such analyses.

d. The Permittee shall submit all monitoring and corrective action results at the interval specified elsewhere in this permit.

10. Reporting Planned Changes. The Permittee shall notify ADEM, in the form of a request for permit modification, at least 120 days prior to a change in the permitted service area, increase in the waste received, or change in the design or operating procedure as described in this permit, including planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

11. Transfer of Permit. This permit may be transferred to a new owner or operator. All requests for transfer of permits shall be in writing and shall be submitted on forms provided by ADEM. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of this permit.

12. Certification of Construction. Before the Permittee may commence disposal of waste in any new cell or phase:

a. The Permittee must submit a letter to the Department signed by both the Permittee and a professional engineer stating that the facility has been constructed in compliance with the permit.

b. The Department must inspect the constructed cells of phases unless the permittee is notified that the Department will waive the inspection.

c. The Permittee may not commence disposal activities in any new cells or phases until approval of the new cells or phases is granted by the Department.

13. Noncompliance. The Permittee shall report all instances of noncompliance with the permit at the time noncompliance is discovered.

14. Other Information. If the Permittee becomes aware that information required by the Application was not submitted or was incorrect in the Application or in a report to ADEM, the Permittee shall promptly submit such facts or information. In addition, upon request, the Permittee shall furnish to ADEM, within a reasonable time, information related to compliance with the permit.

F. Design and Operation of Facility. The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or an unplanned sudden or nonsudden release of contaminants (including leachate and explosive gases) to air, soil, groundwater, or surface water, which could threaten human health or the environment.

G. Inspection Requirements.

1. The Permittee shall comply with all requirements of ADEM Admin. Code 335-13-4-.21(1)(b).

2. The Permittee shall conduct random inspections of incoming loads.

3. Records of all inspections shall be included in the operating record.

H. Recordkeeping and Reporting.

1. The Permittee shall maintain a written operating record at the location specified in Section I.I. The operating record shall include:

a. Documentation of inspection and maintenance activities.

b. Daily Volume reports.

c. Personnel training documents and records.

d. Solid/Hazardous Waste Determination Forms for Industrial Wastes, and associated ADEM disposal approval correspondence for special wastes, industrial wastes, etc.

e. Groundwater monitoring records.

f. Explosive gas monitoring records.

g. Surface water and leachate monitoring records. Monitoring is subject to applicable conditions of Section VII of the permit.

h. Copies of this Permit and the Application.

i. Copies of all variances granted by ADEM, including copies of all approvals of special operating conditions (such as approvals for open burning,).

2. Quarterly Volume Report. Beginning with the effective date of this permit, the Permittee shall submit, within thirty (30) days after the end of each calendar quarter, a report summarizing the daily waste receipts for the previous (just ended) quarter. Copies of the quarterly reports shall be maintained in the operating record.

3. Monitoring and Corrective Action Reports. The Permittee shall submit reports on all monitoring and corrective action activities conducted pursuant to the requirements of this permit, including, but not limited to, groundwater, surface water, explosive gas and leachate monitoring. The groundwater monitoring shall be conducted in March and September of each year and the reports shall be submitted at least semi-annually. The reports should contain all monitoring results and conclusions from samples and measurements conducted during the sampling period. Explosive gas monitoring must be submitted on a quarterly basis, and the reports should be submitted to ADEM and placed in the operating record within 30 days of the monitoring event. Copies of the semi-annual groundwater and quarterly explosive gas monitoring reports shall be maintained in the operating record.

4. Availability, Retention, and Disposition of Records.

a. All records, including plans, required under this permit or ADEM Admin. Code 335-13 must be furnished upon request, and made available at reasonable times for inspection by an officer, employee, or representative of ADEM.

b. All records, including plans, required under this permit or ADEM Admin. Code 335-13 shall be retained by the Permittee for a period of at least three years. The retention period for all records is extended automatically during the course of an unresolved enforcement action regarding the facility, or as requested by ADEM.

c. A copy of records of waste disposal locations and quantities must be submitted to ADEM and local land authority upon closure of the facility.

I. Documents to be Maintained by the Permittee. The Permittee shall maintain, at Salem Waste Disposal Center, the following documents and amendments, revisions and modifications to these documents until an engineer certifies closure.

1. Operating record.

2. Closure Plan.

J. Mailing Location. All reports, notifications, or other submissions which are required by this permit should be sent via signed mail (i.e. certified mail, express mail delivery service, etc.) or hand delivered to:

1. Mailing Address.
Chief, Solid Waste Branch, Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, AL 36130-1463

2. Physical Address.
Chief, Solid Waste Branch, Land Division
Alabama Department of Environmental Management
1400 Coliseum Blvd.
Montgomery, Alabama 36110-2400

K. Signatory Requirement. All applications, reports or information required by this permit, or otherwise submitted to ADEM, shall be signed and certified by the owner as follows:

1. If an individual, by the applicant.

2. If a city, county, or other municipality or governmental entity, by the ranking elected official, or by a duly authorized representative of that person.

3. If a corporation, organization, or other legal entity, by a principal executive officer, of at least the level of Vice President, or by a duly authorized representative of that person.

L. Confidential Information. The Permittee may claim information submitted as confidential pursuant to ADEM Admin. Code 335-1-1-.06.

M. State Laws and Regulations. Nothing in this permit shall be construed to preclude the initiation of a legal action or to relieve the Permittee from the responsibilities, liabilities, or penalties established pursuant to an applicable state law or regulation.

SECTION II. GENERAL OPERATING CONDITIONS.

A. Operation of Facility. The Permittee shall operate and maintain the disposal facility consistent with the Application, this permit, and ADEM Admin. Code 335-13.

B. Open Burning. The Permittee shall not allow open burning without prior written approval from ADEM and other appropriate agencies. A burn request should be submitted in writing to ADEM outlining why that burn request should be granted. This request should include, but not be limited to, specifically what areas will be utilized, types of waste to be burned, the projected starting and completion dates for the project, and the projected days and hours of operation. The approval, if granted, shall be included in the operating record.

C. Prevention of Unauthorized Disposal. The Permittee shall follow the approved procedures, as provided in the Application, for detecting and preventing the disposal of free liquids, regulated hazardous waste, PCB's, regulated medical waste, and other unauthorized waste streams at the facility.

D. Unauthorized Discharge. The Permittee shall operate the disposal facility in such a manner that there will be no water pollution or unauthorized discharge. A discharge from the disposal facility or practice thereof may require a National Pollutant Discharge Elimination System permit under the Alabama Water Pollution Control Act.

E. Industrial and Medical Waste Disposal. The Permittee shall dispose of industrial process waste as required by ADEM Admin. Code 335-13, and as specified in the Application. The Permittee, prior to disposal of

industrial waste and/or medical waste, shall obtain from each generator a written certification that the material to be disposed does not contain free liquids, regulated hazardous wastes, regulated medical waste, or regulated PCB wastes.

F. Boundary Markers. The Permittee shall ensure that the facility is identified with a sufficient number of permanent boundary markers that are at least visible from one marker to the next.

G. Certified Operator. The Permittee shall be required to have an operator certified by the Department on-site during hours of operation, in accordance with the requirements of ADEM Admin. Code 335-13-12.

SECTION III. SPECIFIC MSW LANDFILL REQUIREMENTS.

A. Waste Identification and Management.

1. Subject to the terms of this permit, the Permittee may dispose of the nonhazardous solid wastes listed in Section III.B. Disposal of other waste streams is prohibited, except waste that is granted a temporary or one-time waiver by the Director.

2. The permitted facility boundary for the Salem Waste Disposal Center is approximately 221.6 acres, with a municipal solid waste disposal area of 156.5 acres.

3. The maximum average daily volume of waste disposed at the facility, as contained in the permit application, shall not exceed 1500 tons/day. Should the average daily volume exceed this value by 20% or 100 tons/day, whichever is less, for two (2) consecutive quarters the Permittee shall be required to modify the permit in accordance with ADEM Admin. Code 335-13-5-.06(2)(b)2. An increase in maximum average daily volume shall not be approved by ADEM unless the Permittee has received local approval for the increased maximum average daily volume. The average daily volume shall be computed as specified by ADEM Admin. Code 335-13-4-.22(2)(g).

B. Waste Streams. The Permittee may accept for disposal non-hazardous solid wastes, non-infectious putrescible and non-putrescible wastes including but not limited to household garbage, industrial waste, construction and demolition debris, commercial waste, appliances, tires, trees, limbs, stumps, sludge, paper, and other similar type materials. Special waste approved by ADEM may also be accepted.

C. Service Area. The service area for the Salem Waste Disposal Center would remain the State of Alabama Counties: Autauga, Barbour, Bullock, Butler, Chambers, Chilton, Crenshaw, Clay, Coosa, Elmore, Lee, Lowndes, Macon, Montgomery, Pike, Randolph, Russell, Talladega, and Tallapoosa, and the State of Georgia Counties: Harris, Muscogee, and Troup.

D. Special Waste. The Permittee may dispose of special wastes in accordance with ADEM Admin. Code 335-13.

1. Asbestos Waste. The Permittee shall dispose of asbestos waste in accordance with ADEM Admin. Code 335-13-4-.26.

2. Foundry Sand. The Permittee shall dispose of foundry waste in accordance with ADEM Admin. Code 335-13-4-.26.

3. Petroleum Contaminated Waste. The Permittee shall dispose of petroleum contaminated waste in accordance with ADEM Admin. Code 335-13-4-.26.

4. Municipal Solid Waste Ash. The Permittee shall dispose of municipal solid waste ash in accordance with ADEM Admin. Code 335-13-4-.26.

E. Liner Requirements. The Permittee shall install a composite liner system as described in the Application consisting of:

1.	Base Liner:	60 mil HDPE geomembrane Geosynthetic Clay Liner (GCL) One foot of 1 x 10^{-5} cm/sec compacted soil
2.	Alternate 1 Base Liner:	60 mil HDPE Geomembrane Bentonite Mat (GCL) 10 oz Non-woven Geotextile Geonet 60 mil HDPE Secondary Liner 6" Prepared Sub-grade
3.	Alternate 2 Base Liner:	60 mil HDPE geomembrane 24" Compacted Soil Liner (Soil Liner Permeability $\leq 1X10^{-7}$ cm/sec

For whichever composite liner system is chosen, the base of the composite liner system shall be a minimum of five (5) feet above the highest measured groundwater level as determined by ADEM Admin. Code 335-13-4-.11(2)(a).

The Permittee may not commence disposal of waste in a new lined cell until the Permittee has submitted to ADEM, by certified mail or hand delivery, a letter signed by both the Permittee and a professional engineer stating that the liner has been constructed in compliance with the standards or criteria prescribed or required by the manufacturers of the components and ADEM's regulations, and that the panels or components would be expected to perform satisfactorily, without failure, to the required standards over a normally expected lifetime or performance period for typical panels or components. ADEM must inspect the constructed cells before the owner or operator can commence waste disposal unless the Permittee is notified that ADEM will waive the inspection.

F Septic Tank Pumpings and Sewage Sludge. The Permittee shall not dispose of septic tank pumpings and/or sewage sludge unless specifically approved in writing by ADEM.

G. Large Dead Animals and Highly Putrescible Wastes. The Permittee shall handle the disposal of large dead animals and/or highly putrescible waste as required by ADEM Admin. Code 335-13-4-.22(1)(j). Disposal is allowed only in the municipal solid waste disposal area.

H. Cover Requirements. The Permittee shall cover all wastes as required by ADEM Admin. Code 335-13. The Permittee has been granted approval to utilize spray-on, polymer-based materials, automobile shredder fluff or a reusable geosynthethic cover as an alternative daily cover. Application of spray-on, polymer based materials must follow the manufacturer guidelines as submitted to the Department and recorded on file. The Permittee has been granted approval to utilize sawdust, mixed with soil at a ratio of 50-50 as an alternative daily cover. The Permittee has been granted approval to utilize waste soils considered to be special waste as an alternate daily cover on a case-by-case basis. The Permitee shall be required to cover the active cell with six inches of earthen cover at the conclusion of each week's activities. (See Section X. 2.)

I. Waste Compaction. All waste shall be thoroughly compacted with adequate landfill equipment before the daily or weekly cover is applied. A variance has been granted from ADEM Admin. Code 335-13-4-.22(1)(c)(2) requiring a completed daily cell shall not exceed eight feet in vertical thickness measured perpendicular to the slope of the preceding cell. The completed daily cells shall not exceed twelve feet in vertical thickness. (See Section X. 3.)

J. Daily Cells. All waste shall be confined to an area as small as possible within a single working face and spread to a depth not exceeding two feet prior to compaction, and such compaction shall be accomplished on a face slope not to exceed 4 to 1or as otherwise approved by the ADEM and listed in Section X. The

Permittee shall be allowed to temporarily operate two working faces when entering a newly constructed cell. Also, the Permittee shall be allowed to temporarily operate two working faces in order to achieve final cap elevation in the existing cell. However, no more than two working faces should be operating at any given time. (See Section X.4)

K. Security. The Permittee shall provide artificial and/or natural barriers, which prevent entry of unauthorized vehicular traffic to the facility.

L. All Weather Access Roads. The Permittee shall provide an all-weather access road to the dumping face that is wide enough to allow passage of collection vehicles.

M. Adverse Weather Disposal. The Permittee shall provide for disposal activities in adverse weather conditions.

N. Personnel. The Permittee shall maintain adequate personnel to ensure continued and smooth operation of the facility.

O. Equipment. The Permittee shall provide the landfill equipment as required by ADEM Admin. Code 335-13-4-.22(1)(f).

P. Environmental Monitoring and Treatment Structures. The Permittee shall provide protection and proper maintenance of environmental monitoring and treatment structures.

Q. Vector Control. The Permittee shall provide for vector control as required by ADEM Admin. Code 335-13.

R. Bulk or Non-containerized Liquid Waste. The Permittee shall not dispose of bulk or non-containerized liquid waste, or containers capable of holding liquids, unless the conditions of ADEM Admin. Code 335-13-4-.22(1)(k) are met.

S. Empty Containers. The Permittee shall render empty containers larger than normally found in household waste unsuitable for holding liquids prior to delivery to the landfill unit unless otherwise approved by ADEM.

T. Other Requirements. ADEM may enhance or reduce the requirements for operating and maintaining the landfill as deemed necessary by the Land Division.

U. Other Permits. The Permittee shall operate the landfill according to this and other applicable permits.

V. Scavenging and Salvaging Operations. The Permittee shall prevent scavenging and salvaging operations, except as part of a controlled recycling effort.

W. Signs. The Permittee shall provide a sign outlining instructions for use of the site. The sign shall be posted and have the information required by ADEM Admin. Code 335-13-4-.22(1)(i).

X. Litter Control. The Permittee shall control litter.

Y. Fire Control. The Permittee shall provide fire control measures.

SECTION IV. GROUNDWATER MONITORING REQUIREMENTS.

A. The Permittee shall install and/or maintain a groundwater monitoring system, as specified below.

1. The Permittee shall maintain the groundwater monitoring wells and piezometers identified in Table 1 at the locations specified in the Application, and any other groundwater monitoring wells which are added during the active life and the post closure care period.

2. The Permittee shall install and maintain additional groundwater monitoring wells as necessary to

address changes in the rate and extent of a plume of contamination or as otherwise deemed necessary to maintain compliance with the ADEM Admin. Code 335-13.

3. Prior to installing additional groundwater monitoring wells, the Permittee shall submit a plan to ADEM with a permit modification request specifying the design, location and installation of additional monitoring wells. This plan shall be submitted within one hundred and twenty (120) days prior to the installation which, at a minimum, shall include.

   a. Well construction techniques including proposed casing depths, proposed total depth, and proposed screened interval of well(s);

   b. Well development method(s);

   c. A complete analysis of well construction materials;

   d. A schedule of implementation for construction; and

   e. Provisions for determining the lithologic characteristics, hydraulic conductivity and grain-size distribution for the applicable aquifer unit(s) at the location of the new well(s).

B. Groundwater Monitoring Requirements.

1. The Permittee shall determine the groundwater surface elevation at each monitoring well and piezometer identified in Table 1 each time the well or piezometer is sampled and at least semi-annually throughout the active life and post-closure care period.

2. The Permittee shall determine the groundwater flow rate and direction in the first zone of saturation at least annually or each time groundwater is sampled and submit as required by ADEM Admin. Code 335-13.

3. Prior to the initial receipt of waste at the facility, the Permittee shall sample, and analyze for the parameters listed in Appendix I of ADEM Admin. Code 335-13-4-.27, in all monitoring wells identified in Section IV.A.2. to establish background water quality and/or as directed by ADEM Admin. Code 335-13-4-.27(2)(j) and ADEM Admin. Code 335-13-4-.27(2)(a)(1).

4. The Permittee shall sample, and analyze all monitoring wells identified in Table 1 for the parameters listed in Appendix I of ADEM Admin. Code 335-13-4-.27(3), on a semi-annual basis throughout the active life of the facility and the post-closure care period in accordance with ADEM Admin. Code 335-13-4-.27(3). Sampling shall be conducted during March and September of each year, beginning with the effective date of this permit. The records and results of this sampling and analysis activity shall be submitted to ADEM, within ninety (90) days of the date of sampling.

5. In addition to the requirements of Sections IV., B.1., B.2., B.3. and B.4., the Permittee shall record water levels, mean sea level elevation measuring point, depth to water, and the results of field tests for pH and specific conductance at the time of sampling for each well.

C. Sampling and Analysis Procedures. The Permittee shall use the following techniques and procedures when obtaining and analyzing samples from the groundwater monitoring wells described in Section IV.A. to provide a reliable indication of the quality of the groundwater.

1. Samples shall be collected, preserved, and shipped (when shipped off-site for analysis) in accordance with the procedures specified in the Application. Monitoring wells shall be bailed or pumped to remove at least four times the well volume of water. Slow recharge wells shall be bailed until dry. Wells shall be allowed to recharge prior to sampling. The Permittee may use the low-flow method for groundwater purging and sampling as described in the application.

2. Samples shall be analyzed according to the procedures specified of the Application, Standard Methods for the Examination of Water and Wastewater (American Public Health Association, latest edition), Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (EPA Publication SW-846, latest edition), or other appropriate methods approved by this Department. All field tests must be conducted using approved EPA test kits and procedures.

3. The Permittee is approved for intra-well statistical analysis.

4. Samples shall be tracked and controlled using the chain-of-custody and QA/QC procedures specified of the Application.

D. Recordkeeping and Reporting Requirements.

1. Recording of Results. For each sample and/or measurement taken pursuant to the requirements of this permit, the Permittee shall record the information required by Section I.E.9.c.

2. Recordkeeping. Records and results of all groundwater monitoring, sampling, and analysis activities conducted pursuant to the requirements of this permit shall be included in the operating record required by Section I.I.1.

E. Permit Modification. If the Permittee or ADEM determines that the groundwater monitoring system no longer satisfies the requirements of ADEM Admin. Code 335-13-4-.14 or Section IV.A. of this permit, the Permittee must, within 120 days, submit an application for a permit modification to make necessary and/or appropriate changes to the system.

TABLE 1
GROUNDWATER MONITORING WELLS.

Monitoring Well Number	Top of Casing (feet msl)	Well Depth* (ft-bls)
	Up-gradient Wells	
GW-2A1	741.61	42.65
GW-8B	719.76	65.00
	Down-gradient Wells	
GW-1B	666.28	35.00
GW-3	674.35	20.00
GW-4A	691.37	41.50
GW-6	652.40	30.10
GW-7	638.84	20.00

NOTE: Former groundwater monitoring well GW-5 is not used for sampling, but is left in place in the event that it is needed in the future. GW-5 has been named PZ-50 and will be monitored for water levels.

SCHEDULE OF GROUNDWATER MONITORING WELL INSTALLATION

GW-9	687.98	29.00

NOTE: Groundwater monitoring well GW-9 has been installed. Background samples shall be collected from GW-9 prior to placement of waste in Cell 10.

*ft-bls = depth in feet below land surface

SECTION V. GAS MONITORING REQUIREMENTS.

The Permittee must install and maintain an explosive gas monitoring system in accordance with ADEM Administrative Code, Division 13.

SECTION VI. MUNICIPAL SOLID WASTE LANDFILL AIR EMISSIONS.

This landfill may be subject to ADEM Admin. Code Division 3 and the Federal Clean Air Act. Contact the ADEM Air Division for applicable requirements and permits.

SECTION VII. LEACHATE AND SURFACE WATER MANAGEMENT REQUIREMENTS.

The Permittee must collect and dispose of the leachate that is generated at the facility. The Permittee shall install a leachate collection system designed to maintain less than 12 inches (30 cm) depth of leachate over the liner. Prior to initial disposal, the Permittee shall provide the Department with a letter from the receiving publicly or privately owned treatment works, approving the acceptance of the leachate. Discharges to publicly or privately owned treatment works may be subject to the requirements of the ADEM Water Division's State Indirect Discharge (SID) Program. The Permittee shall construct and maintain run-on and run-off control structures. Surface water discharges from drainage control structures shall be permitted through the ADEM Water Division's National Pollutant Discharge Elimination System (NPDES) Program.

SECTION VIII. CLOSURE AND POST- CLOSURE REQUIREMENTS.

The Permittee shall close the landfill and perform post-closure care of the landfill in accordance with ADEM Admin. Code 335-13.

A. Final Cover. The Permittee shall grade final soil cover such that surface water does not pond over the permitted area as specified in the Application. The final cover system should consist of (bottom to top) 40 mil HDPE or LDPE liner in direct contact with the prepared subgrade soil, geocomposite drainage net, 18 inches of protective soil cover layer and 6 inches of topsoil erosion layer capable of supporting vegetative cover. A variance has been granted from ADEM Admin. Code 335-13-4-.20(2)(c)2. requiring a maximum 4 to 1 (25%) final grade for the final closure system. The maximum final grade shall be 3 to 1 (33%). (See Section X. 1.)

B. Vegetative Cover. The Permittee shall establish a vegetative or other appropriate cover, as approved by the Department, within 90 days after completion of final grading requirements in the Application. Preparation of a vegetative cover shall include, but not be limited to, the placement of seed, fertilizer, mulch, and water.

C. Notice of Intent. The Permittee shall place in the operating record and notify ADEM of their intent to close the landfill prior to beginning closure.

D. Completion of Closure Activities. The Permittee must complete closure activities of each landfill unit in accordance with the Closure Plan within 180 days of the last known receipt of waste.

E. Certification of Closure. Following closure of each unit, the Permittee must submit to ADEM a certification, signed by an independent registered professional engineer, verifying the closure has been completed according to the Closure Plan.

F. Post-Closure Care Period. Post-closure care activities shall be conducted after closure of each unit throughout the life of this permit and continuing for a period of a minimum of thirty (30) years following closure of the facility. ADEM may shorten or extend the post-closure care period applicable to the solid waste disposal facility.

G. Post-Closure Maintenance. The Permittee shall provide post closure maintenance of the facility to include regularly scheduled inspections. This shall include maintenance of the cover, vegetation, monitoring devices

and pollution control equipment and correction of other deficiencies that may be observed by ADEM. Monitoring requirements shall continue throughout the post closure period as determined by ADEM unless all waste is removed and no unpermitted discharge to waters of the State has occurred.

H. Post-Closure Use of Property. The Permittee shall ensure that post closure use of the property never be allowed to disturb the integrity of the final cover, liner, or other components of the containment system. This shall preclude the growing of deep-rooted vegetation on the closed area.

I. Certification of Post-Closure. Following post-closure of each unit, the Permittee must submit to ADEM a certification, signed by an independent registered professional engineer, verifying the post-closure has been completed according to the Post-Closure Plan.

J. Recording Instrument. The Permittee must provide documentation of compliance with the requirements of the Uniform Environmental Covenants Program in ADEM Admin. Code Division 335-5 and shall execute the following:

1. Record a notation onto the land deed within 90 days from the certification of closure. This notation shall state that the land has been used as a solid waste disposal facility, the name of the Permittee, type of disposal activity, location of the disposal facility, and beginning and closure dates of the disposal activity.

2. File the covenant at the courthouse where the land deed is held within thirty (30) days of receipt of the covenant signed by ADEM's Land Division Chief.

3. The Permittee shall submit a certified copy of the recording instrument to ADEM within 120 days after permit expiration, revocation, or as directed by ADEM as described in the Application.

K. Removal of Waste. If the Permittee or other person(s) wishes to remove waste, waste residues, the liner, or any contaminated soils, the owner must request and receive prior approval from ADEM.

SECTION IX. FINANCIAL ASSURANCE

A. The Permittee shall maintain detailed written cost estimates, in current dollars, at the landfill office and on file with ADEM in accordance with ADEM Admin. Code 335-13-4-.28.

B. All cost estimates must be updated annually as required by ADEM Admin Code 335-13-4-28.

C. The Permittee must place a copy of the financial assurance mechanism along with other items required by ADEM Admin. Code 335-13-4-28. into the landfill operating record before the initial receipt of waste in the case of closure, post-closure care, or no later than 120 days after corrective action remedy has been selected. A copy of this information shall be submitted to ADEM in accordance with ADEM Admin. Code 335-13-4-.28(5).

D. The financial assurance mechanisms must ensure that funds will be available in a timely fashion when needed.

E. The financial assurance mechanisms must be legally valid, binding, and enforceable under state and federal law.

F. The Permittee shall demonstrate continuous compliance with ADEM Admin. Code 335-13-4-28. by providing documentation of financial assurance in at least the amount that equals or exceeds the cost estimate. Changes in the financial assurance mechanism must be approved by the Department.

G. The Permittee shall increase the closure, post-closure or corrective action cost estimates and the amount of financial assurance if changes in the closure, post-closure or correction action plans or landfill conditions increase the maximum cost.

H. The Permittee may reduce the amount of financial assurance by submitting justification and a revised estimate to ADEM for approval.

SECTION X. VARIANCES AND SPECIAL CONDITIONS

1. The Permittee has been granted a variance from ADEM Admin. Code 335-13-4-.20(2)(c)2. requiring a maximum 4 to 1 (25%) final grade for the final closure system. The maximum final grade shall be 3 to 1 (33%). (See Section VIII. A.)

2. The Permittee is granted approval to utilize spray-on, polymer-based materials, automobile shredder fluff, or a reusable geosynthethic cover as an alternative daily cover. Application of spray-on, polymer based materials must follow the manufacturer guidelines as submitted to the Department and recorded on file. The Permittee is granted approval to utilize sawdust, mixed with soil at a ratio of 50-50 as an alternative daily cover. The Permittee is granted approval to utilize waste soils considered to be special waste as an alternate daily cover on a case-by-case basis. The alternate daily cover may only be used to cover interior slopes of the cells. All exterior slopes shall be covered with soil in accordance with the approved plans and permit. The Permittee shall be required to cover the active cell with six inches of earthen cover at the conclusion of each week's activities. (See Section III. H.)

3. The Permittee has been granted a variance from ADEM Admin. Code 335-13-4-.22(1)(c)(2) requiring a completed daily cell shall not exceed eight feet in vertical thickness. The completed daily cells shall not exceed twelve feet in vertical thickness. (See Section III. I.)

4. The Permittee has been granted a variance from ADEM Admin. Code 335-13-4-.22(1)(b) requiring all waste to be confined to as small an area as possible. The Permittee shall be allowed to temporarily operate no more than two working faces. The second working face is only applicable for the purpose of allowing room to accommodate the larger transfer trailer trucks in the existing area and utilizing the smaller trucks to begin filling the new cell until the area can be built large enough to accommodate the larger trucks or allowing the placement of waste to capture additional available airspace in the existing cell area until the final cap elevation in the cell is achieved. (See Section III.J.)

5. The Permittee is granted permission to conduct solidification operations within the disposal footprint. Solidification operations shall take place surrounded by a two foot berm and shall take place as described in the Application dated April 2024.

Any variance granted by ADEM may be terminated by ADEM whenever ADEM finds, after notice and opportunity for hearing, that the petitioner is in violation of any requirement, condition, schedule, limitation or any other provision of the variance, or that operation under the variance does not meet the minimum requirements established by state and federal laws and regulations or is unreasonably threatening the public health.

SALEM WASTE DISPOSAL CENTER

4210 Lee Road 183
Opelika, AL 36804
(334) 745-3556
(334) 742-0821 Fax

July 8, 2025

Ms. Isabel Bela
Alabama Department of Environmental Management
Land Division – Solid Waste Branch
Solid Waste Engineering Section
1400 Coliseum Blvd
Montgomery, AL 36110

Re: Solid Waste Permit Modification Application
Waste Away Group, Inc.
Salem Waste Disposal Center - #41-03

Dear Ms. Bela:

Please find the attached Solid Waste Permit Modification Application for Waste Away Group Inc., Permit No. 41-03.

Waste Away Group, Inc. is requesting to modify their permit to update the Landfill Gas Monitoring Plan to include the addition of the Renewable Natural Gas (RNG) Plant that is being constructed at the facility.

If you have any questions regarding this submittal, please feel free to contact me at npricket@wm.com or at 334-707-2153.

Thank you,

Nathan Prickett
Environmental Protection Manager

SOLID WASTE DISPOSAL FACILITY

PERMIT APPLICATION PACKAGE

January 16, 2018

M E M O R A N D U M

TO: Applicants Seeking a Permit for Solid Waste Facilities

FROM: Stephen A. Cobb, Chief
Land Division
Alabama Department of Environmental Management

RE: Processing Solid Waste Permits by ADEM

Any permit issued by ADEM must be in accordance with §22-27-48 and §22-27-48.1 Code of Alabama. This section indicates that ADEM may not consider an application for a new or modified permit unless such application has received approval by the affected unit of local government having an approved plan. ADEM, therefore, will require the following before it can process a new or modified permit application:

1. The local government having jurisdiction must approve the permit application in accordance with §22-27-48 and §22-27-48.1 Code of Alabama.

2. Local governments should follow the procedures outlined in §22-27-48 and §22-27-48.1 Code of Alabama and the siting standards included in the local approved plan in considering approval of a facility.

This procedure applies to applications for new or modified permits. ADEM cannot review an application unless it includes approval from the affected local government. This procedure shall not apply to exempted industrial landfills receiving waste generated on site only by the permittee.

Please contact the Solid Waste Branch of ADEM at (334) 274-4201 if there are any questions.

SAC/sss/abj

PERMIT APPLICATION
SOLID WASTE DISPOSAL FACILITY
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
(Submit in Triplicate)

1. Facility type:

- [X] **Municipal Solid Waste Landfill (MSWLF)**
- [ ] **Industrial Landfill (ILF)**
- [ ] **Construction and Demolition Landfill (C/DLF)**
- [ ] **CCR Landfill (CCRLF)**
- [ ] **CCR Surface Impoundment (CCRSI)**
- [ ] **Other (explain)**_____

2. Facility Name Salem Waste Disposal Center

3. Applicant/Permittee:

Name: Waste Away Group, Inc.

Address: 4210 Lee Road 183
Opelika, AL 36804

Telephone: 334-707-2153

If applicant/permittee is a Corporation, please list officers:

4. Location: (include county highway map or USGS map)

Township 19 North **Range** 28 East
Section 8 **County** Lee

5. Land Owner:

Name: Waste Away Group, Inc.

Address: 4210 Lee Road 183
Opelika, AL 36804

Telephone: 334-707-2153

(Attach copy of agreement from landowner if applicable.)

6. **Contact Person:**

Name Nathan Prickett

Position or Affiliation Environmental Protection Manager

Address: 4210 Lee Road 183
Opelika, AL 36804

Telephone: 334-707-2153

7. **Size of Facility:** 221.6 **Acres**

Size of Disposal Area(s): 156.5 **Acres**

8. **Identify proposed service area or specific industry that waste will be received from:**

State of Alabama Counties: Autauga, Barbour, Bullock, Butler, Chambers, Chilton, Crenshaw, Clay, Coosa, Elmore, Lee, Lowndes, Macon, Montgomery, Pike, Randolph, Russell, Talledega, Tallapoosa. State of Georgia Counties: Harris, Muscogee, Troup

9. **Proposed maximum average daily volume to be received at landfill (choose one):**

1500 **Tons/Day** _____ **Cubic Yards/Day**

10. **List all waste streams to be accepted at the facility (i.e., household solid waste, wood boiler ash, tires, trees, limbs, stumps, etc.):**

Non-hazardous solid wastes, non-infectious petrescible and non-putrescible wastes including but not limited to household garbage, industrial waste, construction and demolition debris, commercial waste, appliances, tires, trees, limbs, stumps, sludge, paper, and other similar type materials. Special waste approved by ADEM may also be accepted.

SIGNATURE (Responsible official of permit applicant): _____ **TITLE:** Sr. District Manager

Eduardo J. Ojeda **DATE:** 07/02/2025
(please print or type name)

LANDFILL GAS MONITORING PLAN

Salem Waste Disposal Center
Opelika, Alabama
ADEM Permit No. 41-03

Original Version Dated September 2000 by:
Kelly Engineering, LLC
421 Twain Curve, Suite 2
Montgomery, Alabama 36117

Revised July 2025
Promus Project No. 250173

Prepared for:
Salem Waste Disposal Center

Prepared by:

PROMUS ENGINEERING

100 Cherokee Blvd., Suite 325 | Chattanooga, Tennessee 37405
www.promusengineering.com

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FIGURES

1. INTRODUCTION

1.1. Purpose

The purpose of this plan is to provide guidance to Salem Waste Disposal Center (SWDC) personnel to detect migrating explosive landfill gas at SWDC, in conformance with Alabama Department of Environmental Management (ADEM) Administrative Code Division 13, 335-13-4-.16 and RCRA Subtitle D (40 CFR 258). This plan establishes a program to monitor for the presence of explosive landfill gases along SWDC property lines, along potential site pathways to nearby offsite structures, and within onsite structures. If routine monitoring shows the possibility of offsite gas migration, additional monitoring will be performed to evaluate the extent of migration beyond the SWDC property line and the potential for accumulation within offsite structures such as buildings and subgrade utilities. The plan has been developed to conform to applicable environmental regulations and health and safety guidelines for landfill gas control.

The following specific information on the SWDC monitoring system is contained in this plan:

- Locations of monitoring points
- Monitoring frequency
- Methods and procedures
- Equipment
- Data reporting and evaluation

1.2. Regulatory Requirements

SWDC is subject to the requirements contained within current federal and state solid waste management regulations. Those requirements, summarized in Table 1-1, are contained in RCRA Subtitle D (40 CFR 258) and in the Alabama Department of Environmental Management (ADEM) Administrative Code Division 13 Solid Waste Program and are described below:

TABLE 1-1
SUMMARY OF LANDFILL GAS REGULATIONS

	RCRA Subtitle D	ADEM Solid Waste Regulations
Basis for Type and Frequency of Monitoring		
▪ Soil conditions	Yes	Yes
▪ Hydrogeoligic conditions	Yes	Yes
▪ Hydraulic conditions	Yes	Yes
▪ Facility structure and boundary locations	Yes	Yes
Minimum Monitoring Frequency	Quarterly	Quarterly
Required Measures if Gas Levels Exceed Limits		
▪ Implement immediate steps to protect human health	Yes	Yes
▪ Immediately notify ADEM of condition	Yes	Yes
▪ Place notation in Operating Record describing levels and steps to protect human health	Within 7 days of detection	Within 7 days of detection
▪ Submit remediation plan for ADEM approval	Not required	Within 20 days
▪ Implement remediation plan	Within 60 days of detection	Upon ADEM approval but within 60 days of detection
▪ Place copy of Plan in Operating Record	Within 60 days of detection	Within 60 days of detection
▪ Notify ADEM that Plan has been implemented	Within 60 days of detection	Within 60 days of detection

EPA Rule 40 CFR 258.23, found in the Operating Criteria section of the Criteria for Municipal Solid Waste Landfills (RCRA Subtitle D), requires that owners and operators of municipal solid waste landfill units:

- Limit methane gas concentrations in facility structures and at the facility property lines to specific maximum levels based on the lower explosive limit (LEL) for methane.

- Implement a routine methane monitoring program at the facility.
- Take measures to mitigate exceedances of the maximum gas levels detected during routine monitoring.

ADEM Administrative Code Division 335-13 states that any landfill unit that accepts organic waste shall be considered in the design and operation of the facility. Special attention should be given to control and monitoring of explosive gases as follows:

- Explosive gases shall not exceed the lower explosive limit at the facility boundary.
- Explosive gases shall not exceed 25 percent of the lower explosive limit in facility structures except for gas control or recovery system components.
- Facility structures shall be designed and constructed so as not to allow explosive gases to collect in, under or around structures in concentrations exceeding the requirements of Rule 335-13-4-.16.

The range of explosive concentration for methane in air at 25 °C and atmospheric pressure is 5 to 15 percent. Therefore, under these barometric and temperature conditions, 5 percent methane in air is equal to 100 percent of the LEL. If any gas is detected during a monitoring event the levels will be expressed in percent volume and percent LEL.

1.3. Facility Information

SWDC is a sanitary landfill located in Lee County, Alabama, approximately 6 miles east of the City of Opelika as shown in Figure 1-1. The SWDC property encompasses about 222 acres, and lies in Section 7, Township 19 North, Range 28 East. The landfill is permitted to receive non-hazardous municipal solid waste and ADEM-approved special waste streams. Surrounding land use consists of privately owned wooded property to the west and south and wooded property owned by a timber company to the north and east. A residential off-site structure exists within 500 feet of the landfill near the southwest property boundary.

Facility Name:	Salem Waste Disposal Center
Facility Address:	Salem Waste Disposal Center 4210 Lee Road 183 Opelika, AL 36804
Owner and Operator:	Waste Away Group, Inc. 4210 Lee Road 183 Opelika, AL 36804
ADEM Permit Numbers:	Solid Waste: 41-03 Stormwater NPDES: ALG160072 Major Source Operating Permit: 206-0028
SWDC Operations Manager:	(334) 705-0181
SWDC Environmental Specialist:	(334) 705-4340

1.3.1. Site Structures and Utilities

The following structures and utilities are located onsite at SWDC:

- Scalehouse/Office trailer
- Maintenance building
- Hauling company buildings (adjacent to facility)
- Telephone line (above ground - northwest corner of site)
- Water line (northwest corner of site)
- Renewable Natural Gas (RNG) Plant

Buildings are constructed on a concrete slab foundation and trailers are fitted with ventilated skirting at the base.

1.3.2. Facility History

Solid waste was first disposed at SWDC in November 1985. Initial landfilling began in the northwest quadrant of the property using the area fill method and has proceeded eastward, also by the area fill method. Each of the filled areas are underlain by a synthetic liner composed of high density polyethylene (HDPE).

1.3.3. Renewable Natural Gas (RNG) Plant

In 2025, a renewable natural gas plant was constructed on the southwest corner of the facility adjacent to future Cell 12. A portion of the landfill gas extracted from the landfill will be diverted to the plant, where it will be treated and processed for distribution to a natural gas pipeline located within public right-of-way. The location of the plant is depicted in Figure 2.

2. SUBSURFACE CONDITIONS

Information presented in this section is based on work performed for SWDC by CH2M Hill in 1991, consisting of field reconnaissance, soil and rock borings, piezometer installations, and geotechnical laboratory test results of subsurface material samples (CH2M Hill,1991).

2.1. Physiography

The site lies in the Southern Piedmont Upland district of the Piedmont Physiographic Province. This district is characterized by rolling topography indicative of a dissected peneplain of advanced erosional maturity (Kidd, 1989). Land surface elevations of the district range from about 500 to 900 feet mean sea level (msl) with an average of about 800 feet. Surface drainage in the district generally is southwestward to the Tallapoosa River and southeastward to the Chattahoochee River.

2.2. Surface Water

An intermittent stream in the eastern portion of the site flows northeastward and intersects an unnamed perennial stream about 3 miles from the site. From this intersection, the unnamed stream flows approximately 2 miles to the northeast and discharges into Halawakee Creek. Halawakee Creek then flows eastward for about 2 miles where it begins to merge into the upper reaches of Lake

Harding. Lake Harding was created by the damming of the Chattahoochee River about 10 miles east of the site.

2.3. Geology

2.3.1. Regional Geology

Rocks in the site vicinity consist of Precambrian to Paleozoic high-grade metamorphic and igneous rocks (Osborne, et al., 1988), which are part of the continental basement. The age, structure, and stratigraphic relations of these rocks are not well understood (Kidd, 1989). The Towaliga fault zone, which encompasses the north-central portion of Lee County, adds to the complexity of the bedrock geology. In general, the bedrock trends northeastward with the foliation planes of the metamorphic rocks dipping southeastward.

Review of background literature reveals that the grouping of rock units can vary, depending on the author. Osborne, et al. (1988) assigns the bedrock beneath the site to the Pine Mountain Group, while Kidd (1989) incorporates the Pine Mountain Group into the Wacoochee Belt. Rocks of the Wacoochee Belt (including the Pine Mountain Group) consist predominantly of schist and gneiss with some granite, quartzite, and marble.

The bedrock has weathered to form a saprolite soil. The thickness of the saprolite can range from 10 to 200 feet and averages 50 feet (Kidd, 1989). Saprolite is generally thickest in draws, valleys, and flat uplands underlain by schist or gneiss, and is generally thinnest on ridges and hilltops underlain by quartzite (Kidd, 1989). The difference in soil thickness is because the schist and gneiss weather more easily than the quartzite.

2.3.2. Site Geology

The site is underlain by high-grade metamorphic rocks of the Pine Mountain Group along with mylonitic and cataplastic rocks of the Towaliga fault zone (Osborne, et al., 1988). Specifically, these rocks consist of the Manchester Schist, the Hollis Quartzite, and a mylonite gneiss.

The ridge in the southwestern portion of the site is capped primarily by Hollis quartzite, interlayered with saprolite near the surface and Manchester Schist at greater depths. The saprolite/quartzite inte1faces appear to dip to the northeast at approximately 45 degrees perpendicular to the axis of the ridge.

Flanking the Hollis Quartzite along the sides of the ridge and into the flatter portions of the site is the Manchester Schist, which consists of interlayered muscovite-quartz schist and quartzite (Osborne, et al., 1988). The northern portion of the site may be underlain by a mylonite gneiss associated with the Towaliga fault zone. This gneiss locally includes mylonite schist and mylonite quartzite (Osborne, et al., 1988).

Because of the different type of rocks encountered onsite, depths to relatively unweathered rock are highly variable. Schist is more easily weathered than quartzite and therefore will decompose to a greater depth than quartzite when subjected to the same environment. Specific depths to competent rock are discussed in the following section.

Although the general trend of the bedrock in the Southern Piedmont Upland district is to the northeast, the bedrock in the site vicinity trends southeast. The southeast bedrock trend in the site

vicinity is illustrated by the southeastward orientation of the ridge in the southern portion of the site. This orientation indicates that fractures and foliation planes may strike southeast at the site, which may cause the principal direction of secondary hydraulic conductivity in the bedrock beneath the site to trend southeast.

2.4. Subsurface Description

Four subsurface layers were identified during the CH2M Hill investigation: a mature residual layer, a saprolite layer, a transition layer (interlayered saprolite and weathered bedrock), and weathered bedrock. The layers vary in thickness and in physical properties. For purposes of this plan, only the two uppermost layers will be described. The layers are described in the following subsections.

2.4.1. Mature Residual Layer

Residual soils develop in-situ from the decomposition of rock (Hunt, 1984). The mature residual layer onsite is an orange-red to red-brown silty sand, sandy silt, or sandy clay. This layer is dry to moist and generally stiff. The thickness of mature residual soil onsite was observed to range from 4 feet to 15 feet. In some lower areas of the site the layer was not present.

2.4.2. Saprolite Layer

Saprolite is a residual soil that retains the relic structure of the original rock. Bedding planes, joints, surface staining, and joint infilling usually can be seen in saprolite samples that possess soil texture.

On this site, saprolite was produced by the decomposition of schist and gneiss and has variable amounts of mica. Some portions of the saprolite contain alternating thin layers of sandy silt and silty sand. The silty portions of the saprolite are fissured. The fissures are iron stained (rust and black colored), rough textured, and tight. The fissures may be remnants of bedrock fractures. The saprolite onsite is generally a moderately plastic sandy silt or silty sand. Saprolite consistencies in CH2M Hill soil borings ranged from firm to stiff and relative densities ranged from loose to medium-dense.

The thickness of the saprolite at the site ranges from zero to 115 feet. This thickness is influenced by many factors including climate, time, parent rock material and structure, topography, depth to groundwater, and others (Hunt, 1984). The largest influences on differential weathering at this site are parent rock type and rock structure. Quartz is the most stable mineral, while gneiss and schist decompose with relative ease (Hunt, 1984).

2.5. Hydrogeology

2.5.1. Regional Hydrogeology

The igneous and metamorphic rocks in the site vicinity are not considered major aquifers because of low yields, but wells are drilled in bedrock. Surface drainage divides on the igneous and metamorphic rocks generally correspond to the boundaries of aquifers that generally are not hydraulically connected (Kidd, 1989). Recharge areas coincide with the outcrop areas of the bedrock.

The movement of groundwater in the igneous and metamorphic aquifers is controlled by topography, bedrock fractures, and the saprolite character and thickness. The groundwater flow direction is generally from topographic highs to lows. However, principal directions of secondary hydraulic conductivity in the bedrock (corresponding to major foliation or fracture trends) also affect the flow direction. In general, bedrock fractures do not extend more than 200 feet below the bedrock surface (Kidd, 1989).

Bedrock wells in the site vicinity generally yield less than 25 gallons per minute (gpm) (Kidd, 1989). The well yield is directly proportional to the number of fractures intersected by the well bore. Wells depths in the Southern Piedmont Upland district range from 150 to 300 feet.

2.5.2. Site Hydrogeology

The direction of the horizontal component of groundwater flow is affected by the stream that flows from south-to-north through the eastern side of the site. The general direction of the horizontal component of groundwater flow to the west of the stream is from southwest to northeast. The general direction of the horizontal component of groundwater flow to the east of the stream is from southeast to northwest. Recharge occurs along the ridges on the southwest and southeast sides of the site, which are upgradient locations. The downgradient location is the northeastern site boundary where groundwater flows offsite.

3. MONITORING PLAN

3.1. Types of Monitoring

Gas monitoring activities at SWDC consist of barhole probing at locations along the perimeter of the SWDC landfill, four permanent probes, and continuous gas monitoring in onsite structures.

3.1.1. Landfill Perimeter Probing

Barhole probing is conducted on the SWDC property outside the limits of solid waste disposal approximately at the points shown in Figure 2. Barhole probing will be performed at intervals no greater than 300 feet, except where inhabited buildings are located within 1,000 feet of the property boundaries. In such cases, whether the buildings are offsite or onsite, probe intervals will be a maximum of 100 feet apart. The four permanent probes are also monitored for methane.

3.1.2. Structural Monitoring

Interior monitoring of onsite structures will be performed with permanent continuous gas monitors installed within the interiors of the buildings and/or by manual probing within each building. The structures monitored are as follows:

- Scalehouse/Office Trailer
- Landfill Maintenance Building
- Hauling Company Office Building
- Renewable Natural Gas (RNG) Plant

3.2. Frequency

Monitoring for explosive gas concentrations at SWDC is performed quarterly. Results of the quarterly gas monitoring event are submitted to ADEM and placed in the operating record within 30 days of the monitoring event.

3.3. Methods and Procedures

3.3.1. Detection Equipment for Probing

Gas concentrations are measured with a gas indicator that measures concentration as percent LEL This explosive gas indicator is equipped with a flexible extension hose and rigid plastic probe. At a minimum, the explosive gas indicator is calibrated on a quarterly basis in accordance with the manufacturer's specifications. The amount of monitoring and the handling of the meter will influence whether the calibration frequency should be increased.

3.3.2. Barhole Probing

Barhole probing is performed as follows: With the aid of a plunger bar a hole is made to a depth of 4 feet below ground surface or as deep as geology allows. After the plunger bar is removed, the sampling probe is inserted into the hole immediately. The aspirator bulb is slowly squeezed and released several times, recording the reading obtained after continuous sampling (stabilized value). When barhole monitoring yields a concentration of explosive gas greater than 5 percent, additional barhole probing is required. In this case additional barholes are punched and sampled at planned intervals, radiating out in various directions from the original barhole of concern, until readings of zero are obtained. By using a radial or grid-type pattern, a graph depicting the apparent movement of gas based on concentration can be plotted.

3.3.3. Depths

Barhole probing will be conducted at a minimum depth from the ground surface of 4 feet where geology allows. Shallower barhole probing on the order of 6 to 12 inches is performed when investigating for cover soil gas concentrations in vegetation-stressed areas.

3.3.4. Seasonal Variables

A number of seasonal variables affect the overall effectiveness of the barhole probe method. The moisture content of the ground greatly affects the concentration of the gas detected. Combustible gas generally migrates readily through dry soil and bedrock materials and less readily through wet or saturated materials. Additionally, water saturated conditions may prohibit the use of the barhole probe method.

If the ground is frozen, it is harder for the plunger bar to penetrate. Though seasonal weather conditions may inhibit the use of the barhole probe technique, they do not prohibit its use as a year-round monitoring technique. However, combustible gas may vary in concentrations at the same location as a result of seasonal conditions. Thus, at times it may be difficult to correlate data from one sampling area to the next.

3.3.5. Site Structural Monitoring

Explosive gas accumulation is monitored in site buildings with continuous gas monitors located inside the buildings. Each groundwater monitoring well is monitored for explosive gases. Culverts located on site are also monitored for explosive gases. Monitoring with the explosive gas meter can also be used in and around site buildings if migrating landfill gas is suspected in the area or if the continuous gas monitor detects gas or if the continuous monitor malfunctions. Areas to be monitored in accessible spaces of a structure would be comers, along baseboards, attics, drainage structures

(drains, toilets, sumps) or other accessible areas where explosive gas could enter unnoticed. (Confined spaces where gas accumulation may occur should not be entered without proper OSHA training and preparation).

3.3.6. Combustible Property of Methane

When methane is introduced into an area, fresh air is displaced gradually until the area could be filled completely with the gas. During this process, the air/methane mixture passes through three specific ranges; lean, explosive and rich.

Mixtures in the lean range, which extends from fresh air or zero percent methane to the lower explosive limit (LEL), contain too little gas in relation to the amount of air to burn on contact with a source of ignition. A mixture of the LEL, which is 5 percent by volume, is the lowest concentration of methane in air that will explode or burn when ignited. Mixtures in the explosive or flammable range, which extends from the LEL to the upper explosive limit (UEL) of 15 percent by volume, will propagate flame. Large volumes of combustible gases or vapors in this concentration, if ignited, can cause damage and personal injury.

A mixture at the UEL (15 percent) has the highest concentration of combustible gas in air that will burn. Mixtures in the rich range, which extends from the UEL to 100 percent methane, usually contain too much gas in relation to air to be combustible. However, because adding air to these high concentrations of methane creates mixtures in the flammable region, they must be considered equally dangerous.

3.4. Safety

3.4.1. Potential Safety Hazards

When monitoring on landfill sites, the monitoring technicians should be alert to the hazards caused by the presence of potentially explosive landfill gas. Hazards that might occur could be one or more of the following:

- Fires may start from exposed or decomposing solid waste.
- Fires and explosions may occur from the presence of landfill gas. Methane gas (CH4) which is about 50 percent of the total of landfill gas and which also is known as marsh gas or methyl hydride, is a flammable, colorless, odorless, and tasteless gas.
- Landfill gas may cause an oxygen deficiency in underground trenches, vaults, conduits, and structures; confined space entry procedures should be followed.

Hydrogen sulfide (H2S) also may be present. H2S is a colorless, very flammable gas that in low concentrations has an offensive odor similar to that of rotten eggs. H2S is highly toxic. Although the odor of H2S is recognizable (unless masked) at 1/400 of the lowest possible amount that can cause injurious effects, sense of smell is lost within 2 to 15 minutes of exposure. At higher concentrations, it will deaden the sense of smell instantly and cause death within seconds by terminating the function of the nerve and motor center in the brain.

3.4.2. Safety Precautions

The following minimum safety precautions should be adhered to by personnel monitoring for combustible gas:

- At least two people should be present at all times when monitoring for potentially explosive gas concentrations (buddy system).
- Hard hats and glasses must be worn in designated areas.
- Smoking is prohibited during monitoring.
- A fire extinguisher must be readily available, especially when monitoring gas concentrations within structures or confined spaces.
- The site-specific landfill safety program should be followed.
- Barhole probing will not be conducted near buildings unless:
    - Sub-grade utility lines are located and clearly marked before the monitoring event.
    - A person with knowledge of all sub-grade utility lines is consulted prior to the monitoring event.
    - Monitoring personnel have an accurate site utility plan/map.

Methane is an odorless, tasteless gas, and it is undetectable by the human senses. Therefore, sampling personnel must be continually aware of and avoid all potential sources of ignition. When technicians are monitoring in confined areas, a gas monitoring device should be used to monitor the gas conditions continually within the working area. This gas monitoring device should continually monitor for methane, oxygen and hydrogen sulfide and provide both a visual and audible alarm if gas concentrations exceed or drop below a set level.

3.5. Data Reporting and Evaluation

Monitoring results and observations should be recorded on forms acceptable to ADEM. The data from each monitoring event should be maintained onsite and placed in the operating record. The gas monitoring data should be submitted to ADEM within 30 days of the gas monitoring event.

3.5.1. Exceedances

If combustible gas concentrations exceed 5 percent at a barhole probe location or 1.25 percent within a site structure, the following procedures will be undertaken.

3.5.2. Barhole Probe Exceedance

In the case of gas concentrations exceeding 5 percent at any of the barhole probe locations, subsequent barhole probe measurements will be made surrounding the point from which the exceedance was identified. The objective of the additional measurement will be to define the limits of gas migration (a more detailed discussion of the methods used to define the limits is found under "Barhole Probing"). Once limits of migration are defined facility management will be notified and will decide if further action is warranted.

3.5.3. Site Structure Exceedance

When combustible gas concentrations exceeding 1.25 percent inside any inhabited onsite building are noted, the building will be evacuated immediately. Procedures described under "Emergency Conditions" should then be followed.

3.5.4. Emergency Conditions

If a barhole probe reading exceeding 5 percent combustible gas is noted at the property line, or if a combustible gas concentration exceeds 1.25 percent within an inhabited site structure, site management will be notified immediately. They will further investigate the condition and will be responsible for taking appropriate and immediate steps to protect human health and property. Each incident of exceedance will be immediately reported to ADEM. Within 7 days of detection of an exceedance, SWDC will place in the operating record the methane gas levels detected and a description of the steps taken to protect human health and property. A remedial plan for the explosive gas release describing the nature and extent of the problem and the proposed remedy, will be submitted to ADEM within 20 days of detection. This plan will be implemented upon ADEM approval, but within 60 days of detection. Also within 60 days of detection, SWDC will place a copy of the plan in the operating record and notify ADEM that the plan has been implemented.

4. REFERENCES

CH2M HILL. *Hydrogeologic/Geotechnical Investigation of the Salem Waste Disposal Center - Final Report. 1991.*

Freeze, R.A., and J.A. Cherry. *Groundwater. New Jersey: Prentice-Hall, Inc. 1979.*

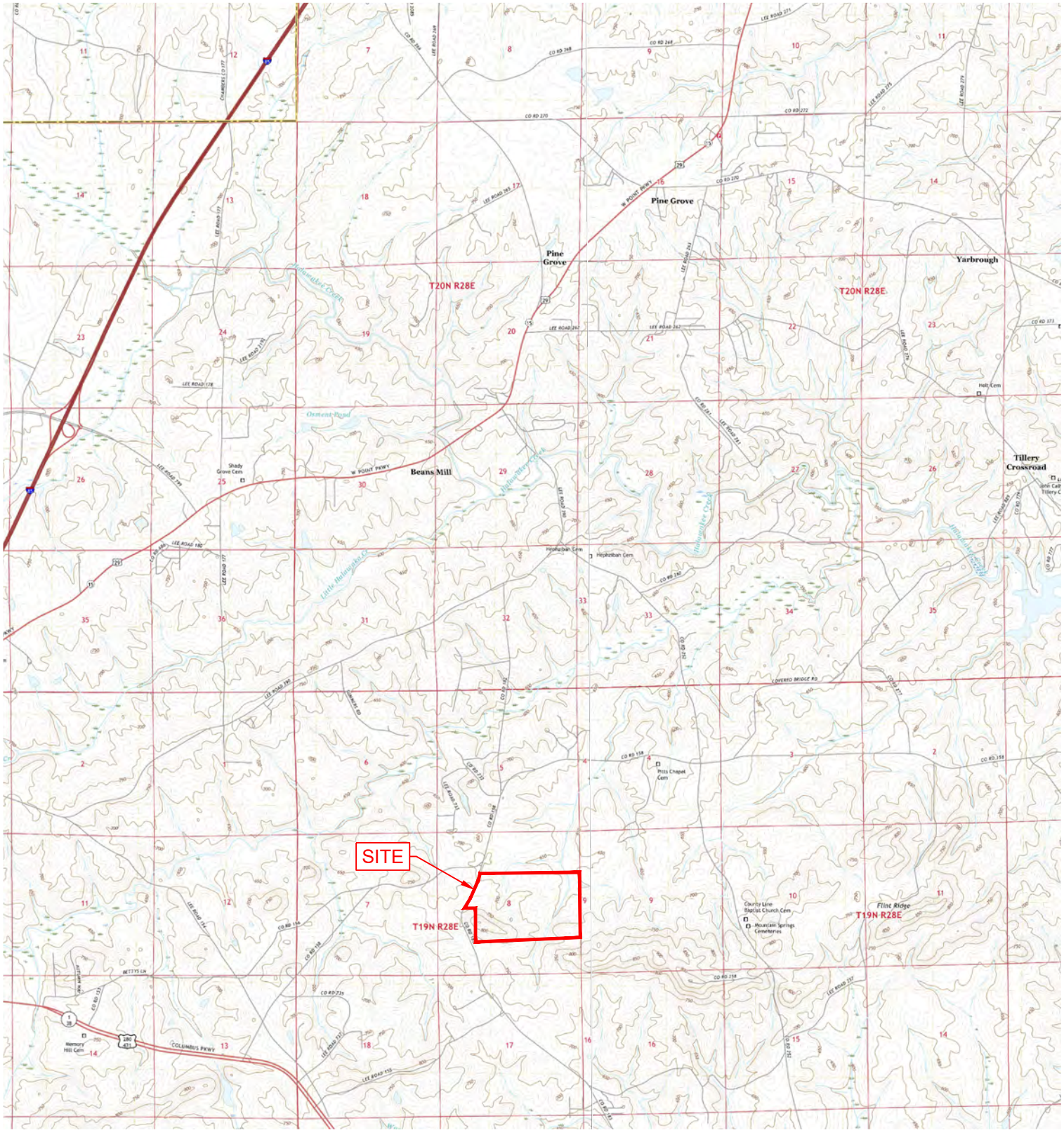
Hunt, R.E. *Geotechnical Engineering Investigation Manual. New York: McGraw Hill Book Company. 1984.*

Kidd, R.E. *Geohydrology and Susceptibility to Surface Contamination in Alabama*; Area 5. USGS WRI Report 88-4003. 1989.

Osborne, W.E., M.W. Szabo, C.W. Copeland, Jr., and T.L. Neathery. *Geologic Map of Alabama (SM221).* 1988.

Kelly Engineering, LLC. *Landfill Gas Monitoring Plan, Salem Waste Disposal Center, Inc. September 2000.*

FIGURES



2,500 0 2,500 5,000

SCALE IN FEET

NOTES:

1. BACKGROUND MAP OBTAINED FROM USGS QUADRANGLES MAPS *OPELIKA EAST* AND *BEULAH*, BOTH DATED 2020.

DESCRIPTION	APPR. BY	DRA. BY	DATE	REV
ISSUED FOR PERMITTING	CRW	CRW	07/2025	0

PREPARED FOR:

SALEM WASTE DISPOSAL CENTER
4210 LEE ROAD 183
OPELIKA, ALABAMA 36804

PREPARED BY:

PROMUS ENGINEERING
www.promusengineering.com

SITE LOCATION MAP

LANDFILL GAS MONITORING PLAN
SALEM WASTE DISPOSAL CENTER
OPELIKA, ALABAMA

FIGURE NO.
1

NOTES

1. EXISTING CONTOURS SHOWN ON THIS DRAWING REPRESENT TOPOGRAPHIC SURVEY INFORMATION TAKEN ON DECEMBER 02, 2024 BY SOUTHERN RESOURCES MAPPING CORPORATION.
2. GAS PROBE LOCATIONS WERE PROVIDED BY WASTE MANAGEMENT ON FEBRUARY 21, 2018 AND WERE OBTAINED FROM A HANDHELD GPS UNIT.

LEGEND

PROPERTY BOUNDARY	
PERMITTED LIMIT OF LANDFILL	
GM-23	GAS MONITORING LOCATION
GW-4A	GROUNDWATER MONITORING WELL LOCATION
GP-77	GAS PROBE LOCATION
CLVRT-14	CULVERT

REV	DATE	DES. BY	DRA. BY	APPR. BY	DESCRIPTION
A	07/02/25	CRW	CRW	CRW	ISSUED FOR PERMITTING

PREPARED FOR:
SALEM WASTE DISPOSAL CENTER

WASTE MANAGEMENT

PREPARED BY:
PROMUS ENGINEERING
1200 MOUNTAIN CREEK ROAD, SUITE 102 | CHATTANOOGA, TENNESSEE 37405
Phone: (888) 811-8066

GAS MONITORING LOCATIONS

LANDFILL GAS MONITORING PLAN
SALEM WASTE DISPOSAL CENTER
4210 LEE ROAD 183
OPELIKA, AL 36804

PROJECT NO.: 250173
SHEET NUMBER
2

Last Saved By:ROBWITCHER Date: 7/2/2025 11:48 AM File Path: C:\USERS\ROBWITCHER\PROMUS ENGINEERING DROPBOX\PROJECTS-ACTIVE\250173-WMSL-LFGP-MOD\DOCUMENTS\FIGURES\FIGURE-2.DWG

WM
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Doc Date	Invoice Number / Description	Original Amount	Discount Amount	Amount Paid
06/27/2025	6272025 HANDLING CODE ATTN NATHAN-AL0023	3,275.00	.00	3,275.00

#403

Vendor Number 69064 Name STATE OF ALABAMA

Check Number	Date	Total Amount	Discounts Taken	Total Paid Amount
1000169400	07/03/2025	$3,275.00	$.00	$3,275.00

THIS DOCUMENT HAS A COLORED BACKGROUND AND MICROPRINTING IN THE ENDORSEMENT SIGNATURE LINE. THE REVERSE SIDE OF THIS DOCUMENT HAS AN ARTIFICIAL WATERMARK.

WM
P.O. Box 3027
Houston, TX 77253

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COMMERCIAL DISBURSEMENT ACCOUNT
NORTHBROOK, IL

CHECK NO 1000169400
70-2328 / 719

Security features included Details on back

DATE 07/03/2025

PAY EXACTLY

$ ****3,275.00

VOID AFTER 90 DAYS

PAY EXACTLY

****THREE THOUSAND TWO HUNDRED SEVENTY-FIVE DOLLARS AND ZERO CENTS****

Leslie K. Nagy

AUTHORIZED SIGNATURE

AUTHORIZED SIGNATURE

TO THE ORDER OF

STATE OF ALABAMA
Dept of Environmental Management
PO Box 301463
Montgomery,AL 36130 United States

⑈1000169400⑈ ⑆071923284⑆ 008765731184⑈

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.
   Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
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