

GOVERNOR

Alabama Department of Environmental Management adem.alabama.gov

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Montgomery, Alabama 36130-1463
(334) 271-7700 FAX (334) 271-7950

June 26, 2025

George G. Dunlap President/ Co-owner Ragland Clay Products, LLC Post Offic Box 160 Ragland, AL 35131

RE:

Draft Permit

Ragland Clay Products

NPDES Permit Number AL0077461

St. Clair County (115)

Dear Mr. Dunlap:

Transmitted herein is a draft of the above referenced permit. Please review the enclosed draft permit carefully. If previously permitted, the draft may contain additions/revisions to the language in your current permit. Please submit any comments on the draft permit to the Department within 30 days from the date of receipt of this letter.

Since the Department has made a tentative decision to issue the above referenced permit, ADEM Admin. Code r. 335-6-6-.21 requires a public notice of the draft permit followed by a period of at least 30 days for public comment before the permit can be issued. The United States Environmental Protection Agency will also receive the draft permit for review during the 30-day public comment period.

Any mining, processing, construction, land disturbance, or other regulated activity proposed to be authorized by this draft permit is prohibited prior to the effective date of the formal permit. Any mining or processing activity within the drainage basin associated with each permitted outfall which is conducted prior to Departmental receipt of certification from a professional engineer licensed to practice in the State of Alabama, that the Pollution Abatement/Prevention Plan was implemented according to the design plan, or notification from the Alabama Surface Mining Commission that the sediment control structures have been certified, is prohibited.

This permit requires Discharge Monitoring Reports (DMR) to be submitted utilizing the Department's web-based electronic reporting system. Please read Part I.D of the permit carefully and visit https://aepacs.adem.alabama.gov/nviro/ncore/external/home.

Should you have any questions concerning this matter, please contact Ange Boatwright at (334) 274-4208 or maboatwright@adem.alabama.gov.

Sincerely,

William D. McClimans, Chief Mining and Natural Resource Section Stormwater Management Branch Water Division

WDM/mab

File: DPER/27710

cc:

Ange Boatwright, ADEM

Environmental Protection Agency Region IV

Alabama Department of Conservation and Natural Resources

U.S. Fish and Wildlife Service Alabama Historical Commission

Advisory Council on Historic Preservation
U.S. Army Corps of Engineers Mobile District
U.S. Army Corps of Engineers Nashville District

Alabama Department of Labor







NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE:

Ragland Clay Products, LLC

Post Office Box 160 Ragland, AL 35131

FACILITY LOCATION:

Ragland Clay Products 61 Industrial Drive Ragland, AL 35131 St Clair County T15N, R5E, S7, 18

PERMIT NUMBER:

AL0077461

DSN & RECEIVING STREAM:

001 - 1

Unnamed Tributary to Trout Creek

002 - 1

Trout Creek

003 - 1 Trout Creek

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

MINING AND NATURAL RESOURCE SECTION NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

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PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfalls have been constructed and certified. Discharges shall be limited and monitored by the Permittee as specified below:

Davamatar	Discharge Limitations			Monitoring Requirements		
Parameter	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency ¹	
pH 00400	6.0 s.u.		8.5 s.u.	Grab	2/Month	
Solids, Total Suspended 00530			35.0 mg/L	Grab	2/Month	
Flow, In Conduit or Thru Treatment Plant ² 50050		Report MGD	Report MGD	Instantaneous	2/Month	

B. REQUIREMENTS TO ACTIVATE A PROPOSED MINING OUTFALL

- Discharge from any point source identified on Page 1 of this Permit which is a proposed outfall is
 not authorized by this Permit until the outfall has been constructed and certification received by the
 Department from a professional engineer, registered in the State of Alabama, certifying that such
 facility has been constructed according to good engineering practices and in accordance with the
 Pollution Abatement and/or Prevention (PAP) Plan.
- 2. Certification required by Part I.B.1. shall be submitted on a completed ADEM Form 432. The certification shall include the latitude and longitude of the constructed and certified outfall.
- Discharge monitoring and Discharge Monitoring Report (DMR) reporting requirements described in Part I.C. of this Permit do not apply to point sources that have not been constructed and certified.
- Upon submittal of the certification required by Part I.B.1. to the Department, all monitoring and DMR submittal requirements shall apply to the constructed and certified outfall.

C. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Sampling Schedule and Frequency

a. The Permittee shall collect at least one grab sample of the discharge to surface waters from each constructed and certified point source identified on Page 1 of this Permit and described more fully in the Permittee's application twice per month at a rate of at least every other week if a discharge occurs at any time during the two week period, but need not collect more than two samples per calendar month. Each sample collected shall be analyzed for each parameter specified in Part I.A. of this Permit.

See Part I.C.2. for further measurement frequency requirements.

Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department.

- b. If the final effluent is pumped in order to discharge (e.g. from incised ponds, old highwall cuts, old pit areas or depressions, etc.), the Permittee shall collect at least one grab sample of the discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application each quarterly (three month) monitoring period if a discharge occurs at any time during the quarterly monitoring period which results from direct pumped drainage. Each sample collected shall be analyzed for each parameter specified in Part I.A. of this Permit.
- c. The Permittee may increase the frequency of sampling listed in Parts I.C.1.a and I.C.1.b; however, all sampling results must be reported to the Department and included in any calculated results submitted to the Department in accordance with this Permit.

2. Measurement Frequency

Measurement frequency requirements found in Part I.A. shall mean:

- A measurement frequency of one day per week shall mean sample collection on any day of discharge which occurs every calendar week.
- b. A measurement frequency of two days per month shall mean sample collection on any day of discharge which occurs every other week, but need not exceed two sample days per month.
- c. A measurement frequency of one day per month shall mean sample collection on any day of discharge which occurs during each calendar month.
- d. A measurement frequency of one day per quarter shall mean sample collection on any day of discharge which occurs during each calendar quarter.
- e. A measurement frequency of one day per six months shall mean sample collection on any day of discharge which occurs during the period of January through June and during the period of July through December.
- f. A measurement frequency of one day per year shall mean sample collection on any day of discharge which occurs during each calendar year.

3. Monitoring Schedule

The Permittee shall conduct the monitoring required by Part I.A. in accordance with the following schedule:

- a. MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this Permit and every month thereafter. More frequently than monthly and monthly monitoring may be done anytime during the month, unless restricted elsewhere in this Permit, but the results should be reported on the last Discharge Monitoring Report (DMR) due for the quarter (i.e., with the March, June, September, and December DMRs).
- b. QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The Permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this Permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this

Permit, but the results should be reported on the last DMR due for the quarter (i.e., with the March, June, September, and December DMRs).

- c. SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The Permittee shall conduct the semiannual monitoring during the first complete semiannual calendar period following the effective date of this Permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this Permit, but it should be reported on the last DMR due for the month of the semiannual period (i.e., with the June and December DMRs).
- d. ANNUAL MONITORING shall be conducted at least once during the period of January through December. The Permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this Permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this Permit, but it should be reported on the December DMR.

4. Sampling Location

Unless restricted elsewhere in this Permit, samples collected to comply with the monitoring requirements specified in Part I.A. shall be collected at the nearest accessible location just prior to discharge and after final treatment, or at an alternate location approved in writing by the Department.

5. Representative Sampling

Sample collection and measurement actions taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this Permit.

6. Test Procedures

For the purpose of reporting and compliance, Permittees shall use one of the following procedures:

- a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136, guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h), and ADEM Standard Operating Procedures. If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this Permit the Permittee shall use the newly approved method.
- b. For pollutant parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the

Department, and may be developed by the Permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures identified in Parts I.C.6.a. and b. shall be reported on the Permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

7. Recording of Results

For each measurement or sample taken pursuant to the requirements of this Permit, the Permittee shall record the following information:

- a. The facility name and location, point source number, date, time, and exact place of sampling or measurements;
- b. The name(s) of person(s) who obtained the samples or measurements;
- c. The dates and times the analyses were performed;
- d. The name(s) of the person(s) who performed the analyses;
- e. The analytical techniques or methods used including source of method and method number; and
- f. The results of all required analyses.

8. Routine Inspection by Permittee

- a. The Permittee shall inspect all point sources identified on Page 1 of this Permit and described more fully in the Permittee's application and all treatment or control facilities or systems used by the Permittee to achieve compliance with the terms and conditions of this Permit at least as often as the applicable sampling frequency specified in Part I.C.1 of this Permit.
- b. The Permittee shall maintain a written log for each point source identified on Page 1 of this Permit and described more fully in the Permittee's application in which the Permittee shall record the following information:
 - (1) The date and time the point source and any associated treatment or control facilities or systems were inspected by the Permittee;
 - (2) Whether there was a discharge from the point source at the time of inspection by the Permittee;
 - (3) Whether a sample of the discharge from the point source was collected at the time of inspection by the Permittee;

- (4) Whether all associated treatment or control facilities or systems appeared to be in good working order and operating as efficiently as possible, and if not, a description of the problems or deficiencies; and
- (5) The name and signature of the person performing the inspection of the point source and associated treatment or control facilities or systems.

9. Records Retention and Production

- a. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the above reports or the application for this Permit, for a period of at least three (3) years from the date of the sample collection, measurement, report, or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA, AEMA, and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director, the Permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records should not be submitted unless requested.
- b. All records required to be kept for a period of three (3) years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

10. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this Permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The Permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

D. DISCHARGE REPORTING REQUIREMENTS

1. Requirements for Reporting of Monitoring

- a. Monitoring results obtained during the previous three (3) months shall be summarized for each month on a Discharge Monitoring Report (DMR) Form approved by the Department, and submitted to the Department so that it is received by the Director no later than the 28th day of the month following the quarterly reporting period (i.e., on the 28th day of January, April, July, and October of each year).
- b. The Department utilizes a web-based electronic reporting system for submittal of DMRs. Except as allowed by Part I.D.1.c. or d., the Permittee shall submit all DMRs required by Part I.D.1.a. by utilizing the Department's current electronic reporting system. The Department's current reporting system, Alabama Environmental Permitting and Compliance System (AEPACS), can be found online at https://aepacs.adem.alabama.gov/nviro/ncore/external/home.

- c. If the electronic reporting system is down (i.e. electronic submittal of DMR data is unable to be completed due to technical problems originating with the Department's system; this could include entry/submittal issues with an entire set of DMRs or individual parameters), permittees are not relieved of their obligation to submit DMR data to the Department by the required submittal date. However, if the electronic reporting system is down on the 28th day of the month or is down for an extended period of time as determined by the Department when a DMR is required to be submitted, the facility may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within five calendar days of the electronic reporting system resuming operation, the Permittee shall enter the data into the reporting system unless an alternate timeframe is approved by the Department. An attachment should be included with the electronic DMR submittal verifying the original submittal date (date of the fax, copy of dated e-mail, or hand-delivery stamped date).
- d. The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable. Permittees with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The Permittee shall submit the Department-approved DMR forms to the address listed in Part I.D.1.i.
- e. If the Permittee, using approved analytical methods as specified in Part I.C.6., monitors any discharge from a point source identified on Page 1 of this Permit and describe more fully in the Permittee's application more frequently than required by this Permit; the results of such monitoring shall be included in the calculation and reporting of values on the DMR Form, and the increased frequency shall be indicated on the DMR Form.
- f. In the event no discharge from a point source identified on Page 1 of this Permit and described more fully in the Permittee's application occurs during a monitoring period, the Permittee shall report "No Discharge" for such period on the appropriate DMR Form.
- g. Each DMR Form submitted by the Permittee to the Department in accordance with Part I.D.1. must be legible and bear an original signature or electronic signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this Permit.
- h. All reports and forms required to be submitted by this Permit, the AWPCA, and the Department's rules and regulations, shall be signed by a "responsible official" of the Permittee as defined in ADEM Admin. Code r. 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Admin. Code r. 335-6-6-.09 and shall bear the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

i. All DMRs, reports, and forms required to be submitted by this Permit, the AWPCA and the Department's rules and regulations, shall be submitted through the Department's electronic reporting system, AEPACS, or, if in hardcopy, shall be addressed to:

Alabama Department of Environmental Management Water Division, Mining and Natural Resource Section Post Office Box 301463 Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management Water Division, Mining and Natural Resource Section 1400 Coliseum Boulevard Montgomery, Alabama 36110-2059

- j. Unless authorized in writing by the Department, approved reporting forms required by this Permit or the Department are not to be altered, and if copied or reproduced, must be consistent in format and identical in content to the ADEM approved form. Unauthorized alteration, falsification, or use of incorrectly reproduced forms constitutes noncompliance with the requirements of this Permit and may significantly delay processing of any request, result in denial of the request, result in permit termination, revocation, suspension, modification, or denial of a permit renewal application, or result in other enforcement action.
- k. If this Permit is a reissuance, then the Permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.D.1.

2. Noncompliance Notification

- a. The Permittee must notify the Department if, for any reason, the Permittee's discharge:
 - (1) Potentially threatens human health or welfare;
 - (2) Potentially threatens fish or aquatic life;
 - (3) Causes an in-stream water quality criterion to be exceeded;
 - (4) Does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. §1317(a);
 - (5) Contains a quantity of a hazardous substance which has been determined may be harmful to the public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. §1321(b)(4); or
 - (6) Exceeds any discharge limitation for an effluent parameter as a result of an unanticipated bypass or upset.

The Permittee shall orally or electronically report any of the above occurrences, describing the circumstances and potential effects of such discharge to the Director within 24-hours after the Permittee becomes aware of the occurrence of such discharge. In addition to the oral or electronic report, the Permittee shall submit to the Director a written report as

- provided in Part I.D.2.c., no later than five (5) days after becoming aware of the occurrence of such discharge.
- b. If for any reason, the Permittee's discharge does not comply with any limitation of this Permit, the Permittee shall submit a written report to the Director as provided in Part I.D.2.c. This report must be submitted with the next Discharge Monitoring Report required to be submitted by Part I.D.1. of this Permit after becoming aware of the occurrence of such noncompliance.
- c. An electronic Noncompliance Notification Form in a Department-approved format must be submitted to the Director in accordance with Parts I.D.2.a. and b. The completed form must document the following information:
 - (1) A description of the discharge and cause of noncompliance;
 - (2) The period of noncompliance, including exact dates and times, or if not corrected, the anticipated time the noncompliance is expected to continue; and
 - (3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

3. Reduction, Suspension, or Termination of Monitoring and/or Reporting

- a. The Director may, with respect to any point source identified on Page 1 of this Permit and described more fully in the Permittee's application, authorize the Permittee to reduce, suspend, or terminate the monitoring and/or reporting required by this Permit upon the submission of a written request for such reduction, suspension, or termination by the Permittee provided:
 - (1) All mining, processing, or disturbance in the drainage basin(s) associated with the discharge has ceased and site access is adequately restricted or controlled to preclude unpermitted and unauthorized mining, processing, transportation, or associated operations/activity;
 - (2) Permanent, perennial vegetation has been re-established on all areas mined or disturbed for at least one year since mining has ceased in the drainage basin(s) associated with the surface discharge, or all areas have been permanently graded such that all drainage is directed back into the mined pit to preclude all surface discharges;
 - (3) Unless waived in writing by the Department, the Permittee has been granted, in writing, a 100% Bond Release, if applicable, by the Alabama Department of Industrial Relations and, if applicable, by the Surface Mining Commission for all areas mined or disturbed in the drainage basin(s) associated with the discharge;
 - (4) Unless waived in writing by the Department, the Permittee has submitted inspection reports prepared and certified by a Professional Engineer (PE) registered in the State of Alabama or a qualified professional under the PE's direction which certify that the facility has been fully reclaimed or that water quality remediation has been achieved. The first inspection must be conducted approximately one year prior to and the second inspection must be conducted within thirty days of the Permittee's request for termination of monitoring and reporting requirements;

- (5) All surface effects of the mining activity such as fuel or chemical tanks, preparation plants or equipment, old tools or equipment, junk or debris, etc., must be removed and disposed of according to applicable state and federal regulations;
- (6) The Permittee's request for termination of monitoring and reporting requirements contained in this Permit has been supported by monitoring data covering a period of at least six consecutive months or such longer period as is necessary to assure that the data reflect discharges occurring during varying seasonal climatological conditions:
- (7) The Permittee has stated in its request that the samples collected and reported in the monitoring data submitted in support of the Permittee's request for monitoring termination or suspension are representative of the discharge and were collected in accordance with all Permit terms and conditions respecting sampling times (e.g., rainfall events) and methods and were analyzed in accordance with all Permit terms and conditions respecting analytical methods and procedures;
- (8) The Permittee has certified that during the entire period covered by the monitoring data submitted, no chemical treatment of the discharge was provided;
- (9) The Permittee's request has included the certification required by Part I.D.1.e. of this Permit; and
- (10) The Permittee has certified to the Director in writing as part of the request, its compliance with (1) through (9) above.
- b. It remains the responsibility of the Permittee to comply with the monitoring and reporting requirements of this Permit until written authorization to reduce, suspend, or terminate such monitoring and/or reporting is received by the Permittee from the Director.

E. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The Permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The Permittee shall notify the Director, in writing, when all discharges from any point source(s) identified on Page 1 of this Permit and described more fully in the Permittee's application have permanently ceased.

3. Updating Information

a. The Permittee shall inform the Director of any change in the Permittee's mailing address or telephone number or in the Permittee's designation of a facility contact or officer(s) having the authority and responsibility to prevent and abate violations of the AWPCA, the AEMA, the Department's rules and regulations, and the terms and conditions of this Permit, in writing, no later than ten (10) days after such change. Upon request of the Director, the Permittee shall furnish the Director with an update of any information provided in the permit application.

b. If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

- a. The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, suspending, terminating, or revoking and reissuing this Permit, in whole or in part, or to determine compliance with this Permit. The Permittee shall also furnish to the Director upon request, copies of records required to be maintained by this Permit.
- b. The Permittee shall furnish to the Director upon request, within a reasonable time, available information (name, phone number, address, and site location) which identifies offsite sources of material or natural resources (mineral, ore, or other material such as iron, coal, coke, dirt, chert, shale, clay, sand, gravel, bauxite, rock, stone, etc.) used in its operation or stored at the facility.

F. SCHEDULE OF COMPLIANCE

The Permittee shall achieve compliance with the discharge limitations specified in Part I.A. of this Permit in accordance with the following schedule:

Compliance must be achieved by the effective date of this Permit.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Management

The Permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of this Permit.

2. Pollution Abatement and/or Prevention Plan

- a. The Pollution Abatement and/or Prevention (PAP) Plan shall be prepared and certified by a registered Professional Engineer (PE), licensed to practice in the State of Alabama, and shall include at a minimum:
 - (1) The information indicated in ADEM Admin Code r. 335-6-9-.03 and ADEM Admin. Code ch. 335-6-9 and its Appendices A and B;
 - (2) A description of methods which will be implemented to prevent offsite vehicle tracking onto roadways and/or into ditches at the entrances and/or exits of the Permittee's operations;
 - (3) A description of setbacks from waters of the State in units of linear feet on the horizontal plane; a description of the methods taken to visibly delineate setbacks from waters of the State; and a description of any other actions taken to prevent encroachment upon setbacks;
 - (4) A description of the methods used to delineate the boundaries of coverage under this Permit such that the boundaries are readily visible during the life of the operation:
 - (5) A description of any other Best Management Practices (BMPs) which will be implemented to provide control of all nonpoint source pollution that is or may be associated with the Permittee's operations;
- b. The PAP Plan shall become a part of this Permit and all requirements of the PAP Plan shall become requirements of this Permit pursuant to ADEM Admin Code r. 335-6-9-.05(2). The PAP Plan shall be amended if the Department determines that the existing sediment control measures, erosion control measures, or other site management practices are ineffective or do not meet the requirements of this Permit.
- c. For existing sources, the PAP Plan shall be updated to include all requirements of this section within 180 days of the effective date of this permit. New sources shall submit the PAP plan with the NPDES Individual Permit application prior to coverage under this Permit.

3. Best Management Practices (BMPs)

- a. Unless otherwise authorized in writing by the Director, the Permittee shall provide a means of subsurface withdrawal for any discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application. Notwithstanding the above provision, a means of subsurface withdrawal need not be provided for any discharge caused by a 24-hour precipitation event greater than a 10-year, 24-hour precipitation event.
- b. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director has granted prior written authorization for dilution to meet water quality requirements.
- c. The Permittee shall minimize the contact of water with overburden, including but not limited to stabilizing disturbed areas through grading, diverting runoff, achieving quick growing stands of temporary vegetation, sealing acid-forming and toxic-forming materials, and maximizing placement of waste materials in back-fill areas.
- d. The Permittee shall prepare, submit to the Department for approval, and implement a Best Management Practices (BMPs) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a potential for discharge, if so required by the Director. When submitted and approved, the BMP Plan shall become a part of this Permit and all requirements of the BMP Plan shall become requirements of this Permit.
- e. Spill Prevention, Control, and Management

The Permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan acceptable to the Department that is prepared and certified by a Professional Engineer (PE), registered in the State of Alabama, for all onsite petroleum product or other pollutant storage tanks or containers as provided by ADEM Admin. Code r. 335-6-6-.08(j)5. The Plan shall describe and the Permittee shall implement appropriate structural and/or non-structural spill prevention, control, and/or management pursuant to ADEM Admin. Code r. 335-6-6-.12 (r) sufficient to prevent any spills of pollutants from entering a ground or surface water of the State or a publicly or privately owned treatment works. The Plan shall include at a minimum, the engineering requirements provided in 40 C.F.R. §§112.1. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. Such containment systems shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided. The Plan shall list any materials which the Permittee may utilize to contain and to absorb fuel and chemical spills and leaks. The Permittee shall maintain sufficient amounts of such materials onsite or have sufficient amounts of such materials readily available to contain and/or absorb fuel and chemical spills and leaks. Soil contaminated by chemical spills, oil spills, etc., must be immediately cleaned up or be removed and disposed of in a manner consistent with all State and federal regulations.

- f. All surface drainage and storm water runoff which originate within or enters the Permittee's premises and which contains any pollutants or other wastes shall be discharged, if at all, from a point source identified on Page 1 of this Permit and described more fully in the Permittee's application.
- g. The Permittee shall take all reasonable precautions to prevent any surface drainage or storm water runoff which originates outside the Permittee's premises and which contains any pollutants or other wastes from entering the Permittee's premises. At no time shall the Permittee discharge any such surface drainage or storm water runoff which enters the Permittee's premises if, either alone or in combination with the Permittee's effluent, the discharge would exceed any applicable discharge limitation specified in Part I.A. of this Permit.

4. Biocide Additives

- a. The Permittee shall notify the Director in writing not later than sixty (60) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in any cooling or boiler system(s) regulated by this Permit. Notification is not required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the Permittee. Such notification shall include:
 - (a) Name and general composition of biocide or chemical;
 - (b) 96-hour median tolerance limit data for organisms representative of the biota of the water(s) which the discharge(s) enter(s);
 - (c) Quantities to be used;
 - (d) Frequencies of use;
 - (e) Proposed discharge concentrations; and
 - (f) EPA registration number, if applicable.
- b. The use of any biocide or chemical additive containing tributyl tin, tributyl tin oxide, zinc, chromium, or related compounds in any cooling or boiler system(s) regulated by the Permit is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this Permit or in the application for this Permit or not exempted from notification under this Permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

5. Facility Identification

The Permittee shall clearly display prior to commencement of any regulated activity and until permit coverage is properly terminated, the name of the Permittee, entire NPDES permit number, facility or site name, and other descriptive information deemed appropriate by the Permittee at an easily accessible location(s) to adequately identify the site, unless approved otherwise in writing by the Department. The Permittee shall repair or replace the sign(s) as necessary upon becoming aware that the identification is missing or is unreadable due to age, vandalism, theft, weather, or other reason.

6. Removed Substances

Solids, sludges, filter backwash, or any other pollutants or other wastes removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department rules and regulations.

7. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facility, including but not limited to the loss or failure of the primary source of power of the treatment facility, the Permittee shall, where necessary to

maintain compliance with the discharge limitations specified in Part I.A. of this Permit or any other terms or conditions of this Permit, cease, reduce, or otherwise control production and/or discharges until treatment is restored.

8. Duty to Mitigate

The Permittee shall promptly take all reasonable steps to minimize or prevent any violation of this Permit or to mitigate and minimize any adverse impact to waters resulting from noncompliance with any discharge limitation specified in Part I.A. of this Permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as is necessary to determine the nature and impact of the noncomplying discharge.

B. BYPASS AND UPSET

1. Bypass

- a. Any bypass is prohibited except as provided in Parts II.B.1.b. and c.
- b. A bypass is not prohibited if:
 - (1) It does not cause any applicable discharge limitation specified in Part I.A. of this Permit to be exceeded;
 - (2) The discharge resulting from such bypass enters the same receiving water as the discharge from the permitted outfall;
 - (3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system; and
 - (4) The Permittee monitors the discharge resulting from such bypass at a frequency, at least daily, sufficient to prove compliance with the discharge limitations specified in Part I.A. of this Permit.
- c. A bypass is not prohibited and need not meet the discharge limitations specified in Part I.A. of this Permit if:
 - (1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the Permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The Permittee submits a written request for authorization to bypass to the Director at least ten (10) days, if possible, prior to the anticipated bypass or within 24 hours of an unanticipated bypass, the Permittee is granted such authorization, and Permittee complies with any conditions imposed by the Director to minimize any adverse impact to waters resulting from the bypass.
- d. The Permittee has the burden of establishing that each of the conditions of Parts II.B.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing

contained in Part II.B.1.a. and an exemption, where applicable, from the discharge limitations specified in Part I.A. of this Permit.

2. Upset

- a. The Permittee may seek to demonstrate that noncompliance with technology-based effluent limits occurred as a result of an upset if the conditions of Part II.B.2.b are met and if the Permittee complies with the conditions provided in Part II.B.2.c.
- b. If the Permittee wishes to establish the affirmative defense of an upset for technology-based effluent limit noncompliance, the Permittee must demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the Permittee can identify the specific cause(s) of the upset;
 - (2) The wastewater treatment facility was at the time being properly operated in accordance with Part II.B.d.
 - (3) The Permittee submitted notice of the noncompliance during the upset as required by Part II.B.2.c; and
 - (4) The Permittee complied with any remedial measures required under Part II.A.7. of this Permit.
- c. If the Permittee wishes to establish the affirmative defense of an upset for technology-based effluent limit noncompliance, the Permittee shall:
 - (1) No later than 24-hours after becoming aware of the occurrence of the upset, orally report the occurrence and circumstances of the upset to the Director in accordance with Part I.G.2.; and
 - (2) No later than five (5) days after becoming aware of the occurrence of the upset, furnish the Director with evidence, including properly signed, contemporaneous operating logs, design drawings, construction certification, maintenance records, weir flow measurements, dated photographs, rain gauge measurements, or other relevant evidence, demonstrating that:
 - (i) An upset occurred;
 - (ii) The Permittee can identify the specific cause(s) of the upset;
 - (iii) The Permittee's treatment facility was being properly operated at the time of the upset; and
 - (iv) The Permittee promptly took all reasonable steps to minimize any adverse impact to waters resulting from the upset.
- d. A discharge which is an overflow from a treatment facility or system, or an excess discharge from a point source associated with a treatment facility or system and which results from a 24-hour precipitation event larger than a 10-year, 24-hour precipitation event is not eligible to be considered as a result of an upset unless:
 - (1) The treatment facility or system is designed, constructed, and maintained to contain the maximum volume of wastewater which would be generated by the

facility during a 24-hour period without an increase in volume from precipitation and the maximum volume of wastewater resulting from a 10-year, 24-hour precipitation event or to treat the maximum flow associated with these volumes. In computing the maximum volume of wastewater which would result from a 10-year, 24-hour precipitation event, the volume which would result from all areas contributing runoff to the individual treatment facility must be included (i.e., all runoff that is not diverted from the mining area and runoff which is not diverted from the preparation plant area); and

- (2) The Permittee takes all reasonable steps to maintain treatment of the wastewater and minimize the amount of overflow or excess discharge.
- e. The Permittee has the burden of proof in defense of any enforcement action as a result of noncompliance of technology-based effluent limits the Permittee proposes to attribute to an upset.

C. PERMIT CONDITIONS AND RESTRICTIONS

1. Prohibition against Discharge from Facilities Not Certified

- a. Notwithstanding any other provisions of this Permit, if the permitted facility has not obtained or is not required to obtain a permit from the Alabama Surface Mining Commission, any discharge(s) from any point or nonpoint source(s) from the permitted facility which was not certified to the Department on a form approved by the Department by a professional engineer, registered in the State of Alabama, as being designed, constructed, and in accordance with plans and specifications reviewed by the Department is prohibited; or
- b. Notwithstanding any other provisions of this Permit, if the permitted facility has obtained or is required to obtain a permit from the Alabama Surface Mining Commission, any discharge(s) from any point or nonpoint source(s) from the permitted facility which is associated with a treatment facility which was not constructed and certified to the Alabama Surface Mining Commission pursuant to applicable provisions of said Commission's regulations, is prohibited until the Permittee submits to the Alabama Surface Mining Commission, certification by a professional engineer, registered in the State of Alabama, certifying that such facility has been constructed in accordance with plans and specifications approved by the Alabama Surface Mining Commission. This requirement shall not apply to pumped discharges from the underground works of underground coal mines where no surface structure is required by the Alabama Surface Mining Commission, provided the Department is notified in writing of the completion or installation of such facilities, and the pumped discharges will meet permit effluent limits without treatment.

2. Permit Modification, Suspension, Termination, and Revocation

- a. This Permit may be modified, suspended, terminated, or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:
 - (1) The violation of any term or condition of this Permit;
 - (2) The obtaining of this Permit by misrepresentation or the failure to disclose fully all relevant facts:
 - (3) The submission of materially false or inaccurate statements or information in the permit application or reports required by the Permit:

- (4) The need for a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
- (5) The existence of any typographical or clerical errors or of any errors in the calculation of discharge limitations;
- (6) The existence of material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;
- (7) The threat of the Permittee's discharge on human health or welfare; or
- (8) Any other cause allowed by ADEM Admin. Code ch. 335-6-6.
- b. The filing of a request by the Permittee for modification, suspension, termination, or revocation and reissuance of this Permit, in whole or in part, does not stay any Permit term or condition of this Permit.

3. Requirements for Metals, Cyanide, and Phenols Monitoring and Reporting

- a. For all outfalls, the Permittee shall collect a sample of the discharge to be analyzed for antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc, cyanide, and phenols no later six months following the effective date of the Permit. The analyses shall be submitted on an EPA Form 2C or ADEM From 567 and received by the Department no later than 28 days following six months after the effective date of the Permit.
- b. For all outfalls, should a discharge not occur within the first six months following the effective date of this Permit, the Permittee shall collect a sample of the discharge to be analyzed for antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc, cyanide, and phenols no later than six months following the date of the first discharge. The analyses shall be submitted on EPA Form 2C or ADEM Form 567 and received by the Department no later than 28 days following six months after the first discharge.
- c. Parts II.C.3.a. and b. do not apply for any outfall that is represented by analyses conducted at a substantially similar outfall as indicated on EPA Form 2C or 2D.
- d. The Permit shall be reopened, if required, to address any new information resulting from the completion and submittal of the data referenced in Parts II.C.3.a. and b.

4. Automatic Expiration of Permits for New or Increased Discharges

- a. Except as provided by ADEM Admin. Code r. 335-6-6-.02(h) and 335-6-6-.05, if this Permit was issued for a new discharger or new source, it shall expire eighteen months after the issuance date if construction has not begun during that eighteen month period.
- b. Except as provided by ADEM Admin. Code r. 335-6-6-.02(h) and 335-6-6-.05, if any portion of this Permit was issued or modified to authorize the discharge of increased quantities of pollutants to accommodate the modification of an existing facility, that portion of this Permit shall expire eighteen months after this Permit's issuance if construction of the modification has not begun within eighteen month period.

- c. Construction has begun when the owner or operator has:
 - (1) Begun, or caused to begin as part of a continuous on-site construction program:
 - (i) Any placement, assembly, or installation of facilities or equipment; or
 - (ii) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or
 - (2) Entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.
- d. The automatic expiration of this Permit for new or increased discharges if construction has not begun within the eighteen month period after the issuance of this Permit may be tolled by administrative or judicial stay.

5. Transfer of Permit

This Permit may not be transferred or the name of the Permittee changed without notice to the Director and subsequent modification or revocation and reissuance of this Permit to identify the new Permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership, or control of the Permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership, or control of the Permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership, or control, he may decide not to modify the existing Permit and require the submission of a new permit application.

6. Groundwater

Unless authorized on page 1 of this Permit, this Permit does not authorize any discharge to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

7. Property and Other Rights

This Permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of Federal, State, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the State or of the United States.

D. RESPONSIBILITIES

1. Duty to Comply

- a. The Permittee must comply with all terms and conditions of this Permit. Any permit noncompliance constitutes a violation of the AWPCA, AEMA, and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification, or denial of a permit renewal application.
- b. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the FWPCA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the effluent standard, prohibition or requirement.
- c. For any violation(s) of this Permit, the Permittee is subject to a civil penalty as authorized by the AWPCA, the AEMA, the FWPCA, and <u>Code of Alabama</u> 1975, §§22-22A-1 et. seq., as amended, and/or a criminal penalty as authorized by <u>Code of Alabama</u> 1975, §22-22-1 et. seq., as amended.
- d. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of this Permit shall not be a defense for a Permittee in an enforcement action.
- e. Nothing in this Permit shall be construed to preclude or negate the Permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, federal, state, or local government permits, certifications, licenses, or other approvals.
- f. The discharge of a pollutant from a source not specifically identified in the permit application for this Permit and not specifically included in the description of an outfall in this Permit is not authorized and shall constitute noncompliance with this Permit.
- g. The Permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this Permit or to minimize or prevent any adverse impact of any permit violation.

2. Change in Discharge

- a. The Permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants, increase the quantity of a discharged pollutant, or that could result in an additional discharge point. This requirement also applies to pollutants that are not subject to discharge limitations in this Permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.
- b. The Permittee shall notify the Director as soon as it knows or has reason to believe that it has begun or expects to begin to discharge any pollutant listed as a toxic pollutant pursuant to Section 307(a) of the FWPCA, 33 U.S.C. §1317(a), any substance designated as a hazardous substance pursuant to Section 311(b)(2) of the FWPCA, 33 U.S.C. §1321(b)(2), any waste listed as a hazardous waste pursuant to Code of Alabama 1975, §22-30-10, or any other pollutants or other wastes which is not subject to any discharge limitations specified in Part I.A. of this Permit and was not reported in the Permittee's application, was reported in the Permittee's application in concentrations or mass rates lower than that which the Permittee expects to begin to be discharged, or has reason to believe has begun to be discharged.

3. Compliance with Toxic or Other Pollutant Effluent Standard or Prohibition

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Sections 301(b)(2)(C),(D),(E) and (F) of the FWPCA, 33 U.S.C. §1311(b)(2)(C),(D),(E), and (F); 304(b)(2) of the FWPCA, 33 U.S.C. §1314(b)(2); or 307(a) of the FWPCA, 33 U.S.C. §1317(a), for a toxic or other pollutant discharged by the Permittee, and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Part I.A. of this Permit or controls a pollutant not limited in Part I.A. of this Permit, this Permit shall be modified to conform to the toxic or other pollutant effluent standard or prohibition and the Permittee shall be notified of such modification. If this Permit has not been modified to conform to the toxic or other pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the authorization to discharge in this Permit shall be void to the extent that any discharge limitation on such pollutant in Part I.A. of this Permit exceeds or is inconsistent with the established toxic or other pollutant effluent standard or prohibition.

4. Compliance with Water Quality Standards and Other Provisions

- a. On the basis of the Permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this Permit will assure compliance with applicable water quality standards. However, this Permit does not relieve the Permittee from compliance with applicable State water quality standards established in ADEM Admin. Code ch. 335-6-10, and does not preclude the Department from taking action as appropriate to address the potential for contravention of applicable State water quality standards which could result from discharges of pollutants from the permitted facility.
- b. Compliance with Permit terms and conditions notwithstanding, if the Permittee's discharge(s) from point source(s) identified on Page I of this Permit cause(s) or contribute(s) to a condition in contravention of State water quality standards, the Department may require abatement action to be taken by the Permittee, modify the Permit pursuant to the Department's rules and regulations, or both.
- c. If the Department determines, on the basis of a notice provided pursuant to Part II.C.2. of this Permit or any investigation, inspection, or sampling, that a modification of this Permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the noticed act until the Permit has been modified.

5. Compliance with Statutes and Rules

- a. This Permit has been issued under ADEM Admin. Code div. 335-6. All provisions of this division, that are applicable to this Permit, are hereby made a part of this Permit. A copy of this division may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36110-2059.
- b. This Permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

6. Right of Entry and Inspection

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the 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, for the purposes of assuring Permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

7. Duty to Reapply or Notify of Intent to Cease Discharge

- a. If the Permittee intends to continue to discharge beyond the expiration date of this Permit, the Permittee shall file with the Department a complete permit application for reissuance of this Permit at least 180 days prior to its expiration. Applications must be submitted electronically via the Department's current electronic permitting system. The Department's current online permitting system, Alabama Environmental Permitting and Compliance System (AEPACS), can be found online at https://aepacs.adem.alabama.gov/nviro/ncore/external/home.
- b. If the Permittee does not desire to continue the discharge(s) allowed by this Permit, the Permittee shall notify the Department at least 180 days prior to expiration of this Permit of the Permittee's intention not to request reissuance of this Permit. This notification must include the information required in Part I.D.4.a. and be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Admin. Code r. 335-6-6-09.
- c. Failure of the Permittee to submit to the Department a complete application for reissuance of this Permit at least 180 days prior to the expiration date of this Permit will void the automatic continuation of this Permit provided by ADEM Admin. Code r. 335-6-6-0.06; and should this Permit not be reissued for any reason, any discharge after the expiration of this Permit will be an unpermitted discharge.

PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under this Permit shall, upon conviction, be subject to penalties and/or imprisonment as provided by the AWPCA and/or the AEMA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished as provided by applicable State and Federal law.

3. Permit Enforcement

This NPDES Permit is a Permit for the purpose of the AWPCA, the AEMA, and the FWPCA, and as such all terms, conditions, or limitations of this Permit are enforceable under State and Federal law.

4. Relief From Liability

Except as provided in Part II.B.1. (Bypass) and Part II.B.2. (Upset), nothing in this Permit shall be construed to relieve the Permittee of civil or criminal liability under the AWPCA, AEMA, or FWPCA for noncompliance with any term or condition of this Permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject to under Section 311 of the FWPCA, 33 U.S.C. §1321.

C. AVAILABILITY OF REPORTS

Except for data determined to be confidential under <u>Code of Alabama</u> 1975, §22-22-9(c), all reports prepared in accordance with the terms of this Permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential. Knowingly making any false statement in any such report may result in the imposition of criminal penalties as provided for in Section 309 of the FWPCA, 33 U.S.C. §1319, and Code of Alabama 1975, §22-22-14.

D. **DEFINITIONS**

- 1. Alabama Environmental Management Act (AEMA) means <u>Code of Alabama</u> 1975, §§22-22A-1 <u>et</u>. <u>seq</u>., as amended.
- 2. Alabama Water Pollution Control Act (AWPCA) means <u>Code of Alabama</u> 1975, §§22-22-1 <u>et</u>. seq., as amended.
- 3. Average monthly discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar

month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

- 4. Arithmetic Mean means the summation of the individual values of any set of values divided by the number of individual values.
- 5. BOD means the five-day measure of the pollutant parameter biochemical oxygen demand
- 6. Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
- CBOD means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
- 8. Controlled Surface Mine Drainage means any surface mine drainage that is pumped or siphoned from the active mining area.
- 9. Daily discharge means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
- 10. Daily maximum means the highest value of any individual sample result obtained during a day.
- 11. Daily minimum means the lowest value of any individual sample result obtained during a day.
- 12. Day means any consecutive 24-hour period.
- 13. Department means the Alabama Department of Environmental Management.
- Director means the Director of the Department or his authorized representative or designee.
- 15. Discharge means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other waste into waters of the state." Code of Alabama 1975, §22-22-1(b)(8).
- 16. Discharge monitoring report (DMR) means the form approved by the Director to accomplish monitoring report requirements of an NPDES Permit.
- 17. DO means dissolved oxygen.
- 18. E. coli means the pollutant parameter Escherichia coli.
- 19. 8HC means 8-hour composite sample, including any of the following:
 - a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
 - b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
- 20. EPA means the United States Environmental Protection Agency.

- 21. Federal Water Pollution Control Act (FWPCA) means 33 U.S.C. §§1251 et. seq., as amended.
- 22. Flow means the total volume of discharge in a 24-hour period.
- 23. Geometric Mean means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).
- 24. Grab Sample means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.
- 25. Indirect Discharger means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
- 26. Industrial User means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.
- 27. mg/L means milligrams per liter of discharge.
- 28. MGD means million gallons per day.
- 29. Monthly Average means, other than for E. coli bacteria, the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for E. coli bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period. (Zero discharges shall not be included in the calculation of monthly averages.)
- 30. New Discharger means a person owning or operating any building, structure, facility or installation:
 - a. From which there is or may be a discharge of pollutants;
 - b. From which the discharge of pollutants did not commence prior to August 13, 1979, and which is not a new source; and
 - c. Which has never received a final effective NPDES Permit for dischargers at that site.
- 31. New Source means:
 - a. A new source as defined for coal mines by 40 CFR Part 434.11 (1994); and
 - b. Any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
 - (1) After promulgation of standards of performance under Section 306 of FWPCA which are applicable to such source; or
 - (2) After proposal of standards of performance in accordance with Section 306 of the FWPCA which are applicable to such source, but only if the standards are promulgated in accordance with Section 206 within 120 days of their proposal.
- 32. NH3-N means the pollutant parameter ammonia, measured as nitrogen.

- 33. 1-year, 24-hour precipitation event means the maximum 24-hour precipitation event with a probable recurrence interval of once in one year as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
- 34. Permit application means forms and additional information that are required by ADEM Admin. Code r. 335-6-6-.08 and applicable permit fees.
- 35. Point Source means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. §1362(14).
- 36. Pollutant includes for purposes of this Permit, but is not limited to, those pollutants specified in Code of Alabama 1975, §22-22-1(b)(3) and those effluent characteristics, excluding flow, specified in Part I.A. of this Permit.
- 37. Pollutant of Concern means those pollutants for which a water body is listed as impaired or which contribute to the listed impairment.
- 38. Pollution Abatement and/or Prevention Plan (PAP Plan) mining operations plan developed to minimize impacts on water quality to avoid a contravention of the applicable water quality standards as defined in ADEM Admin. Code r. 335-6-9-.03
- 39. Preparation, Dry means a dry preparation facility within which the mineral/material is cleaned, separated, or otherwise processed without use of water or chemical additives before it is shipped to the customer or otherwise utilized. A dry preparation plant includes all ancillary operations and structures necessary to clean, separate, or otherwise process the mineral/material, such as storage areas and loading facilities. Dry preparation also includes minor water spray(s) used solely for dust suppression on equipment and roads to minimize dust emissions.
- 40. Preparation, Wet means a wet preparation facility within which the mineral/material is cleaned, separated, or otherwise processed using water or chemical additives before it is shipped to the customer or otherwise utilized. A wet preparation plant includes all ancillary operations and structures necessary to clean, separate, or otherwise process the mineral/material, such as storage areas and loading facilities. Wet preparation also includes mineral extraction/processing by dredging, slurry pumping, etc.
- 41. Privately Owned Treatment Works means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".
- 42. Publicly Owned Treatment Works (POTW) means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.
- 43. Receiving Stream means the "waters" receiving a "discharge" from a "point source".
- 44. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- 45. 10-year, 24-hour precipitation event means that amount of precipitation which occurs during the maximum 24-hour precipitation event with a probable recurrence interval of once in ten years as

defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.

- 46. TKN means the pollutant parameter Total Kjeldahl Nitrogen.
- 47. TON means the pollutant parameter Total Organic Nitrogen.
- 48. TRC means Total Residual Chlorine.
- 49. TSS means the pollutant parameter Total Suspended Solids
- 50. Treatment facility and treatment system means all structures which contain, convey, and as necessary, chemically or physically treat mine and/or associated preparation plant drainage, which remove pollutants limited by this Permit from such drainage or wastewater. This includes all pipes, channels, ponds, tanks, and all other equipment serving such structures.
- 51. 24HC means 24-hour composite sample, including any of the following:
 - a. The mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;
 - b. A sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or
 - c. A sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.
- 52. 24-hour precipitation event means that amount of precipitation which occurs within any 24-hour period.
- 53. 2-year, 24-hour precipitation event means the maximum 24-hour precipitation event with a probable recurrence interval of once in two years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
- 54. Upset means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate facilities, lack of preventive maintenance, or careless or improper operation.
- Waters means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the State, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, §22-22-1(b)(2). "Waters" include all "navigable waters" as defined in §502(7) of the FWPCA, 33 U.S.C. §1362(7), which are within the State of Alabama.
- 56. Week means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.
- 57. Weekly (7-day and calendar week) Average is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the

Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

E. 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.

F. PROHIBITIONS AND ACTIVIES NOT AUTHORIZED

- 1. Discharges from disposal or landfill activities as described in ADEM Admin. Code div. 335-13 are not authorized by this Permit unless specifically approved by the Department.
- 2. Relocation, diversion, or other alteration of a water of the State is not authorized by this Permit unless specifically approved by the Department.
- Lime or cement manufacturing or production and discharge of process waters from such manufacturing or production is not authorized by this Permit unless specifically approved by the Department.
- 4. Concrete or asphalt manufacturing or production and discharge of process waters from such manufacturing or production is not authorized by this Permit unless specifically approved by the Department.
- 5. The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the Permittee or not identified in the application for this Permit or not identified specifically in the description of an outfall in this Permit is not authorized by this Permit.

G. DISCHARGES TO IMPAIRED WATERS

- 1. This Permit does not authorize new sources or new discharges of pollutants of concern to impaired waters unless consistent with an EPA-approved or EPA-established Total Maximum Daily Load (TMDL) and applicable State law, or unless compliance with the limitations and requirements of the Permit ensure that the discharge will not contribute to further degradation of the receiving stream. Impaired waters are those that do not meet applicable water quality standards and are identified on the State of Alabama's §303(d) list or on an EPA-approved or EPA-established TMDL. Pollutants of concern are those pollutants for which the receiving water is listed as impaired or contribute to the listed impairment.
- 2. Facilities that discharge into a receiving stream which is listed on the State of Alabama's §303(d) list of impaired waters, and with discharges that contain the pollutant(s) for which the waters are impaired, must within six (6) months of the Final §303(d) list approval, document in its BMP plan how the BMPs will control the discharge of the pollutant(s) of concern, and must ensure that there will be no increase of the pollutants of concern. A monitoring plan to assess the effectiveness of the BMPs in achieving the allocations must also be included in the BMP plan.
- 3. If the facility discharges to impaired waters as described above, it must determine whether a TMDL has been developed and approved or established by EPA for the listed waters. If a TMDL is approved or established during this Permit cycle by EPA for any waters into which the facility discharges, the facility must review the applicable TMDL to see if it includes requirements for control of any water discharged by the Permittee. Within six (6) months of the date of TMDL approval or establishment, the facility must notify the Department on how it will modify its BMP plan to include best management practices specifically targeted to achieve the allocations prescribed

by the TMDL, if necessary. Any revised BMP plans must be submitted to the Department for review. The facility must include in the BMP plan a monitoring component to assess the effectiveness of the BMPs in achieving the allocations.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT WATER DIVISION

NPDES INDIVIDUAL PERMIT RATIONALE

Company Name: Ragland Clay Products, LLC

Facility Name: Ragland Clay Products

County: St. Clair

Permit Number: AL0077461

Prepared by: Ange Boatwright

Date: May 15, 2025

Receiving Waters: Unnamed Tributary to Trout Creek, Trout Creek

Permit Coverage: Shale and/or Common Clay Mine, Brick Manufacturing Plant, Dry Preparation,

Transportation and storage, and Associated Areas

SIC Code: 1459, 3251

The Department has made a tentative determination that the available information is adequate to support the issuance of this permit.

This proposed permit covers shale and/or common clay mine, brick manufacturing plant, dry preparation, transportation and storage, and associated areas which discharge to surface waters of the state.

The proposed permit authorizes treated discharges into to Trout Creek and an unnamed tributary to Trout Creek, both classified as Fish and Wildlife (F&W) per ADEM Admin. Code ch. 335-6-11. If the requirements of the proposed permit are fully implemented, the facility will not discharge pollutants at levels that will cause or contribute to a violation of the F&W classification.

Full compliance with the proposed permit terms and conditions is expected to be protective of instream water quality and ensure consistency with applicable instream State water quality standards (WQS) for the receiving stream.

Technology Based Effluent Limits (TBELs) for shale and common clay have not yet been developed by the EPA.

The pollutants expected to be discharged from the facility, and therefore limited in the proposed permit, are pH and Total Suspended Solids (TSS) (40 CFR 401.16).

Effluent limitations for TSS are those proposed by the EPA for shale and/or common clay mine drainage in the Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Mineral Mining and Processing Point Source Category (July 1979). The TSS limit in the proposed permit is a daily maximum of 35 mg/l.

The discharge limitations for pH of 6.0 - 8.5 s.u. are based on the instream water quality standards for pH in streams classified as Fish and Wildlife per ADEM Admin. Code r. 335-6-10-.09.

The applicant has requested, in accordance with 40 CFR Part 122.21 and their NPDES permit application, a waiver from testing for the Part A, B, and C pollutants listed in the EPA Form 2C and 2D that are not addressed in their application. They have also certified that due to the processes involved in their mining activity these pollutants are believed to be not present in the waste stream. However, due to the brick manufacturing activity being conducted onsite, the proposed permit requires the submittal of new metals, arsenic, cyanide, and phenols data within six months of the effective date of the Permit or within six months of the first discharge from Outfall 002-1. The Permittee must

now sample at Outfall 002-1 within the time frame mentioned above. The Permit shall be reopened, if required, to address any new information resulting from the submittal of the new effluent data.

The Pollution Abatement/Prevention (PAP) plan for this facility has been prepared by a professional engineer (PE) registered in the State of Alabama and is designed to ensure reduction of pollutants in the waste stream to a level that, if operated properly, the discharge will not contribute to or cause a violation of applicable State WQS. The proposed permit terms and conditions are predicated on the basis of ensuring a reduction of pollutants in the discharge to a level that reduces the potential of contributing to or causing a violation of applicable State WQS.

In accordance with ADEM Admin. Code r. 335-6-3-.07 the design PE, as evidenced by their seal and/or signature on the application, has accepted full responsibility for the effectiveness of the waste treatment facility to treat the Permittee's effluent to meet NPDES permit limitations and requirements, and to fully comply with Alabama's WQS, when such treatment facilities are properly operated.

If there is a reasonable potential that a pollutant present in the treated discharges from a facility could cause or contribute to a contravention of applicable State WQS above numeric or narrative criteria, 40 CFR Part 122 requires the Department to establish effluent limits using calculated water quality criterion, establish effluent limits on a case-by-case basis using criteria established by EPA, or establish effluent limits based on an indicator parameter. Based on available information, potential pollutants discharged from this facility, if discharged within the concentrations allowed by this permit, would not have a reasonable potential to cause or contribute to a contravention of applicable State WOS.

Pursuant to ADEM Admin. Code r. 335-6-6-.12(r) this permit requires the Permittee to design and implement a Spill Prevention Control and Countermeasures (SPCC) plan for all stored chemicals, fuels and/or stored pollutants that have the potential to discharge to a water of the State. This plan must meet the minimum engineering requirements as defined in 40 CFR Part 112 and must provide for secondary containment adequate to control a potential spill.

The applicant is not proposing discharges into a stream segment or other State water that is included on Alabama's current CWA §303(d) list.

The applicant is not proposing discharges of pollutants to a water of the State with an approved Total Maximum Daily Load (TMDL).

The applicant is not proposing new discharges of pollutant(s) to an ADEM identified Tier I water.

The proposed permit action authorizes new discharges of pollutants to receiving waters determined by the Department to be waters where the quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water (Tier II). Pursuant to ADEM Admin. Code r. 335-6-10 (Antidegradation Policy and Implementation of the Antidegradation Policy), the applicant has submitted, and the Department has reviewed and considered information regarding (1) demonstration of necessity/importance, (2) alternatives analysis, and (3) calculations of total annualized costs for technically feasible treatment alternatives regarding the proposed new discharges to Tier II waters. The Department has determined, based on the applicant's demonstration, that the proposed new discharges to the Tier II waters are necessary for important economic or social development in the area in which the waters are located.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT WATER DIVISION

ANTIDEGRADATION RATIONALE

Company Name:

Ragland Clay Products, LLC

Facility Name:

Ragland Clay Products

County:

St. Clair

Permit Number:

AL0077461

Prepared by:

Ange Boatwright

Date:

May 15, 2025

Receiving Waters:

Trout Creek, Unnamed Tributary to Trout Creek

Stream Category:

Tier II as defined by ADEM Admin. Code 335-6-10-.12

Discharge Description: Discharge of drainage from a shale and/or common clay mine and associated areas

The following preliminary determination was prepared in accordance with ADEM Admin. Code 335-6-10-.12(7)(c):

The Department has reviewed the information submitted by applicant in accordance with ADEM Admin. Code 335-6-10-,12(9). The applicant has demonstrated that there are no technically or economically viable treatment options in its alternatives analysis that would completely eliminate a direct discharge.

The permit applicant has indicated that the following economic and social benefits will result from this project:

- The Permittee expects to retain the employment of all personnel if the abovementioned permit is 1. issued.
- The Permittee submits that the facility would continue to pay local, state, and federal taxes at 2. their current level if the permit is issued.
- The Permittee also proposes that local taxes would continue to be paid, and the facility would 3. continue to provide high paying jobs for the community.

The Department has determined that the discharge proposed by the permit applicant is necessary for important economic and social development in the area of the outfall location in the receiving water.

Reviewed By:

William D. McClimans

Date:

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM) NPDES INDIVIDUAL PERMIT APPLICATION (MINING OPERATIONS)

Instructions: This form should be used to submit an application for an NPDES individual permit to authorize discharges from surface & underground mineral, ore, or mineral product mining, quarrying, excavation, borrowing, hydraulic mining, storage, processing, preparation, recovery, handling, loading, storing, or disposing activities, and associated areas including pre-mining site development, construction, excavation, clearing, disturbance, and reclamation. Please complete all questions. Respond with "N/A" as appropriate. Incomplete or incorrect answers or missing signatures will delay processing. Attach additional comments or information as needed. If space is insufficient, continue on an attached sheet(s) as necessary. Commencement of activities applied for as detailed in this application are not authorized until permit coverage has been issued by the Department. Please type or print legibly in blue or black ink.

is insufficient, continue on an coverage has been issued by the	attached sheet(s) as no e Department. <u>Please t</u>	ecessary. Commencement type or print legibly in blue	of activities applied for as de or black ink.	tailed in this		T 11.7		
	1	PURPOSE OF T	HIS APPLICATION	R	ECE	IVED"		
Initial Permit Application Modification of Existing Reissuance & Transfer of	g Permit	Reissuance of Existi	cation for Existing Facility (ing Permit ssuance of Existing Permit	Reissuan Other		calon Existing Permit		
I. GENERAL INFORMA	TION				GEMEN UCT			
NPDES Permit Number (N	Not applicable if init	tial permit application):	County(s) in which Facil	lity is Locate	d:			
AL 0077461			St Clair County					
Company/Permittee Name	e:		Facility Name (e.g., Min	ne Name, Pit	Name, etc.):			
Ragland Clay Products, LL	.c		Ragland Clay Products					
Mailing Address of Comp			Physical Address of Facility (as near as possible to entrance):					
P.O. Box 160			61 Industrial Drive					
City:	State:	Zip:	City:	S	State:	Zip:		
Ragland	AL	35131	Ragland		AL	35131		
Permittee Phone Number:				ber: Latitude and Longitude of entrance:				
(205) 472-2136 (205) 472-2119			33° 44' 18" N 86° 09' 26" W					
Responsible Official (as d	described on page 12	of this application):	Responsible Official Titl	le:				
George G. Dunlap			President/Owner					
Mailing Address of Respo	onsible Official:		Physical Address of Responsible Official:					
P.O. Box 160			3509 Old Leeds Court			•		
City:	State:	Zip: 35131	City:	S	State:	Zip: 35213		
Phone Number of Respon-	sible Official:	Fax Number of Res	sponsible Official: Email Address of Responsible Official:			esponsible Official:		
(205) 868-4694 (205) 472-2119			sgdunlap@earthlink.net					
Facility Contact:			Facility Contact Title:					
Thomas Dunlap			Assistant Plant Manager					
Physical Address of Facility Contact:			Phone Number of Facility Contact: Fax Number of Facilit		ber of Facility Contact:			
1287 Katherine Street			(205) 540-3845 (205) 472-2119			-2119		
City:	State:	State: Zip: Email Address of Facility Contact:						
Leeds	AL	35094	tevdunlap@gmail.com					

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II. MEMBER INFORMATION

A.	partner, LLC member, investor, dire	ctor, or person performing a fur more of any class of voting s	metion similar to a director, of the tock of the applicant, or any other	dress of every officer, general partner, LLP applicant, and each person who is the record responsible official(s) of the applicant with
Na	me:	Title/Position:	Physical Address of Residence	(P.O. Box is Not Acceptable)
l _	Geoff Dunlap	Co-owner/President	3509 Old Leeds	Court, Birmingham, AL 35213
l _	J.K. Hurdle, Jr.	Co-owner	115 Chulahoma I	Drive, Holly Springs, MS 38017
_		ok		<u> </u>
B. Na	which any individual identified in I	Part II.A. is or was an officer, irector, or principal (10% or nately preceding the date on wh	general partner, LLP partner, LI nore) stockholder, that had an Ala	nip, association, and single proprietorship for .C member, investor, director, or individual bama NPDES permit at any time during the Title/Position in Corporation, Partnership,
	sociation, or Single Proprietorship:			Association, or Single Proprietorship:
-	No <u>ne</u>			
_				
ш.	LEGAL STRUCTURE OF APPL	ICANT		
A.	Indicate the legal structure of the "C	ompany/Permittee" listed in P	art I:	
	Corporation Association	n 🔲 Individual 🗀	Single Proprietorship P	artnership 🗌 LLP 🔀 LLC
	Government Agency:		Other:	
В.	If not an individual or single propristanding with the Alabama Secretary	etorship, is the "Company/Pen y of State's Office? (If the ans	mittee" listed in Part I. properly re swer is "No," attach a letter of exp	gistered and in good 🛛 Yes 🔲 No lanation.)
C.	Parent Corporation and Subsidiary (Corporations of Applicant, if a	ny: <u>N/A</u>	
D.	Land Owner(s): George Geoffrey D	ounlap and Jesse K. Hurdle, Jr.	as tenants in common	
E,	Mining Sub-contractor(s)/Operator(s), if known: <u>None</u>		
	COMPLYANCE WETODY		-	
	COMPLIANCE HISTORY			
A.	Has the applicant ever had any of th	-	Yes No	
	(1) An Alabama NPDES, SID, or U			
	(2) An Alabama license to mine sus	-		
	(3) An Alabama or federal mining p	permit suspended or terminated	d? 🗌 🗵	Yes No
	(4) A reclamation bond, or similar	security deposited in lieu of a l	oond, or portion thereof, forfeited?	
	Management, forfeited?	bama Water Improvement Cor	nmission or Alabama Department	of Environmental
1	`	•	V.A. is "Yes," attach a letter of ex	
В.	subsidiary, general partner, LLP par	tner, or LLC member and filed	by ADEM or EPA during the thre	issued to the applicant, parent corporation, se year (36 months) period preceding the date stions (if any) to abate alleged violations, and
	Notice of Violation January 2, 2019. Notice of Non-Receipt of DMRs for A No other violations reported within the	April, May and June 2019 - Aug	ed Solid Limits. ust 5, 2019	
	; ;			

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issued within the State Corp of Engineers (Useffective, expired, sus	by ADEM, EPA, Alaba	ama Surface Mining Commiss, to the applicant, parent corpo	mbers), authorizations, or certifications that sion_(ASMC), Alabama Department of Laleration, subsidiary, or LLC member for thin	bor (ADOL), US Army
within the State by AI	DEM, EPA, ASMC, AD		authorizations, or certifications that have nt, parent corporation, subsidiary, or LLC	
VI. PROPOSED SCHED	DULE			
Anticipated Activity Comm		November 1996 An	ticipated Activity Completion Date:	2040 (approximate)
D. Is/ will this facility: (1) an existing facili (2) a proposed facili (3) be located within (4) discharge to Mun (5) discharge to wate (6) need/have ADEM (7) be located on Inc (8) need/have ADEM (9) need/have ASM (10) need/have ADOM	ty which currently result ty which will result in a n any 100-year flood planicipal Separate Storm S ers of or be located in the M UIC permit coverage? dian/ historically significated M SID permit coverage? C permit coverage?	ts in discharges to State water discharge to State waters? in? sewer? e Coastal Zone? ant lands?		Yes No X X X X X X X X X X X X X X X X X X
VIII. MATERIAL TO B List relative percentages of processed, handled, translo	E REMOVED, PROC of the mineral(s) or mineraled, or disposed at the	ESSED, OR TRANSLOAD	s," attach a detailed explanation.) or be located within ½ mile of any PWS w ED sed to be and/or are currently mined, qualineral is to be mined, list the relative pe	arried, recovered, prepared,
by tonnage for the life of	Sand &/or Gravel	Chalk	Talc	Crushed rock (other)
	Industrial Sand		x Shale &/or Common Clay	
			very Coal product, coke	Slag, Red Rock
Fire clay	Iron ore	Dimension stone	Phosphate rock	Granite
Bauxitic Clay	Bauxite Ore	Limestone, crushed li	mestone and dolomite	
Gold, other trace m	inerals:	_	Other:	
Other:			Other:	
Other			Other:	

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IX.	PROPOSED ACTIVITY T	O BE CONDUCTED			
A.	Type(s) of activity presently	conducted at applicant's existing	facility or proposed to be	conducted at facility (che	eck all that apply):
	 Surface mining 	Underground mining	Quarrying	Auger mining	Hydraulic mining
•	Within-bank mining	Solution mining	Mineral storing	Lime production	Cement production .
	Synthetic fuel production	n Alternative fuels operation	Mineral dry process:	ing (crushing & screening	Mineral wet preparation
	Other beneficiation & m	anufacturing operations	Mineral loading	Chemical processing	or leaching
	Construction related tem	porary borrow pits/areas	Mineral transportation	on 🗌 rail 🔲 barge 💽	truck
	Preparation plant waste	recovery	Hydraulic mining, d	redging, instream or betwe	een stream-bank mining
	● Grading, clearing, grubb	ing, etc.	Pre-construction por	nded water removal	Excavation
	● Pre-mining logging or la	and clearing	Waterbody relocatio	n or other alteration	Creek/stream crossings
	Onsite construction debr	ris or equipment storage/disposal	Onsite mining debris	s or equipment storage/dis	posal
	Reclamation of disturbed	d areas	Chemicals used in p	rocess or wastewater treat	ment (coagulant, biocide, etc.)
	Adjacent/associated aspl	halt/concrete plant(s)	Low volume sewage	treatment package plant	
	Other:				
В.	Primary SIC Code: 3251	NAICS Code: _	Descri	ription: Brick and Structur	al Clay Tile
	Secondary SIC Code(s):	NAICS Code: _	Desc	ription:	
C.	Narrative Description of the	Activity: A clay-rich shale unit is	mined and crushed. Seve	eral varieties of brick are m	panufactured.
ਁ	Timinate Deposiption of the				
					
v	EXIET CHESALCAL HAS	WOOD OE A CRITT			
_A.	FUEL - CHEMICAL HAN	DLING, STORAGE & SPILL	PREVENTION CONTR	ROL & COUNTERMEA	
A.		ounds, or liquid waste be used or		ROL & COUNTERMEA	SURES (SPCC) PLAN Yes No
	Will fuels, chemicals, comp		stored onsite?		
A.	Will fuels, chemicals, comp	ounds, or liquid waste be used or	stored onsite?		
A.	Will fuels, chemicals, comp If "Yes," identify the fuel, c Volume Cor	ounds, or liquid waste be used <u>or</u> hemicals, compounds, or liquid v ntents Volume	stored onsite?	ume of each: Volume	X Yes No
A.	Will fuels, chemicals, comp If "Yes," identify the fuel, c Volume Cor 1,000 gallons	ounds, or liquid waste be used <u>or</u> hemicals, compounds, or liquid v ntents Volume	stored onsite? waste and indicate the volu Contents ons	ume of each: Volume	X Yes No Contents
A. B.	Will fuels, chemicals, comp If "Yes," identify the fuel, c Volume Cor 1,000 gallons gallons	ounds, or liquid waste be used <u>or</u> hemicals, compounds, or liquid v ntents Volume Diesel gall	vaste and indicate the volutions	ume of each: **Volume**gailons**gailons**	X Yes No Contents
A.	Will fuels, chemicals, comp If "Yes," identify the fuel, c Volume Con 1,000 gallons gallons If "Yes," a detailed SPCC Pl Admin, Code R. 335-6-6-1.	ounds, or liquid waste be used or hemicals, compounds, or liquid valents Volume	vaste and indicate the volutions Contents lons Intent, including diagrams, by the Department on a pro-	ume of each: Volume gallons gallons must be attached to applic	Yes No Contents cation in accordance with ADEM or individual compound/chemical
A. B.	Will fuels, chemicals, comp If "Yes," identify the fuel, c Volume Con	ounds, or liquid waste be used <u>or</u> hemicals, compounds, or liquid v ntents Volume Diesel gall	vaste and indicate the volutions Contents lons Intent, including diagrams, by the Department on a pro-	ume of each: Volume gallons gallons must be attached to applic	Yes No Contents cation in accordance with ADEM or individual compound/chemical
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A. B.	Will fuels, chemicals, comp If "Yes," identify the fuel, c Volume Con	ounds, or liquid waste be used or hemicals, compounds, or liquid valents Volume	vaste and indicate the volutions Contents lons Intent, including diagrams, by the Department on a pro-	ume of each: Volume gallons gallons must be attached to applic	Yes No Contents cation in accordance with ADEM or individual compound/chemical
A. B.	Will fuels, chemicals, comp If "Yes," identify the fuel, c Volume Con 1,000 gallons gallons If "Yes," a detailed SPCC Pl Admin. Code R. 335-6-6-1: basis, Material Safety Data Plan submittal. POLLUTION ABATEMEN	ounds, or liquid waste be used or hemicals, compounds, or liquid values. Note that the micals compounds or liquid values. Volume gall gall gall lan with acceptable format and compound or compound to the micals of the mic	vaste and indicate the volutions Contents ions Intent, including diagrams, by the Department on a proposition of the proposi	ume of each: Volume gallons gallons must be attached to appliogrammatic, categorical, ced to be used at the facilit	ZYes No Contents cation in accordance with ADEM individual compound/chemical by must be included in the SPCC
A. B.	Will fuels, chemicals, comp If "Yes," identify the fuel, c Volume Con	hemicals, compounds, or liquid valents Diesel gall an with acceptable format and co 2(r). Unless waived in writing by Sheets (MSDS) for chemicals/co	vaste and indicate the volutions Contents ions Intent, including diagrams, by the Department on a proposition of the proposi	ume of each: Volume gallons gallons must be attached to appliogrammatic, categorical, ced to be used at the facilit	Yes No Contents cation in accordance with ADEM or individual compound/chemical
A. B.	Will fuels, chemicals, comp If "Yes," identify the fuel, c Volume Con 1,000 gallons gallons If "Yes," a detailed SPCC Pl Admin. Code R. 335-6-6-1: basis, Material Safety Data Plan submittal. POLLUTION ABATEMEN	hemicals, compounds, or liquid valents Diesel gall an with acceptable format and co 2(r). Unless waived in writing by Sheets (MSDS) for chemicals/co	vaste and indicate the volutions Contents ions Intent, including diagrams, by the Department on a proposition of the proposi	ume of each: Volume gallons gallons must be attached to appliogrammatic, categorical, ced to be used at the facilit	ZYes No Contents cation in accordance with ADEM individual compound/chemical by must be included in the SPCC
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A. B.	Will fuels, chemicals, comp If "Yes," identify the fuel, c Volume Con	hemicals, compounds, or liquid valents Volume Diesel gall lan with acceptable format and co 2(r). Unless waived in writing by Sheets (MSDS) for chemicals/co NT & PREVENTION (PAP) PI es, a PAP Plan in accordance with spart of this application. detailed PAP Plan has been subnes. provide the date that the PAP Plan	vaste and indicate the voluments Contents Ions Ions Intent, including diagrams, whe Department on a proposed or proposed the ADEM Admin. Code r. Initted to ASMC according to the ASMC according to	with the state of each: Volume gallons	Zeation in accordance with ADEM or individual compound/chemical by must be included in the SPCC
A. B.	Will fuels, chemicals, comp If "Yes," identify the fuel, c Volume Con 1,000 gallons gallons If "Yes," a detailed SPCC Pl Admin. Code R. 335-6-6-15 basis, Material Safety Data Plan submittal. POLLUTION ABATEMENT For non-coal mining facilitic completed and is attached at for coal mining facilities, a for ASMC regulated faciliti (1) If "Yes" to Part XI.B., (2) If "No" to Part XI.B., p	hemicals, compounds, or liquid valents Nolume Diesel gall gall lan with acceptable format and co 2(r). Unless waived in writing by Sheets (MSDS) for chemicals/co NT & PREVENTION (PAP) PI es, a PAP Plan in accordance with spart of this application. detailed PAP Plan has been submes. provide the date that the PAP Plan provide the date that the PAP Plan provide the anticipated date that the part of the same provide the anticipated date that the part of the same provide the anticipated date that the part of the same provide the anticipated date that the part of the same provide the anticipated date that the part of the same part of the same provide the anticipated date that the part of the same provide the anticipated date that the part of the same part of	vaste and indicate the voluments Contents Ions Ions Intent, including diagrams, whe Department on a proposed or proposed the ADEM Admin. Code r. Initted to ASMC according to the ASMC according to	with the state of each: Volume gallons	Zeation in accordance with ADEM or individual compound/chemical by must be included in the SPCC
A. B.	Will fuels, chemicals, comp If "Yes," identify the fuel, c Volume Con	hemicals, compounds, or liquid valents Nolume Diesel gall gall lan with acceptable format and co 2(r). Unless waived in writing by Sheets (MSDS) for chemicals/co NT & PREVENTION (PAP) PI es, a PAP Plan in accordance with spart of this application. detailed PAP Plan has been submes. provide the date that the PAP Plan provide the date that the PAP Plan provide the anticipated date that the TITTES	vaste and indicate the voluments Contents Ions Ions Intent, including diagrams, whe Department on a proposed or proposed the ADEM Admin. Code r. Initted to ASMC according to the ASMC according to	with the state of each: Volume gallons	Zeation in accordance with ADEM or individual compound/chemical by must be included in the SPCC

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B. If "Yes", provide copies as part of this application of any pre-mining hydrologic sampling reports and Hydrologic Monitoring Reports which

have been submitted to ASMC within the 36 months prior to submittal of this application.

XIII. TOPOGRAPHIC MAP SUBMITTAL

Attach to this application a 7.5 minute series U.S.G.S. topographic map(s) or equivalent map(s) no larger than, or folded to a size of 8.5 by 11 inches (several pages may be necessary), of the area extending to at least one mile beyond property boundaries. The topographic or equivalent map(s) must include a caption indicating the name of the topographic map, name of the applicant, facility name, county, and township, range, & section(s) where the facility is located. Unless approved in advance by the Department, the topographic or equivalent map(s), at a minimum, must show:

- (a) An accurate outline of the area to be covered by the permit
- (b) An outline of the facility
- (c) All existing and proposed disturbed areas
- (d) Location of discharge areas
- (e) Proposed and existing discharge points
- (f) Perennial, intermittent, and ephemeral streams
- (g) Lakes, springs, water wells, wetlands
- (h) All known facility dirt/improved access/haul roads
- (i) All surrounding unimproved/improved roads
- (i) High-tension power lines and railroad tracks
- (k) Buildings and structures, including fuel/water tanks
- (I) Contour lines, township-range-section lines
- (m) Drainage patterns, swales, washes
- (n) All drainage conveyance/treatment structures (ditches, berms, etc.)
- (o) Any other pertinent or significant feature

XIV. DETAILED FACILITY MAP SUBMITTAL

Attach to this application a 1:500 scale or better, detailed auto-CAD map(s) or equivalent map(s) no larger than, or folded to a size of 8.5 by 11 inches (several pages may be necessary), of the facility. The facility map(s) must include a caption indicating the name of the facility, name of the applicant, facility name, county, and township, range, & section(s) where the facility is located. Unless approved in advance by the Department, the facility or equivalent map(s), at a minimum, must show:

- (a) Information listed in Item XIII (a) (o) above
- (e) Location of mining or pond cleanout waste storage/disposal areas
- (b) If noncoal, detailed, planned mining progression
- (f) Other information relevant to facility or operation
- (c) If noncoal, location of topsoil storage areas
- (g) Location of facility sign showing Permittee name, facility name, and NPDES Number
- (d) Location of ASMC bonded increments (if applicable)

XV. RECEIVING WATERS

List the requested permit action for each outfall (issue, reissue, add, delete, move, etc.), outfall designation including denoting "E" for existing and "P" for proposed outfalls, name of receiving water(s), whether or not the stream is included in a TMDL, latitude and longitude (to seconds) of location(s) of each discharge point, distance of receiving water from outfall in feet, number of disturbed acres, the number of drainage acres which will drain through each treatment system, outfall, or BMP, and if the outfall discharges to an ADEM listed CWA Section 303(d) waterbody segment at the time of application submittal.

Action	Outfall E/P	Receiving Water	Latitude	Longitude	Distance to Rec. Water	Disturbed Acres	Drainage Acres	ADEM WUC	303(d) Segment (Y/N)	TMDL Segment* (Y/N)
Re- Issue	001E	U.T. to Trout Creek	33°44'6.35"	86°9'34.61"	430 ft	4.9	6.7	F&W	N	N
Re- Issue	002E	Trout Creek	33°44'12.62"	86°9'39.80"	445 ft	0	11.6	F&W	N	N
Re- Issue	003P	Trout Creek	33°44'17.28"	86°9'28.60"	343 ft	0	2.0	F&W	N	N
				_				_	ì	
		222222222222								

^{*}If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation: (1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.); (2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be reported as available); (3) Requested interim limitations, if applicable; (4) Date of final compliance with the TMDL limitations; and (5) Any other additional information available to support the requested compliance schedule.

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XVI. DISCHARGE CHARACTERIZATION

A.	EPA Form 2C, EPA Form 2D, and/or Modified EPA Form 2C Submittal
	Yes, pursuant to 40 CFR §122.21, the applicant requests a waiver for completion of EPA Form 2C, EPA Form 2D, and the modified EPA Form 2C and certifies that the operating facility will discharge treated stormwater only, unless waived in writing by the Department on a programmatic, categorical, or individual compound/chemical basis that chemical/compound additives are not used, and that there are no process, manufacturing, or other industrial operations or wastewaters, including but not limited to lime or cement production, synfuel operations, etc., and that coal and coal products are not mined nor stored onsite.
\boxtimes	No, the applicant does not request a waiver and a complete EPA Form 2C, EPA Form 2D, and/or modified EPA Form 2C is attached.

B. The applicant is required to supply the following information separately for every P or E outfall. If necessary, attach extra sheets. List expected average daily discharge flow rate in cfs and gpd, frequency of discharge in hours per day and days per month, average summer and winter temperature of discharge(s) in degrees centigrade (C), average pH in standard units, average daily discharge in pounds per day of BOD5, Total Suspended Solids,

Total Iron	, Total Mangan	ese, and T	otal Alumini	ım (if bauxit	e or bauxitic c	lay):		_				
Outfall E/P	Information Source - # of Samples	Flow cfs	Flow gpd	Frequency hours/day	Frequency days/month	Sum/Win Temp, °C	pH s.u.	BOD₅ lbs/day	TSS lbs/day	Tot Fe lbs/day	Tot Mn lbs/day	Tot Al lbs/day
001E	1	0.02	13,340	24	30	21/19	7.9	<0.56	0.67	0.05	0.00	0.09
002E	1	0.04	23,200	24	30	21/19	7.9	<0.56	0.67	0.05	0.00	0.09
003P	1	0.04	22,920	24	30	21/19	7.9	<0.56	0.67	0.05	0.00	0.09
	-								_			

C. The applicant is required to supply the following information separately for every P or E outfall. If necessary, attach extra sheets. Identify and list expected average daily discharge in pounds per day of any other pollutant(s) listed in EPA Form 2C, Item V - Intake And Effluent Characteristics, Parts A, B, & C that are not referenced in Part XV.B., that you know is present or have reason to believe could be present in the discharge(s) at levels of concern:

concern:											
Outfall	Reason Believed	Information Source - # of	Cyanide	Phenois	Antimony	Arsenic	Cadmium	Chromium	Соррег	Lead	Mercury
E/P	Present	Samples	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
001E	N/A	1	0	0.02	0	0	0	0	0	0	0
002E	N/A	1	0	0.02	0	0	0	0	0	0	0
003P	N/A	1	0	0.02	0	0	0	0	0	0	0
			Nickel	Selenium	Silver	Thallium	Zinc				
			lbs/day	lbs/day	ibs/day	lbs/day	lbs/day				
. 001E	N/A	1	0	0	0	0	0				
002E	N/A	1	0	0	0	0	0			_	
003P	N/A	1	0	0	0	0	0		•		_

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XVII. DISCHARGE STRUCTURE DESCRIPTION & POLLUTANT SOURCE

The applicant is required to supply outfall number(s) as it appears on the map(s) required by this application [if this application is for a modification to an existing permit do not change the numbering sequence of the permitted outfalls], describe each, (e.g., pipe, spillway, channel, tunnel, conduit, well, discrete fissure, or container), and identify the origin of pollutants. The response must be precise for each outfall. If the discharge of pollutants from any outfall is the result of commingling of waste streams from different origins, each origin must be completely described.

Outfall	Discharge structure Description	Description of Origin of pollutants	Surface Discharge	Groundwater Discharge	Wet Prep -Other Production Plant	Pumped or Controlled Discharge	Low Volume STP	Other
001E	Pipe	10	Yes	No	No	Yes	N/A	N/A
002E	Pipe	10	Yes	No	No	No	N/A	N/A
003P	Pipe	10	Yes	No	No	No	N/A	N/A
	_							_
							"	
								-
						_		

Origin of Pollutants – typica	l examples	:
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(1) Disch	arge (of drainage fr	om the un	dergrou	ind working	s of an und	ergro	und coal min	e, (2)	Discharge o	f dra	nage from	a coal s	urface n	nine, (3) Discha	ırge
of draina	ge fro	om a coal pr	eparation	plant a	nd associat	ed areas, (4	4) D	ischarge of p	proces	s wastewate	r fro	m a gravel	-washir	ng plant	, (5) Discharge	e of
wastewa	er fro	m an existing	g source c	oal prep	aration pla	n t, (6) Disc	harg	e of drainage	from	a sand and g	ravel	pit, (7) Pu	mped d	lischarg	e from a limest	one
quarry,	(8)	Controlled	surface	mine	drainage	(pumped	or	siphoned),	(9)	Discharge	of	drainage	from	mine	reclamation,	or
(10) Oth	er (de	escribe below	/) .													

ourigide ration from brick production facility and parking and arred area.	Surface Runoff from brick	production facilit	y and park	ing and o	drive	areas
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XVIII. PROPOSED NEW OR INCREASED DISCHARGES

NPI pern the	suant to ADEM Admin. Code Chapter 335-6-10-,12(9), responses to the following questions must be provided by the applicant requesting DES permit coverage for new or expanded discharges of pollutant(s) to Tier 2 waters (except discharges eligible for coverage under general nits). As part of the permit application review process, the Department is required to consider, based on the applicant's demonstration, whether proposed new or increased discharge to Tier 2 waters is necessary for important economic or social development in the area in which the ers are located.
_	Yes. New/increased discharges of pollutant(s) or discharge locations to Tier 2 waters are proposed.
	No. New/increased discharges of pollutants(s) or discharge locations to Tier 2 waters are not proposed.
313- 313, be f	Yes," complete Items 1 through 6 of this Part (XVII.B.), ADEM Form 311-Alternative Analysis, and either ADEM Form 312 or ADEM Form -Calculation of Total Annualized Project Costs (Public-Section or Private-Sector, whichever is applicable). ADEM Form 312 or ADEM Form, whichever, is applicable, should be completed for each technically feasible alternative evaluated on ADEM Form 311. ADEM Forms can found on the Department's website at www.adem.alabama.gov/DeptForms. Attach additional sheets/documentation and supporting or mation as needed.
(1)	What environmental or public health problem will the discharge be correcting?
	None
	r
(2)	How much will the discharger be increasing employment (at its existing facility or as a result of locating a new facility)?
٠.	None
	Note
(3)	How much reduction in employment will the discharger be avoiding?
(-,	1100%
	100%
<i>(4</i>)	How much additional state or local taxes will the discharger be paying?
(4)	
	Taxes paid at current Local State and Federal tax rates
	·
	<u> </u>
• •	What public service to the community will the discharger be providing?
	None
(6)	What economic or social benefit will the discharger be providing to the community?
	Providing high paying jobs to the local community and paying Local State and Federal taxes

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XIX. POLLUTION ABATEMENT & PREVENTION (PAP) PLAN SUMMARY (must be completed for all outfalls)

Y	N	N/A	Outfall(s): 001E, 002E, 003P	
×			Runoff from all areas of disturbance is controlled	
×			Drainage from pit area, stockpiles, and spoil areas directed to a sedimentation pond	
×			Sedimentation basin at least 0.25 acre/feet for every acre of disturbed drainage	
X			Sedimentation basin cleaned out when sediment accumulation is 60% of design capacity	
X			Trees, boulders, and other obstructions removed from pond during initial construction	
X			Width of top of dam greater than 12'	
×			Side slopes of dam no steeper than 3:1	
		X	Cutoff trench at least 8' wide	
		X	Side slopes of cutoff trench no less than 1:1	
		×	Cutoff trench located along the centerline of the dam	
		X	Cutoff trench extends at least 2' into bedrock or impervious soil	
		X	Cutoff trench filled with impervious material	
X			Embankments and cutoff trench 95% compaction standard proctor ASTM	
X			Embankment free of roots, tree debris, stones >6" diameter, etc.	
×			Embankment constructed in lifts no greater than 12"	
×			Spillpipe sized to carry peak flow from a one year storm event	
X			Spillpipe will not chemically react with effluent	
		X	Subsurface withdrawal	
		X	Anti-seep collars extend radially at least 2' from each joint in spillpipe	
X			Splashpad at the end of the spillpipe	
×			Emergency Spillway sized for peak flow from 25-yr 24-hr event if discharge not into PWS classified stream	
		X	Emergency spillway sized for peak flow from 50-yr 24-hr event if discharge is into PWS classified stream	
		X	Emergency overflow at least 20' long	
		X	Side slopes of emergency spillway no steeper than 2:1	
		X	Emergency spillway lined with riprap or concrete	
X			Minimum of 1.5' of freeboard between normal overflow and emergency overflow	
X			Minimum of 1.5' of freeboard between max. design flow of emergency spillway and top of dam	
X			All emergency overflows are sized to handle entire drainage area for ponds in series	
×			Dam stabilized with permanent vegetation	
×			Sustained grade of haul road <10%	
X			Maximum grade of haul road <15% for no more than 300'	
×			Outer slopes of haul road no steeper than 2:1	
×			Outer slopes of haul road vegetated or otherwise stabilized	
		×	Detail drawings supplied for all stream crossings	
X			Short-Term Stabilization/Grading And Temporary Vegetative Cover Plans	
×			Long-Term Stabilization/Grading And Permanent Reclamation or Water Quality Remediation Plans	

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IDENTIFY AND PROVIDE DETAILED EXPLANATION FOR ANY "N" OR "N/A" RESPONSE(s):

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XX. POLLUTION ABATEMENT & PREVENTION (PAP) PLAN REVIEW CHECKLIST

			1
Y	N	N/A	
X		ļ	PE Seal with License #
X			Name and Address of Operator
X			Legal Description of Facility
	,		General Information:
X			Name of Company
X	_		Number of Employees
X	L		Products to be Mined
X			Hours of Operation
		<u> _X_</u>	Water Supply and Disposition
			Topographic Map:
X			Mine Location
X		<u> </u>	Location of Prep Plant
X			Location of Treatment Basins
X			Location of Discharge Points
X			Location of Adjacent Streams
			1"-500' or Equivalent Facility Map:
X			Drainage Patterns
X X X			Mining Details
X			All Roads, Structures Detailed
X			All Treatment Structures Detailed
			Detailed Design Diagrams:
X			Plan Views
X			Cross-section Views
X			Method of Diverting Runoff to Treatment Basins
			Narrative of Operations:
X			Raw Materials Defined
X			Processes Defined
X	•	†	Products Defined
	F		Schematic Diagram:
X			Points of Waste Origin
X	,		Collection System
X			Disposal System
	<u> </u>		Post Treatment Quantity and Quality of Effluent:
		X	Flow
		X	Suspended Solids
	 	X	Iron Concentration
		X	pH
	l		Description of Waste Treatment Facility:
	Т	ΤX	Pre-Treatment Measures
		X	Recovery System
X	 	+^	Expected Life of Treatment Basin
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	 	 	Schedule of Cleaning and/or abandonment
		-	Other:
X		T	Precipitation/Volume Calculations/Diagram Attached
X		 	BMP Plan for Haul Roads
X		 	Measures for Minimizing Impacts to Adjacent Stream i.e., Buffer Strips, Berms, etc.
X	-	†	Methods for Minimizing Nonpoint Source Discharges
	†	X	
	t^-	 X	PE Rationale(s) For Alternate Standards, Designs or Plans
<u> </u>	—		
IDEN	TIFY.	AND P	ROVIDE DETAILED EXPLANATION FOR ANY "N" OR "N/A" RESPONSE(s):
			

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Contact the Department <u>prior</u> to submittal with any questions or to request acceptable alternate content/format. Be advised that you are not authorized to commence regulated activity until this application can be processed, publicly noticed, and approval to proceed is received in writing from the Department.

EPA Form(s) 1 and 2F need not be submitted unless specifically required by the Department. EPA Form(s) 2C and/or 2D are required to be submitted unless the applicant is eligible for a waiver and the Department grants a waiver, or unless the relevant information required by EPA Form(s) 2C and/or 2D are submitted to the Department in an alternative format acceptable to the Department.

Planned/proposed mining sites that are greater than 5 acres, that mine/process coal or metallic mineral/ore, or that have wet or chemical processing, must apply for and obtain coverage under an Individual NPDES Permit prior to commencement of any land disturbance. Such coverage may be requested via this ADEM Form 315.

The applicant is advised to contact:

- (1) The Alabama Surface Mining Commission (ASMC) if coal, coal fines, coal refuse, or other coal related materials are mined, transloaded, processed, etc.;
- (2) The Alabama Department of Labor (ADOL) if conducting non-coal mining operations;
- (3) The Alabama Historical Commission for requirements related to any potential historic or culturally significant sites;
- (4) The Alabama Department of Conservation and Natural Resources (ADCNR) for requirements related to potential presence of threatened/endangered species; and
- (5) The US Army Corps of Engineers, Mobile or Nashville Districts, if this project could cause fill to be placed in federal waters or could interfere with navigation.

The Department must be in receipt of a completed version of this form, including any supporting documentation, and the appropriate processing fee [including Greenfield Fee and Biomonitoring & Toxicity Limits fee(s), if applicable], prior to development of a draft NPDES permit. The completed form, supporting documentation, and the appropriate fees must be submitted to:

Water Division
Alabama Department of Environmental Management
Post Office Box 301463
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STORM WATER MANAGEMENT BRANCH

APR 23 2024

XXII. PROFESSIONAL ENGINEER (PE) CERTIFICATION

A detailed, comprehensive Pollution Abatement & Prevention (PAP) Plan must be prepared, signed, and partificative a professional engineer (PE), registered in the State of Alabama, and the PE must certify as follows:

"I certify on behalf of the applicant, that I have completed an evaluation of discharge alternatives (Item XVIII) for any proposed new or increased discharges of pollutant(s) to Tier 2 waters and reached the conclusions indicated. I certify under penalty of law that technical information and data contained in this application, and a comprehensive PAP Plan including any attached SPCC plan, maps, engineering designs, etc. acceptable to ADEM, for the prevention and minimization of all sources of pollution in stormwater and authorized related process wastewater runoff has been prepared under my supervision for this facility utilizing effective, good engineering and pollution control practices and in accordance with the provisions of ADEM Admin. Code Division 335-6, including Chapter 335-6-9 and Appendices A & B. If the PAP Plan is properly implemented and maintained by the Permittee, discharges of pollutants can reasonably be expected to be effectively minimized to the maximum extent practicable and according to permit discharge limitations and other permit requirements. The applicant has been advised that appropriate pollution abatement/prevention facilities and structural & nonstructural management practices or Department approved equivalent management practices as detailed in the PAP Plan must be fully implemented and regularly maintained as needed at the facility in accordance with good sediment, erosion, and other pollution control practices, permit requirements, and other ADEM requirements to ensure protection of groundwater and surface water quality."

S - ENA		
Name and Title (type of print)	Phone Number	205.985.4874
Signature No. 27136-E	Date Signed	4/19/2024

XXIII. RESPONSIBLE OFFICIAL SIGNATURE*

This application must be signed by a Responsible Official of the applicant pursuant to ADEM Admin. Code Rule 335-6-6-.09 who has overall responsibility for the operation of the facility.

"I certify under penalty of law that this document, including technical information and data, the PAP Plan, including any SPCC plan, maps, engineering designs, and all other attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the PE and other person or persons under my supervision who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations.

"A comprehensive PAP Plan to prevent and minimize discharges of pollution to the maximum extent practicable has been prepared at my direction by a PE for this facility utilizing effective, good engineering and pollution control practices and in accordance with the provisions of ADEM Admin. Code Division 335-6, including Chapter 335-6-9 and Appendices A & B, and information contained in this application, including any attachments. I understand that regular inspections must be performed by, or under the direct supervision of, a PE and all appropriate pollution abatement/prevention facilities and structural & nonstructural management practices or Department approved equivalent management practices identified by the PE must be fully implemented prior to and concurrent with commencement of regulated activities and regularly maintained as needed at the facility in accordance with good sediment, erosion, and other pollution control practices and ADEM requirements. I understand that the PAP Plan must be fully implemented and regularly maintained so that discharges of pollutants can reasonably be expected to be effectively minimized to the maximum extent practicable and according to permit discharge limitations and other requirements to ensure protection of groundwater and surface water quality. I understand that failure to fully implement and regularly maintain required management practices for the protection of groundwater and surface water quality may subject the Permittee to appropriate enforcement action.

"I certify that this form has not been altered, and if copied or reproduced, is consistent in format and identical in content to the ADEM approved form.

"I further certify that the discharges described in this application have been tested or evaluated for the presence of non-stormwater discharges and any non-mining associated beneficiation/process pollutants and wastewaters have been fully identified."

Name (type or print)	George G. Dunlap	Official Title	President	
Signature Lunge	2. Dunlap	Date Signed	10/03/2019	

*335-6-6-.09 Signatories to Permit Applications and Reports.

- (1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:
 - (a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;
 - (b) In the case of a partnership, by a general partner;
 - (c) In the case of a sole proprietorship, by the proprietor; or
 - (d) In the case of a municipal, state, federal, or other public entity by either a principal executive officer, or ranking elected official.

Attachment 1 to Supplementary Form ADEM Form 311

Alternatives Analysis

Applicant/Project: Ragland Clay Products

All new or expanded discharges (except discharges eligible for coverage under general permits) covered by the NPDES permitting program are subject to the provisions of ADEM's antidegradation policy. Applicants for such discharges to Tier 2 waters are required to demonstrate "... that the proposed discharge is necessary for important economic or social development." As a part of this demonstration, the applicant must complete an evaluation of the discharge alternatives listed below, including a calculation of the total annualized project costs for each technically feasible alternative (using ADEM Form 312 for public-sector projects and ADEM Form 313 for private-sector projects). Alternatives with total annualized project costs that are less than 110% of the total annualized project costs for the Tier 2 discharge proposal are considered viable alternatives.

Alternative	Viable	Non-Viable	Comment
1 Land Application		x	No suitable location onsite for land application
2 Pretreatment/Discharge to POTW		X	POTW will not accept stormwater into the public sewer system
3 Relocation of Discharge		x	No suitable location on site to relocate discharge points
4 Reuse/Recycle		x	Facility processes are not designed for reuse
5 Process/Treatment Alternatives	-	×	Mechanical treatment of storm water is not economically leasible
6 On-site/Sub-surface Disposal		×	Local geologic conditions are not suitable for for subsurface disposal
	+		
(other project-specific alternatives considered by the applicant; attach			
additional sheets if necessary)			
7			
8	<u> </u>		ABAM MILL
9			ADAM

Pursuant to ADEM Administrative Code Rule 335-6-3-.04, I certify on behalf of the applicant that I have completed an evaluation of the discharge alternatives identified above, and reached the conclusions indicated.

Signature: No. 27136-E PROFESSION Rna Emaneer,

(Supporting documentation to be attached, referenced, or otherwise handled as appropriate.)

Calculation of Total Annualized Project Costs for Private-Sector Projects

Capital Costs to be Financed (Supplied by applicant)	\$ 58,176.00 ₍₁₎
Interest rate for Financing (Expressed as a decimal)	0.05 (i)
Time Period of Financing (Assume 10 years*)	10 years (n)
Annualization Factor = $\frac{i}{(1+i)^{10}-1}$ + i	0.1295 (2)
Annualized Capital Cost [Calculate: (1) x (2)]	\$ 7,533.00 ₍₃₎
Annual Cost of Operation and Maintenance (including but not limited to monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement)	\$ 5,900.00 ₍₄₎
Total Annual Cost of Pollution Control Project [(3)+(4)]	\$ 13,433.00 ₍₅₎

While actual payback schedules may differ across projects and companies, assume equal annual payments over a 10-year period for consistency in comparing projects.

For recurring costs that occur less frequently than once a year, pro rate the cost over the relevant number of years (e.g., for pumps replaced once every three years, include one-third of the cost in each year).



NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM

POLLUTION ABATEMENT PLAN

RAGLAND CLAY PRODUCTS, LLC
POST OFFICE BOX 160
RAGLAND, ST CLAIR COUNTY, ALABAMA 35131
PROJECT No.: 2242008

PERMIT No.: AL0077461

PREPARED FOR:

RAGLAND CLAY PRODUCTS, LLC POST OFFICE BOX 160 RAGLAND, ALABAMA 35131 RECEIVED

APR 23 2024

STORM WATER
MANAGEMENT BRANCH

NOVEMBER 1, 2021 REVISED APRIL 17, 2024

PREPARED BY:

LABELLA ASSOCIATES, D.P.C. 528 MINERAL TRACE HOOVER, ALABAMA 35244 PHONE (205) 985-4874 FAX (205) 987-6080



PLAN CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and/or imprisonment for knowing violations.

Geoff Dunlap President

Date



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Appendix A Rainfall Maps

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1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this Storm Water Pollution Abatement and Prevention (PAP) Plan (the Plan) is to outline effective material management practices which minimize or eliminate exposure of sediments and other materials to storm water. The Plan provides guidance associated with measures used to prevent or reduce the amount of sediment and other pollution entering surface water from onsite operations. The Plan has been prepared in accordance with the National Pollutant Elimination Program System (NPDES) Individual Mining Permit AL0077461 (the Permit) issued to Ragland Clay Products, LLC. The facility Permit currently allows stormwater discharge from three outfalls (Outfall DSN001E, Outfall DSN001E and Outfall 003P) to Trout Creek.

This Plan also addresses employee training for spill prevention, spill response, preventative maintenance, and storm water inspection and sampling procedures. The Plan will be updated annually, or when significant changes occur at the facility. The PAP Plan Review and Update form is enclosed as Appendix A.

1.2 LOCATION

The Ragland Clay Products, LLC mine is located in St. Clair County approximately a quarter-mile south of Ragland, Alabama at 61 Industrial Drive. The existing mine area is located in the South of Section 7 and the North of Section 18 in Township 15 South and Range 5 East. A site location map is included as Figure 1.

1.3 WORK DESCRIPTION

Ragland Clay Products, LLC is a brick manufacturing company. Ragland Clay Products mining site extracts shale that is used in the manufacturing of the clay bricks.



2.0 ENVIRONMENTAL SETTING

2.1 GEOLOGIC SETTING

The mine site is in the Coosa Valley of the Valley and Ridge physiographic province. The site is located within the Pottsville Formation (upper part), consisting of dark-gray silty shale containing intervals of medium- to dark-gray lithic sandstone and interbeds of coal and underclay.

2.2 SOIL TYPES

The soil at the mine site consists of Nauvoo - Townley association (NET), Urban land - Townley complex (UtB), and Townley silt loam (TeD). Nauvoo-Townley association consists of deep well drained soils that formed on the plateaus of the Pottsville formation with steep slopes. Urban land-Townley complex consists of strongly sloping soil on upland ridges and hillsides occurring on the Pottsville formation with slopes ranging from 2 to 8 percent. Townley silt loam consists of deep well drained soils formed in clayey residuum weathered from shale with slopes ranging from 6 to 15 percent. Overall, the soils are in the B and D hydrologic soil groups and have erosion factors (K, in the universal soil loss equation) ranging from 0.15 to 0.37, indicating only low to moderate erodibility. A soils map is included in Figure 2.

2.3 RAINFALL

The average rainfall is approximately 54 inches per year in St. Clair County. The rainfall depths of design storm events are from TP-40. At the mine site, the 1-yr/24-hr rainfall depth is 3.45 inches, the 2-yr/24-hr rainfall depth is 4.0 inches, and the 25-yr/24-hr rainfall depth is 6.7 inches. The rainfall maps are presented in Appendix A.

2.4 WETLANDS

One wetland area exists within the property boundary as indicated on the National Wetlands Inventory map. This wetland area has not been field verified as Ragland Clay Products does not intend to mine in the wetland area. A map indicating The National Wetlands Inventory data is included in Figure 3.

2.5 STREAMS

Trout Creek and an unnamed tributary to Trout Creek are in the vicinity of the mine. No changes or alterations to the streams are proposed.



3.0 PERMITTED OUTFALLS

3.1 OUTFALL 001 (DSN001E)

Existing Outfall DSN001E includes discharges from mine de-watering activities and stormwater and is located south of Pond 001 and discharges to an unnamed tributary of Trout Creek. The geographic coordinates of the outfall are 33° 44' 06" N and 86° 09' 45" W. The total watershed area for DSN001E is approximately 6.7 acres. The disturbed watershed area is approximately 4.9 acres.

3.2 OUTFALL 002 (DSN002E)

Existing Outfall DSN002E includes discharges from stormwater and is located north of Pond 002 (see Section 4.3) in the northwest portion of the property and discharges to Trout Creek. The geographic coordinates of the outfall are 33° 44′ 13" N and 86° 09′ 41" W. The total watershed area for DSN002E is approximately 11.6 acres. Storm water directed to DSN002 falls within the a drainage area that contains a portion of the clay stockpiles, drive areas and a wooded area located within the northwest portion of the property

3.3 OUTFALL 003 (DSN003P)

Outfall DSN003P includes discharges from stormwater and is located in the northeast section of the property across from the main office and discharges to Trout Creek. The geographic coordinates of the outfall are 33° 44′ 18″ N and 86° 09′ 18″ W. The total watershed area for DSN003E is approximately 12.0 acres. Storm water directed to DSN003 falls within the a drainage area that contains a portion of the clay stockpiles, drive areas, the production buildings and office building.



4.0 SEDIMENTATION CONTROLS

4.1 EXISTING STRUCTURES

The pollution abatement measures at the existing mine, including Ponds 001 and 002, control the quality of discharges from mine de-watering activities and stormwater discharge at Outfalls DSN001E and DSN002E. The existing pollution abatement facilities appear to be adequate and safe. The facilities appear to be consistent with good engineering practice and adequate for their purpose. Normal drainage patterns direct the discharges to the outfalls.

4.2 DIVERSIONS

No diversions exist at this time and none are proposed.

4.3 SEDIMENTATION PONDS

There are two sedimentation ponds, existing Pond 001 and recently constructed Pond 002 are located on the subject property for the treatment of stormwater. Pond 001 was designed and constructed by others and appears to be adequate for the drainage area; however, no documentation of a construction certification by a Professional Engineer is available for review. The lack of documentation was addressed as part of the 2014 Permit renewal application by visual inspection and evaluation of the pond by a Professional Engineer. A construction certification resulting from that inspection of Pond 001 is included in Appendix B.

Pond 001

Pond 001 is approximately 2.95 acre-ft in size and located in the center of the property just north of 0utfall DSN001E. The total watershed area for Pond 001 is calculated at approximately 6.7 acres. The disturbed area of the mining activity is approximately 4.9 acres. Based on runoff calculations, the minimum design volume of Pond 001 is 1.25 acre-feet based on 4.9 acres of disturbed area at the mine. A site-specific watershed map is included a Figure 4.

Pond 002

Pond 002 was constructed just upstream of Outfall DSN002E in 2021 in response to a Consent Order issued by the ADEM to Ragland Clay. The pond was designed in accordance with the facility Permit to prevent turbidity exceedances at the Outfall DSN002E. Pond 002 is approximately 1.95 acre-ft in size and located in the north-central portion of the property just south of Outfall DSN002E. The total watershed area for Pond 002 is calculated at approximately 6.3 acres. Based on runoff calculations the minimum design volume of Pond 002 is 1.58 acre-ft. The watershed area providing runoff to Pond 002 is shown on Figure 4 and the construction details of the pond are provided in Attachment B. Following completion of the pond construction, the pond was certified by a Professional Engineer licensed to practice in the State of Alabama. The engineer's certification is included as Appendix B.



5.0 POLLUTION ABATEMENT AND PREVENTION PLAN

The plan follows the regulatory outline with each section introduced by the applicable portion of Rule 335-6-9-.03 "Pollution Abatement and/or Prevention Plan".

5.1 NAME AND ADDRESS

335-6-9-.03(2)(a) - Name and address of the operator and a legal description of the area to be mined.

Ragland Clay Products, LLC 61 Industrial Drive Ragland, Alabama 35131 Phone: (205) 540-3845

Contact: Thomas Dunlap, General Manager

The property is located in Section 7 and Section 18, Township 15 South, Range 5 East, in St. Clair County Alabama.

5.2 GENERAL INFORMATION

335-6-9-.03(2)(b) - General information, including name and affiliation of company, number of employees, product (s) to be mined, hours of operation and water supply and disposition.

All permit documentation and correspondence will be kept at the Ragland Clay Products offices at the address in Ragland, Alabama. Ragland Clay Products employs approximately 40 full-time employees at the Ragland brick plant and clay pits. It is anticipated that no additional personnel will be added during the next five years of operation.

The end product of the shale interval mined from the Pottsville Formation is clay brick. The shale is typically indurated (compacted) clay. Clay used for brick manufacture includes both weathered (soil-like) and unweathered shale. For the purpose of this Plan, all mined materials will be referred to as clay. Crushing is performed on the westernmost structure of the brick plant. The brick product of Ragland Clay Products is marketed for commercial and residential use.

The plant has the ability to operate three shifts on a 24-hour 7-day per week schedule. The actual production schedule varies with the market demand for product.

Water for normal operations is supplied by the City of Ragland. Water used at the plant is used primarily for cleanup, dust suppression, make-up water for the brick manufacturing, and drinking water. Rinse water generated within the plant is captured and recycled into the make-up water for brick manufacturing.

TOPOGRAPHIC MAP

335-6-9-.03 (2)(c) - Topographic map showing location of mine, preparation plant, settling basin and all waste water discharge points.

Topographic maps showing the location of the mine, the primary and secondary crusher, the settling pond, and the water discharge points are included as Figure 5.



DIVERSIONS

335-6-9-. 03(2)(d) - Method and plan for diverting surface water runoff from operational areas and mineral and refuse storage piles.

No diversions exist and none are proposed.

OPERATIONS

335-6-9-.03(2)(e) - Narrative account of operation(s) explaining and/or defining raw materials, processes and products. Block line or schematic diagrams indicating points of waste origin and its collection and disposal shall be included.

The Pennsylvanian Age Pottsville Formation underlies the subject property and is mined for shale. This formation occurs in the Valley and Ridge Physiographic Province. In the immediate area of the Ragland Clay facility; shale units are prevalent.

The clay is excavated by track-mounted excavator and loaded onto off-highway dump trucks for transport to the primary crusher. Due to the limited heights of highwall(s) and limited depths of excavation, benches are not normally necessary.

In addition to the storage bins, crushed clay is stockpiled under roof within an open-sided shed located just south of the plant. The shed is constructed with a knee wall to prevent migration of clay from under the shed. A waste schematic is provided in Appendix C.

WASTE CHARACTERISTICS

335-6-9-.03(2)(f) - Quantity and characteristics of waste after treatment with respect to flow, suspended solids, total iron, and pH.

Assuming an average annual rainfall of 54 inches and an average runoff coefficient of 50%, runoff should be approximately 2,000 gallons per day per acre of watershed. Using the factor, the average daily flow from DSN001E is approximately 13,320 gallons per day (gpd), the average daily flow from DSN002E is approximately 23,200 gpd, and the average daily flow from DSN003E is approximately 23,920 gpd. Discharged water will comply with permit limits with regard to suspended solids, total iron, and pH.

WASTE TREATMENT FACILITIES

335-6-9-.03(2)(g) - Description of waste treatment facilities, pretreatment measures and recovery systems including expected life of sedimentation basins and schedules for cleaning or proper abandonment of such basins. If earthen sedimentation basins are a portion of the treatment scheme, plans for the construction of these facilities should meet minimum construction criteria as found in the Guidelines in Appendix A.

The waste treatment facilities consist of the sedimentation controls, particularly the sedimentation ponds discussed above in Section 4.3. The expected life of the sedimentation basins are the life of the mine and will be cleaned out when sediment accumulation reaches 60% of design capacity.

HAUL ROAD SEDIMENT CONTROL

335-6-9-.03(2)(h) - A plan to eliminate or minimize sediment and other pollutants from haul roads must be included and should meet minimum design criteria as established by the Guidelines in Appendix B. The haul roads meet the specifications listed below:



- No sustained grade will exceed 10 percent;
- The maximum grade will not exceed 15 percent for 300 feet. There will be no more than 300 feet of 15 percent maximum grade for each 1,000 feet of road constructed;
- Haul roads within the mining area will be constructed so that runoff from the road is routed to the sedimentation basin (and/or ponds);
- Outer slopes for haul roads out of the permitted area will not be steeper than 2:1 and will be lined with natural vegetation to avoid erosion;
- Roads will be surfaced with either slag, chert, crushed limestone, crushed sandstone, or red
 rock, other than temporary roads for limited access

STREAM IMPACT MINIMIZATION

335-6-9-.03(2) (i) - Location of all streams in or adjacent to the mining area and those measures which will be taken to minimize the impact on water quality when the mining operation is located in close proximity to such streams. Such measures may include but not be limited to setbacks, buffer strips, or screens.

The mining operation drains to Trout Creek and/or an unnamed tributary of Trout Creek. No changes or alterations to the streams are proposed over the life of the mine. The sedimentation controls discussed in this Plan are intended to minimize any negative stream impacts. There are no planned stream crossings by bridges or culverts at this facility.

NON-POINT IMPACT MINIMIZATION

335-6-9-.03(2)(j) - Those measures to be employed to minimize the effect of any nonpoint source pollution which may be generated as a result of the surface mining operation.

The surface runoff from mined areas generally drains to the sedimentation ponds. Any negative impacts from non-point discharges will be minimized using Best Management Practices. The Best Management Practices applicable to facility operations are included for reference in Section 6.0 of this Plan.

CONSTRUCTION CERTIFICATION

335-6-9-.03(2)(k) - All pollution abatement facilities must be certified by the design engineer as being constructed in accordance with the approved plans.

There are two sedimentation ponds, existing Pond 001 and recently constructed Pond 002 are located on the subject property for the treatment of stormwater. Pond 001 was designed and constructed by others and appears to be adequate for the drainage area however, no documentation of a construction certification by a Professional Engineer is available for review. The lack of documentation was addressed as part of the 2014 Permit renewal application by visual inspection and evaluation of the pond by a Professional Engineer. A construction certification resulting from that inspection of Pond 001 is included in Appendix B.



Following completion of the construction of Pond 002, the pond was certified by a Professional Engineer licensed to practice in the State of Alabama. The engineer's certification is included in Appendix B.

WATERSHED CLASSIFICATION

335-6-9-.03(2)(I) - The applicant shall specify if the proposed mining operation is to be constructed in the water shed of an impoundment classified as a public water supply or a direct tributary thereon.

This facility does not discharge into a stream segment classified as a Public Water Supply. Trout Creek does discharge into a segment of the Coosa River classified as a Public Water Supply.

FACILITY CLOSURE PLAN

Specific closure plans will be submitted as necessary at the time of closure. At a minimum, all areas will be reclaimed and grassed to the standards established by ADEM.



6.0 BEST MANAGEMENT PRACTICES

In response to the Water Quality Act of 1987, the U.S. Environmental Protection Agency (EPA) expanded the National Pollutant Discharge Elimination System (NPDES). The expanded permit system is for many types of discharges including industrial storm water discharges. The EPA's storm water program emphasizes pollution prevention and reflects a heavy reliance on Best Management Practices (BMP) Plans to reduce pollutant loadings and improve water quality. BMPs are defined as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or water disposal, or drainage from raw material storage.

Previous chapters presented sediment control structures along with the Pollution Abatement and Prevention Plan to minimize discharges of sediments and other pollutants. Other control features could also be helpful. For example, upstream sediment traps could decrease the volume of sediment collected in Pond 001, increasing its life. Additionally, should sediment tracking by vehicles onto Industrial Drive occur, large diameter aggregate can be installed along the drive to assist in removing sediment from vehicle tires before exiting the property.

This comprehensive BMP Plan has been prepared for the prevention and minimization of all sources of pollution in discharges from mine de-watering activities and stormwater for this site utilizing effective BMPs from the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management On Constructions Sites and Urban Areas, by the Alabama Soil and Water Conservation Committee.

EXCERPTS FROM THE EROSION CONTROL HANDBOOK

Several excerpts from the most recent edition of the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management. On Constructions Sites and Urban Areas are included in Appendix D. The excerpts describe vegetation preservation, dust control (including mulching and permanent seeding), sediment traps (including straw bale traps, sediment barriers, and temporary excavations), the sedimentation ponds (including outlet protection), and a Site Exit Pad. If other portions of the Handbook prove useful, they may be incorporated in the future.



7.0 PETROLEUM STORAGE

The potential for release of petroleum products include a 1,000-gallon double-walled aboveground storage tank (AST) used for the storage of diesel fuel. Other petroleum products including hydraulic fluid, compressor oil, mineral spirits, grease, motor oil, used oil, etc. are stored in smaller containers ranging in size from 5 to 350 gallons. The total amount of potential materials that would be stored at the site is estimated at approximately 1,700 gallons.

The 1,000 diesel AST is located just east of the clay storage shed at the approximate location shown in Figure 6. The fueling area is not equipped with a bermed fueling pad. The remainder of the petroleum storage is at various locations within the plant.

7.1 PETROLEUM TRANSFER PROCEDURES

In order to lessen the probability of discharges during transfers, the following discharge prevention procedures will be utilized:

- Prior to transferring any material into a container, the person transferring the material will
 make sure that the available volume of the container is greater than the amount that will be
 transferred to the container.
- During the entire time that material is being transferred to a container, the person transferring the material must continually monitor the transfer process.
- Container level gauges, if present, will be continuously monitored during transfers.
- No smoking is allowed within 25 feet of a storage or transfer area during transfers.
- No fire, open flames or welding is allowed within 25 feet of a storage and transfer area during transfers.
- The hand brake must be engaged and the wheels chocked on any vehicle that is transferring material.
- Tools that are likely to reduce the effectiveness of the closure of any valve of a storage container will not be used.
- After transferring, any manholes and valves associated with a storage container will be closed and secured.
- Warning signs will be in-place to warn personnel not to move transfer vehicles until all transfer lines have been completely disconnected.
- Prior to the departure of a transfer vehicle, the lower most outlets of the vehicle will be examined for leakage and, if necessary, tightened, adjusted or replaced to prevent leakage.
- During transfer, all associated equipment will be properly grounded to prevent sparking from the discharge of static electricity built up within the transfer line.



 Contractors retained to transfer at this facility will be apprised of their responsibility for discharge prevention and, if necessary, discharge response during such transfers.

7.2 DISCHARGE PREVENTION MEASURES

All containers used for storage at this facility will be of a material and construction compatible with the material stored and conditions of storage such as pressure and temperature. The secondary containment containers will be constructed of materials sufficiently impervious to contain the discharged material. The secondary containment containers will contain a volume greater than that of the largest container.

Drainage of uncontaminated storm water from a secondary containment to a permitted outfall is not allowed unless:

- The bypass valve is normally sealed closed;
- The retained storm water is inspected to ensure that no sheen nor discoloration is present;
- The bypass valve is opened, then resealed following draining under responsible supervision;
 and
- Adequate records are kept of the drainage events (i.e., records required under the National Pollutant Discharge Elimination System permit).

The storage containers will be inspected on a routine basis. Visual inspections will include checking the outside of the containers, supports, gauges, valves, fittings, and piping for damage, deterioration, or any accumulation of material inside diked areas.

Visible discharges that result in a loss of material from a container will be promptly corrected. Any material that accumulates within a diked area will be promptly removed.

The requirements to provide corrosion protection for completely or partially buried metallic storage containers will not be applicable because there will be no buried metallic storage containers at this facility. The requirements to protect buried piping will not be applicable because there will be no buried piping at this facility associated with oil storage. Containers, aboveground piping, and transfer operations will be protected from vehicles.

7.3 DISCHARGE DISCOVERY, RESPONSE AND CLEANUP

In the event of a discharge at this facility, the following actions will be taken, as appropriate, by facility personnel upon discovery of the discharge:

- If safely possible, attempt to stop additional discharge from the container, piping, hose or other source. Use emergency shut-off if available.
- Follow the facility's emergency response plan and use the facility's emergency notification system to warn facility occupants of the emergency. Contact the Plant Manager and apprise him of the situation.



- Shut off any ignition sources (i.e., motors, electrical circuits, open flames, etc.) that could cause
 a fire in the vicinity of any discharged oil.
- Secure containment of the discharged material. Make sure secondary containment structures
 are secure and have temporary containment equipment ready in case the discharged material
 escapes the secondary containment; priority should be given to containing the discharge on
 the facility's property and protecting storm drains and other access points to surface water.
- When necessary, the Plant Manager will retain a contractor to clean up and dispose of the discharged material.
- When necessary, the Plant Manager will report the discharge to the appropriate authorities.

7.4 DISPOSAL OF RECOVERED MATERIALS

Disposal of recovered discharged materials will take place in accordance with applicable legal requirements.

7.5 EMERGENCY CONTACT LIST

Thomas Dunlap – General Manager	(205) 540-3845
National Response Center (NRC)	(800) 424-8802
Alabama Department of Environmental Management (ADEM):	(334) 271-7700
Hazardous Materials Emergency (After Hours)	(334) 242-4378
U.S. Environmental Protection Agency (EPA) Regional Administrator	(404) 562-8357
U.S. Coast Guard Mobile, Alabama	(334) 690-2286

7.6 DISCHARGE REPORTING INFORMATION

In the event of an oil discharge from this facility that reaches navigable waters, the following information will be collected and reported to the individuals and organizations named in the Emergency Contact List above:

- Facility address;
- Facility telephone number;
- · Date and time of the oil discharge;
- · Type of oil discharged;
- Estimate of the total quantity of oil discharged;



- · Source of the discharged oil;
- Description of affected media (i.e., water, shoreline, etc.);
- · Cause of the oil discharge;
- · Damages and/or injuries resulting from the oil discharge;
- Actions taken to stop, remove or mitigate the effects of the oil discharge:
- · Whether an evacuation may be needed; and
- Names of individuals and/or organizations that have been contacted.

7.7 DISCHARGE REPORTING DEADLINES

Notification, by phone, containing the above specific information, must be made to the NRC immediately upon knowledge of whenever the facility has discharged (spilled or released) a harmful quantity of oil (violated water quality standard or caused a film or sheen) into navigable waters.

- ADEM requires notification within 24 hours for spills or discharges requiring notification of the NRG.
- The Plant Manager must submit specific information to the EPA Regional Administrator within sixty (60) days of either of the following occurrences:
 - Whenever the facility has discharged 1,000-gallons or more of oil in a single discharge into navigable waters of the state or adjoining shorelines.
 - Whenever the facility has discharged more than 42-gallons of oil in each of two discharges occurring within any twelve-month period.

7.8 PERSONNEL TRAINING

All materials-handling personnel will be trained, at a minimum, with regard to the contents of this Plan. Supplemental information could include general facility operations, operation and maintenance procedures to prevent discharges, discharge procedure protocols, and applicable pollution control laws and regulations

Discharge prevention briefings will be scheduled and conducted for all materials handling personnel annually to assure adequate understanding of this PAP Plan. These briefings, at a minimum, will highlight and describe known discharges or failures, malfunctioning components and any recently developed precautionary measures.

Training records will be maintained by the facility.

7.9 SECURITY

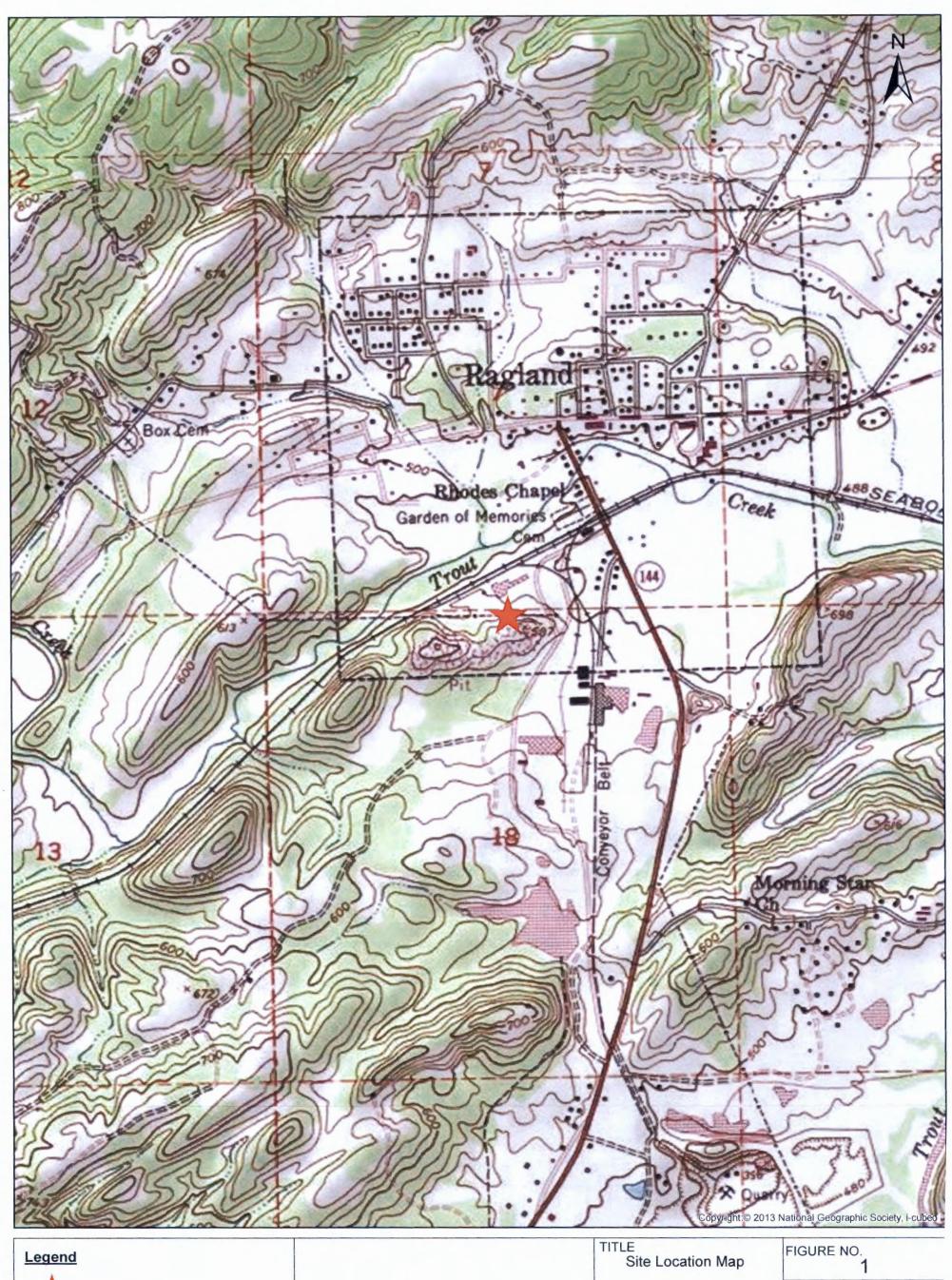
The facility is fenced with access through a gate off of Industrial Drive.



8.0 REFERENCES

Mining NPDES Permit Application for Ragland Clay Products, CFM Group, September 17, 2014

Alabama Handbook for Erosion Control, Sediment Control, And Stormwater Management On Constructions Sites And Urban Areas, by the Alabama Soil and Water Conservation Committee.







528 MINERAL TRACE HOOVER, AL 35244 (205) 985-4874

Pollution Abatement Plan Ragland Clay Products 61 Industrial Drive St. Clair County

Ragland, Alabama T15S, R5E, Sec. 7 & 18

SCALE:0 500 1,000 1 inch=1,000 feet

PROJECT NO.

2202711

DRAWN BY: AJH

DATE DRAWN:

10-22-2021







528 MINERAL TRACE HOOVER, AL 35244 (205) 985-4874

Site Plan and Outfall Location Map

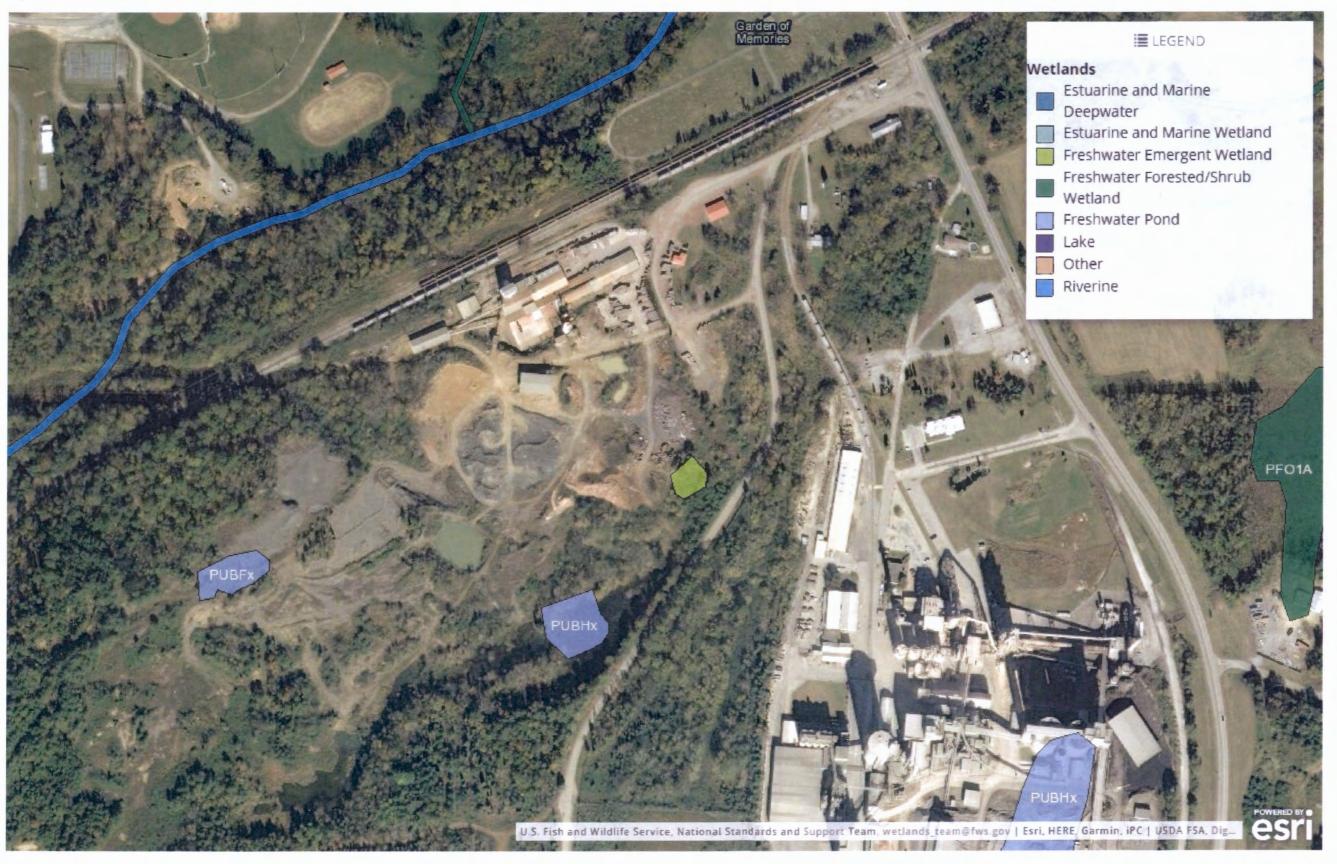
Pollution Abatement Plan Ragland Clay Products 61 Industrial Drive St. Clair County Ragland, Alabama T15S, R5E, Sec. 7 & 18

SCALE:

PROJECT NO. 2202711

DRAWN BY: AJH

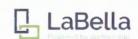
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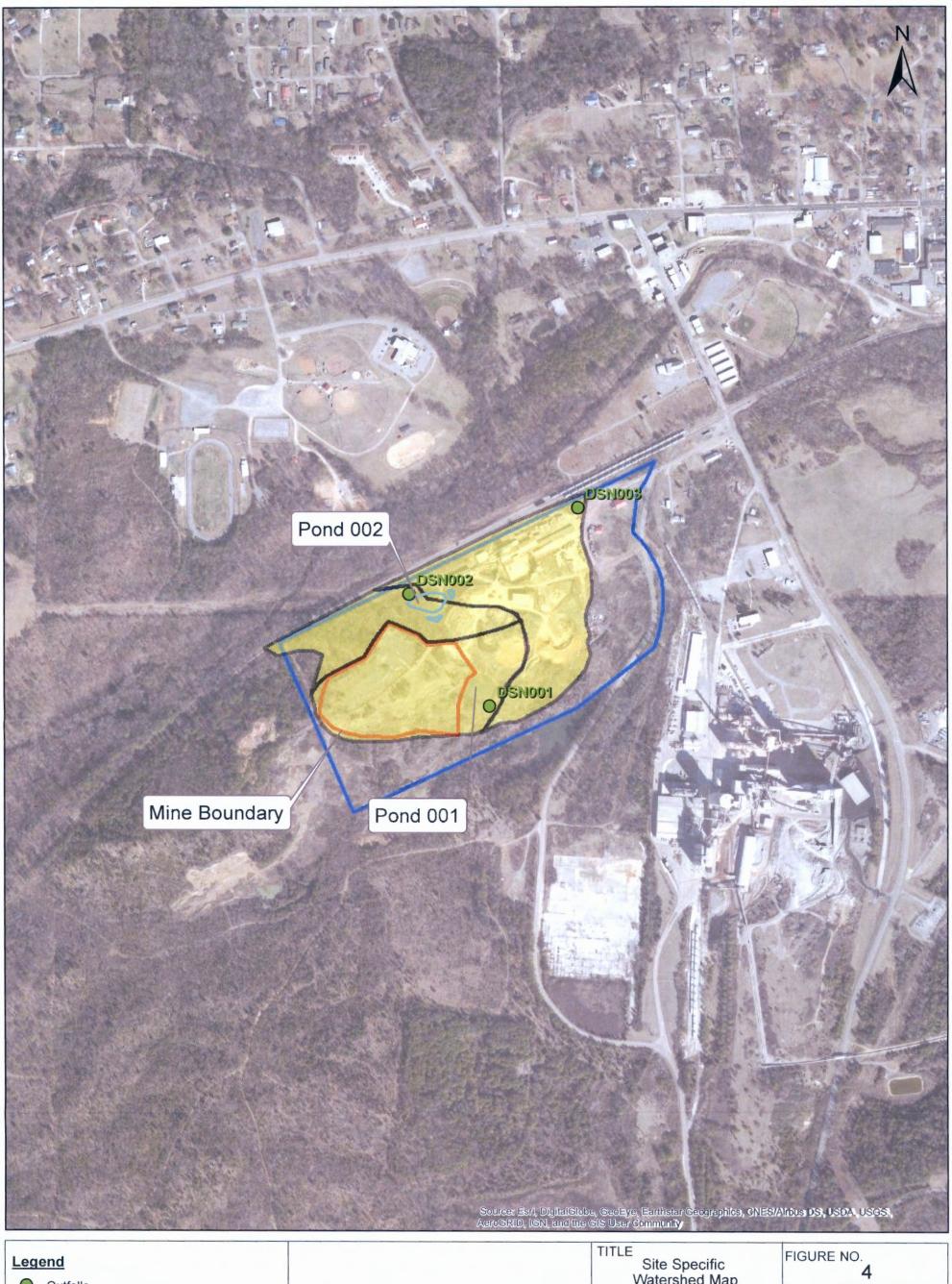
TITLE:
Wetland Inventory Map

Pollution Abatement Plan Ragland Clay Products 61 Industrial Drive St. Clair County Ragland, Alabama T15S, R5E, Sec. 7 & 18

FIGURE NO.	PROJECT NO.
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DRAWN BY:	DRAWN DATE:
AJH	10-22-2021



528 MINERAL TRACE HOOVER, AL 35244 (205) 985-4874







528 MINERAL TRACE HOOVER, AL 35244 (205) 985-4874

TITLE Site Specific Watershed Map

Pollution Abatement Plan Ragland Clay Products 61 Industrial Drive St. Clair County Ragland, Alabama T15S, R5E, Sec. 7 & 18

SCALE:

DRAWN BY:

PROJECT NO.

AJH

2202711

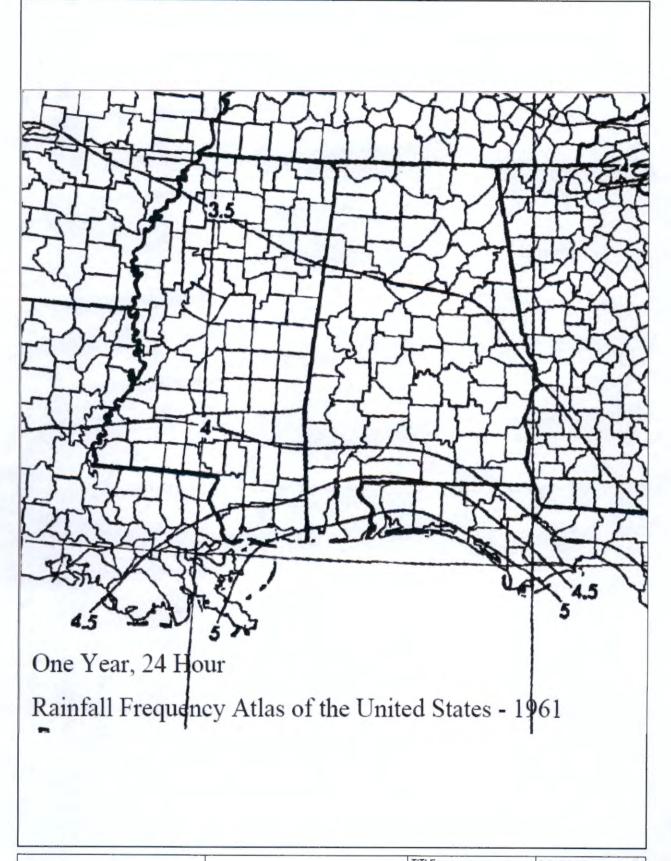
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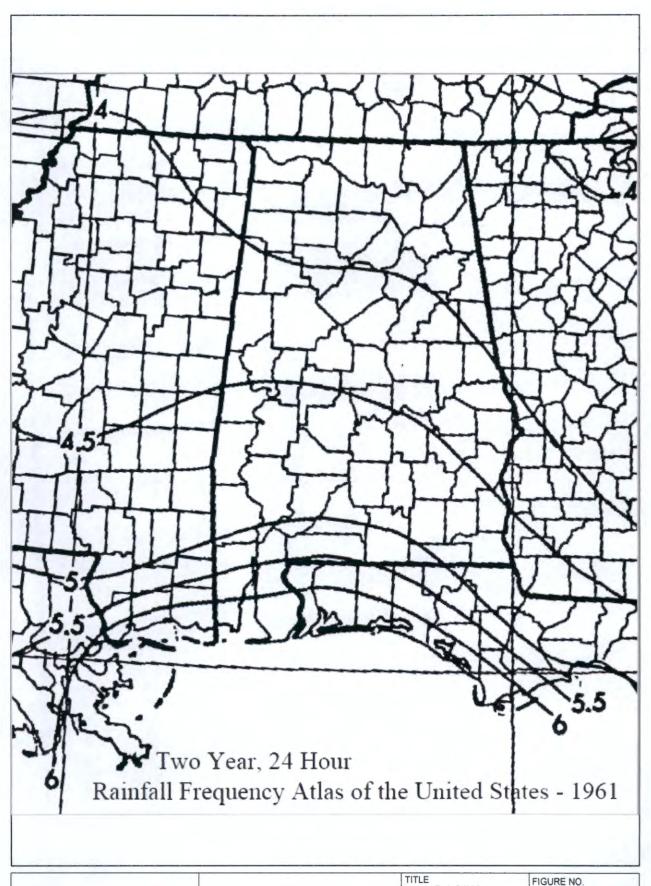


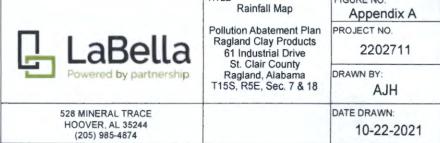


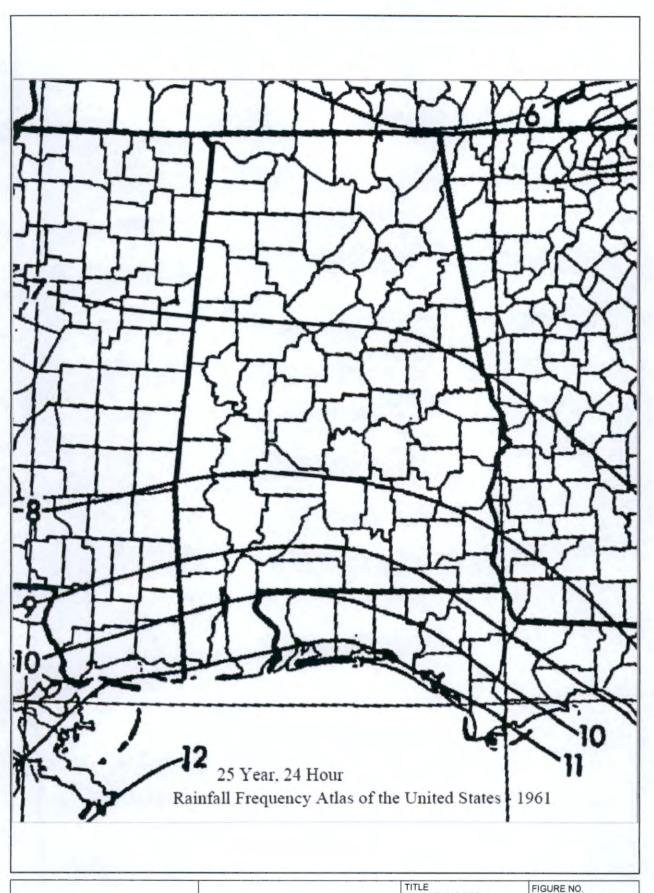














WATER DIVISION MINING AND NATURAL RESOURCES SECTION ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

POLLUTION ABATEMENT/TREATMENT MEASURES AND SEDIMENT CONTROL STRUCTURES CERTIFICATION REPORT

Please type or print in ink. Use one form per outfall. Please complete <u>all</u> questions. Use "N/A" where appropriate. Incorrect/Incomplete Forms will be returned and may delay approval.

Name of Permittee: Ragland Clay Products, LLC
Postal Address of Permittee: Post Office Box 160 Ragland, Alabama 35131
Facility Name: Ragland Clay Products
NPDES Permit Number: AL0077461
Point Source (Outfall) Number: DSN001
Location of Outfall:
County: St. Clair Township: 15 South Range: 5 East Section: 18
Latitude: 33°44'6.35" Longitude: 86°9'34.61" (In degrees, minutes, & seconds)
Consulting Firm Name & Address: Highland Technical Services, Inc.
528 Mineral Trace Hoover, Alabama 35244
Consulting Firm Phone:(205) 985-4874 Fax:() Email Address: jpike@htsienv.com
Based upon the post-construction inspection of the above-referenced facility on (date) October 1, 2019
which I or personnel under my supervision (Print name: William W. Cooch, P.G.) conducted, I certify that all pollution abatement/treatment structures/measures, including each basin and its associated structures, have been designed and properly constructed according to good engineering practices, and in accordance with the requirements of the above-referenced NPDES permit and: (check one)
ASMC PERMITTED OR BONDED FACILITIES
In accordance with ASMC Administrative Code 880-X-8F and 880-X-10C and/or the detailed design plans approved by ASMC.
NON-ASMC PERMITTED OR BONDED FACILITIES
ADEM Administrative Code r. 335-6-9, including Appendix A and B, and applicable sections of Chapters 335-6-3, 335-6-6, and are built:
In accordance with good engineering practices, and in strict agreement with the above-referenced NPDES permit, ADEM regulations, and the construction plans or revision accepted for the above-referenced NPDES permit application.
In accordance with good engineering practices, and in strict agreement with the above-referenced NPDES permit, ADEM regulations, and substantial agreement with the construction plans or revision accepted for the above-referenced NPDES permit application with minor exceptions. Detail these minor exceptions below or on back of form and submit revised construction plans if necessary. Document all reasons for exceptions.
Judith A. Pike, P.E. October 28, 2019
PE Name (Please Type or Print) Signature Date
23132 ABAMA
PE Registration # and Affix Seal
ADEM Form 432 11/12 m2 Page 1 of 1 PROFESSIONAL PROFESSIONAL

Ragland Clay Products, LLC Project No.: 19-180107.02

PROFESSIONAL ENGINEER CERTIFICATION POLLUTION ABATEMENT PLAN

CERTIFICATION:

By means of this certification, I attest that I am familiar with the requirements of provisions of 40 CFR Part 112, that I or my designated agent have visited and examined the facility, that this SPCC Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards, and with the requirements of this Part, that procedures for required inspections and testing have been established and that the Plan is adequate for the facility.

Engineer: Judith A. Pike Registration Number: 23132

State: AL

Engineer Signature

Certification Date

Seal:



August 23, 2021

Alabama Department of Environmental Management 1400 Coliseum Boulevard Montgomery, AL 36110-2059

VIA ELECTRONIC MAIL
maboatwright@adem.alabama.gov

Attention:

Mr. Jeffery W. Kitchens, Chief

Water Division

RE:

Pond Construction Outfall - DSN001-2

Consent Order No. 21-001-CWP

Ragland Clay Products

NPDES Permit No. AL0077461

Ragland, Alabama

Dear Mr. Kitchens:

On behalf of Ragland Clay Projects (Ragland Clay), LaBella Associates, performed a field inspection of the newly constructed pond upstream of outfall DSN001-2 on August 16, 2021. During the inspection, it was noted that grassing operations were still on-going. Based, on the in-field review of the finished construction, the pond and the supporting stormwater appurtenances have been constructed in substantial conformance with the approved engineering design plans and specifications, and should function as the design intended.

LaBella Associates and Ragland Clay Products appreciate your consideration in this matter. If you have any questions concerning this submittal or require any additional information, please contact our office at (205) 985-4874.

Sincerely,

HIGHLAND TECHNICAL SERVICES, INC./LABELLA ASSOCIATES

William W. Cooch, P.G. Principal Geologist Larry W. Ingram, P.E, LEED AP BD+C Civil Regional Leader



Waste Schematic



Runoff Contacts Disturbed Soils

Water Treated Prior to Discharge Pond 001

Discharge to Trout Creek and Unnamed Tributaries of Trout Creek



528 MINERAL TRACE HOOVER, AL 35244 (205) 985-4874 TITLE Waste Schematic

Pollution Abatement Plan Ragland Clay Products 61 Industrial Drive St. Clair County Ragland, Alabama T15S, R5E, Sec. 7 & 18 Appendix C
PROJECT NO.

2202711

DRAWN BY:

DATE DRAWN: 10-22-2021

Preservation of Vegetation (PV)



Practice Description

Preservation of vegetation is the avoidance of an area during land disturbing and construction activity to prevent mechanical and other injury to desirable plants in the planned landscape. The practice provides erosion and sediment control and is applicable where vegetative cover is desired and the existing plant community is compatible with the planned landscape.

Typical Components of the Practice

- Mark Plant Area for Retention
- Plant Protection
- Treating Damaged Plants
- Verification of Practice

Installation

Preservation requirements should be designed by a qualified design professional and plans should be made available to field personnel prior to start of construction

Chapter 1	3
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Mark Plant Area for Retention

Clearly indicate the areas to be avoided by marking with tape (flagging), barricade netting or other appropriate means.

Plant Protection

Protect plants that are identified for preservation from compaction by equipment, cutting and filling operations, trenching, and tunneling.

Treating Damaged Plants

Treat damaged trees and shrubs as soon after damage as practical. Treatment may include shaping a wound for proper healing, pruning of jagged roots, pruning of damaged limbs and fertilization to enhance growth.

Verification of Practice

Check to determine that specifications are met as the areas are identified for retention, as the plants are protected during construction and that damaged plants are treated or replaced.

Common Problems

Consult with a qualified design professional if any of the following occur:

- Soil compaction appears to be retarding plant growth or affecting plant health.
- Damage to plants appears to be severe and life threatening.
- Plants appear of poor quality and are undesirable for retention.

Problems during construction that require remedial actions:

- Erosion eroded areas should be vegetated to grass or a suitable ground cover.
- Severely damaged trees, shrubs or vines should be replaced.

Maintenance

Enhance and maintain plant growth and health according to the maintenance plan. This may involve applying fertilizer, spreading mulch and pruning trees and shrubs.

Installation and Maintenance Of Best Management Practices

Replace dead plants as needed to maintain desired landscape cover. Additional information about plantings is found in the following practices: Permanent Seeding: Shrub, Vine and Groundcover Planting: and Tree Planting on Disturbed Areas.

Dust Control (DC)



Practice Description

Dust control includes a wide range of techniques that prevent or reduce movement of wind-borne soil particles (dust) during land disturbing activities. This practice applies to construction routes and other disturbed areas where onsite and off-site damage or hazards may occur if dust is not controlled.

Typical Components of the Practice

- Scheduling
- Erosion Control
- Other Potential Components
 - o Sprinkling
 - o Barriers
 - o Spray-on Adhesives
 - Stone
 - o Street Cleaning
- Installation Verification

Construction

Dust control requirements should be designed by a qualified design professional and plans and specifications should be made available to field personnel prior to start of construction. Whenever possible, leave undisturbed vegetated buffer areas between graded areas.

Scheduling

Schedule construction operations so that the smallest area is disturbed at any one time.

Erosion Control

Install surface stabilization measures (vegetative cover or mulch) immediately after completing the land grading.

Vegetative Cover

See Temporary or Permanent Seeding practice for guidance. Vegetation provides the most practical method of dust control for areas not subject to traffic.

Mulching

See Mulching practice for guidance on applying mulch and tackifiers or binders. Mulching is not recommended for areas with heavy traffic.

Sprinkling

Sprinkle the site with water until the surface is moist. This practice is effective for dust control on haul roads or other traffic routes, but constant repetition is required for effective control.

Barriers

Install board fences perpendicular to the prevailing winds at intervals (distance) of 15 times the barrier height.

Calcium Chloride

Apply with a mechanical spreader at a rate that keeps the surface moist.

Consult with a qualified design professional to determine if a permit is required.

Spray-on Adhesives

Spray adhesives according to the design plan.

Consult with a qualified design professional if spray-on adhesives are specified. A permit may be needed.

In the absence of a detailed plan, use manufacturers' recommendations. Table DC-1 presents examples of spray-on adhesives that have been used successfully for dust control.

Table DC-1 Application Rates for Spray-on Adhesives Used in Dust Control

Adhesive	Water Dilution (adhesive: water)	Type of Nozzle	Application Rate (gallons/acre)
Anionic Asphalt Emulsion	7:1	Coarse	1200
Latex Emulsion	12.5:1	Fine	235
Resin in Water	4:1	Fine	300
Acrylic Emulsion (Non-traffic)	7:1	Coarse	450
Non-Acrylic Emulsion (Traffic)	3.5:1	Coarse	350

Source: Virginia Erosion and Sediment Control Handbook, 1993

Consult with a qualified design professional if spray-on adhesives are specified. A permit may be needed.

Stone

Stone should be placed to the width and thickness specified in the design.

Street Cleaning

Use a street sweeper to remove the source materials.

Construction Verification

Check installation of product(s) to verify use of proper product and quantity.

Common Problems

Drought conditions result in dry soils and increase in dust problems—use greater precautions during these periods.

Chapter 3	

Maintenance

Check construction site during vehicular traffic or windy conditions to see if measures are working adequately. Maintain dust control measures continuously throughout dry weather periods, until all disturbed areas have been stabilized.

Mulching (MU)



Practice Description

Mulching is the application of plant residues such as straw or other suitable fibrous materials to the soil surface. Mulch protects the soil surface from the erosive force of raindrop impact and reduces the velocity of overland flow. It helps seedlings germinate and grow by conserving moisture, protecting against temperature extremes and controlling weeds. Mulch also maintains the infiltration capacity of the soil. Mulch can be applied to seeded areas to help establish plant cover. It can also be used in unseeded areas to protect against erosion over the winter or until final grading and shaping can be accomplished except in areas of concentrated flow.

Typical Components of the Practice

- · Site Preparation
- · Application of Material
- · Verification of Installation

Installation

Mulching should be designed by a qualified design professional and plans and specifications should be made available to field personnel prior to start of construction.

Site Preparation

Divert runoff water from areas above the site that will be mulched.

Remove stumps, roots and other debris from the construction area.

Grade area as needed to permit the use of equipment for seeding, mulching and maintenance. Shape area so that it is relatively smooth.

If the area will be seeded, follow seeding specifications in the design plan and apply mulch immediately after seeding.

Application of Material

Spread straw mulch, preferably cereal grain, uniformly over the area with a power blower, hydroseeder or by hand. Mulch should be uniformly spread and not clumped in piles. In a seeded area, about 25% of the ground surface should be visible after mulching. It is important when mulching a seeded area that an excessive quantity of straw is not applied – too much mulch will retard or reduce the future stand. When mulch is used for erosion control without seeding, 100% of the soil surface should be covered.

Hydraulic Erosion Control Products (HECPs) as defined by the Erosion Control Technology Council (ECTC) are also used for mulch and should be applied with the appropriate equipment and at the recommended or specified rates.

Apply mulches at the rates shown in the plan or in Table MU-1 if there is not a plan.

Anchor straw or wood cellulose mulch by one of the following methods:

- Crimp with a mulch anchoring tool, as near on the contour as practical, to punch the straw into the soil.
- Tack with a liquid tackifier designed to hold mulch in place. Use suitable spray equipment and follow manufacturer's recommendations.
- In more erosive areas, cover with netting, using a degradable natural or synthetic mesh. The netting should be anchored according to manufacturer's specifications (see Erosion Control Blanket practice).
- On steep slopes and other areas needing a higher degree of protection, use heavy natural nets without additional mulch, synthetic netting with additional mulch or erosion control mats/blankets. These areas include grassed waterways, swales and diversion channels.
- Install netting and mats/blankets according to manufacturer's specifications making sure materials are properly anchored (see Erosion Control Blanket).

Table MU-1 Mulching Materials and Application Rates

Table MO-T	Mulching Materials	and Application Nates
Material	Rate Per Acre and (Per 1000 ft. ²)	Notes
Straw (with Seed)	1 ½ - 2 tons (70 lbs - 90 lbs)	Spread by hand or machine; anchor when subject to blowing.
Straw Alone (no seed)	2 ½ - 3 tons (115 lbs - 160 lbs)	Spread by hand or machine; anchor when subject to blowing.
Wood Chips	5-6 tons (225 lbs - 270 lbs)	Treat with 12 lbs. nitrogen/ton.
Bark	35 cubic yards (0.8 cubic yard)	Can apply with mulch blower.
Pine Straw	1-2 tons (45 lbs - 90 lbs)	Spread by hand or machine; will not blow like straw.
Peanut Hulls	10-20 tons (450 lbs - 900 lbs)	Will wash off slopes. Treat with 12 lbs. nitrogen/ton.
HECPs	0.75 – 2.25 tons (35 lbs – 103 lbs)	Refer to ECTC or Manufacturer's Specifications.

Verification of Installation

Check materials and installation for compliance with specifications.

Common Problems

Consult with qualified design professional if either of the following occurs:

- Variations in topography on site indicate the mulching materials will not function as intended; changes in plan may be needed.
- Design specifications for mulching materials or seeding requirements cannot be met; substitution may be required. Unapproved substitutions could result in erosion or seeding failure.

Problems that require remedial actions:

- Erosion, washout and poor plant establishment; repair eroded surface, reseed, remulch and anchor mulch.
- Mulch is lost to wind or stormwater runoff; reapply mulch and anchor appropriately by crimping, netting or tacking.

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Maintenance

Inspect all mulched areas periodically and after rainstorms for erosion and damage to the mulch. Repair promptly and restore to original condition. Continue inspections until vegetation is well established. Keep mower height high if plastic netting is used to prevent netting from wrapping around mower blades or shaft.

Permanent Seeding (PS)



Practice Description

Permanent seeding is the establishment of perennial vegetation on disturbed areas from seed. Permanent vegetation provides economical long-term erosion control and helps prevent sediment from leaving the site. This practice is used when vegetation is desired and appropriate to permanently stabilize the soil.

Typical Components of the Practice

- Scheduling
- Seedbed Preparation
- Applying Soil Amendments (lime and fertilizer)
- Planting
- Mulching or Installation of Erosion Control Blanket
- Inspection

Installation

Prior to start of construction, plant materials, seeding rates and planting dates should be specified by a qualified design professional. Plans and specifications should be referred to by field personnel throughout the installation process.

Permanent seeding should be made during the specified planting period whenever possible. When sites are only available for planting outside of the recommended planting period, either an out-of-season permanent seeding, a temporary seeding, mulching or chemical stabilization should be applied. If lime and fertilizer application rates are not specified, take soil samples during final grading from the top 6" in each area to be seeded. Submit samples to a soil testing laboratory for lime and fertilizer recommendations.

Scheduling

The schedule for work at the site should consider the recommended planting period and whenever practical the site work should accommodate seeding during the recommended planting period.

Seedbed Preparation

Grade and loosen the soil to a smooth firm surface to enhance rooting of seedlings and reduce rill erosion. Break up large clods and loosen compacted, hard or crusted soil surfaces with a disk, ripper, chisel, harrow or other tillage equipment. Avoid preparing the seedbed under excessively wet conditions to minimize compaction. Operate the equipment on the contour.

For either broadcast seeding or drill seeding, the tillage, as a minimum, should adequately loosen the soil to a depth of at least 6", alleviate compaction, and smooth and firm the soil for the proper placement of seed.

For no-till drilling, the soil surface should not be loosened unless the site has surface compaction and if compaction exists, special care with soil loosening will be needed to retain the desired residue on the soil surface.

Incorporate lime and fertilizer to a depth of at least 6" with a disk or rotary tiller on slopes of up to 3:1. On steeper slopes, lime and fertilizer may be applied to the surface without incorporation. Lime and fertilizer may be applied through hydroseeding equipment; however, fertilizer should not be added to the seed mixture during hydroseeding. Liming materials such as liquid lime may be added with the seed mixture.

Liming

Follow the design plan or soil test recommendation. If a plan or soil test is not available, use 2 tons/acre of ground agricultural lime on clayey soils (approximately 90 lbs/acre) and 1 ton/acre on sandy soils (approximately 45 lbs/acre). Exception to situation without a design or a soil test: If the cover is tall fescue and clover, use 2 tons of agricultural lime (approximately 135 lbs/1000 ft²) on both clayey and sandy soils.

Spread the specified amount of lime and incorporate into the top 6" of soil after applying fertilizer.

Fertilizing

Apply a complete fertilizer at rates specified in the design plan or as recommended by soil tests. In the absence of soil tests, use the following as a guide:

Grass Alone

Use 8-24-24 or equivalent – apply 400 lbs/acre (approximately 9 lbs/1000 ft²) starting. When vegetation has emerged to a stand and is growing, 30 lbs/acre (approximately 0.8 lbs/10000 ft²) of additional nitrogen fertilizer should be applied.

Grass-Legume Mixture

Use 5-10-10 or equivalent – apply 800 - 1200 lbs/acre (approximately 18 - 27 lbs/1000 ft²).

Legume Alone

Use 0-20-20 or equivalent – apply 400 - 600 lbs/acre (approximately 9 - 14 lbs/1000 ft²) at planting.

Note: Fertilizer can be blended to meet exact fertilizer recommendations.

Take soil test recommendations to local fertilizer dealer for bulk fertilizer blends.

This may be more economical than bagged fertilizer.

Planting

Plant the species specified in the plan at the rate and depth specified. In the absence of plans and specifications, plant species and seeding rates may be selected by qualified persons using Figure PS-1 and Table PS-1.

Apply seed uniformly using a cyclone seeder, drop-type spreader, drill, cultipacker seeder or hydroseeder.

When using a drill seeder, plant grasses and legumes $\frac{1}{4}$ " to $\frac{1}{2}$ " deep. Calibrate equipment in the field.

When planting by methods other than a drill seeder, cover seed by raking, or dragging a chain, brush or mat. Then firm the soil lightly with a roller. Seed can also be covered with hydro-mulched wood fiber and tackifier. Legumes require inoculation with nitrogen-fixing bacteria to ensure good growth. Purchase inoculum specific for the seed and mix with seed prior to planting.

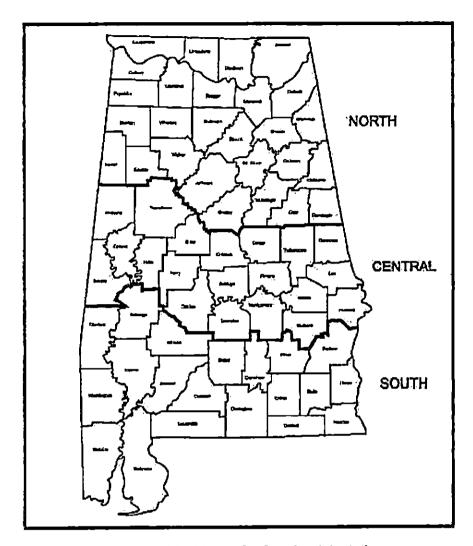


Figure PS-1 Geographical Areas for Species Adaptation

Note: Site conditions related to soils and aspect in counties adjacent to or close to county boundaries may justify adjustments in adaptable areas by qualified design professionals.

Mulching

Mulching is extremely important for successful seeding. Whether the mulching material is straw or a manufactured product, the material needs to be applied properly. Uniformly spread organic mulches by hand or with a mulch blower at a rate which provides about 75% ground cover. Spread HECPs utilizing appropriate equipment and at rates as specified in the plan or by the manufacturer. Caution, an over-application of wheat straw will reduce stand success — do not over-apply wheat straw when mulching a seeding! (See Mulching practice for more details).

Table PS-1 Commonly used Plants for Permanent Cover with Seeding

Rates and Dates

Rates and Dates Species	Seeding	North	Central	South
	Rates/Ac PLS		Seeding Dates	
Bahiagrass, Pensacola	40 lbs	<u></u>	Mar 1-Jul y 1	Feb 1-Nov 1
Bermudagrass, Common	10 lbs	Apr 1-July 1	Mar 15-July 15	Mar 1-July 15
Bahiagrass, Pensacola Bermudagrass, Common	30 lbs 5 lbs		Mar 1-July 1	Mar 1-July 15
Bermudagrass, Hybrid (Lawn Types)	Solid Sod	Anytime	Anytime	Anytime
Bermudagrass, Hybrid (Lawn Types)	Sprigs 1/sq ft	Mar 1-Aug 1	Mar 1-Aug 1	Feb 15 - Sep 1
Fescue, Tall	40-50 lbs	Sep 1-Nov 1	Sep 1-Nov 1	<u></u>
Sericea	40-60 lbs	Mar 15-July 15	Mar 1-July 15	Feb 15 -July 15
Sericea & Common Bermudagrass	40 lbs 10 lbs	Mar 15 -July 15	Mar 1-July 15	Feb 15-July 15
Switchgrass, Alamo	4 lbs	Apr 1-Jun 15	Mar 15-Jun 15	Mar 15-June 15

PLS means pure live seed and is used to adjust seeding rates. For example, to plant 10 lbs PLS of a species with germination of 80% and purity of 90%, PLS= 0.8X 0.9 = 72%. 10 lbs PLS = 10/0.72 = 13.9 lbs of the species to be planted.

Hydroseeding

Surface roughening is particularly important when hydroseeding, as roughened slope will provide some natural coverage for lime, fertilizer, and seed. The surface should not be compacted or smooth. Smooth seedbed preparation is not necessary for hydroseeding operations; large clods, stones, and irregularities provide cavities in which seeds can lodge.

Mix seed, inoculant if required, and a seed carrier with water and apply as a slurry uniformly over the area to be treated. The seed carrier should be a cellulose fiber, natural wood fiber or cane fiber mulch material which is dyed an appropriate color to facilitate uniform application of seed. Use the correct legume inoculant at 4 times the recommended rate when adding inoculant to a hydroseeder slurry. The mixture should be applied within one hour after mixing to reduce damage to seed.

Fertilizer should not be mixed with the seed-inoculant mixture because fertilizer salts may damage seed and reduce germination and seedling vigor.

Fertilizer may be applied with a hydroseeder as a separate operation after seedlings are established.

Agricultural lime is usually applied as a separate operation and spread in dry form. It is not normally applied with a hydraulic seeder because it is abrasive and, also, may clog the system. On the other hand, liquid lime is applied with a hydraulic seeder but because of cost is used primarily to provide quick action for benefit of plants during their seedling stage with the bulk of liming needs to be provided by agricultural lime. Dry lime may be applied with the fertilizer mixture.

Installation Verification

Check materials and installation for compliance with specifications during installation of products.

Common Problems

Consult with a qualified design professional if the following occurs:

- Design specifications for seed variety, seeding dates or mulching cannot be met; substitutions may be required. Unapproved substitutions could lead to failure.
- Seeding at the wrong time of the year results in an inadequate stand.
 Reseed according to specifications of a qualified design professional (see recommendations under Maintenance)
- Inadequate mulching results in an inadequate stand, bare spots or eroded areas-prepare seedbed, reseed, cover seed evenly and tack or tie down mulch, especially on slopes, ridges and in channels (see recommendations under Maintenance).

Maintenance

Generally, a stand of vegetation cannot be determined to be fully established until vegetative cover has been maintained for 1 year from planting.

Reseeding

Inspect seedings monthly for stand survival and vigor. Also, inspect the site for erosion.

If stand is inadequate identify the cause of failure (choice of plant materials, lime and fertilizer quantities, poor seedbed preparation or weather) and take corrective action. If vegetation fails to grow, have the soil tested to determine whether pH is in the correct range or nutrient deficiency is a problem.

Installation and Maintenance Of Best Management Practices

Stand conditions, particularly the coverage, will determine the extent of remedial actions such as seedbed preparation and reseeding. A qualified design professional should be consulted to advise on remedial actions. Consider drill seeding where possible.

Eroded areas should be addressed appropriately by filling and/or smoothing, and reapplication of lime, fertilizer, seed and mulch.

Fertilizing

Satisfactory establishment may require fertilizing the stand in the second growing season. Follow soil test recommendations or the specifications provided to establish and maintain the planting. After the second year, fertilizing is often needed annually or periodically to maintain a healthy stand and cover sufficient for erosion control.

Mowing

Mow vegetation on structural practices such as embankments and grass-lined channels to prevent woody plants from invading.

Other areas should be moved to compliment the use of the site.

Certain species can be weakened by mowing regimes that significantly reduce their food reserves stored for the next growing season: fescue should not be mowed close during the summer; sericea should not be mowed close in late summer.

Bermudagrass and bahiagrass are tolerant of most mowing regimes and can be moved often and close, if so desired, during their growing season.

Sediment Barrier (SB)



Practice Description

A sediment barrier is a temporary structure used across a landscape mostly on the contour to reduce the quantity of sediment that is moving downslope. The most commonly used barrier is a silt fence (a geotextile fabric which is trenched into the ground and attached to supporting posts and possibly wire fence. Other barrier materials could include sand bags, wattles, and various man-made materials and devices that can be used in a similar manner as a silt fence.

This practice applies where sheet and rill erosion occurs on small disturbed areas. Barriers intercept runoff from upslope to form ponds that temporarily store runoff and allow sediment to settle out of the water and stay on the construction site. Barriers can also prevent sheet erosion by decreasing the velocity of the runoff.

Typical Components of the Practice

- Site Preparation
- Barrier Installation
- Reinforce Outlet Bypass. (Not always applicable)
- Erosion Control
- Construction Verification

Construction

Prior to start of construction, sediment barriers should be designed by a qualified professional. Plans and specifications should be referred to by field personnel throughout the construction process.

Note: Silt fence is the only barrier installation being covered in this handbook.

Site Preparation

Determine exact location of underground utilities so that locations for digging or placement of stakes can be selected where utilities will not be damaged.

Smooth the construction zone to provide a broad, nearly level area for the fence. The area should be wide enough throughout the length of the fence to provide storage of runoff and sediment behind the fence.

Silt Fence Installation

Fence should be installed generally on the contour, so that runoff can be intercepted as sheet flow. Ends should be flared uphill to provide temporary storage of water. Fence should be placed so that runoff from disturbed areas must pass through the fence. Fence should not be placed across concentrated flow areas such as channels or waterways unless specifically designed as a temporary check dam. When placed near the toe of a slope, the fence should be installed far enough from the slope toe to provide a broad flat area for adequate storage capacity for sediment. Dig a trench at least 6" deep along the fence alignment as shown in Figures SB-1 and SB-2 for Types A & B fences. Please note that installation with a silt fence installation machine may permit different depths if performance is equal.

Drive posts to the depth specified on the downslope side of the trench. Space posts a maximum of 10 feet for Type A fencing, or 6 feet for Type B fencing. In areas where water is ponded, the fence posts may be specified at half the spacing.

For Type A fence, fasten support wire fence to upslope side of posts, extending 6" into the trench as shown in the Figure SB-1.

Attach continuous length of fabric to upslope side of fence posts. Minimize the number of joints and when necessary to join rolls, they should be joined by rolling the ends together using the "roll joint" method illustrated in Figure SB-3 or as detailed in the specifications. Avoid joints at low points in the fence line.

Place the bottom 12" of fabric in the 6" deep (minimum) trench, lapping toward the upslope side.

Install tie backs as specified on the ends of the silt fence.

Backfill the trench with compacted earth as shown in Figures SB-1 and 2.

Erosion Control

Stabilize disturbed areas in accordance with vegetation plan. If no vegetation plan exists, consider planting and mulching as a part of barrier installation and select planting information from appropriate planting practice, Permanent Seeding or Temporary Seeding. Select mulching information from the Mulching practice.

Construction Verification

Check finished grades and dimensions of the sediment fence. Check materials for compliance with specifications.

Common Problems

Consult with a qualified design professional if any of the following occur:

- Variations in topography onsite indicate sediment fence will not function as intended or alignment is not on contour or fence crosses concentrated flow areas; changes in plan may be needed.
- Design specifications for filter fabric, support posts, support fence, gravel or riprap cannot be met; substitutions may be required. Unapproved substitutions could lead to failure.
- Drainage area appears to exceed ¼ acre for 100 feet of nonreinforced silt fence and ½ acre for reinforced fence.

Maintenance

Inspect silt fences at least once a week and after each significant rain event.

Make required repairs immediately.

Should the fabric of silt fence collapse, tear, decompose or become ineffective, replace it promptly.

Remove sediment deposits when they reach a depth of ½ the height of the fence as installed to provide adequate storage volume for the next rain and to reduce pressure on the fence.

After the contributing drainage area has been properly stabilized, remove all barrier materials and unstable sediment deposits, bring the area to grade and stabilize it with vegetation.

Stormwater Detention Basin (SDB)



Practice Description

A stormwater detention basin is a dam-basin practice designed to hold stormwater runoff and release the water slowly to prevent downstream flooding and stream erosion. The practice is an extremely effective water quality and peak discharge reduction measure. Its usage is best suited to larger, more intensively developed sites. Structure life is 10 years or more. A stormwater detention basin can have a permanent pool of water or be designed to have a dry basin (typical). A detention basin can be designed to also serve as a sediment basin during the construction period.

Typical Components of the Practice

- Site Preparation
- · Keyway Trench
- · Principal Spillway
- Skimmer and Baffles
- Embankment
- Emergency Spillway
- Erosion Control
- Safety
- Construction Verification

Construction

Prior to start of construction, the stormwater detention ponds should be designed by a qualified design professional.

Plans and specifications should be referred to by field personnel throughout the construction process. The measure should be built according to the planned grades and dimensions and include all essential components. Follow all federal, state and local requirements on impoundments.

Consider the following guidance as construction proceeds.

Site Preparation

Locate all underground utilities to ensure avoidance.

Clear, strip, grub and excavate the dam location, removing all woody vegetation, rocks and other objectionable material, such as soft, wet, or sandy soils. Stockpile surface soils with high organic content for later use. Dispose of trees, limbs, logs and other debris in designated disposal areas.

If possible, construct the dam prior to clearing and disturbance of the pool area. Stockpile any surface soil having high amounts of organic matter for later use.

Where practical, maintain existing vegetation of at least 25 feet around the pool as a filter strip (see *Preservation of Vegetation* practice).

Keyway Trench

Excavate the keyway trench along the centerline of the planned embankment to a depth determined by the qualified design professional (at least 2 feet). The trench bottom elevation should extend up both abutments to the emergency spillway elevation and have a bottom width of at least 8 feet and have side slopes no steeper than 1.5:1 or flatter. Compaction requirements for the keyway backfill will be the same as those for the embankment.

Principal Spillway

Prepare the pipe bedding and situate the spillway barrel (pipe) and riser on a firm, even foundation.

Place around the barrel a 4" layer of moist, clayey, workable soil (not pervious material such as sand, gravel or silt), and compact with hand tampers to at least the density of the foundation soil. Do not raise the pipe from the foundation when compacting under the pipe haunches. Continue with backfill of the pipe in 4" to 6" uncompacted layers scarifying the surface between each compacted layer. All backfill material within 2 feet of the pipe (beside the pipe and above the pipe) should be compacted with hand tampers only.

Install the anti-seep collars or sand drainage diaphragm according to the design specifications.

Set the top of the riser at the elevation shown on the design drawings to allow the detention pond to store the design runoff. Install the 4 inch dewatering orifice at the designed elevation on the side of the riser pipe and complete with a trash rack device.

Embed the riser into the concrete anti-flotation block as shown on the design drawing. The concrete block should be constructed to the dimensions shown on the drawings to balance the buoyant force acting on the riser.

Install the trash rack around the riser inlet. The trash rack should have the minimum dimensions shown on the design.

At the pipe outlet, install outlet protection according to the design plan (if not specified, use a riprap apron at least 5 feet wide to a stable grade).

Skimmer and Baffles

Skimmer and baffles will be required if the stormwater detention basin is to serve as a sediment basin during the construction phase of the project.

Assemble the skimmer following the manufacturer's instructions, or as designed.

Lay the assembled skimmer on the bottom of the basin with the flexible joint connected water tight at the base of the riser pipe. Be sure to attach a rope to the skimmer and anchor it to the side of the basin. This will be used to pull the skimmer to the side for maintenance.

Prevent the skimming device from settling into the mud by excavating a shallow pit under the skimmer or providing a low support under the skimmer of stone or timber.

Install a minimum of 3 porous coir baffles as specified and ensure flows do not go under or around the baffles.

Embankment

Scarify the embankment foundation before placing fill.

Use fill from predetermined borrow areas. It should be clean, stable, mineral soil free of organic material, roots, woody vegetation, rocks and other debris; and must be wet enough to form a ball without crumbling, yet not so wet that water can be squeezed out.

Place the most permeable soil in the downstream toe and the least permeable in the center portion of the dam.

Place the fill material in 6" to 9" continuous uncompacted layers over the length of the dam. Fill should then be compacted to a 4" to 6" thick continuous layer (one way is by routing pneumatic tired construction equipment over the dam so that each layer is traversed by at least 4 passes of the equipment). Compacted layers with a slick surface should be scarified prior to the next lift being placed in order to promote bondage between the layers.

Protect the principal spillway barrel with 2 feet of hand tamped, compacted fill before traversing over the pipe with equipment.

Construct and compact the dam to an elevation 10% above the design height to allow for settling. The embankment should have a minimum 8 feet top width and 2.5:1 side slopes (3:1 for mowable slopes), but the design may specify additional width and gentler side slopes.

Place a stake marking the depth of sediment accumulation at which sediment must be cleaned out of the basin (50% of design storage volume).

Emergency Spillway

Construct the spillway at the site located, to the dimensions, and utilizing the surface treatments specified by a qualified design professional according to the design plan. In most all cases, the emergency spillway will be constructed in undisturbed soil around one end of the embankment so that any flow will return to the receiving channel without damaging the embankment.

Erosion Control

Minimize the size of all disturbed areas. At the completion of each phase of construction, stabilize the disturbed areas to minimize erosion.

Stabilize the spillway with vegetation as soon as grading is complete; or install paving material to finished grade if the spillway is not to be vegetated.

Use temporary diversions to prevent surface water from running onto disturbed areas.

Divert sediment-laden water to the upper end of the sediment pool to improve trap effectiveness.

Direct all runoff into the pond at low velocity.

Establish vegetation on all disturbed areas not previously treated including the bottom and side slopes of the basin.

Safety

Because stormwater detention basins that impound water are hazardous, the following precautions should be taken:

Provide a means of dewatering the basin between storm events.

Fence area and post with warning signs if trespassing is likely.

Construction Verification

Check the finished grades and configuration for all earthwork. Check elevations and dimensions of all pipes and structures.

Common Problems

Consult with a qualified design professional if any of the following occur:

- Variations in topography on site indicate detention pond will not function as intended.
- Seepage is encountered during construction; it may be necessary to install drains.
- Design specifications for fill, pipe, seed variety or seeding dates cannot be met; substitutions may be required. Unapproved substitutions could lead to failure.

Maintenance

Inspect the stormwater detention basin after each storm event.

Remove and properly dispose of sediment when it accumulates to $\frac{1}{2}$ the design volume.

Periodically check the embankment, emergency spillway and outlet for erosion damage, piping, settling, seepage or slumping along the toe or around the barrel; and repair immediately.

Remove trash and other debris from the riser, skimmer, emergency spillway and pool area. Remove nuisance vegetation on embankment.

Remove animals that burrow into the dam.

Sediment Basin (SBN)



Practice Description

An earthen embankment suitably located to capture runoff, with an emergency spillway lined to prevent spillway erosion, interior porous baffles to reduce turbulence and evenly distribute flows, and equipped with a floating skimmer or other approved surface dewatering device that removes water from the top of the basin. Flocculants are commonly used with a sediment basin to increase sediment capture.

Typical Components of the Practice

- Site Preparation
- Keyway Trench
- Skimmer or Surface Dewatering Device
- Embankment
- Emergency Spillway
- Basin and Baffles
- Erosion Control
- Flocculant
- Safety
- Construction Verification

Construction

Prior to the start of construction, sediment basins should be designed by a qualified design professional.

Plans and specifications should be referred to by field personnel throughout the construction process. The sediment basin should be built according to planned grades and dimensions. Follow all federal, state and local requirements on impoundments.

Consider the following guidance as construction proceeds.

Site Preparation

Locate all utilities at the site to ensure avoidance.

Clear, grub and strip the dam foundation and emergency spillway area, removing all woody vegetation, rocks and other objectionable material. Dispose of trees, limbs, logs and other debris in designated disposal areas.

Stockpile surface soil for use later during topsoiling.

Delay clearing the pool area until the dam is complete and then remove brush, trees, and other objectionable materials to facilitate sediment cleanout.

Specified sumps or fore bays used to capture coarse grain sediment should be installed immediately upstream of the sediment basin and completed the same time as the sediment basin.

Keyway Trench

Excavate the keyway trench along the centerline of the planned embankment to a depth determined by the qualified design professional (at least 2 feet). The trench bottom elevation should extend up both abutments to the riser crest elevation and have a bottom width of at least 8 feet and have side slopes no steeper than 1.5:1. Compaction requirements will be the same as those for the embankment.

Skimmer

Following are installation guidelines for a skimmer only:

Prevent the skimming device from settling into the mud by excavating a shallow pit under the skimmer or providing a low support under the skimmer of stone or timber (Figure SBN-1).

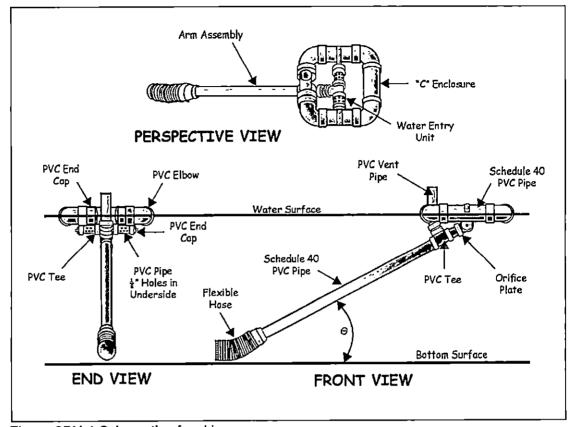


Figure SBN-1 Schematic of a skimmer. (from Pennsylvania Erosion and Sediment Pollution Control Manual, March, 2000)

Place the barrel pipe (typically the same size as the skimmer arm) on a firm, smooth foundation of impervious soil. Do not use pervious material such as sand, gravel, or crushed stone as backfill around the pipe. Place the fill material around the pipe in 4-inch layers and manually compact it under and around the pipe to at least the same density as the adjacent embankment. Care must be taken not to raise the pipe from the firm contact with its foundation when compacting under the pipe haunches.

Construct the anti-seep collar(s) if shown on the plans.

Place a minimum depth of 2 feet of compacted backfill over the pipe before crossing it with construction equipment. In no case should the pipe conduit be installed by cutting a trench through the dam after the embankment is complete.

Assemble the skimmer following the manufacturer's instructions, or as designed.

Lay the assembled skimmer on the bottom of the basin with the flexible joint at the inlet of the barrel pipe. Attach the flexible joint to the barrel pipe and position the skimmer over the excavated pit or support. Be sure to attach a rope to the skimmer and anchor it to the side of the basin. This will be used to pull the skimmer to the side for maintenance.

Install outlet protection as specified.

Embankment

Scarify the foundation of the dam before placing fill.

Use fill from predetermined borrow areas. It should be clean, stable soil free of roots, woody vegetation, rocks and other debris; and must be wet enough to form a ball without crumbling, yet not so wet that water can be squeezed out.

Place the most permeable soil in the downstream toe and the least permeable in the center portion of the dam.

Place the fill material in 6" to 9" continuous uncompacted layers over the length of the dam. Fill should then be compacted to a 4" to 6" thick continuous layer (One way is by routing construction equipment over the dam so that each layer is traversed by at least 4 passes of the equipment).

Protect the spillway barrel with 2 feet of fill that has been compacted with hand tampers before traversing over the pipe with equipment.

Construct and compact the dam to an elevation 10% above the design height to allow for settling. The embankment should have a minimum 8 ft. top width and 2.5:1 side slopes, but the design may specify additional width and gentler side slopes.

Place a reference stake at the sediment clean out elevation shown on the plans (50% of design storage volume).

Emergency Spillway

Construct the spillway at the site located by a qualified design professional according to the plan design (in undisturbed soil around one end of the embankment, and so that any flow will return to the receiving channel without damaging the embankment).

Basin and Baffles

Ensure the basin has a length to width ratio of at least 2:1 or more as specified. Grade the basin so that the bottom is level front to back and side to side. Discharge water into the basin in a manner to prevent erosion. The inlet into the basin should be on one end with the surface dewatering device on the opposite end of the basin. Use diversions with outlet protection to divert sediment-laden water to the upper end of the pool area to improve basin trap efficiency.

Install porous coir baffles as specified to ensure water does not flow under or around the baffles (Figure SBN-2). Baffles should be placed perpendicular to the flow and create near equal volumes within the basin.



Figure SBN-2 Example of porous baffle made of 700 g/m² coir erosion blanket as viewed from the inlet. (from North Carolina Erosion and Sediment Control Planning and Design Manual.)

Install posts or saw horses across the width of the sediment trap.

Steel posts should be driven to a depth of 24 inches, spaced a maximum of 4 feet apart, and installed up the sides of the basin as well. The top of the fabric should be at least the height of the required storage volume elevation.

Install at least three rows of baffles between the inlet and outlet discharge point and at the locations specified in the plans. The three rows should create four near equal volumes in the basin.

When using posts, add a support wire or rope across the top to prevent sagging.

Wrap porous coir material (700 - 900 g/m²) over a sawhorse or the top wire. Hammer rebar into the sawhorse legs for anchoring. Attach fabric to a rope and a support structure with zip ties, wire, or staples. Each baffle should consists of 2 layers of coir fabric.

The bottom and sides of the fabric should be anchored in a trench or pinned with 8-inch erosion control matting staples.

Do not splice the fabric, but use a continuous piece across the basin.

Erosion Control

Minimize the size of all disturbed areas.

Divert runoff from undisturbed areas away from the basin.

Use temporary diversions to prevent surface water from running onto disturbed areas.

Divert sediment-laden water to the upper end of the sediment pool to improve trap effectiveness.

Vegetate and stabilize the embankment, the emergency spillway and all disturbed areas including the basin bottom and side slopes. If the basin slopes and bottom are not vegetated, cover the surface with non-woven geotextile.

Flocculant

Place the specified flocculant in a turbulent flow location upstream of the basin to ensure proper mixing.

Safety

Because sediment basins that impound water are hazardous, the following precautions should be taken:

- Fence area and post warning signs if trespassing is likely.
- Ensure that the basin does not exceed design heights.

Construction Verification

Check the finished grades and configurations for all earthworks. Check elevations and dimensions of all pipes and structures.

Common Problems

Consult with registered design professional if any of the following occurs:

- Variations in topography on-site indicate sediment basin will not function as intended.
- Seepage is encountered during construction; it may be necessary to install drains.
- Design specifications for fill, pipe, seed variety or seeding dates cannot be met; substitutions may be required. Unapproved substitutions could lead to failure.

Maintenance

Inspect the sediment basin at least weekly and after each significant storm event $(\frac{1}{2}$ inch or greater).

If water remains turbid in the basin, reapply flocculant as specified.

Remove and properly dispose of sediment when it accumulates to $\frac{1}{2}$ the design volume.

Remove trash and other debris from the skimmer, emergency spillway and pool area.

Periodically check the embankment, emergency spillway and outlet for erosion damage, piping, settling, seepage or slumping along the toe or around the barrel and repair immediately.

Remove the basin after the drainage area has been permanently stabilized, inspected and approved. Do so by draining any water, removing the sediment to a designated disposal area, smoothing the site to blend with the surrounding area; then stabilize.

Outlet Protection (OP)



Practice Description

This practice is designed to prevent erosion at the outlet of a channel or conduit by reducing the velocity of flow and dissipating the energy. Outlet protection measures usually consist of a riprap-lined apron, a reinforced concrete flume with concrete baffles a reinforced concrete box with chambers or baffles and possibly pre-manufactured products. This practice applies wherever high velocity discharge must be released on erodible material.

Typical Components of the Practice

- Site Preparation
- · Installation of Riprap Structures
- Installation of Concrete Structures
- Erosion Control
- Construction Verification

Construction

Prior to start of construction, the practice should be designed by a qualified design professional. Plans and specifications should be referred to by field personnel throughout the construction process.

The structure should conform to the dimensions, grades and alignments shown on the plans and specifications.

Site Preparation

Completely remove stumps, roots and other debris from the construction area. Fill depressions caused by clearing and grubbing operations with clean, non-organic soil. Grade the site to the lines and grades shown on the plans. Compact any fill required in the subgrade to the density of the surrounding undisturbed material.

If possible, the alignment should be straight throughout its length. If a curve is required, it should be located in the upstream section of the outlet.

Riprap Structures

Ensure that the subgrade for the filter and riprap follows the required lines and grades shown in the plan. Low areas in the subgrade on undisturbed soil may also be filled by increasing the riprap thickness.

Geotextile fabric must meet design requirements and be properly protected from puncturing or tearing during installation. Repair any damage by removing the riprap and placing another piece of fabric over the damaged area. All connecting joints should overlap a minimum of 1.5 feet with the upstream edge over the downstream edge. If the damage is extensive, replace the entire geotextile fabric.

Riprap may be placed by equipment. Care should be taken to avoid damaging the fabric.

Construct the apron on zero grade with no overfall at the end. Make the top of the riprap at the downstream end level with the receiving area or slightly below it.

Concrete Structures

Reinforcing steel welded wire fabric should be placed in strict accordance with the design plans and maintained in the proper position during the pouring of concrete. Concrete should be placed in horizontal layers not exceeding 24" in thickness or as specified in the design, and consolidated by mechanical vibrating equipment supplemented by hand-spading, rodding or tamping.

Concrete should be placed in sturdy wood or metal forms, adequately supported to prevent deformation. Forms should be oiled with form release agent prior to placement to prevent bonding between concrete and forms.

If possible, concrete should not be placed during inclement weather or periods of temperature extremes. If temperature extremes cannot be avoided, American Concrete Institute (ACI) guidelines for placement of concrete during such extremes should be consulted.

Concrete should be allowed to cure as required by the plans and specifications.

Typically, the surface should be kept wet during curing by covering it with wet burlap sacks or other means. Design strengths should be confirmed by laboratory tests on representative cylinders made during concrete placement. Form work should not be removed prior to the specified time.

Erosion Control

Immediately after construction, stabilize all disturbed areas with vegetation.

Construction Verification

Check finished structures for conformance with design specifications.

Common Problems

Consult with a qualified design professional if any of the following occur:

- Variations in topography on site indicate measure will not function as intended.
- Design specifications for riprap, filter fabric, concrete, reinforcing steel or backfill cannot be met; substitutions may be required. Unapproved substitutions could lead to failure.
- Problems with the structure develop during or after installation.

Maintenance

Inspect riprap outlet structures after heavy rains to see if any erosion around or below the riprap has taken place or if stones have been dislodged. Check concrete structures for cracks and movement. Immediately make all needed repairs to prevent further damage.

Construction Exit Pad (CEP)



Practice Description

A construction exit pad is a stone base pad designed to provide a buffer area where mud and caked soil can be removed from the tires of construction vehicles to avoid transporting it onto public roads. This practice applies anywhere traffic will be leaving a construction site and moving directly onto a public road or street.

Typical Components of the Practice

- Site Preparation
- Grading
- Stabilization with Geotextile Fabric (where needed to provide stability)
- Aggregate Placement
- · Construction Verification

Construction

Prior to start of construction, temporary gravel construction entrance/exit pads should be designed by a qualified design professional and plans and specifications should be available to field personnel.

Site Preparation

Remove all vegetation and other unsuitable material from the foundation area.

Grading

Grade and crown the area for positive drainage.

Utilize a diversion to direct any surface flow away from the construction exit pad.

Install pipe under the pad if needed to maintain drainage ditches along public roads.

Divert all construction exit pad runoff and drainage to a sediment trap or basin.

Stabilization

If project specified, or if wet conditions or soft soils are anticipated, place nonwoven geotextile fabric on the graded foundation prior to placing the aggregate to improve stability.

Aggregate Placement

Place specified stone size to lines and grade shown on plans. Leave surface smooth and sloped for drainage.

Construction Verification

Check all components during construction and installation to ensure that specifications are being met for the components.

Common Problems

Consult with a qualified design professional if any of the following occur:

- Inadequate runoff control and sediment washes onto public road: install diversions or other runoff control measures.
- Ruts and muddy conditions develop as stone are pressed into soil; increase stone size or pad thickness, or add geotextile fabric.
- Pad too short for heavy construction traffic: consult design professional about extending pad to the necessary length.

Maintenance

Remove large chunks of mud or caked soil from construction exit pad daily to minimize sediment buildup.

Inspect stone pad and sediment disposal area weekly and after storm events or heavy use.

Reshape pad as needed for drainage and runoff control.

Top-dress with clean specified stone as needed to maintain effectiveness of the practice.

Immediately remove mud or sediment tracked or washed onto public road. Repair any broken road pavement immediately.

Remove unneeded exit pad materials from areas where permanent vegetation will be established.



April 22, 2024

Alabama Department of Environmental Management 1400 Coliseum Boulevard Montgomery, Alabama 36110-2400

Attention:

Ms. Angie Boatwright

RE:

Revised NPDES Permit Application

Ragland Clay Products Permit No.: AL0077461 Ragland, Alabama

Dear Ms. Boatwright:

On behalf of Rangland Clay Products, LaBella Associates, D.P.C. (LaBella) is submitting the enclosed revised NPDES Application Forms and a revised Pollution Abatement Plan in response to the Department's comments resulting from your review of the original application.

LaBella Associates, D.P.C. and Ragland Clay Products appreciate your consideration in this matter. If you have questions regarding this submittal or require any additional information, please contact me at (205) 985-4874 or wcooch@labellapc.com.

Sincerely,

LaBella Associates

William W. Cooch, P Principal Geologist

Enclosure

Thomas Dunlap - Ragland Clay Products (w/o Enclosure)

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IND/MUN BRANCH WATER DIVISION RECEIVED

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