

PRELIMINARY DETERMINATION

PERMIT RENEWAL
City of Alexander City
P.O. Box 552
Alexander City, Alabama 35011

New North Central Avenue Inert Landfill
Permit No. 62-10

October 10, 2024

The City of Alexander City has submitted to the Alabama Department of Environmental Management (ADEM) an application to renew the Solid Waste Disposal Facility Permit for the New North Central Avenue Inert Landfill (Permit 62-10). The waste stream for the New North Central Avenue Inert Landfill would remain non-putrescible and non-hazardous construction and demolition waste, discarded tires, and rubbish as defined by ADEM Admin. Code 335-13-1-.03; textile waste from Russell Corporation and Avondale Mills and non-hazardous silica sand which exhibits less than 50 percent of each of the TC levels as defined by the USEPA's Toxicity Characteristics Leaching Procedure (TCLP) from Robinson Iron and Alexander Casting. The service area for the New North Central Avenue Inert Landfill would remain Chambers, Clay, Coosa, Elmore, and Tallapoosa Counties in Alabama. The maximum average daily volume of waste disposed at the landfill would remain 120 tons per day. All conditions of the current permit, including previously approved variances, have been requested and would be granted in the renewed permit.

The New North Central Avenue Inert Landfill is located in the Southwest ¼ of Section 21, Township 23 North, Range 21 East, Tallapoosa County, Alabama. The landfill consists of approximately 183.48 acres with 35.72 acres approved for disposal.

The Land Division has determined that the permit renewal application complies with the applicable requirements of ADEM's Administrative Code 335-13 regulations for a construction and demolition waste landfill.

Technical Contact:

Melissa H. Adornato
Solid Waste Engineering Section
Land Division
(334) 270-5605



ALABAMA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**SOLID WASTE DISPOSAL
FACILITY PERMIT**

PERMITTEE: City of Alexander City

FACILITY NAME: New North Central Avenue Inert Landfill

FACILITY LOCATION: SW ¼ of Section 21, Township 23 North, Range 21 East in Tallapoosa County, Alabama. The total permitted area is approximately 183.48 acres with 35.72 acres approved for disposal.

PERMIT NUMBER: 62-10

PERMIT TYPE: Construction/Demolition (C/D) Landfill

WASTE APPROVED FOR DISPOSAL: The Permittee may accept non-putrescible and non-hazardous construction and demolition waste, discarded tires, and rubbish as defined by ADEM Admin Code 335-13-1-.03. The Permittee may accept textile waste from Russell Corporation and Avondale Mills and non-hazardous silica sand which exhibits less than 50 percent of each of the TC levels as defined by the USEPA's Toxicity Characteristics Leaching Procedure (TCLP) from Robinson Iron and Alexander Casting.

APPROVED WASTE VOLUME: Maximum Daily Volume of 120 tons per day

APPROVED SERVICE AREA: Chambers, Clay, Coosa, Elmore, and Tallapoosa Counties in Alabama.

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: ????????

EFFECTIVE DATE: ????????

EXPIRATION DATE: ????????

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
SOLID WASTE PERMIT**

Permittee: City of Alexander City
P.O. Box 552
Alexander City, AL 35011

Landfill Name: New North Central Avenue Inert Landfill

Landfill Location: Southwest ¼ of Section 21, Township 23 North, Range 21 East in Tallapoosa County, Alabama

Permit Number: 62-10

Landfill Type: Construction and Demolition Landfill

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 City of Alexander City (hereinafter called the Permittee), to operate a solid waste disposal facility, known as the New North Central Avenue Inert Landfill.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions set forth herein (including those in any attachments), and the applicable regulations contained in Chapters 335-13-1 through 335-13-16 of the ADEM Administrative Code (hereinafter referred to as the "ADEM Admin. Code"). Rules cited are set forth in this document for the purpose of Permittee reference. Any 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 any revisions approved after permit issuance.

This permit is based on the information submitted to the Department on October 25, 2023, and as amended, and known as the Permit Application (hereby incorporated by reference and hereinafter referred to as the Application). Any inaccuracies found in this information could lead to the termination or modification of this permit and potential enforcement action. The Permittee must inform the Department of any deviation 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 ????????, and shall remain in effect until ????????, unless suspended or revoked.

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 any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights, or any 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 in compliance with applicable requirements in effect as of the date of issuance of this permit and any 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 any permit condition.
- C. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any 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", for purposes of this permit, means the United States Environmental Protection Agency.
 2. "Permit Application", for the purposes of this permit, 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 the Department 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 the Department. 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 the Department at least one hundred eighty (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, Paragraph E, Subparagraph 2, and, through no fault of the Permittee, the Department 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 the Department, within a reasonable time, any information that the Department 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 the Department 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 the Department 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, any records that must be kept under the conditions of this permit.
 - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
 - d. Sample or monitor, at reasonable times, any substances or parameters at any 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 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, Paragraph 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 the Department at any time and are automatically extended during the course of any 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 the Department, in the form of a request for permit modification, at least one hundred twenty (120) days prior to any 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 any 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 the Department. 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 or 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 any report to the Department, the Permittee shall promptly submit such facts or information. In addition, upon request, the Permittee shall furnish to the Department, 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 any 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, Paragraph 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 industrial waste and special waste.
 - e. Groundwater monitoring records, if required.
 - f. Explosive gas monitoring records, if required.
 - g. Surface water and leachate monitoring records, if required.
 - h. Copies of this Permit and the Application.
 - i. Copies of all variances granted by the Department, including copies of all approvals of special operating conditions.
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. If groundwater monitoring is required in Section IV, groundwater monitoring shall be conducted in March and September of each year, or as directed by the Department, and the reports shall be submitted at least semi-annually, or as directed by the Department. The reports should contain all monitoring results and conclusions from samples and measurements conducted during the sampling period. Explosive gas monitoring must be conducted on an annual basis, and the reports should be submitted to the Department and placed in the operating record within thirty (30) days of the monitoring event. Copies of the groundwater and 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 any officer, employee, or representative of the Department.
 - 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 any unresolved enforcement action regarding the facility, or as requested by the Department.
 - c. A copy of records of waste disposal locations and quantities must be submitted to the Department and local land authority upon closure of the facility.
- I. Documents to be Maintained by the Permittee. The Permittee shall maintain, at the Alexander City Hall office, 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 the Department, 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 if the information is protected under Code of Alabama 1975 §§22-39-18, as amended.
- M. State Laws and Regulations. Nothing in this permit shall be construed to preclude the initiation of any legal action or to relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any 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 the Department and other appropriate agencies. A burn request should be submitted in writing to the Department 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, PCBs, 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. Any 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 Waste Disposal. The Permittee shall not dispose of industrial process waste at this landfill except for those listed in Section III, Paragraph B.
- 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 REQUIREMENTS FOR CONSTRUCTION/DEMOLITION LANDFILLS

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, Paragraph B. Disposal of any other wastes is prohibited, except waste granted a temporary or one time waiver by the Director.
- 2. The total permitted area for the New North Central Avenue Inert Landfill is approximately 183.48 acres with 35.72 acres approved for disposal.
- 3. The maximum average daily volume of waste disposed at the facility shall not exceed 120 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 the Department 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-.23(2)(f).

B. Waste Streams. The Permittee may accept for disposal non-putrescible and non-hazardous construction and demolition waste, discarded tires, and rubbish as defined by ADEM Admin. Code 335-13-1-.03. The Permittee may accept for disposal textile waste from Russell Corporation and Avondale Mills and non-hazardous silica sand which exhibits less than 50 percent of each of the TC levels as defined by the USEPA's Toxicity Characteristics Leaching Procedure (TCLP) from Robinson Iron and Alexander Casting, in accordance with ADEM Admin. Code 335-13-4-.26(3). (See Section VIII, Paragraph 3.)

C. Service Area. The Permittee is allowed to receive for disposal waste from Chambers, Clay, Coosa, Elmore, and Tallapoosa Counties in Alabama.

D. Waste Placement, Compaction, and Cover. All waste shall be confined to an area as small as possible within a single working face and placed onto an appropriate slope not to exceed 4 to 1 (25%) or as otherwise approved by the Department. All waste shall be spread in layers two feet or less in thickness and thoroughly compacted weekly with adequate landfill equipment prior to placing additional layers of waste or placing the weekly cover. A minimum of six inches of compacted earth or other alternative cover material approved by the Department and listed in Section VIII shall be added at the conclusion of each week's operation unless a variance is granted in Section VIII.

E. Liner Requirements. At this time, the Permittee shall not be required to install a liner system. The base of the landfill 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).

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

G. 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.

- H. Adverse Weather Disposal. The Permittee shall provide for disposal activities in adverse weather conditions.
- I. Personnel. The Permittee shall maintain adequate personnel to ensure continued and smooth operation of the facility.
- J. Environmental Monitoring and Treatment Structures. The Permittee shall provide protection and proper maintenance of environmental monitoring and treatment structures.
- K. Vector Control. The Permittee shall provide for vector control as required by ADEM Admin. Code 335-13.
- L. Bulk or Noncontainerized Liquid Waste. The Permittee shall not dispose of bulk or noncontainerized liquid waste, or containers capable of holding liquids, unless the conditions of ADEM Admin Code 335-13-4-.23(1)(j) are met.
- M. Empty Containers. Empty containers larger than 10 gallons in size must be rendered unsuitable for holding liquids prior to disposal in the landfill unless otherwise approved by the Department.
- N. Other Requirements. may enhance or reduce any requirements for operating and maintaining the landfill as deemed necessary by the Land Division.
- O. Other Permits. The Permittee shall operate the landfill according to this and any other applicable permits.
- P. Scavenging and Salvaging Operations. The Permittee shall prevent scavenging and salvaging operations, except as part of a controlled recycling effort. Any recycling operation must be in accordance with plans submitted and approved by the Department.
- Q. Signs. If the landfill is available to the public or commercial haulers, 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-.23(1)(f).
- R. Litter Control. The Permittee shall control litter.
- S. Fire Control. The Permittee shall provide fire control measures.

SECTION IV. GROUNDWATER MONITORING REQUIREMENTS

Groundwater monitoring is not required at this landfill provided that the waste stream is in accordance with Section III, Paragraph B. Should any waste be disposed other than the waste streams indicated in Section III, Paragraph B, the Department may require that groundwater monitoring wells be installed.

SECTION V. GAS MONITORING REQUIREMENTS

The permittee must install and maintain an explosive gas monitoring system in accordance with ADEM Admin. Code 335-13.

SECTION VI. SURFACE WATER MANAGEMENT REQUIREMENTS

The permittee shall construct and maintain run-on and run-off control structures to control the discharge of pollutants to waters of the State during wet weather events. Any discharges from drainage control structures shall be permitted through a discharge permit issued by the ADEM Water Division.

SECTION VII. 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 shall comply with ADEM Admin. Code 335-13. 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%). The Permittee has been granted a variance from ADEM Admin. Code 335-13-4-.20(2)(c)3. requiring final soil cover to be graded so that there are horizontal terraces for every 20 feet rise in elevation for slopes longer than 25 feet. The Permittee is not required to construct horizontal terraces. (See Section VIII, Paragraphs 1 and 2.)
- B. Vegetative Cover. The Permittee shall establish a vegetative or other appropriate cover within ninety (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 the Department 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 one hundred eighty (180) days of the last known receipt of waste.
- E. Certification of Closure. Following closure of each unit, the Permittee must submit to the Department a certification, signed by a 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. The Department 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 the Department. Monitoring requirements shall continue throughout the post-closure period as determined by the Department unless all waste is removed and no unpermitted discharge to waters of the State have 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 any other component 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 the Department a certification, signed by a registered professional engineer, verifying the post-closure has been completed according to the Post-Closure Plan.
- J. Recording Instruments. The Permittee must provide documentation of compliance with the requirements of the Uniform Environmental Covenants Program in ADEM Admin. Code 335-5 and shall execute the following:
 - 1. Record a notation onto the land deed within ninety (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 one hundred twenty (120) days after permit expiration, revocation, or as directed by ADEM as described in the Application.
- K. Removal of Waste. If the Permittee, or any other person(s), wishes to remove waste, waste residues, or any liner or contaminated soils, the owner must request and receive prior approval from the Department.

SECTION VIII. 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 VII, Paragraph A.)
2. The Permittee has been granted a variance from ADEM Admin. Code 335-13-4-.20(2)(c)3. requiring final soil cover to be graded so that there are horizontal terraces for every 20 feet rise in elevation for slopes longer than 25 feet. The Permittee is not required to construct horizontal terraces. (See Section VII, Paragraph A.)
3. In accordance with ADEM Admin. Code 335-13-4-.26(3), the silica sand must undergo a quarterly TCLP (Toxicity Characteristic Leaching Procedure) analysis for the RCRA (Resource Conservation and Recovery Act) 8 metals, submit each analysis to the Department, and maintain a copy in the landfill's operating records. (See Section III, Paragraph B.)

Any variance granted by the Department may be terminated by the Department whenever the Department 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.

Permit No. 62-10

Renewal Application

Municipal Consultants, Inc.

Civil/Environmental Engineering

200 Century Park South, Suite 212
Birmingham, Alabama 35226
(205) 822-0387

March 1, 2024

Received

MAR 04 2024

Land Division

Melissa Adornato
Alabama Department of Environmental Management
Solid Waste Branch - Land Division
1400 Coliseum Boulevard
Montgomery, AL 36110-2400

RE: ADEM Permit Renewal Variance Extension Request
New North Central Avenue Inert Landfill
Permit No. 62-10

Dear Mrs. Adornato,

On behalf of the City of Alexander City, the City would like to request that the approved variances as described in Section VIII of their approved landfill permit 62-10 be extended. The variances requested for extension are as described below:

1. The permittee is granted a variance from Rule 335-13-4-.20(2)(c)2 requiring a maximum final slope of 4 to 1 (25%) for the final closure system. The permittee is allowed to increase the maximum final slope not to exceed 3 to 1 (33%). See Section VII. A.
2. The Permittee has been granted a variance from ADEM Rule 335-13-4-.20(2)(c)3 requiring horizontal terraces every 20 feet rise in elevation for slopes longer than 25 feet. No terraces will be required in the final closure system. See Section VII.A.

If you have any questions or require any additional information, please don't hesitate to contact us.

Sincerely,



Trent Turner

xc: Mr. Drew Meacham, P.E.

Municipal Consultants, Inc.

Civil/Environmental Engineering

200 Century Park South, Suite 212
Birmingham, Alabama 35226
(205) 822-0387

October 24, 2023

Received

OCT 25 2023

Land Division

Melissa Adornato
Alabama Department of Environmental Management
Solid Waste Branch - Land Division
1400 Coliseum Boulevard
Montgomery, AL 36110-2400

RE: ADEM Permit Expiration Notice/Request for Additional Information
New North Central Avenue Inert Landfill
Permit No. 62-10

Dear Mrs. Adornato,

The City of Alexander City received a letter from ADEM dated August 7, 2023 notifying them of their upcoming landfill permit expiration date and requesting additional information for the permit renewal application for the New North Central Avenue Inert Landfill. On behalf of the City, we have gathered the names and dates of submission of the relevant documents as requested by ADEM. Please see the list below:

- ***Any current variances and special conditions (both the requests and ADEM's approval response letters).***
 - October 26, 2009 – City requested a variance to close the landfill with 3:1 slopes and no terraces.
 - November 16, 2009 – Variance request approved by ADEM.

- ***A copy of the original local approval and any subsequent local approvals relevant to current operations.***
 - Original Landfill –
 - Submitted on July 9, 1998
– Exhibit “A2” City Council Approval and Resolution
 - Landfill Expansion –
 - Submitted on August 23, 2019
– Exhibit “B” City Council Approval and Resolution

- ***Any siting requests and approvals relevant to current operations.***
 - Original Landfill –
 - Submitted on July 9, 1998
 - Exhibit “B” Flood Map and Receiving Stream
 - Exhibit “C” Hydrological and Geological Review
 - Exhibit “D” Wetland Delineation
 - Exhibit “E” Cultural Resource Survey and Evaluation
 - Exhibit “E” Fish, Wildlife, and Endangered Species Evaluation
 - Landfill Expansion –
 - Submitted on August 23, 2019
 - Exhibit “D” Flood Map and Receiving Stream
 - Exhibit “E” Wetland Delineation
 - Exhibit “F” Fish, Wildlife, and Endangered Species Evaluation
 - Exhibit “G” Cultural Resource Survey and Evaluation
 - Exhibit “H” Geological Review
 - Exhibit “I” Geotechnical Evaluation
 - Submitted on October 28, 2021 – Additional Items
 - Attachment 2, USACE Preliminary Jurisdictional Determination and Correspondence
 - Attachment 3, Cultural Resource Study and Correspondence
 - Attachment 4, Fish, Wildlife, and Endangered Species Study and Correspondence
- ***The hydrogeological evaluation relevant to current operations.***
 - Original Landfill – Submitted on July 9, 1998
 - Exhibit “C” Hydrological and Geological Review
 - Landfill Expansion - Submitted on August 23, 2019
 - Exhibit “J” Hydrogeological Evaluation
- ***Stormwater runoff calculations used to size sediment ponds relevant to current operations.***
 - Original Landfill – Submitted on July 9, 1998
 - Exhibit “L” Storm Drainage Calculations
 - Landfill Expansion - Submitted on October 28, 2021 - Additional Items
 - Attachment 5, Report of Storm Water Hydraulics and Hydrology
- ***The liner and leachate QA/QC plan relevant to current operations and statement of where the leachate goes after it leaves the facility.***
 - This is Not Applicable to the C&D Landfill
- ***The most recent operations plan as well as any additional modifications made since the last operations plan was written, including waste screening procedures.***
 - Original Landfill – Submitted on July 9, 1998
 - Section 2, Operation and Design Plan

- Landfill Expansion - August 23, 2019
 - Included and resubmitted in Section 2, Operation and Design Plan
 - Submitted on October 28, 2021 – Additional Items
 - Attachment 6, Operation and Design Plan

- ***The most recent gas monitoring plan as well as any modifications made since the last gas monitoring plan was written.***
 - Original Landfill – Submitted on July 9, 1998
 - Section 2, Operation and Design Plan (Gas Monitoring Plan is within the operations plan.
 - Landfill Expansion – Submitted August 23, 2019
 - Included and resubmitted in Section 2, Operation and Design Plan

- ***The most recent closure plan as well as any modifications made since the last closure plan was written.***
 - Original Landfill –
 - Original Submitted on February 1, 1997
 - Revised cell closure plan – Submitted on October 26, 2009 as a variance request. (See variances from above)
 - Landfill Expansion - Submitted on October 28, 2021 - Additional Items
 - Attachment 8, Revised Permit Drawings

- ***The most recent groundwater monitoring plan as well as any modifications made since the last groundwater monitoring plan.***
 - Groundwater monitoring is not required for this C&D landfill therefore this requirement is not applicable.

- ***The cell certification and subsequent approval letter from ADEM for the current cell waste is being disposed in.***
 - Original Landfill – ADEM approval letter August 27, 1998

- ***The most recent permit drawings relevant to site operations.***
 - Original Landfill –
 - Original Submitted on February 1, 1997
 - Revised cell closure plan – Submitted on October 26, 2009 as a variance request. (See variances from above)
 - Landfill Expansion - Submitted on October 28, 2021 - Additional Items
 - Attachment 8, Revised Permit Drawings

- ***Boundary plat and legal property description prepared, signed, and sealed by a land surveyor of the permitted facility boundary and permitted disposal area of the facility.***
 - Original Landfill – Submitted on July 9, 1998
 - Exhibit “G” Boundary Survey and Access Easement
 - Landfill Expansion – Submitted August 23, 2019

- Exhibit "C" Landfill Expansion Property Boundary Survey

Also included as part of this response letter, please see the attached executed permit renewal form, adjacent property landowner map and list, and permit fee receipt in the amount of \$5,400.00.

If you have any questions or require any additional information, please don't hesitate to contact us.

Sincerely,



Trent Turner

SOLID WASTE APPLICATION

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

1. Facility type: _____ 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 New North Central Avenue Inert Landfill Permit #62-10

3. Applicant/Permittee:

Name: City of Alexander City / Drew Meacham, Director of Public Works

Address: 281 James D. Nabors Drive
Alexander City, AL 35010

Telephone: (256) 409-2020

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

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

Township T-23-N Range R-21-E
Section 21 County Tallapoosa

5. Land Owner:

Name: City of Alexander City

Address: 281 James D. Nabors Drive
Alexander City, AL 35010

Telephone: (256) 329-6700

(Attach copy of agreement from landowner if applicable.)

Solid Waste Permit Application
Page 2

6. Contact Person:

Name Marty Kendrick

Position or Affiliation Environmental Services Superintendent

Address: 281 James D. Nabors Drive
Alexander City, AL 35010

Telephone: (256) 409-2020

7. Size of Facility:

183.48 Acres

Size of Disposal Area(s):

35.72 Acres

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

Tallapoosa, Coosa, Elmore, Chambers and Clay Counties,
Russell Corporation, Avondale Mills, Robinson Iron, and
Alexander City Casting.


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

120 Tons/Day _____ Cubic Yards/Day

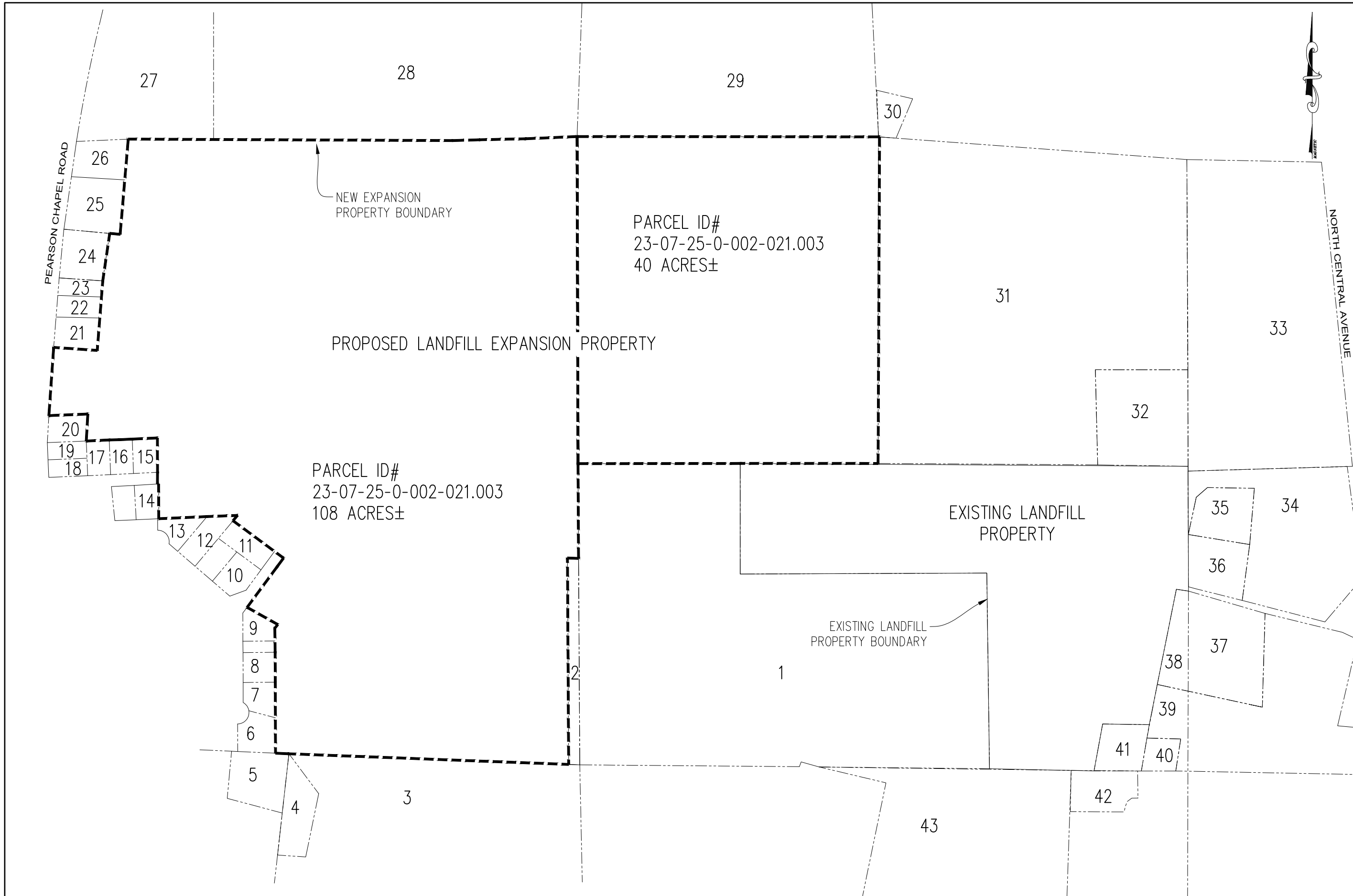
10. List all waste streams to be accepted at the facility (i.e., household solid waste, wood boiler ash, tires, trees, limbs, stumps, etc.):

Non-hazardous demolition debris, stumps, limbs, tires, leaves, grass and
similar types of material. Non-hazardous silica sand, pallets, cloth scraps,
yarn, and similar material.

SIGNATURE (Responsible official of permit applicant):

 TITLE: Mayor

Curtis "Woody" Baird DATE: 10/23/23
(please print or type name)



**Municipal
Consultants,
Inc.**
200 Century Park, South, Suite 212
Birmingham, Alabama 35226
(205) 827-0387

THE CITY OF ALEXANDER CITY
NORTH CENTRAL AVENUE
LANDFILL EXPANSION

2023

BAR = 1/2"

Drawing	Title
Project No.	PROPERTY & ADJACENT LANDOWNERS MAP
Date	10-23
Scale	1" = 400'
Sheet	

**THE CITY OF ALEXANDER CITY, ALABAMA
NORTH CENTRAL AVENUE LANDFILL EXPANSION**

LIST OF ADJACENT PROPERTY OWNERS AND ADDRESSES

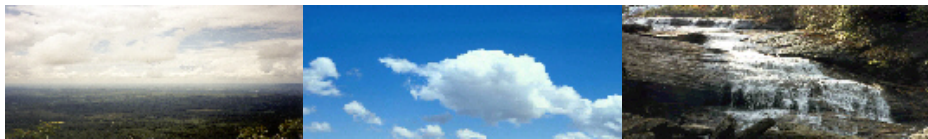
1. McGill, Gerald/Jones P./Holmes J.
P.O. Box 23
Alexander City, AL 35011
2. Ryals S, Leonard
1720 Sunset Pl
Gadsden, AL 35010
3. Ryals S, Leonard
1720 Sunset Pl
Gadsden, AL 35010
4. Patterson, Kevin
1701 Smith Dr
Alexander City, AL 35010
5. Benson, Lewis J & Marilyn B
1078 16th Place
Alexander City, AL 35010
6. Bledsoe, Linda Gayle
1405 Noble Street
Alexander City, AL 35010
7. Durden, James Rick & Galina N
P.O. Box 774
Alexander City, AL 35011
8. Key, David W
1361 Noble Street
Alexander City, AL 35010
9. Minnifield, Keithan
1395 Noble Street
Alexander City, AL 35010
10. Blackwelder, Dwayne & Melinda
1414 Glenwood Drive
Alexander City, AL 35010
11. Blackwelder, Dwayne & Melinda
1414 Glenwood Drive
Alexander City, AL 35010

12. Scott, Tracy N
1454 Glenwood Drive
Alexander City, AL 35010
13. Scott, Angela
1474 Glenwood Drive
Alexander City, AL 35010
14. Pappion, John B & Shenika M
1515 Spring Street
Alexander City, AL 35010
15. Davis, Marcia Saxon
1514 Spring Street
Alexander City, AL 35010
16. Davis, Marcia Saxon
1514 Spring Street
Alexander City, AL 35010
17. McCollough, Martha Joan
1554 Spring Street
Alexander City, AL 35010
18. Oliver, Denita P.
1572 Spring St
Alexander City, AL 35010
19. Oliver, Denita P.
1572 Spring St
Alexander City, AL 35010
20. Massengale, Peggy
1542 Pearson Chapel Road
Alexander City, AL 35010
21. Meadows, Kahalia & Keith
1634 Pearson Chapel Road
Alexander City, AL 35010
22. Simmons, Philip W. & Allyson M.
1646 Pearson Chapel Road
Alexander City, AL 35010
23. Brooks, Emma L. & Russell Johnnie
1660 Pearson Chapel Road
Sylacauga, AL 35150
24. Watson, Dollie L.
1690 Pearson Chapel Road
Alexander City, AL 35010

25. Russell, Arther Ray & Kenneth A. Russell,
c/o James Riggins
4530 Nantucket Drive, Apt. 5
Youngstown, OH 44515
26. Russell, McCline & Ethel
c/o Kenneth Russell
4530 Nantucket Drive, Apt. 5
Youngstown, OH 44515
27. Buckner, Clementine & Etals
1882 Pearson Chapel Road
Alexander City, AL 35010
28. Sassano, Emily Sasser
1377 De Jarnette Road
Kellyton, AL 35089
29. Franklin, Janice Rochelle
4424 Woodcrest Drive
Montgomery, Al 36108
30. Smith, Arthur J & Aretha F
889 Greenwood Road
Kellyton, AL 35089
31. Burnett, Nelladeane C
P.O. Box 893
Alexander City, AL 35011
32. Burns, Mary Hilda
902 Miller Avenue
Gadsden, AL 35903
33. Burns, William F Jr (Executor)
PO Box 120
Lanett, AL 36863
34. Armour, Hattye M
1465 North Central Avenue
Alexander City, AL 35011
35. Thompson, Eulanda D
P.O. Box 241
Alexander City, AL 35011
36. Armour, Darrell T
P.O. Box 241
Alexander City, AL 35011

37. Armour, Sharitta
P.O. Box 241
Alexander City, AL 35011
38. Armour, Sharitta
P.O. Box 241
Alexander City, AL 35011
39. Armour, Hattye M
P.O. Box 241
Alexander City, AL 35011
40. Buckner, Clementine & Etals
465 Meadow St
Alexander City, AL 35010
41. Hicks, Rebecca
115 Equal Club Road
Alexander City, AL 35010
42. Hicks, Rebecca
1056 Equal Club Road
Alexander City, AL 35010
43. McGill, Gerald/Jones P./Holmes J.
P.O. Box 23
Alexander City, AL 35011

ALABAMA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



(334) 271-7700 1400 Coliseum Blvd. Montgomery, AL 36110
mailing address: Post Office Box 301463, Montgomery, AL 36130-1463

Receipt Confirmation Page

ADEM requires that when you pay online, you MUST print out the confirmation information and submit it as proof of payment with your permit application or any other correspondence requiring proof of payment.

Payment Summary	
Payment Item	Fee
Online Payment - 10/23/2023 10:34:58	\$5,400.00
Total Fee through Alabama.gov (more info)	\$5,404.00

Receipt Confirmation Number: 20231023000007592

General Invoice Information

Choose the type of payment you are making: 5359-LAND- SOLID WASTE LANDFILL PERMIT

Description of Other Fees:

Additional Information/Fee Description: Alexander City C&D Landfill Permit

Number on your ADEM invoice:

Date on your ADEM invoice:

Contact Information

Company/Facility or Individual Name: City of Alexander City

Facility Permit Number (if applicable): 6210

Company or Facility Phone: 256-329-6709

Contact Person: Mary Kendrick

Contact Phone: 256-409-2020

Contact email address: marty.kentdrick@alexandercityal.gov

Name of an ADEM Program Staff Member (if known): Melissa Adornato

Policy Related Questions: 334-271-7700

Application Support: 866-353-3468 or support@alabamainteractive.org

Version 2.1.3

**The City of Alexander City
North Central Avenue Inert Landfill
Permit No. 62-10
Operations Plan**



**ALEXANDER
CITY
ALABAMA**

Prepared for:
The City of Alexander City

Prepared by:
Municipal Consultants, Inc.
Birmingham, AL

September 2024

Operations Plan

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Explosive Gas Monitoring

1. General Information

1.1 Facility Information

The City of Alexander City owns and operates the North Central Avenue Inert Landfill (Landfill). The Landfill is located off of North Central Avenue in the Southwest 1/4 of Section 21, Township 23 North, Range 21 East, Tallapoosa County, Alabama. The Landfill has been in operation since 1997 and originally consisted of 34.65 total acres with 12.72 acres permitted for disposal. The original landfill was built over a ravine with a large storm drain under it that extended from one side to the other to maintain the original drainage way. The Landfill was expanded in 2022 to add 148.83 total acres and 23 acres permitted for landfill disposal. The current landfill consists of 183.48 total acres permitted for landfill use with 35.72 acres approved for C&D disposal. There is also a designated area utilized for scrap metal recycling. In addition to the disposal areas, there are stormwater detention ponds and a compliance office.

The person in responsible charge of the landfill is:

Mayor of Alexander City, Curtis Wood (“Woody”) Baird
P. O. Box 552
Alexander City, Alabama 35011
Phone: (256) 329-6730

The person responsible for site operation:

Mr. Marty Kendrick
Phone: (256) 409-2020

1.2 Hours of Operation

The facility’s permit allows for 24-hour operations, seven (7) days a week. However, the facility currently operates Monday through Friday at the below hours. The site is closed on Saturdays, Sundays, and holidays observed by the City.

Actual operational activities start and end based on many factors such as weather conditions, volume of waste received on a particular day and impacts due to holiday make-up days.

Landfill Hours

- Monday - Friday: 6:00 am - 2:00 pm (Summer Hours)
Summer hours are from 2nd week in April to Labor Day
7:00 am - 3:00 pm (Winter Hours)
- Saturday – Sunday: Closed

These hours are subject to change at the City’s discretion.

1.3 Service Area

The landfill is permitted to receive waste from Chambers, Clay, Coosa, Elmore, and Tallapoosa Counties. Pursuant to City resolution number 11-54, only wastes collected from Alexander City residents and businesses is currently accepted at the facility.

1.4 Site Access and Signage

The landfill consists of one main entrance road and gate into the facility. Entrance to the site is controlled by the gate located on the main entrance road off of North Central Avenue. The entrance gate is opened only during the landfill operating hours. Otherwise, the site is secured to prevent unauthorized entry except when City personnel are onsite. All waste is delivered to the site only through the main entrance gate located on the east side of the facility. The facility's compliance office is also located on the main entrance road, which allows landfill personnel to monitor incoming traffic during business hours. Gates are closed and locked during non-operational hours.

Although the site does not have perimeter fencing, the perimeter is guarded by steep terrain covered with a significant tree and brush buffer to prohibit unauthorized vehicle access. There are no current plans to fence the entire site; however, should security of the landfill dictate the need, fencing will be considered.

The main access road is an all-weather tar and gravel roadway. All other on-site access roads to the disposal areas and working faces are constructed of red chert or other stone material and provide uninterrupted access during wet weather conditions. All existing access roads and new ones constructed shall be wide enough to allow passage of collection vehicles and other landfill traffic.

As required by ADEM in Division 13 regulations, there is signage at the main entrance compliance office and throughout the facility to provide all customers with relevant information and direction. At the compliance office, there is a sign with the facility's name, permit number, operating hours, emergency phone number, and other information located along the main access road. At the main gate, there is a sign with an emergency phone number posted. There are also signs throughout the facility indicating disposal areas and how to access them. Numerous other warning messages and safety rules are posted on signs throughout the facility.

1.5 Equipment

The heavy equipment required for proper handling of incoming waste is provided onsite as needed. Currently, the site's primary equipment includes dozer(s) for spreading the waste and cover material, dump trucks for hauling waste and cover materials, excavator(s) for loading cover material, etc. Numerous other secondary equipment is utilized for on-site waste and cover operations, road maintenance, dust control and operational support.

During clearing, dirt moving, equipment maintenance or prolong breakdown, or other activities, additional equipment may be necessary to complete this work. The City has access to all necessary

equipment through its own equipment directory or through local rental companies. All necessary equipment will be provided to ensure continued operation of the landfill.

1.6 Personnel

The landfill will be staffed appropriately for necessary landfill operations, maintenance, etc. of the facility. An experienced landfill supervisor is responsible for daily operations of the landfill.

1.7 Landfill Siting

The landfill has met and adhered to all siting standards and regulations set forth in the Division 13 ADEM regulations. All landfill siting documentation and information have been provided as part of permit applications and modifications throughout the life of the landfill.

As part of the threatened and endangered species studies completed, a potential habitat for a species of bats was identified to be onsite. So that the habitat is not disturbed, all clearing shall be completed during the months of October 15th to March 31st.

2. Waste

2.1 Type of Waste

2.1.1 Construction and Demolition Waste

The waste stream for the construction and demolition waste disposal area is non-putrescible and non-hazardous construction and demolition waste and rubbish as defined by Rule 335-13-1-.03. Waste shall be non-hazardous demolition debris, stumps, limbs, tires, leaves, grass and similar types of material. Additional waste accepted at this facility includes non-hazardous silica sand, pallets, cloth scraps, yarn and similar types of materials.

The landfill site shall be used for disposal of inert materials such as demolition debris, stumps, limbs, tires, and like material as described above. Disposal of other materials shall be prohibited and controlled by the landfill operator. Approval by appropriate State Agencies will be required for modification of intended use to allow disposal of specified wastes not normally considered inert. The operation and use of this facility shall conform to the permit issued by ADEM.

2.1.2 Special Waste

Special waste is any solid waste or combination of solid wastes that due to its quantity, concentration, physical or chemical characteristics, or biological properties may require special handling and disposal. There are various types of special wastes including treated medical waste, dead animals, non-regulated asbestos, regulated asbestos, foundry sand, empty pesticide containers, petroleum contaminated waste, MSW ash, sludges, grease trap waste and grit trap waste. Disposal of special wastes is subject to a Hazardous/Solid Waste determination by ADEM.

Empty free liquid waste or containers larger than ten (10) gallons which are capable of holding liquids shall not be accepted at this facility unless they are rendered unsuitable for holding liquids prior to delivery at this facility

This landfill is currently approved to and accepts non-hazardous silica sand from Robinson Iron and Alexander Casting. The silica sand is considered a foundry waste which is covered in ADEM Admin. Code 335-13-4-.26(3). Any other special waste (including other potential sources of silica sand) as identified in ADEM Admin. Code 335-13-4-.26 will have to be approved by ADEM prior to being accepted for disposal at the landfill.

2.2 Waste Handling

2.2.1 Unloading

All waste delivered to the landfill is unloaded in the designated operating areas. Typically, there are three (3) such areas that are active on any given day. These active areas are:

- Construction and Demolition Waste Working Face
- Brush Pile Area
- Metal Recycling Area

These active areas are under supervision of landfill personnel during operating hours. All disposal activities will take place in areas that have been permitted and constructed for waste placement.

The Metal Recycling Area is located just off the main access road for use by residential and industrial customers. Customer vehicles may pull up to the area and unload the metal waste materials into designated area. The City periodically loads all recycled metal materials and hauls it to one of the local metal recycling centers.

2.2.2 Control of Incoming Waste

Waste accepted at this facility shall be closely monitored to detect and prevent the disposal of municipal solid waste, free liquids, regulated hazardous waste, untreated medical waste and other waste not allowed by the landfill permit.

To detect and prevent the disposal of such waste, random inspections of incoming loads shall be conducted by the landfill operator at least once per week or in accordance with ADEM Division 13 regulations. The landfill operator shall also inspect all suspicious loads. The landfill operator will increase inspections should additional random inspections be required.

Records of all inspections shall be maintained in the operating record for the facility for review. Should waste be suspected to be hazardous, untreated medical waste, or unpermitted waste, the operator shall include in his report the following: origin, transporters, transfer stations used, handlers and certifications from generators, etc.

The landfill operator shall notify ADEM immediately should free liquids, regulated hazardous waste, untreated medical waste, and any other unpermitted waste be discovered at this facility. Once detected and reported, the party(ies) responsible shall remove all waste from this facility.

All landfill operating personnel shall be properly trained to recognize free liquids, regulated hazardous waste, untreated medical waste and any unpermitted waste. Waste from sources not indicated in the permit will not be accepted at this facility without written approval from ADEM.

3. Landfill Operations

3.1 Sequence of Operations

The Landfill consists of two separate disposal areas, the original disposal area and the expansion disposal area. Although the original landfill property and the expansion property are adjacent to each other, the two disposal areas are completely separate.

The original landfill was built over a ravine with a large storm drain under it that extended from one side to the other to maintain the original drainage way. The original operations began midway of the large storm drain and moved in a south and north direction. This operation was intended to keep silt from entering the new storm pipe system by diverting all drainage through sedimentation basins before entering the original drainage course. The original landfill has been in operation since 1997; however, some capacity still remains.

All incoming waste is currently being disposed of in the original disposal area while the expansion disposal area is being constructed by the City. The intention of the City is to begin on the southern portion of the expansion property and proceed to the north. The sedimentation pond #1 will be constructed first along with all storm drainage structures, diversion ditches, and earth berms in this area as required. The access road will be constructed and relocated as needed for proper operation (location of road to be determined during construction and based on initial area selected for waste disposal). Also, all gas monitoring will be installed around the site. Once these structures are in place and the cell is approved by ADEM, the initial operation of the landfill expansion will begin.

Once the initial area of the landfill expansion is placed into operation, material from the landfill expansion will be hauled and used to close the existing landfill cell in accordance with the current permit and all approved variances. All proper procedures for notifying ADEM and certifying the closure will be followed as required in the ADEM regulations.

Once landfilling operations begin on the expansion property, they will continue to move in the northly direction. Sedimentation basin #2 along with all storm drainage structures, diversion ditches, earth berms, etc. as shown on the plans will be constructed as required for proper operation of the landfill. All drainage will be diverted through sedimentation ponds as shown in order to prevent silt from entering the original drainage course.

This procedure shall continue in the sequence given above. The main objective in the scope of work is to contain sediment within the landfill limits by using sedimentation basins. Surfaces shall

be sloped on a minimum final grade of 5% in a manner to prevent ponding of water. All slopes with a vertical change of more than 20 feet shall be terraced as required unless granted a variance from the regulations.

The long-term plan is for the landfill to expand to the east first as originally designed once the initial cell is beginning to near capacity.

3.2 Daily Operations

All waste material will be hauled into the landfill through the main entrance off of North Central Avenue and unloaded in the designated disposal areas. All waste will be confined to as small an area as practical and placed onto an appropriate working slope. All waste disposed in the construction and demolition waste disposal areas shall be spread with a dozer in layers or lifts approximately two-feet in thickness. These layers will then be rolled over with a dozer making multiple passes. The working faces develop throughout each working day as layer after layer of waste is placed and compacted. A completed daily cell shall not exceed eight feet in vertical thickness. At the end of each week's activities, the entire working face will be covered with 6" of earthen material (see Cover in separate section). Additional cover material shall be placed when areas are not to be used for three (3) or more months. (See Cover requirements in separate section)

Scavenging shall be prohibited at this facility. The landfill operator will observe all individuals entering site to prevent scavenging.

Salvaging operations will be controlled by the landfill operator. All recyclable materials hauled in by individuals or businesses shall be placed in designated areas to prevent access problems to the operating face.

This facility shall be operated in accordance with approved plans and permits.

3.3 Cover

All waste will be covered as required by ADEM Admin. Code Division 13 regulations.

All construction and demolition waste disposed in the disposal area will be covered at the conclusion of each week's activities. Weekly cover will be placed over the entire working face and consists of compacted earthen material from excavations and stockpiles on the site at a thickness of six (6) inches.

Final cover will be placed over areas of the landfill that have reached full capacity and final design waste grades. The final cover system for the construction and demolition area will be installed pursuant to ADEM regulations.

3.4 Open Burning

The landfill will not open burn without the written approval from ADEM. If open burning

considered, a burn request should be submitted and approved by ADEM prior to the work beginning.

3.5 Litter Control

The amount of windblown litter within the landfill property will be controlled by effectively placing cover on the working face. Any litter that does accumulate away from the working face areas will be collected by landfill personnel on a routine basis.

3.6 Vector Control

Vectors will be controlled onsite through proper management of the disposal areas and litter control. The waste on the working faces will be spread and covered to limit vector attraction. Litter throughout the site will be routinely collected to help limit vector attraction.

3.7 Fire Control

Burning of waste is strictly prohibited at the facility. Open burning of solid waste shall not be allowed unless approved by ADEM as follows:

- Clearing debris at this facility, such as trees and stumps may be burned after approval is received from ADEM and the Alabama Forestry Commission.
- Emergency clean-up debris from catastrophic incidents may be burned after approval is received from ADEM and the Alabama Forestry Commission.

Burning shall not occur over previously filled areas or within 200 feet of existing disposal operation and shall not cause a public nuisance or pose a threat to public health.

Request to burn shall be made in writing to ADEM. All requests shall include what areas of this facility will be utilized for burning, types of waste to be burned, the projected starting and completion dates for the project and hours of operation.

Spreading and covering of waste will reduce the potential for fires within the disposal operation. Incoming waste(s) will be observed to prevent hot loads from entering the site. If an accidental fire is started, the backfill material stockpiled near the active areas will be used to extinguish the fire and, if needed, the Alexander City Fire Department will be called (205-234-2521).

4. Stormwater Handling and Controls

The Landfill maintains a National Pollutant Discharge Elimination System (NPDES) permit for all stormwater from the landfill. The landfill will be constructed and operated to properly manage any water pollution or unauthorized surface water discharge offsite in accordance with the Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management.

The on-site stormwater system consists of several diversion ditches and sedimentation ponds throughout the C&D cells. The major erosion control devices used are sedimentation ponds and soil stabilization through soil revegetation. Silt fencing, check dams, hay bales, and other BMPs will also be used as needed in disturbed areas to minimize site erosion. This facility will be constructed and operated by Alexander City in such a way that ground water and surface water resources of the vicinity are protected.

Surface waters will be controlled through the installation of diversion ditches to minimize surface infiltration into the landfill. Erosion of this site will be controlled in several ways. Selective disturbance of the site will minimize the area subject to erosion. Ditches, berms and piping will be utilized to keep surface water off the operating face. Immediately following the completion of a fill area, seeding will be accomplished. Sedimentation ponds will serve as a final method of preventing eroded material from leaving the site. In the event that these control measures are inadequate, techniques such as the use of hay bales or temporary wire fence with erosion control filter cloth will be installed where needed.

To ensure continuous operation of the large 42" storm drainage pipe, routine inspections of this structure shall be conducted. All areas draining into the landfill area shall be grassed to alleviate any possible silt/erosion problems which could wash sand, silt, etc., into the structure. Should such a problem arise, the operator shall construct berms, silt fences and diversion ditches as they become necessary to correct this problem and clean out all pipes and inlets as required. The trash catch at the upper end of the 42" pipe shall be inspected and cleaned routinely.

5. Groundwater Monitoring

The groundwater is not required to be monitored at this time as part of this landfill permit; therefore, no measures are currently installed or taken regarding groundwater monitoring.

6. Landfill Gas Monitoring

The landfill has implemented an explosive gas monitoring system as required by the permit. The landfill has gas monitoring wells installed and maintained around the disposal areas for monitoring and sampling as required by the permit. These wells are monitored and sampled as indicated in the "Explosive Gas Monitoring Plan" attached to this plan.

7. Record Keeping

The landfill shall maintain and retain all records, reports, drawings, etc. as required by the landfill permit. These should be stored at the landfill or other designated location. The items to be retained would include but not be limited to daily volume reports (quantities of waste received), location of disposal, inspection reports, maintenance reports, gas monitoring reports and records, sampling plans and results, operating record, closure plan, etc. and any other information determined necessary for satisfactory operation of the site or as required by ADEM.

Quarterly reports summarizing daily volumes shall be submitted to ADEM as required by Division 13 Regulations.

8. Life Expectancy

Life expectancy is based on the disposal of 50,000 CY/year, a 5% earth cover ratio, and a landfill capacity of approximately 1,100,000 cubic yards. Considering these parameters along with no compaction, the life of this landfill is expected to last approximately 20 years. Since the City is constructing the landfill expansion in house, these projections are under the assumption that the cell bottom is constructed as designed.

9. Closure and Post Closure

9.1 Requirements

All closure and post closure activities and maintenance of the landfill will be in accordance with Division 13 regulations.

As the existing site and new site receives its last waste and the closure process begins, final contours according to the currently permitted and new final grading plan will be developed. Each area of completed landfill will be planted with grasses or other vegetation and stabilized to prevent infiltration and erosion. Final contours and closure will be completed according to the current permit and approved drawings.

After closure requirements have been achieved and approved by ADEM, the City of Alexander City shall conduct regular inspections and maintenance of the existing and expansion facility in accordance with Division 13 regulations.

9.2 Closure of Completed C&D Area

The final cover for the construction and demolition waste area(s) shall consist of 18 inches of compacted earthen material excluding sands and 6 inches of topsoil erosion layer capable of supporting vegetative cover. The final design and layout of closure is as shown in the approved permit drawings, modifications, variances, etc. and will be installed pursuant to ADEM regulations at the time of closure.

Each area of completed landfill will be planted with grasses or other vegetation and stabilized to prevent erosion. If any changes to the closure grading plan become necessary, then further approval from ADEM shall be required. The vegetative cover shall be established as soon as possible after completion of final grading on filled area. Within ninety (90) days after completion of final grading on each phase, the final cover shall be prepared for the establishment of a vegetative cover. An appropriate vegetative cover layer shall be maintained on the facility at all times.

The vegetative cover layer shall consist of 6” of material containing sufficient nutrients to support vegetative growth and prevent erosion. The vegetative cover layer shall be seeded, watered, fertilized, etc. as required until an acceptable stand of grass is established and approved by ADEM.

Once the final cover layer is established, any areas that erode shall be filled with suitable soil cover, compacted, graded and vegetative cover reestablished. All areas which provide for ponding of surface water due to settling shall be filled, graded and vegetative cover reestablished. All cover areas with extensive surface cracks in soil cover shall be corrected as necessary to prevent infiltration of surface water. An appropriate vegetative cover layer shall be maintained on the facility at all times.

Once the landfill has reached capacity and will no longer receive waste, the City shall notify ADEM of their intent to close the landfill prior to beginning closure. Once closure begins, the City must complete closure activities of each landfill unit in accordance with the closure plan within 180 days of the last known receipt of waste. After closure is complete, the City must submit to ADEM a certification, signed by an engineer, verifying the closure has been completed according to the Closure Plan.

9.3 Post Closure Maintenance

After closure requirements have been achieved and approved by ADEM, the City of Alexander City shall conduct post closure care for a minimum of 30 years. Regular inspections of the landfill shall be conducted to assure adequate maintenance of the facility. Additional inspections shall be conducted following an extreme storm or similar event that may affect the condition of the landfill.

Once the final cover layer is established, any areas that erode shall be filled with suitable soil cover, compacted, graded and vegetative cover reestablished. All areas which provide for ponding of surface water due to settling shall be filled, graded and vegetative cover reestablished. All landfilled areas with extensive surface cracks in cover soil shall be corrected as necessary to prevent infiltration of surface water. An appropriate vegetative cover layer shall be maintained on the facility at all times.

All access control structures shall be maintained or erected and signs shall be posted stating that the facility is closed and giving the location of the nearest permitted disposal facility. Any waste dumped at this disposal facility following closure shall be removed to an approved disposal facility by the permittee, operating agency, or owner.

All monitoring devices and pollution control equipment such as gas monitoring wells, erosion and surface water control structures shall be inspected and maintained by Alexander City through the post-closure care period. Monitoring requirements shall continue in effect throughout the active life and post-closure care period as determined by the Department, unless all solid waste is removed, and no unpermitted discharge to waters have occurred.

All other deficiencies noted during each inspection or noted by ADEM shall be corrected. Inspection reports indicating deficiencies, date, inspector, action taken, shall be kept on file by the City of Alexander City.

Any and all post-closure use of the property must never be allowed to disturb the integrity of the final cover or the function of the monitoring systems, unless approved by ADEM.

Within ninety (90) days after permit expiration, revocation, or when final closure requirements are achieved as determined by the Department, the City of Alexander City shall record a notation onto the land deed containing the property utilized for disposal and/or some other legal instrument that is normally examined during a title search, that will in perpetuity, notify any potential purchaser of the property of the following:

- The land has been used as a solid waste disposal facility.
- Its use is restricted by the items contained in 335-13-4-.20(3)(c) and 335-13-4-.20(3)(d) of the Administrative Code of ADEM.
- The locations and dimensions of the disposal facility with respect to permanently surveyed benchmarks and Section corners shall be on a plat prepared and sealed by a land surveyor. The plat shall be titled "Alexander City North Central Avenue Inert Landfill", and shall contain the following note (prominently displayed): "Operated by the Alexander City from (beginning date) to (closure date)."
- Certification by an Engineer or Land Surveyor that all closure requirements have been completed as determined necessary by the Department.

The City of Alexander City shall submit a certified copy of the recording instrument to the Department within 120 days after permit expiration, revocation, or as otherwise directed by the Department.

If the Permittee or owner or any subsequent owner of the land on which this solid waste disposal facility is located wishes to remove waste, waste residues, or any contaminated soils, the owner must request approval from ADEM. The owner may also ask permission to remove the notation from the recording instrument if all waste and contaminated soil is removed from the property, and no unpermitted discharges to waters have occurred.

EXPLOSIVE GAS MONITORING PLAN

The City of Alexander City
North Central Avenue Inert Landfill
Permit No. 62-10

Explosive Gas Monitoring Plan



**ALEXANDER
CITY
ALABAMA**



9-4-24

Prepared for:
The City of Alexander City

Prepared by:
Municipal Consultants, Inc.
Birmingham, AL

September 2024

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Attachment #1
Explosive Gas Monitoring Point Map

Appendix I
Explosive Gas Monitoring Field Data Sheet

1. Introduction

This Explosive Gas Monitoring Plan (Plan) has been prepared on behalf of the City of Alexander City (City) as part of the Operations Plan for the North Central Avenue Inert Landfill (Landfill). This Plan is being submitted to the Alabama Department of Environmental Management (ADEM) in conjunction with the landfill permit renewal application. This plan is an update to the existing plan and has been prepared in accordance with the ADEM Division 13 regulations.

2. General Information

The City's North Central Avenue Inert Landfill is located off of North Central Avenue in the City of Alexander City, within Tallapoosa County, Alabama. The Landfill has been in operation since 1997 and originally consisted of 34.65 total acres with 12.72 acres permitted for disposal. The original landfill was built over a ravine with a large storm drain under it that extended from one side to the other to maintain the original drainage way. The Landfill was expanded in 2022 to add 148.83 total acres and 23 acres permitted for landfill disposal. The current landfill consists of 183.48 total acres permitted for landfill use with 35.72 acres approved for C&D disposal. There is also a designated area utilized for scrap metal recycling. In addition to the disposal areas, there are stormwater detention ponds and a compliance office. Since the landfill has been in operation for many years, it has and will continue to monitor explosive gases that may be created by the landfill as required by the permit.

3. Gas Monitoring

3.1 Objective and Requirements

This landfill accepts organic waste and therefore has the potential for generation of explosive gases, especially methane (CH₄). The objective of this plan is to detail how landfill personnel will control and monitor these explosive gases. The landfill has gas monitoring wells installed and maintained around the disposal areas for monitoring and sampling as required. The information obtained during monitoring events is used to evaluate the explosive gas migration/accumulation (if any) at the Landfill. The limits of explosive gases in accordance with ADEM regulations is as follows:

- Explosive gases shall not exceed the lower explosive limit (LEL) at the facility boundary
- Explosive gases shall not exceed 25% of the LEL in the 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 ADEM and the landfill permit.

3.2 Properties of Methane

According to the Environmental Protection Agency (EPA), landfill gas is composed of approximately 50% methane, 50% carbon dioxide and a small amount of non-methane organic compounds. 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), 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.

3.3 Monitoring Locations

Since the landfill has been in operation for many years, it has and will continue to monitor explosive gases that may be created throughout the landfill. The landfill is designed, constructed, and operated to control and monitor the generation of explosive gases (such as methane) from collecting in or around structures. This plan currently includes 38 permanent gas monitoring points throughout the site. See Attachment #1 for the Explosive Gas Monitoring Point Map. The original C&D cell consists of monitoring points GP-1 through GP-13 and the new C&D expansion cell consists of monitoring points GM-1 through GM-25. As new cells are designed and permitted, the amount of monitoring stations will be modified. At the same time, this plan will be updated in accordance with ADEM requirements.

3.4 Structures

For monitoring explosive gas around the landfill, permanent gas monitoring structures, or use of the bar hole punch method, are required by ADEM. A minimum depth of six feet must be obtained for permanent monitoring structures and four feet when using the bar hole punch method. In accordance with ADEM regulations, explosive gas monitoring points are installed in accordance with the requirements at the time of installation and shall be located every 300 feet along the landfill disposal boundary. In areas where a dwelling is within 1,000 feet of the landfill disposal boundary, the monitoring points shall be 100 feet apart or as otherwise directed by the ADEM.

For the original landfill cell and new landfill expansion cell, permanent gas monitoring structures have been installed in accordance with ADEM regulations at the time of installation around the disposal areas. The existing explosive gas monitoring locations are presented in Attachment #1 – Explosive Gas Monitoring Point Map. Any additional explosive gas monitoring performed on the landfill property outside the limits of solid waste disposal must be conducted by the bar hole punch method.

3.4.1 Permanent Gas Monitoring Structure

Installation of a permanent gas monitoring structure requires drilling a hole in the soil to a minimum depth of six feet below ground surface. The probe pipe is perforated except for the upper several feet. The probe is installed in the drilled hole, and the hole is backfilled with permeable material (sand or pea gravel) to a height above the perforations. The remainder of the hole is backfilled with soil to act as a seal against the intrusion of air. A thick-walled PVC (polyvinyl chloride) pipe shall be used for the probe casing. The probe pipe shall then be protected against damage by surrounding bollards or a protective cover. The landfill currently has both protective measures being used.

In the event a permanent gas monitoring point is damaged or destroyed, the City will determine when/if replacement monitoring points will be installed. Until the permanent monitoring points are replaced the bar hole punch method will be an acceptable method during the monitoring event (see below).

3.4.2 Bar Hole Punch Monitoring Point

Installation of a bar hole punch monitoring point is performed as follows: With the aid of a plunger bar, a hole is made to a depth of 4 feet below ground surface. After the plunger bar is removed, the explosive gas detector sampling probe is inserted into the hole immediately. The result is recorded when a stabilized reading is obtained. When bar hole monitoring yields a concentration of explosive gas greater than 5 percent, additional bar hole probing is required. In this case additional bar holes are punched and sampled at planned intervals, radiating out in various directions from the original bar hole of concern, until readings of zero are obtained. Once limits of migration are defined facility management will be notified and will decide if further action is warranted. By using a radial or grid- type pattern, a graph depicting the apparent movement of gas based on concentration can be plotted.

Several seasonal variables can affect the overall effectiveness of the bar hole punch 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 bar hole punch 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 bar hole punch technique, they do not prohibit its use as a year-round monitoring technique. However, combustible gas may vary in concentration 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.

3.5 Equipment

Gas concentrations throughout the landfill are measured with a gas detector that measures concentration as percent LEL and percent methane. At a minimum, the explosive gas detector should be calibrated before each monitoring event or 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. Routine quality control procedures such as the maintenance and calibration of instruments per the manufacturer's recommendations will be followed for each monitoring event.

3.6 Monitoring Procedures

The monitoring methods and procedures for gas sample collection outlined below are based on ADEM and U.S. Environmental Protection Agency (EPA) guidance. Any modifications to this Plan must be approved by ADEM and applicable changes appropriately documented and placed in the landfill's operating record. The monitoring procedures are as follows:

- Annually (once a year), landfill personnel or a company hired by the City will take readings with appropriate gas monitoring equipment at each permanent monitoring point location and complete a report. If permanent monitoring point not available, bar hole punch method shall be utilized.
- Monitoring shall be conducted at all gas monitoring point locations shown in the plan, drainage structures, and miscellaneous structures within the site.
- The concentration of methane and percent of the lower explosive limit (LEL) will be measured by removing the monitoring point cap and immediately taking a reading using a portable gas meter (RK1 GX- 2012, confined space multi gas monitoring device, or equivalent). The monitoring points will not be allowed to vent for any period of time prior to methane monitoring. To prevent ambient air intrusion into the monitoring point and the potential loss of accumulated gas, the cap will be sealed off before and after methane sampling. At the interior locations, the percent LEL and percent volume will be recorded from the ambient air within the structure. At culverts, the percent LEL will be measured from the top portion of the pipe.
- All gas readings will be recorded on the field sheet provided in Appendix I.

3.7 Reports

The City will submit the gas monitoring report to ADEM within thirty (30) days following completion of each monitoring event. The report will detail:

- The procedures used in the collection of the samples
- The monitoring results of the event
- Interpretation of collected data
- Conclusions drawn from the data
- Recommendations

All reports will also be maintained in the operating record of the facility as required by ADEM regulations and will be made available upon request.

3.8 Corrective Actions

Should the explosive gas levels exceed the lower explosive limit (for methane, the lower explosive limit is 5.3% by volume) at the facility boundary or exceed 25 percent of the lower explosive limit in facility structures as set forth in this plan, the City and landfill personnel should employ the following procedures:

1. The City and landfill personnel will immediately take all necessary steps to secure the area involved and ensure protection of human health and property. This may include restricting access by employees and customers to the area or structure(s) identified during monitoring until such time that, following abatement actions, subsequent monitoring demonstrates that it is safe to return; and by eliminating potential ignition sources. The City will also notify ADEM.
2. Once secured and as a precautionary measure, the operator should notify the local Fire Department for assistance until the explosive limits are reduced.
3. Within 7 days of detection, the City will place the explosive gas levels detected, and the immediate steps taken to protect human health and property in the operating record of the landfill.
4. Within 20 days of detection, the City will submit a remedial plan for the explosive gas releases to ADEM for approval. The plan will describe the nature of the extent of the problem and the proposed remedy.
5. The plan will be implemented by the City upon approval of ADEM but within 60 days of detection. A copy of this plan will be placed in the operating record of the facility within 60 days of detection. Additionally, ADEM will be notified that the plan has been implemented.

4. Safety

4.1 Potential Safety Hazards

When monitoring landfill sites, 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 like 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.

4.2 Safety Precautions During Testing

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.
- Bar hole 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.

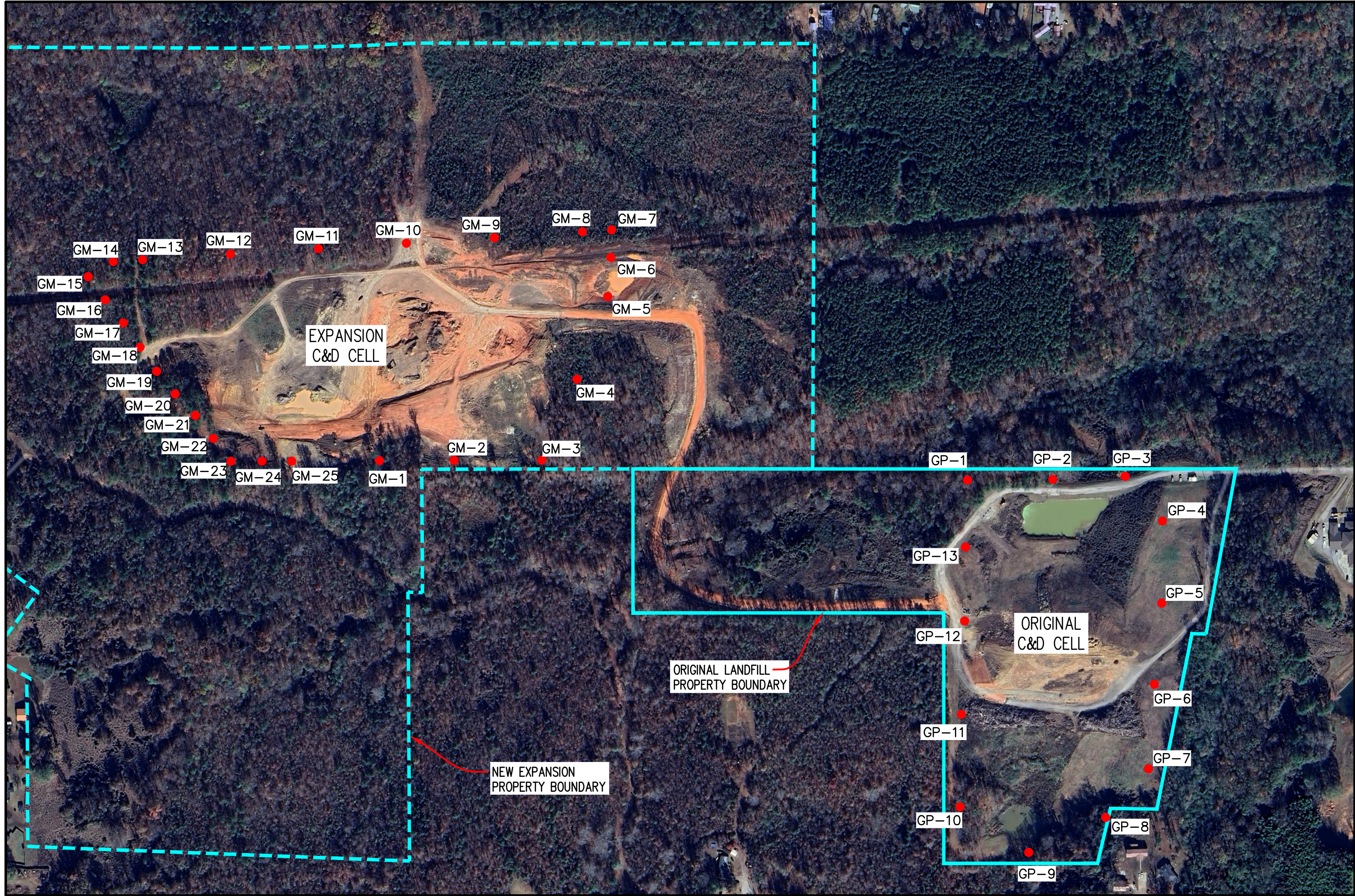
4.3 Safety Precautions During Operations

The following minimum safety precautions should be adhered to by landfill personnel during normal operations:

- When personnel are working in low lying areas or 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.
- All necessary safety equipment should be worn in areas potentially containing combustible gases.
- Personnel shall avoid all potential sources of ignition.
- A fire extinguisher must be readily available onsite.
- The site-specific landfill safety program should be followed.

Methane is an odorless, tasteless gas, and it is undetectable by the human senses. All landfill personnel shall be aware of this and shall take all safety precautions and measures when completing tasks/projects around the landfill.

Attachment #1



Title	
EXPLOSIVE GAS MONITORING POINT MAP	
Drawing Project No.	9-2024
Date	9-2024
Scale	1" = 300'
Sheet	ATTACHMENT #1

Appendix I

Explosive Gas Monitoring Field Data Sheet

**North Central Avenue Inert Landfill
Permit # 62-10
Alexander City, Alabama
Yearly Sampling Event**

Year: _____

Date: _____

Sampler(s): _____

Weather Conditions: _____

Monitoring Point	Sample Type (Perm. Well/Bar Hole)	% Lower Explosive Level	% Methane Gas
GP-1			
GP-2			
GP-3			
GP-4			
GP-5			
GP-6			
GP-7			
GP-8			
GP-9			
GP-10			
GP-11			
GP-12			
GP-13			

Notes: _____

Monitoring Point	Sample Type (Perm. Well/Bar Hole)	% Lower Explosive Level	% Methane Gas
GM-1			
GM-2			
GM-3			
GM-4			
GM-5			
GM-6			
GM-7			
GM-8			
GM-9			
GM-10			
GM-11			
GM-12			
GM-13			
GM-14			
GM-15			
GM-16			
GM-17			
GM-18			
GM-19			
GM-20			
GM-21			
GM-22			
GM-23			
GM-24			
GM-25			

Notes: _____

Explosive Gas Monitoring Certification

I hereby certify that all readings and recordings are true and accurate and performed in accordance with procedures required by the Alabama Department of Environmental Management (ADEM).

Signature: _____

Date: _____