

APPENDIX I

ADEM SOLID WASTE DISPOSAL FACILITY PERMIT LANDFILL NO. 4, PARCEL 81(5), AND THE INDUSTRIAL LANDFILL, PARCEL 175(5)

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

**Permittee: U.S. Army Garrison
Permit Number 08-02
Fort McClellan Industrial Landfill
Calhoun County, Alabama**

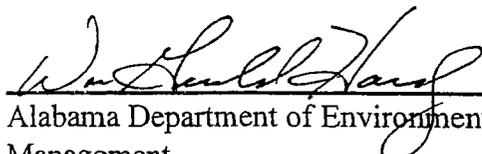
Pursuant to the Solid Wastes Disposal Act, Code of Ala. 1975, Section 22-27-1, et. seq., as amended, and attendant regulations promulgated thereunder by the Alabama Department of Environmental Management (ADEM), this permit is issued to the U.S. Army Garrison (hereinafter called the Permittee) to operate the solid waste disposal facility, known as the Fort McClellan Industrial Landfill, comprising approximately 53 acres within the Fort McClellan military reservation in a portion of Section 10, Township 15 South, Range 8 East, Calhoun County.

The disposal of wastes is permitted over the closed sanitary waste areas that comprise approximately 40.4 acres and in the areas previously designated as the Construction Materials Area and Controlled Area that total approximately 12.6 acres. The Permittee may dispose of up to 1200 tons per day of non-hazardous industrial and construction/demolition (C/D) wastes, including C/D debris, tires, trees, tree limbs and stumps, miscellaneous plastic and paper, packing and crating debris, asbestos, and similar types of inert or construction/demolition wastes collected from the Fort McClellan reservation.

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 335-13-8 of the Alabama Department of Environmental Management Administrative Code (hereinafter referred to as the "ADEM Admin. Code"). Applicable ADEM Admin. Codes are those which are in effect on the date of issuance of this permit.

This permit is based on the information submitted in the application for the permit issued on October 12, 1995, and all subsequent documents and reports that have been issued to amend, modify, and renew that permit. (The information is hereby incorporated by reference and hereinafter referred to as the Application). Any inaccuracies found in the application information could lead to the termination or modification of this permit and potential enforcement action (Chapter 335-13-5 of the ADEM Admin. Code). The Permittee must inform ADEM of any deviation from or changes in the information in the Application which would affect the Permittee's ability to comply with the applicable ADEM Admin. Code or permit conditions.

This permit is effective as of November 27, 2000 and shall remain in effect until November 26, 2005, unless suspended or revoked (See Rule 335-13-5-.05).


Alabama Department of Environmental
Management

11/27/00
Date Signed

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SECTION I

STANDARD CONDITIONS

I.A. EFFECT OF PERMIT

The Permittee is allowed to dispose of non-hazardous solid waste in accordance with the conditions of this permit. 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. Compliance with the terms of this permit does not constitute a defense to any action brought under Code of Ala. 1975, Section 22-27-1, et. seq., as amended, or any other law governing protection of public health or the environment for any imminent and substantial endangerment to human health, welfare, or the environment.

I.B. PERMIT ACTIONS

This permit may be suspended, revoked or modified for cause as specified in Rules 335-13-5-.05 or 335-13-5-.06 of the ADEM Administrative Code. 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.

I.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.

I.D. DEFINITIONS

For the purpose of this permit, terms used herein shall have the same meaning as those in Chapters 335-13-1 through 335-13-8 of the ADEM Administrative Code, 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 hydrogeological reports, and other materials which are submitted to the Department in pursuit of a solid waste disposal permit pursuant to the requirements of Chapters 335-13-4 and 335-13-5.

I.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 pursuant to Rule 335-13-8-.01. Any permit noncompliance, other than noncompliance authorized by a variance, constitutes a violation of Code of Ala. 1975, Section 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. (See Rules 335-13-5-.05 and 335-13-5-.06 of the ADEM Administrative Code.)

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 180 days before this permit expires. (See Rule 335-13-5-.02(3) of the ADEM Administrative Code.)

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 Condition I.E.2. and, through no fault of the Permittee, the Department has not made a final permit 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 and the ADEM Administrative Code.

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. Proper operation and maintenance includes effective performance, adequate operator staffing and training, and adequate operational controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

7. Duty to Provide Information

If requested, the Permittee shall furnish to the Department, within a reasonable time, any relevant information needed 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 duly designated officer and 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; and
- 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 Ala. 1975, Section 22-27-1 et. seq., as amended. (See Rule 335-13-6-.01 of the ADEM Administrative Code)

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 Chapter 335-13-4 of the ADEM Administrative Code or the methods as specified in the Permit Application attached hereto and incorporated by reference. Laboratory methods must be those specified in Standard Methods for the Examination of Water and Wastewater (American Public Health Association, latest edition), Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (EPA Publication SW-846, latest edition), other appropriate EPA methods, or as specified in the permit 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 Condition I.I.5., 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 (see Rule 335-13-4-.29).
- 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; and
 - vi. The results of such analyses.
- d. The Permittee shall submit all monitoring and corrective action results at the intervals 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 90 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, in accordance with Rule 335-13-5-.02 of the ADEM Administrative Code.

11. Transfer of Permit

This permit may be transferred to a new owner or operator only according to the provisions of Rule 335-13-5-.07 of the ADEM Administrative Code. 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 and Chapters 335-13-1 through 335-13-8 of the ADEM Administrative Code.

12. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule required and approved by the Department shall be submitted no later than 14 days following each schedule date.

13. Other Noncompliance

The Permittee shall report all instances of noncompliance not otherwise required by Condition I.E.10. and I.E.13. at the time monitoring reports are submitted.

14. Other Information

If the Permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted by the Permittee. In addition, upon request, the Permittee shall furnish to the Department any information related to compliance with the permit.

I.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 that could threaten human health or the environment.

I.G. INSPECTION REQUIREMENTS

1. The Permittee shall comply with all requirements set forth under Rule 335-13-4-.21 of the ADEM Administrative Code.
2. The Permittee shall conduct random inspections of incoming loads as required by Rule 335-13-4-.21.
3. Records of all inspections shall be included in the operating record required by Condition I.I.1.

I.H. PERSONNEL TRAINING

The Permittee shall conduct personnel training as required by Rules 335-13-4-.21 of the ADEM Administrative Code. The Permittee shall maintain training documents and records as a part of the operating record required by Condition I.I.1.

I.I. RECORDKEEPING AND REPORTING

1. Operating Record

The Permittee shall maintain a written operating record at the location specified in Condition I.I.5. In accordance with Rule 335-13-4-.29 of the ADEM Administrative Code, the operating record shall include:

- a. Documentation of inspection and maintenance activities.
- b. Daily volume reports.
- c. Personnel training records.
- d. Waste certifications and disposal approvals for Special Wastes, Industrial Wastes, etc.
- e. Groundwater monitoring records.
- f. Explosive gases monitoring records.
- g. Surface water and leachate monitoring records.
- h. Application and other pertinent operating, inspection, maintenance, and monitoring information.

- i. Copies of all variances granted by the Department, including copies of all approvals of special operating conditions (such as approvals for open burning, Condition II.B.).

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 required by Condition I.I.1. (Rule 335-13-4-.29(1)(c))

3. Monitoring and Corrective Action Reports

The Permittee shall submit reports on all monitoring and corrective activities conducted pursuant to the requirements of this permit and Division 13 of the ADEM Administrative Code, including, but not limited to, groundwater, surface water, and leachate monitoring. These reports shall be submitted in May and November of each year or as specified by the Department. The May report shall include all results and conclusions from samples and measurements conducted during the period beginning with the previous October and ending with the previous March. The November report shall include all results and conclusions from samples and measurements conducted during the period beginning with the previous April and ending with the previous September. Copies of the reports shall be maintained in the operating record required by Condition I.I.1.

4. Availability, Retention, and Disposition of Records

- a. All records, including plans, required under this permit or Division 13 of the ADEM Administrative Code, 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 Division 13 of the ADEM Administrative Code, shall be retained by the Permittee for a period of at least three (3) years except those required by Condition I.I.5. 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.

5. Documents to be Maintained by the Permittee

The Permittee shall maintain, at the U.S. Army Garrison, Building 215, Fort McClellan, the following documents and amendments, revisions and modifications to these documents as required by Rule 335-13-4-.29 of the ADEM Administrative Code until closure is certified by an independent registered engineer (State of Alabama):

- a. Closure Plan as required by Rule 335-13-4-.20 of the ADEM Administrative Code and Section VII of this permit.
 - b. Operating record as required by Condition I.I.1. of this permit.
 - c. Inspection schedules and records as required by Condition I.G. of this permit.
 - d. Solid/Hazardous Waste Determination Forms for Industrial Wastes, and associated Departmental disposal approval correspondence.
 - e. Maintenance and Monitoring Records (Gas, Groundwater, Leachate, Water, etc.).
 - f. Copies of this Permit and of the Permit Application.
6. All reports, notifications, or other submissions which are required by this permit should be sent via mail or hand delivered to:

Mailing Address:

Chief, Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, AL 36130-1463

Physical Address:

Chief, Land Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2059

I.J. 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 not addressed by Conditions I.J.1. or I.J.2., by a principal executive officer, of at least the level of Safety Director, or by a duly authorized representative of that person.

I.K. CONFIDENTIAL INFORMATION

The Permittee may claim information submitted as confidential if the information is protectable under Code of Alabama 1975 § 22-39-18, as amended.

I.L. 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.

I.M. REGULATION CITATIONS

Rules of the ADEM Administrative Code Division 13 Regulations are set forth in this document for the purpose of Permittee reference. Any Rule which is cited incorrectly in this document does not constitute grounds for non-compliance on the part of the Permittee.

SECTION II

GENERAL OPERATING CONDITIONS

II.A. OPERATION OF FACILITY

The Permittee shall operate and maintain the disposal facility consistent with the permit application, this permit, and the ADEM Division 13 Administrative Code.

II.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 a 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 as required by Condition I.I.1.

II.C. PREVENTION OF UNAUTHORIZED DISPOSAL

The Permittee shall follow the approved procedures for detecting and preventing the disposal of free liquids, regulated hazardous waste, PCB's, and medical waste at the facility as required by Rule 335-13-4-.21.

II.D. UNAUTHORIZED DISCHARGE

The Permittee shall operate the disposal facility in such a manner that there will be no water pollution or unauthorized discharge as required by Rule 335-13-4-.21(1)(d). Any discharge from the disposal facility or practice thereof may require a National Pollutant Discharge Elimination System (NPDES) permit under the Alabama Water Pollution Control Act.

II.E. INDUSTRIAL WASTE DISPOSAL

The Permittee may dispose of the industrial process waste, as required by Rule 335-13-4-.21(1)(c).

II.F. BOUNDARY MARKERS

The Permittee shall ensure that the facility is identified with a sufficient number of permanent boundary markers which are at least visible from one marker to the next as required by Rule 335-13-4-.21(1)(e). A complete legal property description can be found in the permit application and Section VIII of this permit.

SECTION III

SPECIFIC LANDFILL REQUIREMENTS

III.A. WASTE IDENTIFICATION AND MANAGEMENT

1. Subject to the terms of this permit, the Permittee may dispose of the non-hazardous solid wastes listed in Table III.1. The disposal of any other wastes must be approved by the Department.
2. The total area of the facility is approximately 53 acres, as described in the permit application and Section VIII of this permit. The areas permitted for disposal include the closed sanitary disposal areas of approximately 40.4 acres and the areas designated (or previously designated) as the Construction Materials Area and the Controlled Area (both total approximately 12.6 acres). (Note: An area of 8.27 acres identified in the application, i.e., on the map of 1/31/94, as the Proposed Settling Pond Area is not included in the authorized disposal area or the acreage of the facility.)
3. The Permittee shall maintain and operate the facility in accordance with the procedures described in the permit application.
4. The average daily volume of waste disposed at the facility shall not exceed 1200 tons/day, except as provided under Rule 335-13-5-.06(2)(a)5.
5. The Permittee shall not receive waste for disposal from any source other than that described below (Table III.1), except waste which is granted a temporary or one-time waiver by the Director pursuant to Rule 335-13-5-.06(1)(a).

III.B. SPECIAL WASTES

The disposal of special wastes is subject to a Hazardous/Solid Waste Determination by the Special Waste Section of the Solid Waste Branch of the Land Division of the Alabama Department of Environmental Management.

1. Asbestos Waste

The Permittee shall dispose of asbestos waste as required by Rule 335-13-4-.26(2).

2. Foundry Sand

The Permittee may not dispose of foundry sand.

3. Petroleum Contaminated Waste

The Permittee may dispose of petroleum contaminated waste as required by Rule 335-13-4-.26(4).

TABLE III.1.

APPROVED WASTE STREAM AND SERVICE AREA

WASTE STREAM:

Non-hazardous industrial and construction/demolition (C/D) wastes, including C/D debris, tires, trees, tree limbs and stumps, miscellaneous plastic and paper, packing and crating debris, asbestos, and similar types of inert or construction/demolition wastes.

SERVICE AREA:

Fort McClellan Military Reservation

4. Municipal Solid Waste Ash

The Permittee may not dispose of municipal solid waste ash.

5. Medical Waste

a. The Permittee shall not dispose of untreated medical waste. (See Rule 335-13-7-.09.)

b. The Permittee shall not dispose of treated medical waste in accordance with Rule 335-13-7-.10.

III.C. COVER REQUIREMENTS

The Permittee shall cover all waste as required by Rules 335-13-4-.15(1) and (2), and 335-13-4-.23(1), or as specified in the permit application. This shall include, but not be limited to weekly cover, intermediate cover, and grading and final cover. Earth cover materials shall be of the minimum quality and minimum clay content specified in Rule 335-13-4-.18. Completed portions of the facility shall have a vegetative or some other appropriate cover to minimize erosion and, when applicable, maximize evapotranspiration.

III.D. DAILY CELLS

The Permittee shall confine waste to as small an area as possible and shall spread waste to a depth not to exceed 2 feet before compaction, as required by Rules 335-13-4-.23(1)(b) and (c). Compaction shall be accomplished on a maximum slope of 25% as required by Rule 335-13-4-.23(1)(c).

III.E. WASTE COMPACTION

The Permittee shall compact all waste as required by Rule 335-13-4-.23(1)(b). A completed daily cell shall not exceed 8 feet in vertical thickness, measured perpendicular to the slope of the preceding cell. Waste such as construction/demolition waste that cannot be managed by landfill equipment in this manner shall be managed according to the permit application or as otherwise approved by the Department.

III.F. SCAVENGING AND SALVAGING OPERATIONS

The Permittee shall prevent scavenging as required by Rule 335-13-4-.23(2)(a). The Permittee shall control salvaging operations as required by Rule 335-13-4-.23(2)(a) as part of a recycling effort. Any recycling operation must be in accordance with plans submitted and approved by the Department.

III.G. LITTER CONTROL

The Permittee shall control litter as required by Rule 335-13-4-.23(2).

III.H. OTHER PERMITS

The Permittee shall operate the landfill according to this and any other applicable permits as required by Rule 335-13-4-.23.

III.I. PERSONNEL AND TRAINING

The Permittee shall maintain adequate personnel to ensure continued and smooth operation of the facility as required by Rule 335-13-4-.23(1)(h).

III.J. EQUIPMENT

The Permittee shall provide the landfill equipment, and shall have access to stand-by equipment, as required by Rule 335-13-4-.23(1)(i).

III.K. 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 as required by Rule 335-13-4-.23(2)(d).

III.L. VECTOR CONTROL

The Permittee shall provide for vector control as required by Rule 335-13-4-.23(2)(g).

III.M. ADVERSE WEATHER DISPOSAL

The Permittee shall provide for disposal activities in adverse weather conditions as required by Rule 335-13-4-.23(1)(g).

III.N. SECURITY

The Permittee shall provide artificial and/or natural barriers which prevent entry of vehicular traffic to the facility except when authorized operating personnel are on duty. These barriers shall be as required by Rule 335-13-4-.23(1)(e).

III.O. SIGNS

The Permittee shall provide a sign outlining instructions for use of the site. The sign shall be posted and have the information required by Rule 335-13-4-.23(1)(f).

III.P. ENVIRONMENTAL MONITORING AND TREATMENT STRUCTURES

The Permittee shall provide protection and proper maintenance of environmental monitoring and treatment structures as required by Rule 335-13-4-.23(2)(e).

III.Q. CLOSURE

The Permittee shall close completed sites or completed portions of sites as required by Rule 335-13-4-.23(2)(c), and Section VII of this permit.

III.R. RECORDS

The Permittee shall maintain records on the daily volume of waste received at the landfill (Rule 335-13-4-.23(2)(f)). The Permittee shall submit a quarterly report as required by Condition I.I.2.

III.S. LARGE DEAD ANIMALS AND HIGHLY PUTRESCIBLE WASTES

The Permittee shall not dispose of large dead animals and/or highly putrescible waste.

III.T. OTHER REQUIREMENTS

The Department shall enhance or reduce any requirements for operating and maintaining the landfill as deemed necessary by the Land Division in accordance with Rule 335-13-4-.23(3).

III.U. 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 Rule 335-13-4-.23(2)(j) are met.

III.V. EMPTY CONTAINERS

The Permittee shall render empty containers larger than 10 gallons unsuitable for holding liquids prior to delivery to the landfill unit unless otherwise approved by the Department.

III.W. SEPTIC TANK PUMPINGS AND SEWAGE SLUDGE

The Permittee shall not dispose of septic tank pumpings and/or sewage sludge unless specifically approved in writing by ADEM, as required by Rule 335-13-4-.24.

SECTION IV

GROUNDWATER MONITORING REQUIREMENTS

IV.A. WELL LOCATION, INSTALLATION, AND CONSTRUCTION

The Permittee shall install and/or maintain a groundwater monitoring system to comply with the requirements of Rule 335-13-4-.14 as specified below.

1. The permittee shall maintain the groundwater monitoring wells and piezometers identified in Table IV.1., the wells specified in Condition IV.A.3., or any other groundwater monitoring wells added to the monitoring well system.
2. The Permittee shall maintain groundwater monitoring well MW5-94 as the background groundwater monitoring well for the facility.
3. The Permittee shall install and maintain additional groundwater monitoring wells as necessary to assess changes in the rate and extent of any plume of contamination or as otherwise deemed necessary to maintain compliance with Rule 335-13-4-.14. A plan with a permit modification request, which includes the information listed below, specifying the design and location of any additional monitoring wells shall be submitted and approved prior to the installation. After the installation of the well(s), the Permittee shall submit a report within 30 days after installation to the Department which, at a minimum, shall include the surveyed location and elevation, surveyed elevation reference point, total depth, screened interval, well log and other pertinent information.
 - a. Well construction techniques including proposed casing depths, proposed total depth, and proposed screened interval of well(s);
 - b. Well development method(s);
 - c. A complete analysis of well construction materials;
 - d. A schedule of implementation for construction; and
 - e. Provisions for determining the lithologic characteristics, hydraulic conductivity and grain-size distribution for the applicable aquifer unit(s) at the location of the new well(s).

IV.B. BACKGROUND STANDARD

Background standards shall be established for the groundwater monitoring parameters specified in Table IV.2., as required by 335-13-4-.14(1)(c).

IV.C. GROUNDWATER MONITORING REQUIREMENTS

1. The Permittee shall determine the groundwater surface elevation at each monitoring well and piezometer identified in Condition IV.A. each time the well or piezometer is sampled and at least semi-annually throughout the active life and post-closure care period(as specified in Condition VII.F.). The data or information specified above should be submitted in accordance with Condition I.I.3. (Rule 335-13-4-.14(1)(c))
2. The Permittee shall determine the groundwater flow rate and direction in the first zone of saturation at least annually or each time groundwater is sampled, and the information should be submitted in accordance with Condition I.I.3.
3. Prior to the initial receipt of waste, the Permittee shall sample, and analyze for the parameters listed in Appendix I of Rule 335-13-4-.27, and/or any other parameters specified by the Department in Table IV.2., all monitoring wells identified in Condition IV.A. to establish background water quality. The records and results of this sampling and analysis activity shall be submitted to the Department, within sixty (60) days after the date of sampling, for incorporation into Table IV.2. and/or the facility's file.
4. The Permittee shall sample, and analyze for the parameters listed in Appendix I of Rule 335-13-4-.27, and/or any other parameters specified by the Department in Table IV.3., all monitoring wells identified in Condition IV.A. on a semi-annual basis throughout the active life of the facility and the post-closure care period. Sampling shall be conducted during March and September of each year, beginning with the effective date of this permit, throughout the active life of the facility and throughout the post-closure care period.
5. In addition to the requirements of Conditions IV.C.1., IV.C.2., IV.C.3., and IV.C.4. above, the Permittee shall record water levels, mean sea level elevation measuring point, depth to water, and the results of field tests for pH and specific conductance at the time of sampling for each well.

IV.D. SAMPLING AND ANALYSIS PROCEDURES

The Permittee shall use the following techniques and procedures when obtaining and analyzing samples from the groundwater monitoring wells described in Condition IV.A. to provide a reliable indication of the quality of the groundwater as required under Rules 335-13-4-.14(1)(c) and 335-13-4-.27(2).

1. Samples shall be collected, preserved, and shipped (when shipped off-site for analysis) in accordance with the procedures specified in the permit application. Monitoring wells shall be bailed or pumped to remove at least four times the well volume of water. Slow recharge wells shall be bailed until dry. Wells shall be allowed to recharge prior to sampling.
2. Samples shall be analyzed according to the procedures specified in the permit application, Standard Methods for the Examination of Water and Wastewater (American Public Health Association, latest edition), Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (EPA Publication SW-846, latest edition), or other appropriate methods approved by this Department. All field tests must be conducted using approved EPA test kits and procedures. (Condition I.E.9.a)
3. Samples shall be tracked and controlled using the chain-of-custody and QA/QC procedures specified in the permit application.

IV.E. RECORDKEEPING AND REPORTING REQUIREMENTS

1. Recording of Results

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

2. Recordkeeping

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

IV.F. PERMIT MODIFICATION

If at any time the Permittee or the Department determines that the groundwater monitoring system no longer satisfies the requirements of Rule 335-13-4-.14 of the ADEM Admin. Code or Condition IV.A. of this permit, the Permittee must, within 90 days, submit an application for a permit modification to make any necessary and/or appropriate changes to the system.

**TABLE IV.1.
GROUNDWATER MONITORING WELLS**

MONITORING WELL NUMBER	WELL TYPE*	WELL DEPTH** (ft-btoc)	ZONE MONITORED
MW1-94	Downgradient	40	First/Residuum
MW2-94	Downgradient	36	First/Residuum
MW3-94	Downgradient	31	First/Residuum
MW4-94	Downgradient	25	First/Residuum
MW5-94	Upgradient	32	First/Residuum

* Piezometer, monitoring well, etc.

** ft-bls = Depth in feet below land surface. (Note: All groundwater elevations and well depths should be submitted to ADEM for any new wells that have been installed.)

TABLE IV.2.

BACKGROUND STANDARD

<u>PARAMETER</u>	<u>CONCENTRATION LIMIT (mg/L)</u>	
	<u>PDWS</u>	<u>BACKGROUND</u>

NOTE: The parameters in this Table are those listed in Appendix I of Chapter 335-13-4 of the ADEM Solid Waste Regulations.

NOTE: If not accomplished previously, the Permittee shall, in accordance with IV.C.3, conduct a minimum of four independent sampling events as the initial sampling event for each well, and analyze for the parameters listed above, in order to establish background water quality. At any time following the four independent events, the Permittee can submit a request, with justification, for the deletion of or change in these parameters.

TABLE IV.3.

SEMI-ANNUAL GROUNDWATER MONITORING

<u>PARAMETER</u>	<u>CONCENTRATION LIMIT (mg/L)</u>	
	<u>PDWS</u>	<u>BACKGROUND</u>

NOTE: The parameters in this Table are those listed in Appendix I of Chapter 335-13-4 of the ADEM Solid Waste Regulations.

SECTION V

GAS MONITORING REQUIREMENTS

V.A. GENERAL REQUIREMENTS

The Permittee shall design, construct, and operate the facility so as to control and monitor the generation and emission of explosive gases (such as methane), as required by Rule 335-13-4-.16, and so as to prevent said gases from collecting in, under, or around structures at concentrations exceeding the limits imposed by this permit and as required by Rule 335-13-4-.16 of the ADEM Admin. Code.

V.B. SYSTEMS AND EQUIPMENT

The Permittee shall provide, install, and maintain gas monitoring and/or recovery systems and equipment as required by Rules 335-13-4-.16(2)(a) and (b) of the ADEM Admin. Code. Instruments used to conduct gas monitoring in the soil and sub-surface shall be capable of obtaining gas samples from a minimum depth of four feet.

V.C. CONCENTRATION LIMITS

The Permittee shall prevent explosive gases from exceeding:

1. The lower explosive limit at the facility boundary, and
2. Twenty-five percent (25%) of the lower explosive limit in any facility structure other than those which are components of the gas control and/or recovery system as required by Rules 335-13-4-.16(1) and (2).

V.D. GAS MONITORING PROGRAM

1. The Permittee shall provide a plan and monitor explosive gases at the facility as required by Rule 335-13-4-.16(2)(c) of the ADEM Admin. Code. The gas monitoring program shall monitor explosive gas concentrations in the atmosphere, in the soil, and inside all structures at the facility, including but not limited to buildings, drop inlets, culverts, under bridges, and any other location which is conducive to gas accumulation. Gas monitoring data shall be included in the operating record required by Condition I.I.1. and shall be made available to the Department during inspections and at other times upon request. (Rule 335-13-4-.16(2)(c))

2. The Permittee shall conduct the gas monitoring described in Condition V.D.1. at least once each year as required by Rule 335-13-4-.16(2)(c)2. The Permittee shall submit a report to the Department within thirty (30) days after each monitoring event documenting the levels of explosive gases measured at the facility.
3. In the event that explosive gas levels exceed, at any time, the limits specified in this permit, the Permittee shall:
 - a. Immediately take all necessary steps to ensure immediate protection of human health and property.
 - b. Immediately notify the Department of the explosive gas levels detected and the immediate steps taken to protect human health and property; and
 - c. Within twenty (20) days, submit to the Department for approval a remedial plan for the explosive gas releases. This plan shall describe the nature and extent of the problem and the proposed remedy. The plan shall be implemented upon approval by the Department, but within sixty (60) days of detection. Also within the sixty (60) days the plan shall be placed in the operating record of the facility and the Department notified that the plan has been implemented. (Rule 335-13-4-.16(2)(c)3.)
4. Monitoring points for the measurement of explosive gas concentrations in the soil and/or atmosphere shall be located along the landfill boundaries and shall be spaced no more than 300 feet apart. In areas where the landfill boundary is within 1000 feet of a dwelling, the monitoring points shall be no more than one hundred (100) feet apart.

SECTION VI

LEACHATE AND WATER MANAGEMENT REQUIREMENTS

VI.A. LEACHATE MANAGEMENT

The Permittee shall, upon the recognition of leachate, notify the Department within 14 days. At this time, the Permittee will inform the Department of the measures that will be taken to address further leachate problems.

VI.B. SURFACE WATER MANAGEMENT

The Permittee shall construct and maintain run-on and run-off control structures as required by Rule 335-13-4-.17. Any discharges from said drainage control structures shall be permitted by the Alabama Department of Environmental Management Water Division.

SECTION VII

CLOSURE AND POST-CLOSURE REQUIREMENTS

VII.A. FINAL COVER

The Permittee shall grade final soil cover such that surface water does not pond over the permitted area as required by Rule 335-13-4-.20(2)(c)1. The grade of the final cover shall not exceed 25 percent and shall be a minimum of five percent. Final grading shall be provided within 90 days after disposal has either reached the final approved elevations, or ceased to occur. (Rule 335-13-4-.20(2)(c)5.)

VII.B. VEGETATIVE COVER

The Permittee shall establish a vegetative or other appropriate cover within 90 days after completion of final grading requirements as required by Rule 335-13-4-.20(2)(d). Preparation of a vegetative cover shall include, but not be limited to, the placement of seed, fertilizer, mulch, and water.

VII.C. NOTICE OF INTENT

The Permittee shall place in the operating record, as well as notifying the Department of their Intent to Close the landfill prior to beginning closure. (Rule 335-13-4-.20(2)(e))

VII.D. COMPLETION OF CLOSURE ACTIVITIES

The Permittee must complete closure activities of each landfill unit in accordance with the Closure Plan within 180 days of the last known receipt of waste. (Rule 335-13-4-.20(2)(g))

VII.E. CERTIFICATION OF CLOSURE

Following closure of each unit, the Permittee must submit to the Department a certification, signed by an independent registered engineer, verifying the closure has been completed according to the Closure Plan. (Rule 335-13-4-.20(2)(h))

VII.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 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 in accordance with Rule 335-13-4-.20(3)(b). The Permittee shall reapply in order to fulfill the post-closure care requirements of Rule 335-13-4-.20(3) and this permit.

VII.G. POST-CLOSURE MAINTENANCE

The Permittee shall provide post closure maintenance of the facility to include regularly scheduled inspections as described in the permit application, and as required by Rule 335-13-4-.20(3). This shall include maintenance of the cover, vegetation, monitoring devices and pollution control equipment and correction of other deficiencies which may be observed by the Alabama Department of Environmental Management. 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.

VII.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 as required by Rule 335-13-4-.20(3)(d). This shall preclude the growing of deep-rooted vegetation, such as trees, on the closed area.

VII.I. CERTIFICATION OF POST-CLOSURE

Following post-closure of each unit, the Permittee must submit to the Department a certification, signed by an independent registered engineer, verifying the post-closure has been completed according to the Post-Closure Plan. (Rule 335-13-4-.20(3)(e))

VII.J. NOTICE IN DEED TO PROPERTY

The Permittee shall record a notation onto the land deed containing the property utilized for disposal within 90 days after permit expiration, revocation or when closure requirements are achieved as required by Rule 335-13-4-.20(2)(i). 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.

VII.K. RECORDING INSTRUMENT

The Permittee shall submit a certified copy of the recording instrument to the Department within 120 days after permit expiration, revocation, or as directed by the Department as required by Rule 335-13-4-.20(2)(j).

VII.L. REMOVAL OF WASTE

If the Permittee, or any other person(s), wishes to remove waste, waste residues, the liner, or any contaminated soils, the owner must request and receive prior approval from the Department. (Rule: 335-13-4-.20(3)(f))

SECTION VIII

LEGAL DESCRIPTION

RECENTLY CLOSED SANITARY WASTE DISPOSAL AREA: A tract of land located in Section 10, Township 15 South, Range 8 East, Calhoun County, Alabama, containing 18.55 acres, more or less, and being more particularly described as follows: Commence at United States Army Corps of Engineers monument number A7-6F, said monument being located at coordinates 1,175,530.975 North, 515,927.757 East, Alabama East Zone, Transverse Mercator, NAD 1927; thence run N 36 degrees 46'53"W for 4,275.07' to the point of beginning of the herein described tract; thence run N 73 degrees 18'25"E for 1,029.02'; thence run N 2 degrees 44'19"E for 712.65'; thence run N 82 degrees 16'54"W for 78.06'; thence run S 80 degrees 40'15"W for 456.14'; thence run S 78 degrees 41'40"W for 489.07'; thence run S 23 degrees 42'21"W for 234.88'; thence run S 68 degrees 47'53"E for 151.35'; thence run S 12 degrees 24'20"W for 286.37'; thence run S 80 degrees 07'15"W for 60.58'; thence run S 12 degrees 07'16"E for 294.78' to the point of beginning.

PREVIOUSLY CLOSED SANITARY WASTE DISPOSAL AREA: A tract of land located in Section 10, Township 15 South, Range 8 East, Calhoun County, Alabama, containing 21.89 acres, more or less, and being more particularly described as follows: Commence at United States Army Corps of Engineers monument number A7-6F, said monument being located at coordinates 1,175,530.975 North, 515,927.757 East, Alabama East Zone, Transverse Mercator, NAD 1927; thence run N 38 degrees 15'27"W for 3,842.65' to the point of beginning of the herein described tract; thence run N 75 degrees 05'10"E for 230.72'; thence run N 84 degrees 16'48"E for 231.27'; thence run N 73 degrees 59'55"E for 705.77'; thence run N 71 degrees 17'34"E for 308.07'; thence run N 73 degrees 56'08"E for 381.68'; thence run N 1 degree 26'42"E for 520.80'; thence run S 73 degrees 12'24"W for 307.77'; thence run S 73 degrees 18'25"W for 1,763.26'; thence run S 23 degrees 55'26"W for 444.86' to the point of beginning.

Note: Legal description continued on next page.

LEGAL DESCRIPTION (Cont.)

CONSTRUCTION MATERIALS AREA: A tract of land located in Section 10, Township 15 South, Range 8 East, Calhoun County, Alabama, containing 9.48 acres, more or less, and being more particularly described as follows: Commence at United States Army Corps of Engineers monument number A7-6F, said monument being located at coordinates 1,175,530.975 North, 515,927.757 East, Alabama East Zone, Transverse Mercator, NAD 1927; thence run N 22 degrees 56'15"W for 4,038.96' to the point of beginning of the herein described tract; thence run N 73 degrees 18'25"E for 734.24'; thence run N 9 degrees 31'18"W for 310.02'; thence run N 9 degrees 34'22"W for 290.80'; thence run S 78 degrees 10'36"W for 500.0'; thence run N 82 degrees 16'54"W for 80.98'; thence run S 2 degrees 44'19"W for 712.65' to the point of beginning.

CONTROLLED AREA: A tract of land located in Section 10, Township 15 South, Range 8 East, Calhoun County, Alabama, containing 3.16 acres, more or less, and being more particularly described as follows: Commence at United States Army Corps of Engineers monument number A7-6F, said monument being located at coordinates 1,175,530.975 North, 515,927.757 East, Alabama East Zone, Transverse Mercator, NAD 1927; thence run N 12 degrees 29'32"W for 4,025.82' to the point of beginning of the herein described tract; thence run N 9 degrees 31'18"W for 310.02'; thence run N 9 degrees 34'22"W for 290.80'; thence run S 60 degrees 54'47"E for 411.50'; thence run S 9 degrees 19'24"W for 119.76'; thence run S 16 degrees 16'06"E for 193.10'; thence run S 73 degrees 12'25"W for 307.77' to the point of beginning.

SECTION IX

VARIANCE

IX.A. Affected Requirement: Monitoring Explosive Gases

Affected Section(s) and/or Subsection(s) of Permit: V.

Affected Rule(s): 335-13-4-.16

Justification and Description of Variance: Explosive gas monitoring shall be required annually. There are no buildings nearby, and the roads, ditches, etc. surrounding the disposal areas and the relatively shallow depths of wastes make it unlikely that explosive gases will present a problem. Thus, it has been determined that the reduced monitoring will not threaten the public health or unreasonably create environmental pollution.